



**WE PROUDLY PRESENT TO YOU  
THE WINNERS AND THE FINALISTS  
OF INDEX: AWARD 2011.**

- **INDEX**
- **DESIGN  
TO IMPROVE  
LIFE**

**PRIS: 5 DKK**



## FOREWORD

# INDEX: DESIGN TO IMPROVE LIFE

**KIGGE HVID**  
CEO

**JENS WITTRUP-WILUMSEN**  
CHAIRMAN OF THE BOARD

**ENG** When INDEX: was founded in 2002, many people were puzzled about the concept of Design to Improve Life. However, what we have seen over the course of the last decade is that Design to Improve Life has grown into a global movement, and people all over the world are now using the same vocabulary, ideas and processes that are at the very heart of INDEX: in order to improve the lives of millions of people – by design. And that is what INDEX: is all about – getting creative people to work on urgent global challenges!

Among the finalists for INDEX: Award 2011, we see a number of major trends. First of all, many of this year's finalists have a solid proven impact; the finalist projects are no longer just clever ideas, but fully operational and already implemented designs.

Secondly, education. Right now, people all over the world are trying to figure out how we educate our children in a way that will allow them to become thriving citizens in a future we do not know what is going to look like.

Thirdly, cities and the challenges related to the fact that a growing proportion of the world's population live in cities. Challenges like how to lower the carbon footprint of cities through smarter commuting and better building materials – and how to convert existing, undesirable infrastructure and street furniture into improved and attractive urban entities.

Fourthly, healthcare – especially designs related to remote doctors, which are incredibly important in areas of the world where access to basic healthcare is very limited, but also a number of designs related to home care, which underscores the fact that the number of people receiving care outside traditional hospitals are growing fast.

Finally, many of this year's finalists are either creating new movements or are part of major global movements, which we see as a testament to the fact that what we do is both highly relevant and serves a very important purpose.

INDEX:, our partners and the INDEX: International Jury are looking so much forward to presenting to you the world's largest design award, INDEX: Award, and to disclose INDEX: Award Exhibition for the fourth time. From all of us to all of you: Thank you so much for enabling us to do this!

**DK** Da INDEX: blev grundlagt i 2002, undrede mange mennesker sig over konceptet Design to Improve Life. Imidlertid har vi i løbet af de sidste 10 år set, at livsforbedrende design er vokset til en global bevægelse, og mennesker over hele verden bruger nu det samme ordforråd, de samme idéer og processer, som er i hjertet af INDEX:, til at forbedre livet for millioner af mennesker ved hjælp af design. Og det er lige præcis, hvad INDEX: handler om. At få talentfulde mennesker til at arbejde på at løse nogle af verdens store udfordringer.

Blandt finalisterne til INDEX: Award 2011 ser vi adskillige centrale tendenser. For det første kan mange af årets finalister prale af en solid (bevist) gennemslagskraft; finalistprojekterne er altså ikke længere blot gode koncepter og idéer, og rigtig mange af finalisterne har således allerede bevist, at deres designs virker, er succesfuldt implementerede og kan forbedre menneskers liv.

En anden tendens er uddannelse. Lige nu forsøger folk over hele verden at finde ud af, hvordan vi uddanner vores børn på en måde, der vil gøre dem til velfungerende borgere i en fremtid, vi ikke ved, hvordan kommer til at se ud.

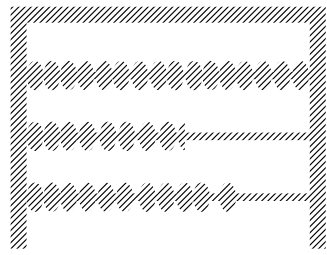
For det tredje har der været fokus på at designe til store og små byer – og i forhold til de udfordringer, der er forbundet med det faktum, at mere end halvdelen af verdens befolkning nu bor i byer. Udfordringer som hvordan skaber vi intelligent og funktionel bytransport, og hvordan designer vi byggematerialer, der markant nedsætter vores CO2-fodaftryk, eller hvordan omdesigner vi eksisterende områder i byerne, så de (igen) bliver brugbare og attraktive?

I 2011 har der også været fokus på sundhed; særligt manifesteret ved designs, der giver folk i fattige og fjerne egne adgang til læger og sundhedspersonale – eksempelvis via mobilapplikationer, der kan hjælpe med at diagnosticere sygdomme uden fysisk tilstedeværelse af en læge. Og andre designs, der, via spændende koncepter og løsninger, forholder sig til det faktum, at et stærkt stigende antal mennesker i verden modtager behandling udenfor traditionelle hospitaler.

Endelig er mange af finalisterne til INDEX: Award 2011 enten i sig selv globale bevægelser eller dele af globale bevægelser, hvilket vi ser som et vidnesbyrd om, at det, INDEX: beskæftiger sig med, er både meget vigtigt og meget relevant.

INDEX:, vores partnere og den internationale INDEX: Jury glæder os rigtig meget til at præsentere jer for verdens største designpris, INDEX: Award, og offentliggøre INDEX: Award Exhibition for fjerde gang. Fra alle os til alle jer: Mange tak for at hjælpe os med at gøre dette muligt!

# TRENDS



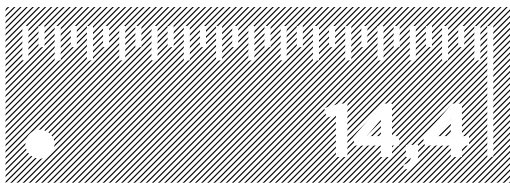
THE GLOBAL AVERAGE OF EXPECTED YEARS OF SCHOOLING WAS 11 YEARS IN 2008. IN SUB-SAHARAN AFRICA IT WAS 8.4 YEARS, ALMOST HALF OF THE NORTH AMERICAN AND WESTERN EUROPEAN AVERAGE OF 16 YEARS



OF THE 22 COUNTRIES WHERE MORE THAN HALF THE POPULATION IS ILLITERATE, 68% ARE IN AFRICA.



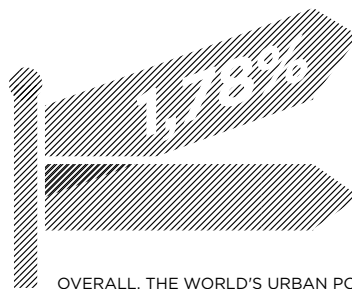
60% OF COUNTRIES HAVE NOT REACHED GENDER PARITY IN PRIMARY AND SECONDARY EDUCATION.



WORLDWIDE ONLY 14.4% OF GDP PER CAPITA IS SPENT ON PRIMARY EDUCATION



THERE ARE 781 MILLION ILLITERATE ADULTS WORLDWIDE, AND 64% OF THEM ARE WOMEN.



OVERALL, THE WORLD'S URBAN POPULATION IS EXPECTED TO GROW AT AN ANNUAL RATE OF 1.78% UNTIL 2030

# 10 MILLION

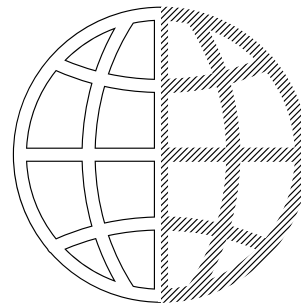
MEGA-CITIES, OF 10 MILLION OR MORE, ARE ON THE RISE ACROSS ASIA, WHILE CITIES LIKE DHAKA, JAKARTA, LAGOS AND DELHI WILL CROSS THE 20 MILLION THRESHOLD BY 2020.



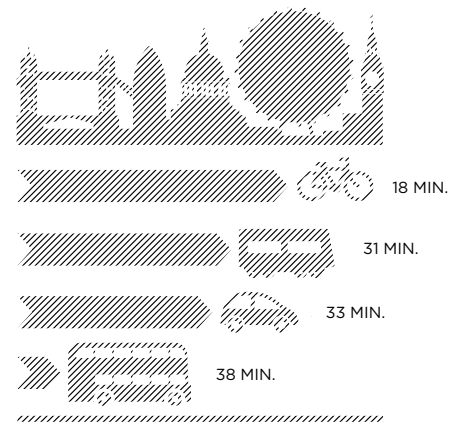
20 MILLION PREMATURE AND UNDERWEIGHT BABIES ARE BORN EACH YEAR AND 1/5 OF THEM DIE



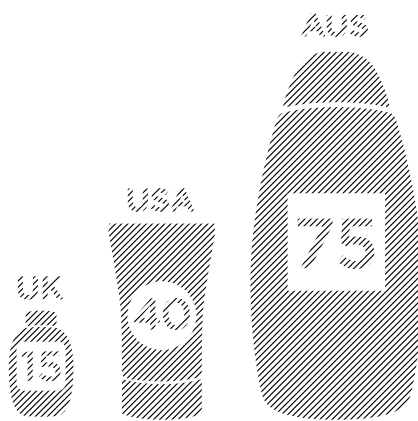
33.3 MILLION PEOPLE LIVED WITH HIV/AIDS WORLDWIDE IN 2009 AND 1.8 MILLION PEOPLE DIED OF AIDS-RELATED ILLNESSES WORLDWIDE THE SAME YEAR



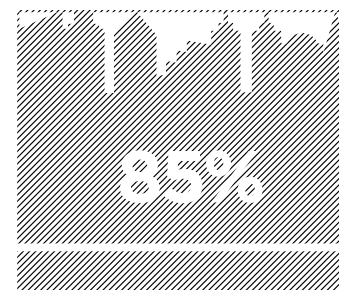
IN 2009 THE PERCENTAGE OF THE WORLD'S POPULATION LIVING IN URBAN AREAS SURPASSED THE 50%.



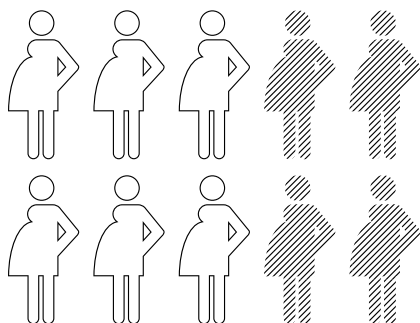
FOR JOURNEYS ENTIRELY WITHIN CENTRAL LONDON, THE AVERAGE TIME WAS 33 MINUTES BY CAR COMPARED WITH 18 MINUTES BY BIKE. BY PUBLIC TRANSPORT, THE JOURNEYS TOOK ON AVERAGE 31 MINUTES BY RAIL AND 38 MINUTES BY BUS.



THE OCCURRENCE OF NON-MALIGNANT SKIN CANCER NOW AFFECTS 15% OF THE UK, 40% OF THE USA AND 75% OF THE AUSTRALIAN POPULATIONS DURING THEIR LIFETIMES



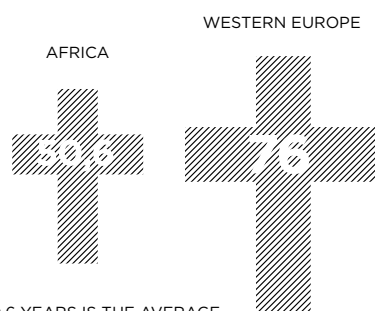
AROUND 85% OF THE EU'S GDP IS GENERATED IN CITIES.



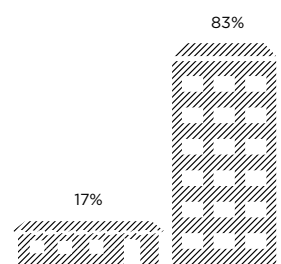
TODAY, ONLY 40% OF DELIVERIES ARE FACILITATED BY A SKILLED ATTENDANT IN LOW-INCOME COUNTRIES



2-3 MILLION DEATHS IS AVERTED ANNUALLY BY VACCINATION



50.6 YEARS IS THE AVERAGE LIFE EXPECTANCY IN AFRICA. IN NORTH AMERICA AND WESTERN EUROPE THE AVERAGE IS 76 YEARS.



APPROXIMATELY ONE-SIXTH OF THE WORLD'S POPULATION NOW LIVES IN SHANTY TOWNS.

# DRIVING A DIFFERENCE AT GØRE EN FORSKEL

**ENG** THROUGH BEST-IN-CLASS INNOVATIVE SOLUTIONS, KEPPEL CORPORATION AFFIRMS ITS COMMITMENT TO CONTRIBUTE TOWARDS EXCELLENCE IN THE COMMUNITY AND TO IMPROVE THE ENVIRONMENT.

Keppel's key thrusts of sustaining growth, empowering lives and nurturing communities have challenged its 35,000-strong people across more than 30 countries to deliver excellence in its products and services.

Keppel Offshore & Marine is a world leading offshore and marine group with its in-house design and engineering teams. It is also the only shipyard group in the world to have its own suite of proprietary rig designs for jack-ups, semi-submersibles and drillships. The Keppel Offshore & Marine Technology Centre was established to develop competencies, promote innovation, stimulate application research and engage in technology foresight to create strategic advantages for the Group.

Keppel's environmental business endeavours to address global challenges of sustainable development and contribute to better living environments through its resource-efficient water and thermal treatment capabilities. The Keppel Environmental Technology Centre focuses on research and development in the areas of energy recovery and by-product minimisation from waste and wastewater treatment, and membrane applications for producing water from non-conventional sources.

Committed to optimal live-work-play environments in its homes and offices, Keppel's property division has a quality portfolio of award-winning and eco-friendly properties across Asia and in the Middle East. Ocean Financial Centre, its iconic commercial development in Singapore's business and financial district, is the first high-rise office in Southeast Asia to achieve the Platinum level LEED-CS (Leadership in Energy and Environmental Design-Core and Shell) pre-certification.

Moving into the future, Keppel aims to be the provider of choice for solutions to the offshore and marine industries, sustainable environment and urban living.

**DK** MED FØRENDE INNOVATIVE LØSNINGER BEKRÆFTER KEPPEL CORPORATION SIT TILSAGN OM AT BIDRAGE TIL HØJ KVALITET FOR FÆLLESSKABET OG FOR AT FORBEDRE MILJØET.

Keppel har, for at opretholde vækst, styrke menneskers liv og bidrage til fællesskaber udfordret sin arbejdsstyrke på 35.000 mænd og kvinder på tværs af mere end 30 lande til at levere produkter og tjenester af højeste kvalitet.

Keppel Offshore & Marine er en af verdens førende offshore- og marinegrupper med sine egne design- og teknikteams og det er også den eneste værftsgruppe i verden, der har sin egen række af patenterede rig-designs til mobile boreplatforme, semi-undervandsfartøjer og

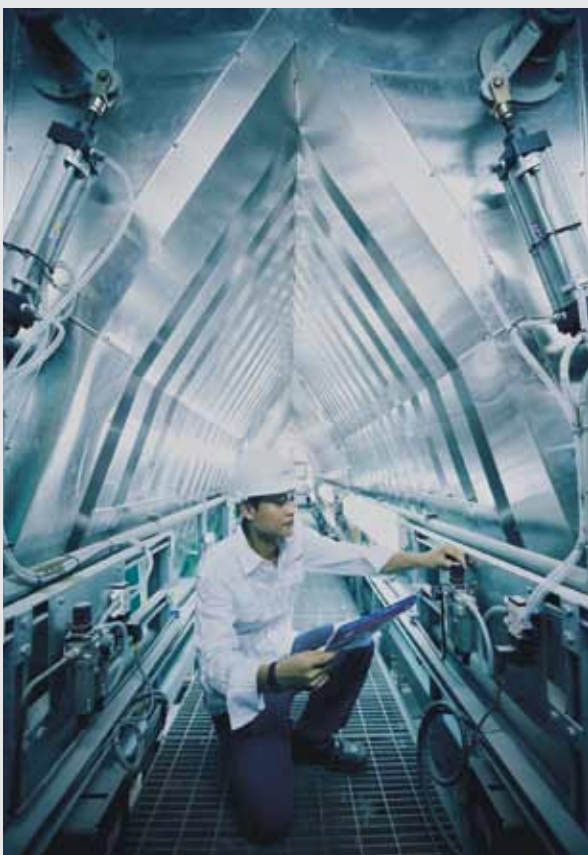
borekibe. Keppel Offshore & Marine Technology Center blev etableret for at udvikle kompetencer, fremme innovation, stimulere anvendelsen af forskning og engagere sig i teknologisk fremsyn for at skabe strategiske fordele for koncernen.

Keppel's miljødivision bestræber sig på at løse globale udfordringer vedr. bæredygtig udvikling og bidrage til et bedre miljø gennem sine ressourceeffektive vand- og termiske behandlingsanlæg. Keppel's Miljøteknologicerter fokuserer desuden på forskning og udvikling inden for energiudnyttelse og biproduktminimering i forbindelse med håndtering af affald, spildevand og membran-applikationer til produktion af vand fra ikke-konventionelle kilder.

Keppel har forpligtet sig til at levere optimale lev-arbejds-miljøer i hjem og kontorer, og deres ejendomsafdeling har en kvalitetsportefølje af prisbelønnede og miljøvenlige ejendomme i Asien og i Mellemøsten. Ocean Financial Centre, Keppels ikoniske kommercielle center i Singapores forretnings- og finansdistrikt, er det første højhuskontor i Sydøstasien, der har opnået Platinum-niveau LEED-CS præcertificering (Leadership in Energy and Environmental Design-Core and Shell).

I fremtiden sigter Keppel mod at være udbyder af løsninger til offshore og marineindustrier, bæredygtigt miljø og byliv.

**Keppel Corporation**





## FOREWORD FORORD

## KEPPEL CORPORATION

**DR. LEE BOON YANG**  
CHAIRMAN  
KEPPEL CORPORATION

**ENG** INDEX:’s mission is to champion design and design processes to improve the lives of people worldwide. Keppel is delighted to support INDEX: in its efforts to inspire and encourage innovators around the world to seek new solutions for improving lives.

For over four decades, Keppel has nurtured and developed a culture of innovation and commitment to deliver superior products and services which drive sustainable growth and value creation. Our Centres of Excellence – Keppel Offshore & Marine Technology Centre and Keppel Environmental Technology Centre – keep us at the forefront of technology to create solutions that are innovative, commercially viable and better meet the needs of all stakeholders.

We develop and apply innovative designs and technologies, to create a wide range of cutting-edge solutions – from eco-friendly homes and offices, water treatment and waste-to-energy plants and green data centres to world-class drilling rigs which have since become the global industry standard. From design to delivery, we uphold our hallmark Keppel quality. Our people are totally committed to excellence wherever we operate regardless of the challenges.

The exhibition of the finalists of INDEX: Award 2011 in cities around the world will engage and inspire innovators to relook the challenges facing their communities and seek new and better solutions. We look forward to the exhibition in Singapore to stimulate discussion and creativity among our innovators.

The challenges we face today from global warming to food and energy shortages will require all of humankind to cooperate in the drive for sustainable solutions. We hope that the INDEX:’s recognition of leading innovators across the globe will make a difference to the undertaking.

**DK** INDEX:’s mission er at kæmpe for design og designprocesser, der kan forbedre menneskers liv på verdensplan. Keppel er glade for at støtte INDEX: i deres indsats for at inspirere og opmuntre innovatører verden over i deres søgning efter nye ideer og løsninger, der kan forbedre menneskers liv.

I over 40 år har Keppel plejet og udviklet en innovationskultur og en forpligtelse til at levere gode produkter og services, der sammen driver bæredygtig vækst og værdiforøgelse. Vores ekspertisecentre – Keppel Offshore & Marine Technology Centre and Keppel Environmental Technology Centre – sørger for, at vi holder os i førersædet af den teknologiske udvikling, således at vi kan skabe løsninger, der er innovative, kommercielt levedygtige og bedre til at møde vores samarbejdspartners behov.

Vi udvikler og anvender innovative designs og teknologier for at kunne skabe en lang række banebrydende løsninger – fra miljøvenlige hjem og kontorer, vandbehandling og affald-til-energi-fabrikker og grønne datacentre til borerigge i verdensklasse, som siden er blevet standarden i den globale industri. Fra design til levering værner vi om Keppels kvalitetsstempel, og vores folk er fuldstændig forpligtede til at yde deres bedste, hvorend vi er, og uanset udfordringens karakter.

Udstillingen af vinderne og finalisterne til INDEX: Award 2011 i byer over hele verden vil engagere og inspirere innovatører til at se de udfordringer, deres samfund står overfor, i et nyt lys og søge bedre løsninger. Vi ser frem til at se udstillingen i Singapore, da den vil stimulere diskussion og kreativitet.

De udfordringer, vi er stillet over for i dag, fra global opvarmning til energimangel, vil kræve hele menneskeheds samarbejde i jagten på bæredygtige løsninger og vi håber, at INDEX:’s anerkendelse af førende innovatører verden rundt vil gøre en forskel i den proces.

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## THE BEAUTY OF RESPONSES

### ET KALD OG ET SVAR

**RAVI NAIDOO**  
MANAGING DIRECTOR  
INTERACTIVE AFRICA

**ENG** My first reaction to INDEX: upon being invited to join the international jury went something like this:

Hey, is this a dream? A design award that's not only the biggest purse in the design world, but also carries the potential to become the most important design award....!

That was 5 years ago. By now, I actually believe that we have unfolded the potential and established INDEX: Award as the most important design award in the world.

This importance is not only made visible by the numerous INDEX: copy cats and interpreters springing up around the world in these years – colleagues that we cherish, admire and support, because they do exactly what is most important to us: Spread knowledge about Design to improve Life.

The importance of INDEX: Award derives from the central core of the award, the concept that INDEX: in 2002 named Design to Improve Life. It derives from the fact that everything we as jurors award, is actually improving important aspects of people's lives.

To me this means that each winning design – and each finalist – is not only beautiful, but carries the immense beauty of that which is relevant, of that which improves life, of that which is not only surface.

The beauty of INDEX: Award is inhabited in the fact, that each and every one of the designers responsible for designs celebrated by INDEX: share one outstanding thing between them:

They all do their utmost to respond.

To respond to the challenges facing our world. Challenges as severe as providing education, housing and water to the many. To provide healthcare and communities. To provide sustainable ways of behaving, moving around and heating or cooling ourselves and our inhabitants.

At INDEX: we sincerely believe in this. We believe that if you have the ability to respond, you also have the responsibility to do so.

We call this *responsibility*.

**DK** Min første reaktion, efter at være blevet opfordret til at indtræde i den internationale INDEX: jury, var nogenlunde således:

Drømmer jeg? En design award, som ikke bare er den største pris inden for sit felt, men som potentielt kan blive den vigtigste designpris overhovedet?

Det er fem år siden, og jeg er nu af den overbevisning, at vi i dag har formået at udfolde dette potentiale og stædfæste INDEX: Award som verdens mest betydningsfulde designpris.

Denne betydningsfuldhed understreges ikke kun af de mange INDEX: efterlignere og andre fortolkere, som

dukker op overalt i disse år – kolleger, som vi hylder, beundrer og støtter, fordi de gør nøjagtigt det, som vi anser for det allervigtigste; de spreder kendskabet til Design to Improve Life.

Det mest betydningsfulde i INDEX: Award ligger i selve prisens kerne; nemlig konceptet INDEX: som fra og med 2002 blot betegnes med ordene Design to Improve Life. Det ligger i det faktum, at alt det, vi som jurymedlemmer belønner, forbedrer livet og beriger hverdagen for vore medmennesker.

For mig betyder det, at hvert INDEX: design ikke bare er fantastisk i sig selv, men også er et udtryk for den skønhed, der ligger i alt, som er relevant, som forbedrer livet og som formår mere end blot at ridse i overfladen.

Det smukke ved INDEX: Award er indebåret i det faktum, at hver og et af de designs, som hyldes af INDEX:, har én enestående ting til fælles:

De gør alle alt for at give os svar. Svar på de udfordringer, vi står overfor. Svære udfordringer som at sikre uddannelse, husly og vand til os alle. Og at sikre sundhed og samfund. Og sikre ansvarlighed og bæredygtighed i alt, hvad vi foretager os.

I INDEX: tror vi på at hvis du har muligheden for at give et svar, så har du også et ansvar for at give det.

Vi kalder det *responsibility*.

# ABOUT INDEX: AND DESIGN TO IMPROVE LIFE

**ENG** INDEX: is a Danish-based, non-profit organization that was established in 2002 and coined the concept “Design to Improve Life”. INDEX: works globally to promote and apply both design and design processes that have the capacity to improve the lives of people worldwide. Denmark has with the investment in INDEX: taken the lead of a global movement that will improve life for future generations and increase economic growth right now – and also across national, political and economic barriers.

INDEX: Design to Improve Life is deeply rooted in the Danish tradition for systems design that benefits large proportions of the population – from cooperatives and credit unions to large scale recycling systems – while at the same time being a central part of the story that defines 21<sup>st</sup> century Denmark.

INDEX: is widely recognized for its global biennial design award, INDEX: Award. It is the largest cash design prize in the world, worth €500,000, and it spans the five categories of INDEX: *Body, Home, Work, Play* and *Community*. The categories cover human life from the near and concrete (body) to the common and general (community). The five categories are neither static nor definitive, and many designs combine and touch upon practices and experiences from more than one category.

Nominations for INDEX: Award comes from all over the world, and more than 2,500 projects have been nominated since the first award in 2005. The finalists are chosen by the outstanding international INDEX: Jury, who also selects the five winners.

INDEX: challenges the traditional concepts and stereotypes of design while highlighting the complexity of the design field, demonstrating very different solutions to problems such as HIV/AIDS, scarcity of potable water and carbon emissions. INDEX: inspires, collects, advocates, communicates, evaluates, connects and discusses Design to Improve Life on a global scale.

INDEX: perceives design as it has been expressed by Professor John Heskett: “*Design is the human capacity to shape and make our environments in ways that satisfy our needs and give meaning to our lives.*” This basically means that everybody designs every day. Some of us choose to become professional designers, but the bottom line is that we all have the ability to design.

Design to Improve Life is design that is rated not only on its esthetic values, but also on the scale of its positive impact on the world. It is judged on its economic, social and environmental sustainability, and at the same time on how it works in the cultural and geographical context it is intended for. All this is perfectly aligned with the

INDEX: set of evaluation criteria: *Form, Impact* and *Context*.

**Form** is concerned with color, material, aesthetics, surfaces – it is what you can touch and feel. *Form* is what has traditionally been perceived as Design.

**Impact** is about the positive effect of a design. How it addresses a challenge, how it improves life, its possible distribution, its relevance and the economic and environmental sustainability of the design. *Impact*, in short, is about *how* a design improves life.

**Context** is about the setting in which a design is proposed to function. It is about how a design fits the culture, geography, ethics and society in which it's intended to be used. It is about Life.

Together, *Form, Impact* and *Context* become “Design to Improve Life.”

2561  
DESIGNS FROM  
78  
COUNTRIES

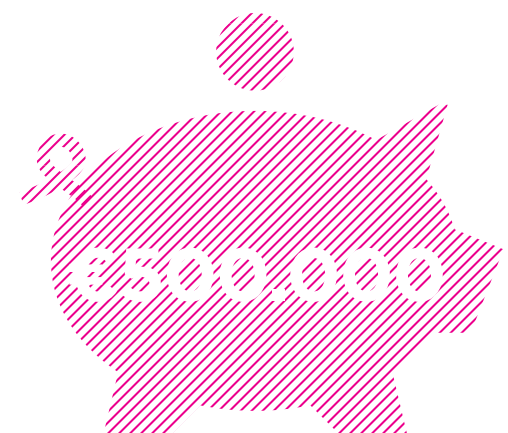
...HAVE BEEN NOMINATED FOR INDEX: AWARD SINCE 2005



INDEX: HAS ENGAGED STUDENTS FROM MORE THAN 40 COUNTRIES IN EDUCATIONAL PROGRAMS.



2011: PERMANENT EXHIBITION OF DESIGN TO IMPROVE LIFE AT DESIGNMUSEUM DANMARK



INDEX: AWARD IS THE LARGEST CASH DESIGN PRIZE IN THE WORLD, AWARDING €500.000 EVERY OTHER YEAR.



# HVAD ER INDEX: OG DESIGN TO IMPROVE LIFE?



IN 2009 INDEX: LAUNCHED A NEW FORMAT FOR DESIGN TO IMPROVE EDUCATION FOR SCHOOL CHILDREN AND STUDENTS ALL OVER THE WORLD

**DK** INDEX: er en dansk-baseret, non-profit organisation, der blev etableret i 2002 og introducerede begrebet "Design to Improve Life". INDEX: arbejder globalt for at fremme og anvende både design og designprocesser, der kan forbedre livet for mennesker verden over. Danmark har med investeringen i INDEX: taget føringen i en global bevægelse, der vil forbedre livet for fremtidige generationer, og øge den økonomiske vækst lige nu – på tværs af nationale, politiske og økonomiske barrierer.

INDEX: Design to Improve Life er forankret i den danske tradition for systemdesign til gavn for store dele af befolkningen – fra andelsforeninger og kreditforeninger til genbrugssystemer – og er på samme tid en væsentlig del af historien om Danmark i det 21. århundrede.

Centralt i formidlingen af Design to Improve Life er INDEX: Award, designprisen som INDEX: uddeler hvert andet år i København inden for fem forskellige kategorier: *Body, Home, Work, Play* og *Community*. Prisen er verdens største designpris på i alt €500.000, og kategorierne dækker menneskelivet fra det nære og konkrete (kroppen) til det kollektive og brede (fællesskabet). De fem kategorier er ikke statiske, og mange designs kombinerer således praksis og erfaringer fra mere end én kategori.

Nomineringer til INDEX: Award kommer fra hele verden, og mere end 2.500 projekter er blevet nomineret, siden den første pris blev uddelt i 2005. Finalisterne er udvalgt af den enestående internationale INDEX: jury, som også vælger de fem vindere.

INDEX: udfordrer de traditionelle designbegreber og -stereotyper og fremhæver samtidig designområdets kompleksitet. INDEX: demonstrerer meget forskellige løsninger på problemer såsom HIV/AIDS, mangel på drikkevand og klimaforandringer. INDEX: inspirerer, indsamler, advokerer, kommunikerer, evaluerer og diskuterer Design to Improve Life på globalt plan.

Begrebet Design to Improve Life blev introduceret af INDEX: i 2002, og INDEX: opfatter, med den engelske designprofessor John Heskett's ord, design som: *'Menneskets evne til at forme og skabe sine omgivelser, så de tilfredsstillende vores behov og giver vores liv mening.'* Det vil sige, at alle mennesker designer hver dag. Nogle af os uddanner os og bliver professionelle designere, men humlen er, at vi alle har evnen til at designe.

Design to Improve Life er design, som ikke udelukkende bliver bedømt efter æstetiske kriterier, men også efter dets mulighed for at påvirke verden på en positiv måde. Det bliver bedømt på dets økonomiske, sociale

og miljømæssige bæredygtighed, og på samme tid på, hvordan det virker i den kulturelle og geografiske kontekst, det er tiltænkt. Alle dette passer med de evalueringskriterier, som INDEX: anvender: *Form, Gennemslagskraft* og *Kontekst*.

**Form** handler om farve, materiale, æstetik og overflader. Det er, hvad du kan røre og mærke. Form er det, som traditionelt er blevet betragtet som design.

**Gennemslagskraft** handler om et designs positive effekt. Hvordan det forholder sig til en forandring, hvordan det forbedrer liv, dets mulige distribution, dets relevans og designets økonomiske og miljømæssige bæredygtighed. Kort sagt handler gennemslagskraft om, hvordan et design forbedrer liv.

**Kontekst** drejer sig om den sammenhæng, hvori et design er tiltænkt at skulle bruges. Det handler om, hvordan et design passer til den kultur, geografi, etik og det samfund, som det er tiltænkt at blive benyttet i. Det handler altså om liv.

Sammen bliver Form, Gennemslagskraft og Kontekst til "Design to Improve Life"



INDEX: HAS ENTERED FORMAL RELATIONSHIPS WITH CITIES AROUND THE WORLD: COPENHAGEN, HELSINKI, RISØR, GUANGZHOU, YANG SAN, SINGAPORE



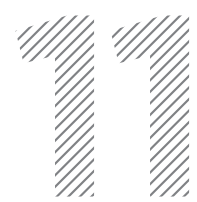
MORE THAN 1.2 BILLION PEOPLE HAVE RECEIVED TV COVERAGE OF INDEX:



MILLION PEOPLE IN



CITIES IN



COUNTRIES AROUND THE WORLD HAVE SEEN INDEX: AWARD EXHIBITION

# BODY CATEGORY

- 21<sup>ST</sup> CENTURY NURSING BAG
- ADLENS UNIVERSAL AND THE VISION FOR A NATION PROGRAMME
- AMBULIGHT PHOTODYNAMIC THERAPY
- E. CHROMI
- EMBRACE INFANT WARMER
- GLOW GUARDIAN
- JANMA - THE CLEAN BIRTH KIT
- LUNG-ON-A-CHIP
- NETRA
- PURE WATER BOTTLE
- SHE28
- SOLIO UNIVERSAL SOLAR (HYBRID)
- VERBIEN SEE BETTER TO LEARN BETTER
- X-HALO

**ENG** The BODY category comprises all designs related to the human body, for example: clothes, shoes, appliances and aids used in treatment and care and body-related technology and online services. Including services related to health and care, strategies regarding public health and demographic development.

**DK** BODY-kategorien indeholder alle designs, der relaterer sig til menneskekroppen, f.eks. tøj, sko, hjælpeudstyr til pleje og behandling samt kropsrelateret teknologi og online services. Endvidere services relateret til helbred og pleje, strategier angående offentlig sundhed og demografisk udvikling.



# PROVIDES REAL IMPROVEMENTS IN PATIENT SAFETY

## STYRKER PATIENTSIKKERHEDEN

**ENG** Today, people are living longer and many co-exist with a long-term condition such as diabetes or chronic obstructive pulmonary disease. Because of this enormous change, home – as an alternative healthcare setting – is attracting widespread support as homes deliver major cost benefits. It reduces the burden on hospitals, improves patient outcomes and reduces the risk of catching drug resistant infections (MRSA). Globally, over one billion people now receive patient care away from a building called a hospital. Community nurses need new tools specifically designed to tackle the challenges posed by this setting. The current bags they use are unsafe and unfit for the purpose, and they increase the risk of patients contracting a drug resistant infection because the bags are not made from materials that actively prevent an infection in spreading from one patient to the next.

The 21<sup>st</sup> Century Nursing Bag addresses the challenges that the modern community nurse faces in her daily work. It delivers safety, productivity and economic benefits, saving providers up to US\$2,600 per nurse each year. The quality and effectiveness benefits are gained through the standardization of clinical care in an incon-

sistent setting. A modular drawer system improves the organization of clinical materials, increases productivity and reduces the physical strain on the nurse. Economic benefits are attained through infection control design measures to minimize the risk and spread of virulent infections (MRSA). Finally, the bag improves the comfort of patients and the well-being of staff by reducing absence due to back illnesses.

**DK** I dag lever folk længere, og mange lever i en lang årrække med kroniske lidelser som f.eks. diabetes og kronisk obstruktiv lungesygdom (KOL). Denne udvikling har gjort hjemmet til et alternativt behandlingssted, der har den fordel, at det medfører væsentligt lavere omkostninger. Samtidig letter det byrden på hospitalerne, forbedrer behandlingsresultaterne og mindsker risikoen for at patienterne får resistente infektioner.

Globalt set modtager over 1 milliard mennesker i dag patientpleje uden for hospitalet, og hjemmesygeplejersker har brug for redskaber, der er designet med henblik på at tackle de udfordringer, dette medfører.

De tilgængelige sygeplejetasker er usikre og uegnede til formålet, og de øger desuden risikoen for, at patienterne får en resistent infektion, fordi taskerne ikke er lavet af materialer, der aktivt forhindrer en infektion i at sprede sig fra patient til patient.

21<sup>st</sup> Century Nursing Bag tager de udfordringer op, som den moderne hjemmesygeplejerske støder på i sit daglige arbejde. Den har betydelige fordele hvad angår sikkerhed, produktivitet og økonomi og sikrer besparelser på op til \$2.600 per sygeplejerske per år. Den forbedrede kvalitet og effektivitet opnås ved at standardisere den kliniske pleje i skiftende omgivelser.

Et modulært skuffesystem forbedrer organiseringen af de kliniske materialer, øger produktiviteten og mindsker den fysiske belastning for sygeplejersken.

De økonomiske fordele opnås gennem det infektions-resistente design, der begrænser spredningsrisikoen for resistente infektioner. Endelig øger tasken patientens komfort - og personalets velvære ved at reducere rygproblemer.



**21<sup>ST</sup> CENTURY NURSING BAG**  
DESIGN: DAVID SWANN  
(UNITED KINGDOM), 2010





## ADJUSTABLE GLASSES THAT WORK FOR EVERYONE, EVERYWHERE

JUSTERBARE BRILLER,  
DER PASSER TIL ALLE

**ENG** Refractive error – correctable with eyeglasses – is the number one cause of poor vision globally. In sub-Saharan Africa alone, approximately 95% of people who need eyeglasses do not own a pair. Poor vision affects a person's education, employment, safety and general quality of life and costs globally at least US\$100 billion each year in lost productivity. Recent studies suggest that vision correction can have an immediate and dramatic impact, increasing monthly income by over 20%, lengthening careers, substantially lowering traffic accidents and improving educational outcomes. In developing countries, there are two main barriers to achieving vision correction: Accessibility and affordability. There is a severe shortage of eye care specialists and corresponding infrastructure. Where such services and products are available, they are beyond the financial reach of a large portion of the population.

Fluid-filled adjustable eyeglasses overcome the barriers to deliver vision correction in developing countries. The design allows the power of each lens to be adjusted independently to suit the needs of the user. The low-cost eyeglasses can be fitted by health workers in a matter of minutes and correct up to 85% of refractive errors. Turning the adjuster knob pumps fluid into or out of the lens structure, thereby changing the lens power. Once at the desired power, the user simply seals the lenses and removes the adjusters. The eyeglasses work for distance reading and for computer and mobile phone distances.

The technology could improve the lives of millions of people, who due to cost and availability have no access to eye care specialists.

**DK** Brydningsfejl er den hyppigste årsag til dårligt syn, men dette kan rettes med briller. Alene i Afrika syd for Sahara har cirka 95% af de mennesker, der har brug for briller, ikke et par. Dårligt syn påvirker en persons uddannelse, beskæftigelse, sikkerhed og generelle livskvalitet og koster på globalt plan mindst \$100 mia. hvert år i tabt produktivitet. Nye undersøgelser indikerer, at korrektion af synet kan øge en persons månedlige indtægt med over 20%, forlænge arbejdslivet, forhindre trafikulykker og forbedre karrieremuligheder.

I udviklingslande er der to ting, der står i vejen for korrektion af synet; nemlig tilgængelighed og overkommelig pris. Der er stor mangel på øjenspecialister

og tilsvarende infrastruktur, og når disse tjenester og produkter endelig er til stede, er de alt for dyre for en stor del af befolkningen.

Adlens' væskefyldte justerbare briller formår at overvinde disse barrierer, og designet gør det muligt at justere styrken på hvert enkelt brilleglas. De billige briller kan tilpasses på ganske få minutter og korrigere op til 85% af alle brydningsfejl.

Når der trykkes på justeringsknappen, pumpes der væske ind i eller ud af brilleglassene, og styrken ændres. Når den ønskede styrke er nået, forsegler brugeren glasset og fjerner indstillingsmekanismerne, og brillerne er klar til brug.

### ADLENS UNIVERSAL AND THE VISION FOR A NATION PROGRAMME

DESIGN: WILLIAM JOHNSON, ALEX EDGINTON, GREGOR STOREY, MIRANDA NEWBERY, ANDREW ROBERTSON, RICHARD TAYLOR, GRAEME MACKENZIE, JAMES WILSON, DAVID CROSBY, JOSH SILVER, JUSTIN BUCH, BENJAMIN HOLLAND, OWEN READING, ADAM CLITHEROW, CHRISTOPHER KING, PHILIP GRAVELLE, DIJON PIETROPINTO, DANIEL RHODES, JULIAN JONES, JAYESH LAD, JOHANNES PRINS AND ROB STEVENS (UNITED KINGDOM), 2007

# SKIN CANCER TREATMENT FREE FROM HOSPITALIZATION BEHANDLING AF HUDKRÆFT UDEN HOSPITALSINDLÆGGELSE



**AMBULIGHT PHOTODYNAMIC THERAPY (PDT)**  
DESIGN: CHRIS ALTHORPE & GREG CLARK  
(UNITED KINGDOM), 2010

**ENG** The number of skin cancer lesions requiring treatment is doubling every ten years as individuals live longer and are affected by the consequences of excessive sun exposure. The occurrence of non-malignant skin cancer continues to grow rapidly and now affects 15% of the UK, 40% of the USA and 75% of the Australian populations during their lifetimes.

Historically, the treatment for non-melanoma skin cancer (NMSC) required the patient to stay in a hospital for a day, with heavy equipment and time consuming medical attention. The design of the Ambulight reduces the need for medical attention, freeing clinical staff for other duties. The portability of the device allows the patient to continue day to day activities while undertaking treatment. The Ambulight is simple to administer and requires no input from the patient. Moreover, it avoids the scarring caused by surgical removal of tumors and the need for an in-hospital stay.

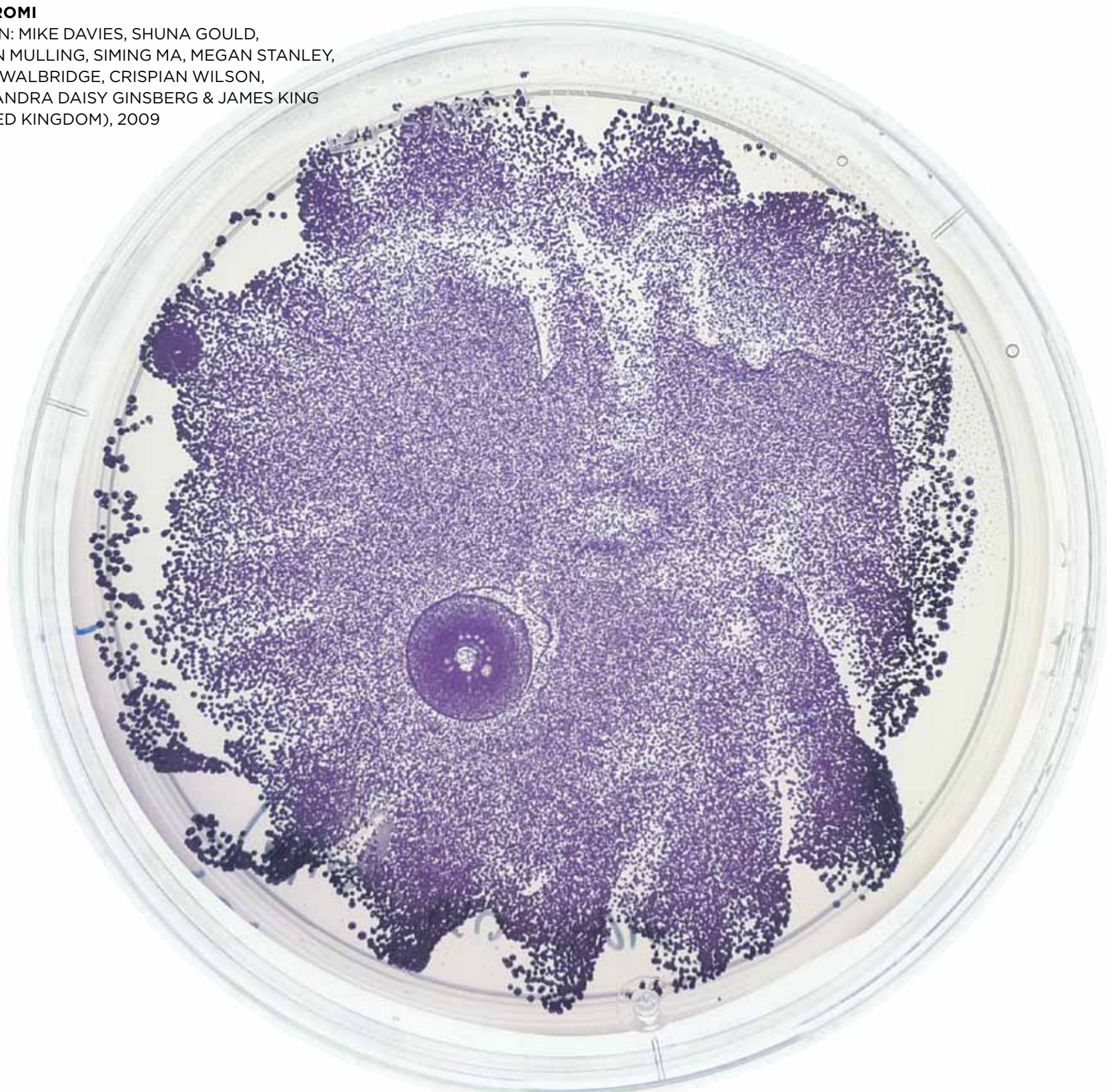
**DK** Antallet af behandlingskrævende tilfælde af hudkræft fordobles hvert tiende år, da vi lever længere og rammes af følgerne af overdreven solbadning. Forekomsten af godartet hudkræft vokser fortsat kraftigt og rammer nu 15% af befolkningen i Storbritannien, 40% af befolkningen i USA og 75% af befolkningen i Australien i løbet af deres levetid.

Før i tiden krævede behandlingen af ikke-melanom hudkræft, at patienten skulle tilbringe en dag på hospitalet koblet op til en masse udstyr og tidskrævende lægelig overvågning, men Ambulight mindsker behovet for lægelig overvågning, hvilket giver sundhedspersonalet tid til andre opgaver. Apparatet er bærbart, så patienten kan fortsætte med de daglige gøremål, mens behandlingen står på. Ambulight er let at bruge og kræver ingen handling fra patientens side, desuden undgås et længerevarende hospitalsophold og ardannelse i forbindelse med kirurgisk fjernelse af tumorerne.



**E. CHROMI**

DESIGN: MIKE DAVIES, SHUNA GOULD, VIVIAN MULLING, SIMING MA, MEGAN STANLEY, ALAN WALBRIDGE, CRISPIAN WILSON, ALEXANDRA DAISY GINSBERG & JAMES KING (UNITED KINGDOM), 2009



## AN INEXPENSIVE, PERSONALIZED DISEASE MONITOR

### BILLIG OG INDIVIDUEL SYGDOMSOVERVÅGNING

**ENG** Synthetic biology is a new approach to genetic engineering that could lead to new medical technologies, energy sources and foods. A team of young synthetic biologists studying at Cambridge University spent the summer of 2009 creating *E. chromi* – a set of DNA parts, or BioBricks, that can be inserted into *E. coli* bacteria. Each BioBrick contains genes selected from existing organisms, enabling the bacteria to produce

a color: Red, yellow, green, blue, brown or violet. By combining these with other BioBricks, the bacteria can be programmed to do useful things.

*E. chromi* can, for example, indicate whether drinking water is safe by turning red if they sense a toxin, and the team is currently designing a way of using *E. chromi* bacteria to detect the presence of arsenic – a toxin that pollutes water supplies across the developing world. Another spin-off project is the Scatalog – a proposal for inexpensive, personalized disease monitoring that works from the inside out. *E. chromi* is ingested as yoghurt and it colonizes your gut, keeping watch for chemical markers of diseases. If they detect a disease, they produce an easy-to-read warning signal by brightly coloring your feces.

One of bacterial technology key benefits are that is it inexpensive—bacteria reproduce by themselves and therefore manufacturing costs are negligible. Furthermore, all of the genetic parts are open source and can be freely used by other genetic engineers to design and build their own applications. Hence the bacterial biosensors enable the design of inexpensive, personalized medical and environmental bio-sensors.

**DK** Syntetisk biologi er en ny tilgang til genteknologi, der kan føre til nye medicinalteknologier, energikilder og fødevarer. Et hold unge studerende i syntetisk biologi på Cambridge University skabte i sommeren 2009

*E. chromi* – et sæt dna-dele, eller BioBricks, der kan sættes ind i *E. coli*-bakterier. Hver BioBrick indeholder gener udvalgt fra eksisterende organismer, der giver bakterierne mulighed for at producere farverne rød, gul, grøn, blå, brun eller lilla. Ved at kombinere dem med andre BioBricks kan bakterierne programmeres til at gøre nyttige ting.

*E. chromi* kan eksempelvis fortælle, om drikkevand er rent ved at blive røde, hvis de opfanger et toksin, og holdet er ved at finde ud af, hvordan *E. chromi*-bakterier kan anvendes til at spore arsenik – et giftstoff, der forurener vandforsyninger i mange udviklingslande. Et spændende, afledt projekt er Scatalog, som er et bud på en billig, individuel sygdomsovervågning, der arbejder indefra og ud. *E. chromi* indtages som yoghurt, slår sig ned i tarmene og holder øje med kemiske sygdomsmarkører. Hvis de opdager en sygdom, producerer de et letafleseligt advarselssignal, som ses ved, at afføringen skifter farve.

En af de vigtigste fordele ved bakterieteknologien er, at det er billigt. Bakterier reproducerer sig selv, og derfor er produktionsomkostningerne forsvindende små.

Desuden er alle de genetiske dele open source, der frit kan anvendes af andre genteknologier til at designe og bygge deres egne programmer. Dermed gør de bakterielle biosensorer det muligt at designe billige, individuelle medicinske og miljømæssige biosensorer.

# AN INNOVATIVE INFANT WARMER FOR LOW-INCOME COMMUNITIES

## EN INNOVATIV SPÆDBØRNSVARMER TIL FATTIGE SAMFUND

### EMBRACE INFANT WARMER

DESIGN: LINUS LIANG (UNITED STATES OF AMERICA),  
NAGANAND MURTY (INDIA), RAHUL PANICKER (INDIA)  
& JANE CHEN (UNITED STATES OF AMERICA), 2009

**ENG** Twenty million premature and under weight babies are born a year and four million of them die. Babies that survive often grow up with life-long illnesses. Babies' lives can be saved by providing them with thermal regulation. However, traditional incubators are expensive and require electricity and are often only found in major urban hospitals. Other current solutions include wrapping hot water bottles around babies' bodies, placing them over hot coals or placing them under light bulbs. These solutions cause many infants to die, even if they had a high chance of survival if they had been given proper medical treatment.

The Embrace Infant Warmer is an innovative and cost-effective technology that provides heat to an infant at a

constant temperature, a key condition for survival. The warmer is designed to work in urban and rural health-care centers as well as in people's homes. It is carefully engineered and it maintains the baby's temperature at a consistent 37° C for 4-6 hours with no electricity. The device is simple, easy to use and easy to keep clean. Furthermore, it has no moving parts, which minimizes the risk of failure. Finally, it ensures a close interaction between mother and child.

The Embrace Infant Warmer aims to give all infants an equal chance for a healthy life.

**DK** Der fødes hvert år tyve millioner for tidligt fødte og undervægtige børn, og fire millioner af disse dør. De børn, der overlever, skal tit leve med sygdomme, der følger dem resten af livet. Der kan reddes liv ved at give børnene effektiv varmeregulering, men traditionelle kuvøser er dyre, kræver elektricitet og findes ofte kun på store hospitaler i byområder. Der findes andre løsninger såsom at svøbe barnet i varmedunke, lægge dem over varmt kul eller under lyspærer, men disse løsninger er skyld i, at mange spædbørn dør, selv om de ville have

haft store chancer for at overleve, hvis de havde fået den korrekte lægelige behandling.

Embrace Infant Warmer er et innovativt og billigt design, der giver barnet varme ved en konstant temperatur, hvilket er altafgørende i kampen for at overleve. Embrace Infant Warmer er designet til at blive anvendt i sundhedsplejen, både i byer og på landet, samt på sundhedscentre og i private hjem. Den er omhyggeligt udformet og fastholder barnets temperatur på 37°C i 4-6 timer uden brug af elektricitet. Udstyret er enkelt, let at bruge og nemt at rengøre. Desuden er der ingen bevægelige dele, hvilket mindsker risikoen for at den går i stykker. Endelig giver den mulighed for tæt kontakt mellem mor og barn.

Det er Embrace Infant Warmers målsætning at give alle spædbørn en chance for at få en sund start på livet.



# PREVENTING TRAFFIC ACCIDENTS WITH REFLECTIVE HIJABS

## FOREBYGGELSE AF TRAFIKULYKKER MED SELVLYSENDE HIJABS

**ENG** Each year in Iran, 25,000 people are killed and 700,000 are injured in road-side accidents. The Iranian National Health Organization calls it “the leading preventable cause of death”. More than half of the deaths are pedestrians. And in almost all of the cases, the drivers say that they did not see the pedestrian until the moment of impact. Pedestrians are themselves partly to blame for their invisibility as many wear dark clothes, and especially women wearing the traditional black chador, risk getting hit by a car.

The Glow Guardian seeks to prevent women from getting hurt or killed in traffic by applying reflective patterns to their black chadors. The patterns are inspired by traditional Islamic calligraphy.

**DK** Hvert år dræbes der 25.000 mennesker, og 700.000 såres i trafikulykker i Iran. Irans sundhedsorganisation kalder det “den hyppigste dødsårsag, der kan forebygges”. Over halvdelen af de omkomne er fodgængere, og ofte Ofte siger chaufførerne, at de ikke så fodgængerer, før det var for sent.

Fodgængerne er i mange tilfælde delvist selv skyld i, at de ikke blev set, da mange af dem går i mørkt tøj. Især kvinder i den traditionelle sorte chador risikerer at blive kørt ned.

Glow Guardian har til formål at forhindre, at kvinder bliver dræbt eller såret i trafikken ved hjælp af de selvlysende mønstre på den sorte chador. Mønstrene er inspireret af traditionel islamisk kalligrafi.



**GLOW GUARDIAN**  
DESIGN: RAYIKA KHORSHIDIAN  
& MARYAM HEIDARIPOUR (IRAN), 2010



**JANMA - THE CLEAN BIRTH KIT**  
DESIGN: ZUBAIDA BAI (INDIA), 2009



# A CLEAN AND GREEN BIRTH KIT PREVENTING INFECTIONS AND SAVING LIVES

## ET RENT OG BÆREDYGTIGT FØDSELSSÆT, DER FOREBYGGER INFEKTIONER OG REDDER LIV

**ENG** Over half a million women die each year due to complications during pregnancy and birth, with infection being the leading cause. The vast majority of these deaths are preventable. According to the WHO, approximately 60 million women in developing countries give birth each year with only the help of an untrained attendant or with no help at all, mostly at home or in an unsterile rural clinic. As a result, they risk contracting an infection, which accounts for nearly 1 in 5 maternal deaths. Furthermore, the unhygienic conditions are one of the leading causes of neonatal deaths.

AYZH is a social venture that has invented a US\$2 solution to address this need: The JANMA - Clean Birth Kit that provides the mother a safe, clean and hygienic delivery whether she delivers at home or in an institution. JANMA is sourced and assembled in India by rural women, creating economic opportunity, and is distributed through an already established network of local pharmacies, clinics and hospitals.

Making clean delivery kits available through government health clinics, markets, private pharmacies and

other commercial channels will help reduce rates of infection and will substantially decrease maternal and infant mortality. AYZH has the following ambition: "No women should die giving life".

**DK** Hvert år dør over en halv million kvinder som følge af komplikationer under graviditet og fødsel, hvor infektioner er den hyppigste årsag. Langt den største del af disse dødsfald kan undgås.

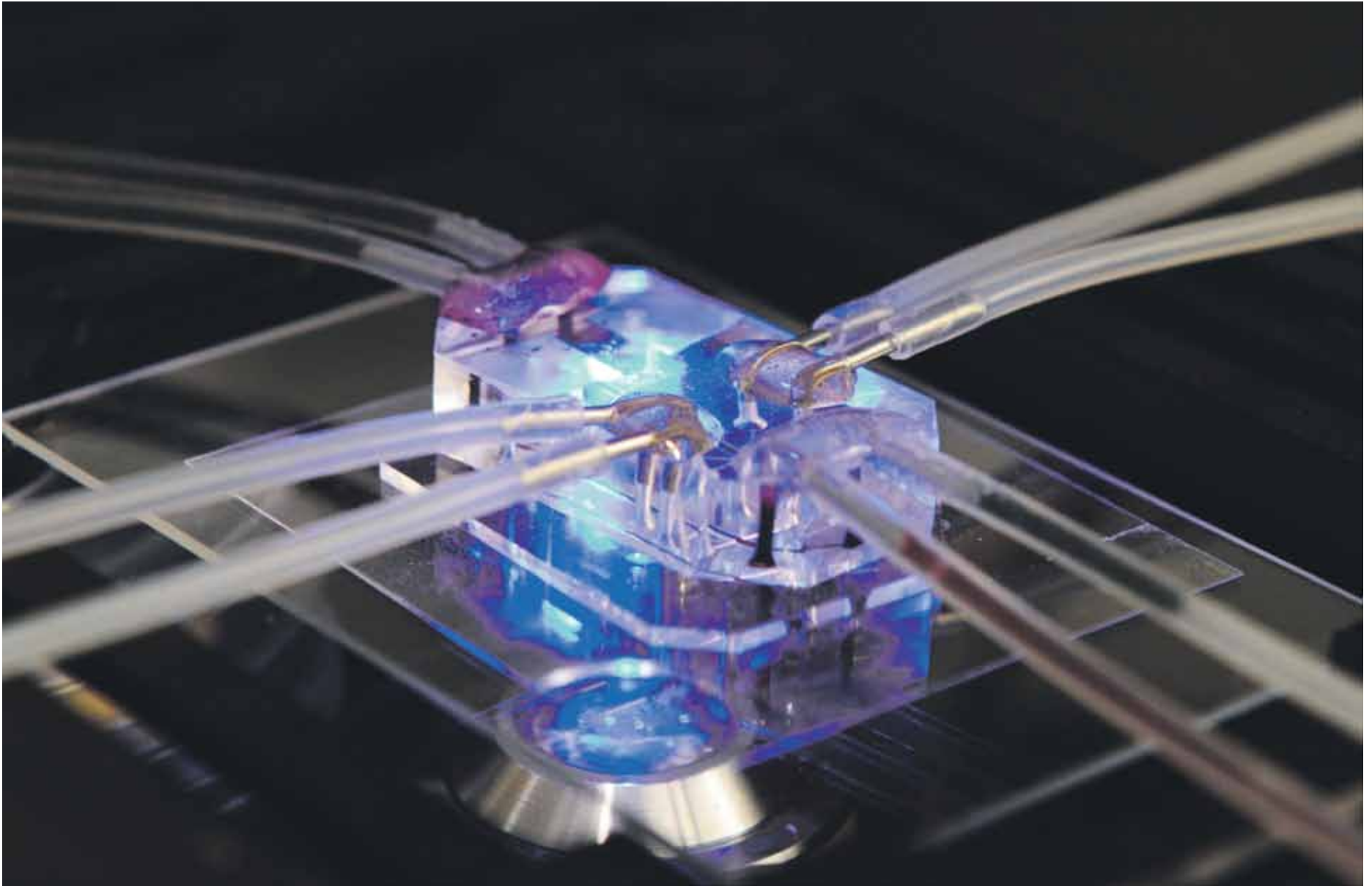
Ifølge WHO er der i udviklingslandene hvert år ca. 60 mio. kvinder, der føder med en uuddannet ledsager som eneste hjælp eller helt uden hjælp, som oftest hjemme eller på en usteril, landlig klinik. Derfor risikerer de at få en infektion, hvilket er årsagen til omtrent 1 ud af 5 dødsfald blandt fødende. Desuden er de uhygiejniske forhold også en af de største grunde til spædbørnsdød.

AYZH er et socialt program, der har opfundet en løsning til \$2, nemlig JANMA - The Clean Birth Kit, der kan hjælpe kvinder med at have en sikker, ren og hygiejnisk fødsel, uanset om de føder hjemme eller på en klinik. JANMA kommer fra Indien og samles af

indiske kvinder i landdistrikterne, hvilket bidrager til at skabe økonomisk vækst. JANMA distribueres desuden gennem et allerede eksisterende netværk af lokale apoteker, klinikker og hospitaler.

Hvis rene fødselssæt gøres tilgængelige på offentlige fødeklinikker, markeder, private apoteker og via andre kommercielle kanaler, kan det være med til at mindske forekomsten af infektioner og dermed mindske dødeligheden blandt fødende og spædbørn betydeligt.

AYZH har følgende målsætning: "Ingen kvinde må dø af at give liv".



## A LIVING LUNG ACCELERATING DRUG DEVELOPMENT

### EN LEVENDE LUNGE, DER FREMMER MEDICINUDVIKLING

#### LUNG-ON-A-CHIP

DESIGN: DONALD INGBER & DAN DONGEUN HUH  
(UNITED STATES OF AMERICA), 2010

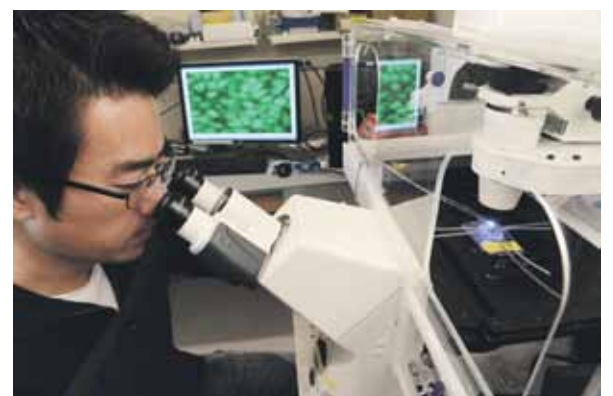
**ENG** Pharmaceutical companies are failing to bring new drugs to patients because they rely on the use of expensive, time-consuming and controversial animal testing to validate their compounds that often fail to predict results obtained in human clinical trials. Scientists have worked for years to create alternatives to animal testing, but with little success. At the same time, the use of nanoparticles in consumer products and production of environmental pollutants have skyrocketed, yet the risks that these manmade microscopic compounds pose to human health have been difficult to measure due to limitations in current testing models. The Lung-on-a-Chip offers an entirely new approach to deal with both of these major health threats to our society.

The Lung-on-a-Chip is crystal clear, flexible and the size of a computer memory stick and it mimics the structure and breathing functions of the living human lung. The Chip has three parallel hollow channels, the central of which is split in half by a horizontal, permeable membrane. The membrane's top surface is lined with living cells from the air sac of the human lung, over which air flows. Its bottom surface is lined with human capillary blood vessel cells under which flows a liquid medium containing white blood cells. To mimic breathing movements, repeated suction is applied to adjacent side channels which stretch and relax the flexible membrane and

cells. This simple micro device recapitulates human lung responses to infection, inflammation and environment toxins, offering a potential replacement to animal testing for drug development and environmental monitoring.

**DK** Medicinalvirksomheder dumper ofte, når det gælder om at lade nye typer medicin komme patienterne tilgode, da dette kræver, at der gennemføres dyre, tidskrævende og kontroversielle dyreforsøg for at få godkendt medicinen. Videnskabs-folk har i årevis arbejdet på at finde alternativer til test på dyr, men uden den store succes. Samtidig er brugen af nanopartikler i forbrugerprodukter og produktionen af miljømæssige forureningskilder steget voldsomt, og det har været svært at måle, hvilken risiko disse menneskeskabte mikroskopiske forbindelser udgør for vores sundhed. Lung-on-a-Chip er en helt ny tilgang til disse potentielle sundhedsudfordringer.

Lung-on-a-Chip er gennemsigtig, fleksibel og på størrelse med en USB-nøgle, og den efterligner den levende menneskelunges struktur og åndedrætsfunktioner. Chippen har tre parallelle, hule kanaler, hvoraf den midterste er delt over i to af en horisontal, vandtæt hinde. Hindens øverste overflade er lavet med levende celler fra luftsækken i en menneskelunge, som luften strømmer hen over. Den nederste overflade er lavet med menneskeceller fra blodkarrene i hårkar, hvorunder der løber et flydende materiale med hvide blodceller. Denne simple mikroenhed viser menneskelungens reaktioner på infektioner, betændelser og miljømæssige giftstoffer, hvilket kan udgøre et alternativ til dyreforsøg, når der skal testes medicin og miljøpåvirkning.



# A LOW-COST EYE TEST AND PRESCRIPTION THROUGH YOUR MOBILE PHONE

## BILLIG SYNSTEST VIA MOBILTELEFONEN

### NETRA

DESIGN: VITOR PAMPLONA (BRAZIL),  
RAMESH RASKAR (INDIA), DAVID SCHAFRAN  
(UNITED STATES OF AMERICA)  
& MANUEL OLIVEIRA (BRAZIL), 2010

**ENG** Over half a billion people worldwide who suffer from low vision simply have uncorrected vision. Many of these people are from developing countries and lack the money for tests and access to optometrists who administer them. Low vision prevents formerly independent individuals from leading full, independent lives. It is a key driver of poverty, carrying with it significant social stigma and risk of personal injury while at the same time limiting children's ability to learn.

NETRA is made for smart phones and designed to attach to the phone quickly and securely. The clip-on utilizes inexpensive and lightweight plastic to reduce cost and increase portability of the device. It is made up of jigsaw pieces and has no moving parts. This makes local manu-

facturing, shipping and assembly easy and inexpensive. Furthermore, it makes it possible for anyone to use the device without special training and reduces the risk of improper use. The boxy scope form was designed to replicate the style of eye devices already on the market to increase acceptance and credibility as a medical device by doctors and patients. The custom software application uses a simple user interface and a step-by-step training program to allow for anyone to follow the directions and take the test accurately.

Using only a mobile phone and a small clip-on extension, NETRA can be used to instantly detect refractive conditions and provide recommendations for correction. It is the most affordable eye diagnostic ever made and can provide access to affordable and accurate eye diagnostics for hundreds of millions of people around the world who previously could not afford or did not have access to the test itself.

**DK** På verdensplan er der over en halv milliard mennesker, der har nedsat syn. De ville kunne se fint, hvis blot de fik korrigeret synet, men mange af disse men-

nesker kommer fra udviklingslande og har ikke råd til at få testet øjnene og har desuden ikke adgang til øjenspecialister, der kan gennemføre synsprøverne. Nedsat syn medfører betydelig social stigmatisering, øget fattigdom og risiko for at påføre sig selv skade. Samtidig nedsætter det også børns evne til at lære.

NETRA er lavet til smartphones og er designet til at kunne sættes fast på telefonen hurtigt og sikkert. Klipsen er af billig og let plastik, hvilket mindsker omkostningerne og gør enheden lettere at håndtere. Desuden kan NETRA tages i brug uden nogen form for oplæring. Den er lavet, så den ligner de øjenapparater, der allerede findes på markedet, hvilket øger dens troværdighed og accept som en medicinsk hjælpemiddel hos potentielle brugere. Softwareprogrammet har en enkel brugergrænseflade og et guideprogram, der trinvist viser, hvordan man tager testen korrekt.

NETRA er den billigste øjendiagnose, der hidtil er lavet. Den kan give adgang til billig og præcis øjendiagnose til millioner af mennesker verden rundt. Til mennesker, der tidligere ikke havde råd eller adgang til en synstest.



**PURE WATER BOTTLE**

DESIGN: TIMOTHY WHITEHEAD  
(UNITED KINGDOM), 2010



## A WATER BOTTLE THAT PURIFIES WATER IN JUST TWO MINUTES

### EN VANDFLASKE, DER RENSER VAND PÅ KUN TO MINUTTER

**ENG** Globally, the United Nations estimates that two-thirds of the world's population will live in areas of water stress within the next 20 years, and that five million people—mostly children—die each year due to contaminated drinking water. While the designer was traveling through Zambia in Africa he realized the reliance people have on chlorine and iodine tablets; these take about 30 minutes to create safe drinking water and leave an unpleasant taste. He thought that there must be a simpler and faster way of sterilizing water using new technology.

This led to the creation of Pure, a water bottle that provides clean drinking water in just two minutes using a wind-up, ultra violet light to sterilize the water quickly without any distortion to taste.

Pure has been designed to give people in the developing world access to safe, sterile drinking water anywhere

and anytime. No chemicals are used during the water treatment cycle, which makes it healthier for both the environment and the users. Pure combines innovative technologies within a simple, useable form which makes it easy to use correctly and minimizes user errors and misuse.

Another key use of Pure is in natural disaster zones. In the aftermath of earthquakes and tsunamis, there is often a lot of water, yet people cannot drink it. Pure can be used in these situations to quickly filter and sterilize the water.

**DK** På verdensplan anslår FN, at to tredjedele af verdens befolkning om 20 år vil bo i områder med vandmangel, og at fem millioner mennesker, især børn, dør hvert år på grund af forurenet drikkevand. Da designeren, Timothy Whitehead, var på rejse i Zambia i Afrika, indså han, hvor afhængig befolkningen er af klorin- og jodtabletter.

Med dem tager det cirka 30 minutter at rense drikkevand, og samtidig får de vandet til at smage dårligt. Han mente, at der måtte være en enklere og hurtigere måde at sterilisere vand på ved at bruge moderne teknologi. Det førte til opfindelsen af Pure; en vandflaske, der giver rent drikkevand på kun to minutter uden at påvirke smagen.

Pure er designet til at give mennesker i udviklingslande adgang til sikkert og sterilt drikkevand når som helst og hvor som helst. Der anvendes ingen kemikalier i processen, hvilket er sundere for både miljøet og forbrugeren.

Pure kombinerer moderne teknologi med en simpel og brugervenlig form, der gør den let at bruge korrekt og mindsker risikoen for fejl og forkert anvendelse.

**A HOLISTIC SYSTEMS DESIGN  
ATTACKING GIRLS'/WOMEN'S  
OBSTACLES TO MENSTRUATION**  
ET HOLISTISK SYSTEM-DESIGN,  
DER ADRESSERER MENSTRUA-  
TIONSRELATEREDE PROBLEMER  
I UDVIKLINGSLANDE

**SHE28**

DESIGN: ELIZABETH SCHARPF  
(UNITED STATES OF AMERICA)  
& JULIAN INGABIRE KAYIBANDA  
(RWANDA), 2008

**ENG** A simple, common, and yet largely ignored reason that girls are frequently absent from school and women from work in developing countries—up to 50 days per year—is that there is a lack of access to affordable menstrual pads. Girls and women in this setting turn to either premium priced international brands, which are too costly to sustain, or alternative methods such as rags which, in combination with a lack of a clean and accessible water supply, are unhygienic and potentially harmful. This harms entire communities as girls' education and women's economic success improves overall family welfare.

she28 aims to provide affordable, high quality, eco-friendly menstrual pads for women. Rather than a donation-only approach, she28 enables individuals to develop the capacity to improve their own and their families' circumstances through entrepreneurship, technology transfer and access to finance. she28 has already equipped 50 community health workers with simple business skills so they can start their own distribution business selling pads.

For every women-led business that the organization behind she28 invests in, approximately 100 jobs are created and approximately 100,000 girls and women

will gain access to affordable sanitary pads. Multiply this by 12 franchises, and 1200 jobs will be created reaching one million girls and women.

**DK** En almindelig og alligevel meget overset årsag til, at piger ofte ikke går i skole, og at kvinder bliver hjemme fra arbejde i udviklingslande i op til 50 dage om året, er, at der er mangel på adgang til billige menstruationsbind. Piger og kvinder i denne situation vælger enten internationale mærker, der dræner deres privatøkonomi, eller alternative metoder. Det kan eksempelvis være klude, der, kombineret med mangel på rent vand, er uhygiejniske og potentielt skadelige.

she28 har til formål at levere gode, billige og miljøvenlige menstruationsbind til kvinder, og i stedet for at bygge på velgørenhed gør she28 enkeltpersoner i stand til at forbedre deres egen og deres families liv gennem iværksætteri, teknologi og adgang til finansiering.

she28 har allerede udstyret 50 sundhedsmedarbejdere med simple forretningsredskaber, så de kan starte deres egen distribution og sælge bind, og hver virksomhed, she28 investerer i, skaber omkring 100 arbejdspladser og giver cirka 100.000 piger og kvinder adgang til billige hygiejnebind.



**SOLIO**

DESIGN: DAVID FOWLER  
& BETTER ENERGY SYSTEMS INC.  
(UNITED KINGDOM), 2005

**ENG** In many parts of the developing world people still do not have grid access. Without electricity many are cut off from the rest of the world if they cannot recharge their mobile phones—a device more and more people possess.

The most obvious source to provide the power is energy generated by the sun, which is so powerful that in just one hour, the amount of energy that falls on Earth equals the amount used by the world's population in a whole year. The sun's potential provides off-the-grid energy that makes it possible to access vital information through the use of mobile technology.

Solio allows villagers without grid access to charge their cell phones, power radios and lighting systems—all of which can be seen as tools of empowerment for people in developing countries. It helps farmers gain knowledge about market prices and therefore sell products at the best possible price. It allows school children and students to study even after the sun has set. It provides the basis for money transferring through controlled channels. Additionally, Solio can be used in natural disaster zones, where it is vital to get information out to the people affected. All this and much, much more is made possible by the use of solar-hybrid power chargers, like the Solio, in off-the-grid areas.

**DK** I mange udviklingslande har en stor del af befolkningen stadig ikke adgang til elektricitet. Den mest åbenlyse energikilde er solen, der er så kraftig, at den energi, der rammer jorden på bare én time, svarer til den mængde energi, som jordens befolkning bruger på et helt år. Solen har altså potentiale til at levere den energi, der blandt mange andre ting - gør det muligt at få adgang til vigtige informationer ved brug af mobilteknologi.

Med Solio kan landsbyboere oplade deres mobiltelefoner, radioer og lamper uden at have indlagt strøm. På den måde kan bønder opnå viden om markedspriser, så de kan sælge deres produkter til den bedst mulige pris, og samtidig kan de overføre penge gennem kontrollerede kanaler. Skoleelever og studerende kan læse og lave lektier, når solen er gået ned, og desuden kan Solio anvendes i områder, der har været udsat for naturkatastrofer, hvor det er altafgørende at få informationerne ud til de berørte befolkningsgrupper. Alt dette og meget mere bliver muligt ved at bruge soldrevne opladere som Solio i områder uden adgang til elektricitet.



**PROVIDES ELECTRICITY IN  
THE MOST REMOTE SETTINGS  
LAVER ELEKTRICITET I  
AFSIDESLIGGENDE EGNE**

## EMPOWERS USERS BY PREDICTING AN ASTHMA ATTACK BEFORE IT OCCURS

### FORUDSER ASTMAANFALD, FØR DE OPSTÅR

#### X-HALO BREATH THERMOMETER

DESIGN: STEFANO MARZANO (ITALY)  
& PHILIPS DESIGN TEAM (THE NETHERLANDS),  
2008

**ENG** About 300 million people worldwide suffer from asthma, one of the most common chronic diseases affecting both children and adults. The 2004 Global Burden of Asthma Report warns that an additional 100 million will be diagnosed with asthma by 2025. Its prevalence is on the rise as societies become increasingly urbanized. Each year, asthma accounts for an estimated 250,000 deaths worldwide, some of which could have been prevented.

Asthma symptoms, which can range from mild to severe, exist in two states: Chronic and acute, and may also vary with the seasons. During the chronic state of asthma, the symptoms do not bother the individual and they feel okay. In contrast, for the acute state, symptoms like coughing and difficulty breathing may occur more often and feel much worse than normal. The change in the level and/or amount of symptoms is a sign that the condition is getting worse and an asthma attack could be developing. Medical attention is needed right away in such situations. Death can occur from an asthmatic attack if the correct medications are delayed.

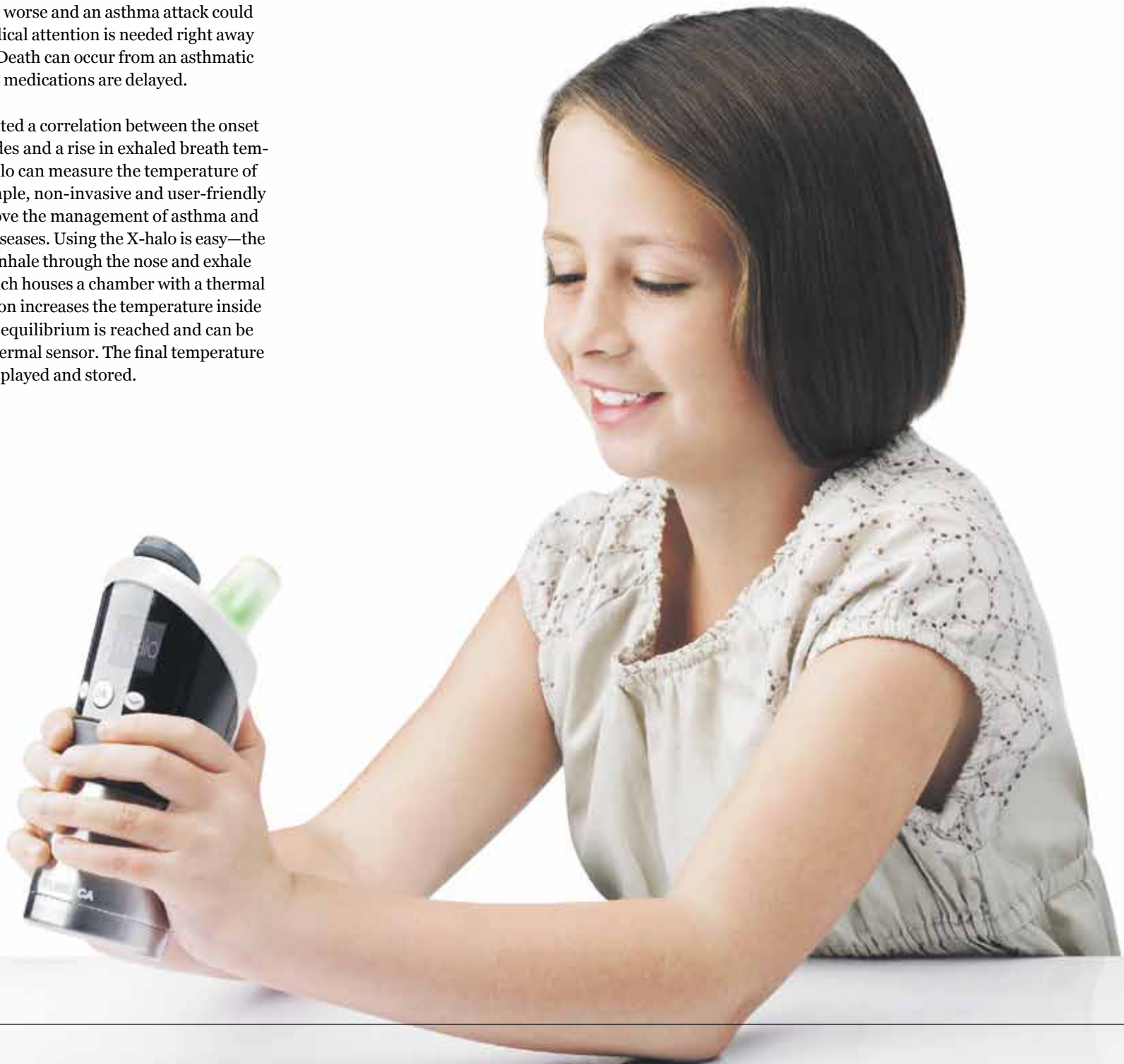
Studies have indicated a correlation between the onset of asthmatic episodes and a rise in exhaled breath temperature. The X-halo can measure the temperature of exhaled air in a simple, non-invasive and user-friendly way. It helps improve the management of asthma and other respiratory diseases. Using the X-halo is easy—the patient just has to inhale through the nose and exhale into the device, which houses a chamber with a thermal core. Each exhalation increases the temperature inside this reservoir until equilibrium is reached and can be measured by the thermal sensor. The final temperature is automatically displayed and stored.

**DK** På verdensplan lider ca. 300 mio. mennesker af astma, der er en af de hyppigste kroniske lidelser, der rammer både børn og voksne. "Global Burden of Asthma Report" fra 2004 advarer om, at yderligere 100 millioner mennesker forventes at blive diagnosticeret med astma inden 2025. Hvert år er astma skyld i 250.000 dødsfald på verdensplan, hvoraf mange kunne have været forhindret.

Undersøgelser har påvist en sammenhæng mellem begyndelsen af astmaanfald og en temperaturstigning i udåndingsluften. X-halo kan måle temperaturen på udåndingsluften på en enkel og brugervenlig måde, og dermed kan astma og andre luftvejssygdomme bedre håndteres. X-halo er let at bruge, og patienten skal bare trække vejret ind gennem næsen og puste ud i apparatet, som indeholder et kammer med en termisk kerne.

Hver udånding øger temperaturen inde i beholderen, indtil der opnås en ligevægt, der kan måles af en sensor. Den endelige temperatur vises og gemmes automatisk.

Astmasymptomer, der kan være mere eller mindre alvorlige, findes i to tilstande, nemlig kroniske og akutte, og kan også variere alt efter årstiden. Ved kronisk astma føler patienten sig ikke generet af symptomerne, men de akutte symptomer som hoste og åndedrætsbesvær kan forekomme oftere og føles værre end normalt. Ændringen i symptomernes grad og hyppighed er et tegn på, at tilstanden forværres, og at der kan være et astmaanfald under opsejling. I disse tilfælde er der derfor behov for akut medicinsk behandling. Patienten kan dø af et astmaanfald, hvis den medicinske behandling kommer for sent, og i mange tilfælde kan X-halo være med til at opdage, at et anfald er på vej, før det er for sent.



# INDEX: AWARD 2011 WINNER

## SEE BETTER TO LEARN BETTER (VERBIEN)



**DESIGN:** fuseproject **DESIGNER(S):** Yves Behar, Josh Morenstein, Pichaya Puttorngul, Isabelle Olsson, Matthew Swinton, Matthew Malone, Jenny Olson **YEAR:** 2010 **COUNTRY:** Switzerland & USA **PRODUCTION:** Augen Mexico for VerBien ParaAprenderMejor of Mexico **STATUS OF REALIZATION:** In production **WEBSITE:** [www.fuseproject.com/products-45](http://www.fuseproject.com/products-45)  
**NUMBERS:** Every 5 seconds one person in the world goes blind / 285 million people are visually impaired worldwide / About 90% of the world's visually impaired live in developing countries / 80% of all visual impairment can be avoided or cured / More than 12 million children ages 5 to 15 are visually impaired because of uncorrected refractive errors.

### FREE EYEGLASSES FOR HUNDREDS OF THOUSANDS OF SCHOOL CHILDREN

**See Better to Learn Better (VerBien) is a free eyeglasses program for Mexican children designed by former INDEX: Award winner Yves Behar (One Laptop per Child, 2007). It is a collection of customizable and corrective eyewear that is specifically designed for children and young people ages 6-18 years.**

*"The whole program for a child to get a pair of glasses - with the eye exam, the making of custom lenses, custom frames, the assembly, putting in a carrying box and shipping to the child cost only \$10. So it is pretty obvious for the Mexican government to invest that little in their student population", says Yves Behar.*

The design aims to provide a solution for children of families that cannot afford the cost of eye care, so VerBien's See Better to Learn Better administers a free eye exam in schools, after which students pick their own frames. The glasses are then produced locally and delivered to the schools. Over 100,000 glasses have already been distributed throughout Mexico, and 400,000 glasses are expected to be delivered every year in the future.

#### WHAT IS THE PROBLEM?

Actually, the percentage of children currently in need of glasses can be as high as 50 percent in some states in Mexico, and about 11 percent are not learning at all, simply because they cannot see. Studies conclude that one of the major reasons for a shift or drop in academic performance in school children is change in their eyes. However, even with the high percentage of children in need of glasses, it does not change the notion that wearing glasses is seen as a handicap, and social stigma adds to the general resistance to correct the problem.

*"What happened was that the Mexican government learned that 11 percent of kids in Mexican schools cannot see, and therefore they cannot learn", Behar explains. "So basically, we wanted to continue to try*

*and solve the problem of educating kids in the developing world, just as we did with the \$100Laptop."*

*"The See Better to Learn Better (VerBien) design is in many ways a perfect example of how design processes can help address a very real global challenge: Access to Education! By bringing together people from a wide range of disciplines; public policy, business, education and design, the design team in collaboration with Mexican manufacturer Augen, succeeded in creating a product that takes all aspects into consideration, and was therefore able to create a great holistic solution. Furthermore, by bringing the attention and approach that we normally only see in luxury products, the solution is a personalized fashion item, accessible to a broader population - disadvantaged kids - that actually want to use the design!", says the INDEX: Jury*

#### IS WEARING GLASSES A HANDICAP?

More than 1 billion people in the world need eyeglasses but do not get them. Visual impairment is more than just a health problem; it has economic, educational, and public safety implications. Giving school children glasses is a quick and simple way to dramatically affect the scholastic world of Mexico. However, even with the high percentage of children in need of glasses, wearing lenses is still looked at as a handicap. *"Kids do not want to wear glasses, because wearing glasses is considered a handicap, so the Mexican government thought that maybe design could help them solve that problem",* says Behar. And this social stigma adds to the resistance to correct the problem: In order to break these stereotypes, these children need a product designed for their specific needs, life and environment - a relevant product that has the power to revolutionize attitudes in Mexico and reach children in need.

#### INDESTRUCTIBLE - IN DIFFERENT SHAPES AND COLORS

See Better to Learn Better (VerBien) is a series of friendly, stylish and customizable eyeglasses specifically for school children. They are comprised of a two-part frame construction with different options for top and bottom colors that can be mixed and matched to fit all children's personal choices. The glasses can be adjusted in the field in order to update prescriptions

easily, and the interchangeable nose pads let children with different sized faces wear the glasses comfortably. The designers used an engineering plastic with a hyper-flexible property to make the glasses practically indestructible and thus perfect for a child's constantly changing needs. *"The first thing the director of the board of the Mexican non-profit organization involved in commissioning us did, was to take the prototype glasses and put them on his hard chair and sit on them, just to see if they were as durable and robust as they needed to be",* Yves Behar laughs. To put the control fully into the hands of the users, a comprehensive catalogue that illustrates the seven colors, five shapes and three sizes in an easy to understand manner is published. Kids can easily flip between colors and frames, mixing and matching until they are satisfied with their choice.

#### IMPROVING LIVES AND GENERATING SUCCESS

By designing a series of eyewear that is specifically tailored to the needs of school children, the See Better to Learn Better (VerBien) design is improving lives for hundreds of thousands of people for years to come. In letting students see better, the designers are allowing them to succeed in school, which will improve their prospects of succeeding in life. Access to education is one of the most important change drivers in the world and without corrective eyewear, learning the skills that will ensure children that they can live up to their full potential becomes impossible. In that context, the See Better to Learn Better (VerBien) design should be seen as a tool for social change.

*"As people, we are very lucky to have this platform of design that everyone can relate to. Let us use this platform of design to create massive change",* Behar encourages.

All states of Mexico are currently expected to receive 400,000 glasses a year and an extension of the program is now starting in the San Francisco Bay Area. Called "See Well to Learn", the US program aims to address students' access to eyewear closer to home, and it recently received a generous donation from San Francisco philanthropic organization Tipping Point.





## GRATIS BRILLER TIL HUNDREDE-TUSINDVIS AF SKOLEBØRN

**See Better to Learn Better (VerBien) er et gratis brilleprogram for børn designet af den tidligere INDEX: Award vinder Yves Behar (One Laptop per Child, 2007). Det er en samling af fleksible og individuelt tilpassede briller, der er specifikt designet til børn og unge i alderen 6-18 år.**

*“Hele den proces, der kræves, for at et barn kan få et par af vores briller – synstest, fabrikation af brilleglas, stel, samlingen, at putte det hele i en æske og sende brillerne til barnet – koster kun 10 amerikanske dollars. Så det var rimeligt åbenlyst for den mexicanske regering at det var en god idé at investere et relativt småt beløb i landets skolebørn.”* siger Yves Behar.

Designet sigter mod at levere en løsning for børn hvis familier ikke har råd til briller, og VerBiens See Better to Learn Better administrerer en gratis synstest i skolerne, hvorefter børnene selv kan vælge deres stel. Brillerne bliver produceret lokalt og leveret til skolerne, og over 10.000 briller er allerede blevet distribueret over hele Mexico, og det er forventet, at 400.000 briller vil blive distribueret i fremtiden.

### HVAD ER PROBLEMET?

Andelen af børn med behov for briller er så højt som 50 procent i nogle mexicanske stater, og omkring 11 procent af børnene lærer slet ikke noget, simpelthen fordi de ikke kan se. Undersøgelser har konkluderet, at den vægtigste årsag til ændringer eller fald i indlæring hos skolebørn er deres øjne. Alligevel ændrer det ikke den opfattelse, at det er et handicap at bære briller, og social stigmatisering lægger derfor til den genrelle modstand mod at rette op på problemet. *“Det, der skete, var, at den mexicanske regering fandt ud af, at 11 procent af børnene i mexicanske skoler ikke kan se og derfor ikke kan lære noget”, forklarer Behar. “Så grundlæggende ønskede vi at fortsætte med at løse problemet omkring uddannelse i udviklingslandene, ligesom vi gjorde med 100 dollar laptop'en.”*

*“See Better to Learn Better (VerBien) designet er på mange måder et perfekt eksempel på, hvordan designprocesser kan hjælpe med at løse en meget vigtig global udfordring: Adgang til uddannelse! Ved at bringe folk sammen fra en lang række discipliner; politik, forretningsverdenen, uddannelse og design, har designholdet i samarbejde med den mexicanske producent Augen skabt et produkt, der tager alle aspekter i betragtning, og har derfor været i stand til at skabe en holistisk løsning. Derudover har de ved en tilgang, vi normalt kun ser i luksusprodukter, skabt en løsning, der er et individuelt stykke mode, og gjort det tilgængeligt for en meget vigtig del af befolkningen – dårligt stillede børn – der faktisk gerne vil bruge design!!”,* siger INDEX: Juryen.

### ER DET ET HANDICAP AT BÆRE BRILLER?

Mere end en milliard mennesker i verden har brug for briller, men får dem ikke. Ikke at kunne se er mere end et sundhedsproblem; det har økonomiske, uddannelsesmæssige og offentligt sikkerhedsmæssige implikationer. At give skolebørn briller er en hurtig og simpel måde, hvorpå man dramatisk kan påvirke situationen i Mexico. Alligevel bliver det selv med det høje antal af børn, der har behov for briller, set som et handicap. *“Børn har ikke lyst til at bære briller, fordi at bære briller er set som et handicap, så den mexicanske regering tænkte, at design måske kunne løse problemet”,* siger Behar, og fortsætter: “dette sociale stigma øger modviljen mod at gøre noget ved problemet: For at komme væk fra de her stereotyper har børnene brug for et produkt, der er designet til deres individuelle behov, liv og miljø – et relevant produkt, der samtidig har mulighed for at revolutionere attituden i Mexico, og nå børn der har brug for det.

### HÅRDFØRE BRILLER – I FORSKELLIGE FORMER OG FARVER

See Better to Learn Better (VerBien) er en serie af hårdføre stilfulde og fleksible briller til skolebørn. De er lavet af en todelt rammekonstruktion med forskellige farvevalgmuligheder i toppen og bunden og de kan mikses og laves, så de passer til børnenes personlige ønsker og stil. Brillerne kan justeres på stedet, således at styrken nemt kan opdateres, og den udskiftelige

næsepude gør, at børn med forskellige ansigtsstørrelser kan bære brillerne komfortabelt. Designerne brugte desuden en hyperfleksibel plasticstype for at gøre brillerne meget svære at ødelægge. *“Det første bestyrelsesformanden for den mexicanske NGO, der var med i udviklingsprocessen, gjorde, var at tage brilleprototypen og lægge dem på sin stol og sætte sig på dem, for at se, om de var så robuste og holdbare, som de skulle være”,* fortæller Yves Behar med et grin.

For at lægge kontrollen fuldstændig i hænderne på brugerne, bliver der udgivet et omfattende katalog, der illustrerer de syv farver, fem former og tre størrelser på en letforståelig måde. Børnene kan således nemt bladre mellem farver og stel og mikse og matche, indtil de er tilfredse med deres valg.

### FORBEDRING AF LIV OG DRIVKARFT MOD SUCCES

Ved at designe en serie af briller, der er specifikt skræddesyet til skolebørns behov, forbedrer See Better to Learn Better (VerBien) livet for hundredtusindvis af mennesker i fremtiden, og ved at lade børnene se bedre, giver designerne dem mulighed for at få succes i skolen, hvilket vil forbedre deres muligheder for at få succes i livet. Adgang til uddannelse er en af de vigtigste forandringsdrivkræfter i verden, og uden briller ville det være umuligt for børn at lære det, der gør det muligt at leve op til deres fulde potentiale. I den kontekst skal See Better to Learn Better (VerBien) designet ses som et redskab for social forandring. *“Som mennesker er vi rigtig heldige, at vi har en designplatform, som alle kan relatere til. Lad os bruge den platform til at skabe massiv forandring”,* opfordrer Behar.

En udbygning af programmet er ved at blive startet i området omkring San Francisco. Kaldet “See Well to Learn”, sigter det amerikanske program mod at tilskynde skolebørns adgang til briller tættere på hjemmet, og har for nylig modtaget en generøs donation fra organisation Tipping Point. See Well to Learn vil blive lanceret i efteråret 2011.

# HOME CATEGORY

- AUTARCHY
- BIOLITE HOMESTOVE
- BWARE WATER METER
- EASY LATRINE
- EATING, DESIGN AND DEMENTIA
- ELEMENTAL MONTERREY
- INCREASED VALUE FOR UN  
HUMANITARIAN PACKAGING
- PLUMEN 001
- THE SECRET LIFE SERIES
- TULIP SIPHON WATER FILTER
- WASARA

**ENG** The HOME category comprises all designs related to the home, for example: Architecture, interior design, lighting, furniture, tools, appliances, utility systems and online services. Including strategies for new ways of living and new forms of cohabitation

**DK** HOME-kategorien indeholder alle designs, der relaterer sig til hjemmet, for eksempel arkitektur, interiør design, lys, møbler, hjælpemidler, systemer og online-services. Endvidere strategier for nye måder at bo på og nye former for sameksistens.





**AUTARCHY**  
DESIGN: ANDREA TRIMARCHI  
& SIMONE FARRÉSIN/  
STUDIO FORMAFANTASMA  
(ITALY), 2009

## SYMBOLIZING THE NECESSITY OF SUSTAINABLE PRODUCTS SYMBOLISERER BEHOVET FOR BÆREDYGTIGE PRODUKTER

**ENG** For their installation Autarchy, Studio Formafantasma has developed a collection of functional and durable containers and lamps that have been naturally dried or low temperature baked, produced with a bio-material composed of 70% flour, 20% agricultural waste and 10% natural limestone. The differences in colors are obtained from a selection of vegetables, spices and roots that are dried, boiled or filtered for their natural dyes.

**The** Autarchy products represent an investigation into the possibilities of creating biodegradable clay, using easily available materials and reducing the burning temperature of normal clay from 900°C to 30-40°C. The installation symbolizes the necessity of sharing the production of valuable and sustainable products by a community of people. Autarchy opposes the easy disposability of products by combining the biodegradability of the material with a timeless, aesthetic and a long-lasting quality of hand-crafted objects.

The installation consists of containers and lampshades that are designed with inspiration from archetypical forms. The installation displays the different steps in the work process, explaining the material and the production processes of the products and their intended use. Together they symbolize an open source approach in which information and knowledge are shared.

**DK** Til installationen Autarchy har Studio Formafantasma udviklet en samling funktionelle og bæredygtige beholdere og lamper, der er blevet tørret naturligt eller brændt ved lav temperatur. De er produceret af 70% mel, 20% landbrugsaffald og 10% naturlig kalksten. Farveforskellene er opnået ved at bruge en række grøntsager, krydderurter og rødder, der er blevet tørret, kogt eller filtreret for at udskille de naturlige farver.

Autarchy-produkterne er et studie i mulighederne for at fremstille biologisk nedbrydeligt ler ved at bruge lettilgængelige materialer og et forsøg på sænke brænd-

ings temperaturen for normalt ler fra 900°C til 30-40°C. Installationen symboliserer behovet for at dele viden om produktion af værdifulde og bæredygtige produkter med hinanden, og Autarchy gør oprør mod produkters lette forgængelighed ved at kombinere materialets biologiske nedbrydelighed med den tidløse, æstetiske og vedvarende kvalitet af håndlavede genstande.

Installationen består af beholdere og lampeskærme, der er designet med inspiration fra arketyperiske former og viser de forskellige faser i arbejdsprocessen og forklarer produkternes materiale og frembringelse og deres tilsigtede anvendelse. Sammen symboliserer de en open source-tilgang, hvor informationer og viden deles.

## A COOKING STOVE THAT CUTS EMISSIONS BY 95% WHILE GENERATING OFF-GRID ELECTRICITY

### ET KOMFUR, DER MINDSKER RØGUDLEDNING MED 95%, OG SAMTIDIG GENERERER ELEKTRICITET

**ENG** Half the planet still cooks on indoor open wood fires and the toxic smoke they emit kills nearly two million people every year—twice as many as malaria. Previous efforts to address indoor smoke with clean cook stoves have failed to achieve the smoke reductions necessary to protect health and have also failed to catalyze consumer demand due to minimal functionality beyond that of a traditional open fire.

The BioLite Home Stove immediately reduces the time used on gathering wood or other solid fuels or the money spend on purchasing fuel to support daily cooking. Using half the wood required for an open fire, each stove saves several tons of firewood per year. Families also get access to electricity with stove use, providing a means for charging cell phones or LED lights. More broadly, the efficient combustion reduces deforestation in developing regions where 75% of harvested wood is burned as fuel and dramatically cuts global black carbon, CO<sub>2</sub> and methane emissions. Each stove can save 1.5 tons of CO<sub>2</sub> per year, equivalent to the impact an American family would have by investing in a hybrid car. By reducing smoke emissions by more than 95%, the stove also has significant health benefits.

BioLite is capable of reducing indoor smoke while cutting fuel use in half and providing largely off-grid users with the ability to charge cell phones and LED lights. The stoves create economic incentive for purchase and continued use, ensuring sustainable delivery of its health and environmental benefits.

**DK** Halvdelen af verdens befolkning laver stadig mad over åben ild indendørs, og den giftige røg, dette udsender, dræber næsten to millioner mennesker hvert år – dobbelt så mange som malaria. Tidligere forsøg på at gøre noget ved røgen med forbedrede komfurer har ikke ført til den reducere i røgen, der af sundhedshensyn er nødvendig. Det er heller ikke lykkedes at skabe efterspørgsel hos forbrugerne, da funktionaliteten ikke adskilte sig fra et almindeligt, åbent bål.

BioLite Home Stove gør, at der skal bruges mindre tid på at samle eller købe brændsel til den daglige madlavning. Komfuret skal således kun bruge halvt så meget træ som et åbent bål, hvorved der spares flere ton brænde per år per komfur. Når komfuret bruges, genereres strøm fra varmen, hvilket giver familierne adgang til elektricitet, og dette giver mulighed for at oplade mobiltelefoner og LED-lamper. I et større perspektiv reducerer den effektive forbrænding skovrydningen i udviklingslande, hvor 75% af de fældede træer anvendes som brændsel. Dermed mindskes den globale CO<sub>2</sub>-udledning betydeligt. Hvert komfur kan spare 1,5 ton CO<sub>2</sub> pr. år, hvilket svarer til den besparelse, en amerikansk familie ville skabe ved at skifte til en hybridbil.

BioLite kan reducere indendørs røg, samtidig med at brændstofforbruget halveres, og brugerne får mulighed for at oplade mobiltelefoner og LED-lamper uden at være tilsluttet elnettet. Komfuret skaber et økonomisk købsincitament og kan bruges i mange år, hvilket sikrer langsigtede sundhedsmæssige og miljømæssige fordele.



**BIOLITE HOMESTOVE**  
DESIGN: JONATHAN CEDAR  
& ALEC DRUMMOND  
(UNITED STATES OF AMERICA), 2010



## RAISES AWARENESS OF WATER USAGE GØR DIG OPMÆRKSOM PÅ DIT VANDFORBRUG

**ENG** Given the global water crisis, water saving is imperative and we must educate people today in order to use water more wisely tomorrow.

Bware is a small device that informs the consumer of the amount of water consumed while the water is running. It can be applied to any domestic water source as a real-time display meter. The water flow passing through an internal generator powers the LED readout display and at the same time charges the backup battery that keeps the readout displayed up to two minutes after the water stops running. Bware is made of bio plastics, and all its electronic components are recyclable and environmentally friendly.

Viewing the quantity of water consumed on the LED readout display will raise awareness of the need to save water and use water wisely. Wherever the device is applied it will not affect the water flow when the water is running. Washing hands will be the same but the LED readout display will properly cause the consumer to shorten the act to save water.

Bware states its purpose (Be Aware), it alerts and raises awareness by displaying the number of liters/gallons consumed in real-time. The device provides an effective way to raise awareness of water wastage and helps making water saving more tangible.

**DK** I lyset af den globale vandkrise er det altafgørende at spare på vandet, og alle må lære at bruge vand med omtanke.

Bware fortæller forbrugeren, hvor meget vand, der bruges, mens vandet løber, og den kan installeres på en hvilken som helst vandkilde og viser det aktuelle vandforbrug. Vandet løber gennem en intern generator, der leverer strøm til LED-displayet og samtidig lader reservebatteriet op, så displayet kan forblive tændt i op til to minutter, efter at der er blevet slukket for vandet. Bware er lavet af bioplast, og alle de elektroniske komponenter er miljøvenlige og kan genbruges.

Når forbrugeren ser vandforbruget på LED-displayet, øges bevidstheden om nødvendigheden af at spare på vandet og bruge det med omtanke. Enheden påvirker ikke vandstyrken, når der er tændt for vandet, uanset hvor den er installeret. Når forbrugeren vasker hænder, foregår det som altid, men LED-displayet gør altså, at forbrugeren skynder sig for at spare vand.

Bware slår med sit navn tydeligt sit mål fast (Be Aware, det vil sige: Vær opmærksom), og enheden er en effektiv måde at skabe opmærksomhed om vandspild på.

### **BWARE WATER METER**

DESIGN: ARIEL DRACH & ALEX SUDAK  
(ISRAEL), 2008



### EARTHQUAKE DISASTER + DESIGN

DESIGN: KAZUFUMI NAGAI, YUSUKE KAKEI, YASUHIKO KOZUKA, RYO YAMAZAKI, ARISA NISHIGAMI & TAKANORI DAIGO (JAPAN), 2008



## EVACUATION SHELTERS ARE A VITAL PLACE FOR SURVIVAL IN A NATURAL DISASTER

### NØDHJÆLPSLEJRE ER ALTAFGØRENDE FOR OVERLEVELSE EFTER EN NATURKATASTROFE

**ENG** Japan is one of the most earthquake-prone areas in the world, with Tokyo as the city most at risk from natural disaster. The earthquake disaster on March 11, 2011, was one of the biggest earthquakes ever recorded in the world. The results were devastating, with 550,000 people evacuated from their homes and 215,000 people sheltered in evacuation centers in the worst hit areas.

The mission of the Earthquake Disaster + design project is to show that design can play an essential role in bringing harmony and order to chaos and help create effective action. The design project basically focuses on evacuation shelters, a vital place for survivors in a natural disaster situation. To solve the various problems that might arise from living in these shelters, the project took form as an inter-disciplinary collaboration among academic institutions, industries and the professional creative community, including undergraduate and graduate students from the following disciplines: Architecture, landscape design, industrial design, visual

communication design, economics, education, medicine and communication.

The team behind Earthquake Disaster + design provided concrete solutions for Tokyo, but with relevance for the rest of the world, while at the same time demonstrating that intelligently applied design can ease the problems caused by earthquakes.

**DK** Japan er et af de mest jordskælvruede områder i verden, og Tokyo er den by, hvor der er størst risiko for naturkatastrofer. Jordskælvskatastrofen den 11. marts 2011 var et af de største jordskælv, der nogensinde er registreret, og følgerne var altødelæggende. 550.000 mennesker blev evakueret fra deres hjem, mens 215.000 mennesker søgte ly i nødhjælpslejre i de hårdest ramte områder.

Formålet med projektet Earthquake Disaster + design er at vise, at design kan spille en vigtig rolle i forbindelse

med at skabe harmoni, orden i kaos og effektiv hjælp. Designprojektet fokuserer primært på nødhjælpslejren, der er et vitalt sted for de overlevende under en naturkatastrofe, og med henblik på at løse de forskellige problemer, der kan opstå, når mennesker bor i lejre, var projektet et interdisciplinært samarbejde mellem akademiske institutioner, erhvervslivet og kreative fællesskaber, herunder bachelor- og kandidatstuderende fra fagene arkitektur, landskabsdesign, industrielt design, design af visuel kommunikation, økonomi, pædagogik, medicin og kommunikation.

Holdet bag Earthquake Disaster + design har fremlagt konkrete løsninger for Tokyo, der også har relevans for resten af verden. Samtidig blev det påvist, at intelligent design kan afhjælpe nogle af de problemer, der opstår i forbindelse med jordskælv.

# EASY TO BUY, EASY TO BUILD, EASY TO USE

## LET AT KØBE, LET AT BYGGE, LET AT BRUGE



### EASY LATRINE

DESIGN: JEFF CHAPIN  
(UNITED STATES OF AMERICA)  
& BEN CLOUET (FRANCE),  
2009

**ENG** Sanitation is one of the world's biggest problems, with 2.6 billion people without access to basic sanitation. Diarrhea kills more children than HIV/AIDS, malaria and tuberculosis combined. In rural Cambodia, 82% of homes do not have a toilet, and at the current rate of adoption it will take 30 years to reach just 30% coverage. Markets have the potential to create demand for sanitation but have failed to address the needs, wants and desires of the people in the developing world by creating purchase barriers such as poor information, difficult purchase processes and expensive solutions.

The Easy Latrine focuses on underground plumbing, which is the most critical component for public health and with an offset storage being the most desired type of latrine configuration. The cost-reducing manufacturing innovations have made the Easy Latrine affordable and accessible. It offers the most desirable type of latrine packaged as one simple product with an affordable price which anyone can install themselves.

The project has helped create over 29 sustainable enterprises and more than 11,500 Easy Latrines have been purchased by households, achieving a greater increase in latrine adoption than any other NGO or government program in Cambodia has been able to achieve in the past four years. With households being able to install the latrine themselves, no expensive skilled labor is needed and as a result the Easy Latrine marketplace has rapidly expanded to other provinces with more and more NGOs adopting the design. The design has demonstrated an incredible business opportunity for entrepreneurs in a sector that was traditionally believed to rely on NGOs and public sector support.

**DK** Manglende adgang til sanitet er en af de største globale udfordringer, og 2,6 milliarder mennesker i verden lever i dag uden adgang til grundlæggende sanitet. Diarré dræber flere børn end HIV/AIDS, malaria og tuberkulose sammenlagt, og i ilandsdistrikterne i Cambodja er der ikke toiletter i 82% af alle hjem. Med den nuværende hastighed vil det tage 30 år at få indført toiletter i bare 30% af disse hjemme. Potentialet til at skabe efterspørgsel for sanitet eksisterer, men markedet har ikke kunnet efterkomme udviklingslandenes behov og ønsker, hvilket pga. barrierer som ringe information, vanskelige indkøbsmuligheder og dyre løsninger.

Easy Latrine er først og fremmest installeret under jorden, hvilket er af afgørende betydning for den almene sundhed, og en ekstern opbevaringsenhed er den mest efterspurgte konfiguration blandt befolkningen. Besparende, nye produktionsmetoder har gjort Easy Latrine til en billig og tilgængelig løsning, og toilettdesignet er således en løsning til en overkommelig pris, som brugeren selv kan installere.

Projektet har ført til oprettelsen af over 29 bæredygtige virksomheder med over 11.500 solgte eksemplere af Easy Latrine. Det har givet en større stigning i sanitetsanskaffelser, end noget andet ngo-program eller statsstøttet program i Cambodja i de sidste fire år sammenlagt.

Idet toiletlet kan installeres af brugeren selv, er der ikke brug for faguddannet personale, og dermed har markedet for Easy Latrine hurtigt udvidet sig til andre provinser, hvor flere og flere ngo'er tager designet til sig. Designet har vist sig at være en rigtig god forretningsmulighed for iværksættere i en sektor, der traditionelt set har været afhængig af ngo'er og støtte fra den offentlige sektor.

**TO IMPROVE THE DINING EXPERIENCE FOR OLDER PEOPLE IN CARE WITH DEMENTIA GIVER ÆLDRE MED DEMENS STØRRE SPISEGLÆDE**

**ENG** As the population in developed and developing countries is aging rapidly, the number of people with dementia increases, which makes it one of the most important public health issues of our time. In the UK, it is forecast that by 2050 the number of people with dementia could more than double from 750,000 to 1.7 million, while in India, China, south Asia and the western Pacific, threefold increases are expected by 2040. This puts enormous pressure on care facilities, but at the same time designs to improve independence and interaction in this area are grossly underfunded.

The design of Eating, Design & Dementia focuses on two areas where design can play an effective role—tableware and table setting. Design solutions are consolidated into three groups: Low, medium and high assistance. The low assistance cup and plate compensate for poor vision and use color to ensure food contrasts with the plate and the plate edge is visible. The medium assistance, high-lipped plate helps people with limited dexterity to push food onto their spoon and keep it on the plate. The cup replaces double handled cups by removing the handles and replacing them with an insulated layer allowing for gross motor movement and easy grip. The high assistance plate is shaped for care workers to hold close to residents who can no longer feed themselves.

These designs will improve the lives of care home residents and users who need assistance when eating, and at the same time help improve nutritional health and over-all quality of life.

**EATING, DESIGN & DEMENTIA**

DESIGN: GREGOR J. TIMLIN (IRELAND), 2009

**DK** Da gennemsnitsalderen overalt i verden bliver højere og højere, stiger antallet af mennesker med demens også, hvilket gør lidelsen til en af de største sundhedsudfordringer i verden. I Storbritannien vurderes det, at antallet af borgere med demens vil være mindst dobbelt så stort i 2050 (1,7 millioner mod 750.000 i dag), mens der i 2040 forventes en tredobling af det aktuelle antal i Indien og Kina. Dette lægger et enormt pres på plejehjemmene, og samtidig er design, der skal fremme selvstændighed og kommunikation på dette område, voldsomt underfinansieret.

Eating, Design & Dementia fokuserer på to områder, hvor design kan spille en effektiv rolle; nemlig service og borddækning. Løsningerne opdeles i tre grupper: Lavt, mellem og højt niveau af behov for assistance. Kop og tallerken til lavt niveau kompenserer for nedsat syn og bruger farver, så maden er i kontrast med tallerkenen, og kanten af tallerkenen bliver tydelig. Tallerkenen til mellemniveauet har høj kant og hjælper personer med begrænset fingerfærdighed med at skubbe maden op på skeen og holde den på tallerkenen. Koppen erstatter kopper med to håndtag ved at fjerne håndtagene og i stedet udstyre koppen med et isolerende lag udenpå, der giver mulighed for et godt greb. Tallerkenen til det højeste niveau er formet, så plejerne kan holde den tæt hen til de beboere, der har brug for hjælp til at spise.

Eating, Design & Dementia forbedrer livet for plejehjemsbeboere, der har brug for hjælp, når de spiser, og samtidig forbedrer det den ernæringsmæssige sundhed og den generelle livskvalitet.





# USING PACKAGING FROM UN SHIPMENTS TO BENEFIT PEOPLE IN NEED

## PAPKASSER FRA FN-LEVERANCER, DER GENBRUGES TIL FORDEL FOR NØDLIDENDE

**INCREASED VALUE FOR UN HUMANITARIAN AID PACKAGING (IVUHAP)**  
DESIGN: MARTIN JØRGENSEN (DENMARK), 2010



**ENG** The Increased Value for UN Humanitarian Aid Packaging project was inspired by the Haiti earthquake in January 2010 that killed almost 250,000 people and left more than one million homeless. All over the country, tent cities replaced what used to be cities and villages. In many of them, families of up to eight people share the same tent. The UN reports that more than one million people, including approximately 380,000 children, are still living in crowded camps in the earthquake zone one year after the earthquake hit the country. Turning packaging into furniture, games or educational material will not eliminate their problems, but hopefully make them a bit easier to overcome.

When disaster strikes and humanitarian aid is needed, one of the immediate challenges is getting the aid into the disaster zones. The capacity of airports and roads is in many cases insufficient; therefore nothing should take up space in transport that does not directly help the population. The packaging material is in that sense a hidden passenger; it is needed for the transport but at the same time takes up valuable space.

The Increased Value for UN Humanitarian Aid Packaging design is made for 38 different box-IDs with as

many receivers. The boxes can either go to families as furniture, to children with games printed on the outside or to field hospitals and be turned into a stackable shelving system to keep order in medicine or office supplies. Most of the materials that are sent from the UN are packed in specific boxes that are custom-made for their exact content, which means that the box-ID reveals who the receiver is long before production.

**DK** Projektet Increased Value for UN Humanitarian Aid Packaging er inspireret af jordskælvet i Haiti i januar 2010, der dræbte næsten 250.000 mennesker og gjorde over en million hjemløse. I hele Haiti har teltbyer erstattet det, der før var byer og landsbyer, og i mange af dem bor der familier på op til otte i samme telt. FN anslår, at over én million mennesker, herunder ca. 380.000 børn, stadig bor tæt sammen i lejre i jordskælvsområdet et år efter katastrofen.

Det at kunne omdanne færdigbrugt emballage til møbler, spil eller undervisningsmateriale kan ikke fjerne problemerne, men gøre dem lidt lettere at leve med. Når katastrofer rammer, og der opstår behov for humanitær hjælp, er en af de første udfordringer at transportere hjælpen ind i katastrofeområderne.

I mange tilfælde har lufthavne og veje ikke kapacitet nok, og derfor bør alt, som optager plads i transporten, også kunne hjælpe befolkningen direkte. Emballagen er i den forstand en blind passager. Den er nødvendig, men optager samtidig værdifuld plads.

Designet Increased Value for UN Humanitarian Aid Packaging er lavet til 38 forskellige papkasser med lige så mange forskellige anvendelsesmuligheder. Kasserne kan enten bruges af familierne som møbler, der kan trykkes forskellige typer af spil udenpå til børnene, eller de kan bruges på felthospitaler, hvor de kan laves om til reolsystemer til medicin eller kontorudstyr.

Det meste nødhjælp, der sendes fra FN, er pakket i bestemte kasser, der er lavet specifikt til indholdet, hvilket betyder, at kassens id viser hvem modtageren er, længe inden den produceres, således at man kan optimere de multifunktionelle IVUHAP-kassers brugbarhed.



# INDEX: AWARD 2011 WINNER ELEMENTAL MONTERREY | 70 INCREMENTAL HOUSING COMPLEX

## SOCIAL HOUSING IN A GROUND-BREAKING NEW WAY

**ELEMENTAL Monterrey consists of a three-story building, with a nine-meter wide house on the ground floor and a duplex apartment on top of it. Both units have a framed void that can be filled by the owners according to their own specific needs, capabilities and preferences. The project provides 70 basic houses with bathrooms, kitchens and staircases - leaving voids that allow residents to adapt and expand each property themselves when it is convenient and when they can afford it until a middle income standard is achieved.**

### WHAT IS THE PROBLEM?

In the 21<sup>st</sup> century, for the first time in human history, a majority of the world's population is urbanized, living in cities, towns and other urban places. During the coming decades, the most rapid global population growth will be in the urban areas of the developed and developing world. This creates great challenges for city planners in carrying out sustainable urban development projects, and the biggest problem is to create access to the opportunities which cities tend to concentrate in small areas - jobs, markets, education, health, recreation and social assistance. Because those opportunities are not in the outskirts of cities where land is cheap and where many people tend to be expelled to.

ELEMENTAL's Alejandro Aravena elaborates: "Scarcity of means generates two problems: Reduction of size and displacement. Units are reduced to unacceptable standards and land being a limited resource, social housing tends to be located in the outskirts, segregated from opportunities, where land is cheap."

### WILL MEGACITIES BE CONCENTRATED SLUM OR JUST CONCENTRATED?

Most countries have urbanized significantly since the 1950's and are projected to continue this process through the middle of the 21st century - the percentage of the world's population living in urban areas has, in fact, just passed the 50 percent mark. Furthermore,

approximately one-sixth of the world's population now lives in shanty towns and if no serious action is taken to address the growing slum challenge, it is estimated that the slum population will increase from 32 percent of the world's total urban population in 2010 to about 41 percent in 2030. Finally, almost all of the world's total population increase during the period 2010-2030 will take place in urban areas, with rural areas' growth being just about static. Nevertheless, megacities offer great opportunities: According to the OECD, Mexico City and São Paulo produce around 50 percent of the national GDP of Mexico, while Bangkok contributes with more than 40 percent to the GDP of Thailand, although it is home to only 10% of the country's population. "Shanty towns are normally seen as the incapacity of people to provide themselves with decent living conditions; but slums are in fact, also an enormous economical and productive force able to mobilize huge amounts of resources for self construction. Instead of fighting the informal settling of people, we should be channeling it strategically. Actually, no, there is no clear and feasible answer to the urbanization challenge unless we consider the capacity of the people to build their own environment. The real scarce resource then, will not be money, but coordination", Alejandro Aravena explains.

### HALF A HOUSE MAKES A WHOLE COMMUNITY

"Public money allows to build 36m<sup>2</sup>. The market designs that as if it was a small house. We thought of reframing the problem: what if 36m<sup>2</sup> are thought as half of a good house instead of a small one? Once the problem is reframed, the key question is which half do we do?", Alejandro Aravena asks. ELEMENTAL Monterrey uses the strategy of investing state resources to build "the difficult half" of the home, the one that requires coordination. Given that almost 50 percent of the square meters of the complex will be self-built, it allows for growth to occur within the structure and within people's (economic) capabilities. By using the old 1970's incremental housing, an open system was introduced that allows a family's own capacity of action and self-construction to be added to the solution. This openness dissolves the old critique to social housing, namely the monotonous repetition of solutions which is unable to

accommodate the diversity of needs, preferences and expectations of people.

"The design of ELEMENTAL Monterrey takes a different approach to a complex problem, and it is clear that the design team considered the whole system. Normally you'd use 30 percent of the development budget to buy the land, and 70 percent to build the house. In this case, they used 80 percent to buy the land, in the city, closer to where people work, which allows for less commuting, and only 20 percent to build the house. This ensures that residents can save substantial sums of their limited disposable which all together creates a new and very interesting value transfer", the INDEX: Jury explains

### LOCATION, LOCATION, LOCATION

In order to deal with scarce resources, Elemental introduced Incremental Design; the government delivers what families can't do privately and people expand afterwards, allowing housing to work as a social investment and not as a mere public expense. The design is low rise but dense enough so that it allows paying for expensive, well located land, without overcrowding and with capacity for expansions. Alejandro Aravena goes on: "By framing the void for that expansion to happen, we are not only making the process structurally safe and economic for the families, but also taking care of the future quality of the neighborhood after self-construction. This is important because we are looking for value gain of the properties. All of us, when buying a house expect it to grow its value over time. We identified a set of design conditions that allow a unit to increase its value over time, and if that happens, housing can be understood as an investment and not as a mere social expense."

The INDEX: Jury says about the INDEX: Award winner: "Providing the basic utilities and infrastructure allows the user to customize non-technical aspects of the home, which provides a sense of ownership and the possibility of expansion and flexibility - allowing your home to grow with your needs and resources. Finally, the fact that the design is replicable to other major cities, while at the same time being an example of great architecture with an interesting form, is something very unique."



**DESIGN:** ELEMENTAL **DESIGNER(S):** Alejandro Aravena, Fernando García-Huidobro, Gonzalo Arteaga **PHOTOGRAPHER:** Ramiro Ramirez (Mexico) **YEAR:** 2008 **COUNTRY:** Chile **COLLABORATOR:** Ramiro Ramirez **CLIENT:** Nuevo León Housing Institute (IVNL) **ENGINEERING:** Projects and Technological Innovation Department, IVNL **CONSTRUCTION:** Constructora AXIS **IP STATUS:** Patent **WEBSITE:** www.elementalchile.cl/viviendas/monterrey-las-anacuas **NUMBERS:** More than 1 billion people live in slums / Over the next 30 years, the world's slum population will, on average, increase by 100,000 each day / By 2030, the world's slum populations could rise to 2 billion if no action is taken / An estimated 40 million of Latin America's 200 million people are urban slum dwellers / An estimated 4.6 million Mexican families are considered having inadequate or poor housing (under-housed)

## SOCIALT BOLIGBYGGERI PÅ EN BANEVRYDENDE MÅDE

**ELEMENTAL Monterrey består af en treetagers bygning med et ni meter bredt hus på jorden og en toplanlejlighed ovenpå. Begge enheder har et tomrum med en ramme omkring, der kan udfyldes af ejerne alt efter deres specifikke behov, evner og præferencer. Projektet indeholder 70 huse med badeværelser, køkkener og trapper – efterladende tomrum, der tillader beboerne at tilpasse og udvide deres eget hus, når det er bekvemt og når de har råd til det, indtil de når middelklassestandard.**

### HVAD ER PROBLEMET?

For første gang i menneskets historie bor et flertal af verdens befolkning i dag i byer. I de kommende år vil den hastigste befolkningsvækst være i urbane områder i både udviklede- og udviklingslande, og det skaber en central udfordring for byplanlæggere, der forsøger at lave bæredygtige urbane udviklingsprojekter. Den største udfordring er at skabe adgang til de muligheder, der opstår, og som byer skaber indenfor relativt små områder – jobs, markeder, uddannelse, sundhed og sociale services. Disse muligheder findes ikke i udkantsområder, hvor jorden er billigere og hvor mange folk bliver bortvist til. Alejandro Aravena fra ELEMENTAL uddyber: "Knapthed på ressourcer skaber to slags problemer: For små boliger og fordrivelse af folk. Boliger bliver reduceret til uacceptable standarder, og jord bliver en begrænset ressource. Socialt boligbyggeri plejer at være i udkanten af byer, hvor jorden er billig, men hvor folk, der bor der, er afskåret fra muligheder."

### VIL MEGABYER BLIVE KONCENTRERET ELLER VIL SLUM BARE BLIVE KONCENTRERET?

De fleste lande har oplevet en kraftig urbanisering siden 1950'erne og forventes at fortsætte denne udvikling til midten af det 21. århundrede - den procentdel af verdens befolkning, der bor i byområder, har netop passeret 50 procent. Desuden bor nu cirka en sjettedel af verdens befolkning i slumkvarterer, og hvis der ikke træffes forholdsregler for at tackle det stigende slumproblem anslås det, at slumbefolkningen

vil stige fra 32 procent af verdens samlede befolkning i byerne i 2010 til omkring 41 procent i 2030. Endelig vil næsten hele verdens samlede befolkningsforøgelse i løbet af perioden 2010-2030 finde sted i byområder mens landdistrikters vækst vil være næsten statisk. Ikke desto mindre giver megabyer gode muligheder: Ifølge OECD producerer Mexico City og São Paulo omkring 50 procent af det nationale BNP i Mexico og Brasilien, mens Bangkok bidrager med mere end 40 procent til Thailands BNP, selvom byen kun er hjemsted for 10 pct. af landets befolkning. "Slumbyer bliver normalt anset som menneskers manglende evne til at give sig selv anstændige levevilkår, men slummen er i virkeligheden også en enorm økonomisk og produktiv kraft i stand til at mobilisere enorme mængder af ressourcer til selvstændig opbygning. I stedet for at bekæmpe denne form for beboelse, burde vi kanalisere det strategisk. Faktisk findes der intet klart eller realistisk svar på urbaniseringens udfordring, medmindre vi tager folks egen kapacitet til at konstruere deres miljø i betragtning. Den virkelige knappe ressource vil da ikke være penge, men koordinering" forklarer Alejandro Aravena.

### ET HALVT HUS SKABER ET HELT FÆLLESSKAB

"Offentlige penge gør det kun muligt at bygge max 36m<sup>2</sup>. Markedet designer det, som om det var et lille hus. Vi tænkte, at man kunne se problemet på en anden måde: Hvad nu hvis 36m<sup>2</sup> er tænkt som et halvt godt hus i stedet for som et lille dårligt hus? Så snart problemet er blevet sat i en anden ramme, bliver nøglespørgsmålet i stedet, hvilken halvdel skal vi lave?", siger Alejandro Aravena.

ELEMENTAL Monterrey bruger den strategi, at de investerer offentlige ressourcer i at bygge "den besværlige halvdel" af huset, den del der kræver koordination. Når næsten 50 procent af kompleksets kvadratmeter er hjemmebyggede, gør det, at der opstår vækst indenfor strukturen og indenfor folks (økonomiske) ydeevne. Ved at bruge en byggeform med trinvis forbedringer fra 70'erne, er der blevet skabt et system, der gør det muligt for en families egen kapacitet og selvbyggeri at blive tilføjet løsningen. Denne åbenhed udviser den gamle kritik af socialt boligbyggeri, især de ensformige løsninger, som ikke er i stand til at rumme den mang-

foldighed af behov, præferencer og forventninger som mennesket har.

"ELEMENTAL Monterrey har taget en anderledes tilgang til et komplekst problem, og det er klart at designholdet har taget hele systemet i betragtning. Normalt ville man bruge 30 procent af udviklingsbudgettet til at købe jorden for og 70 procent til at bygge huset med. I det her tilfælde har de brugt 80 procent til at købe land centralt i byen, tættere på hvor folk arbejder, hvilket mindsker behovet for at pendle, og 20 procent på at bygge huset. Det sikrer, at beboerne kan spare store beløb af deres i forvejen begrænsede disponible midler, hvilket – når man lægger det hele sammen – skaber en ny og meget interessant værdioverførsel", forklarer INDEX: juryen

### LOCATION, LOCATION, LOCATION

For at adressere problemet med knappe ressourcer introducerede ELEMENTAL Incremental Design; staten tilvejebringer det, som familier ikke kan klare selv og folk udvider derefter, således at boligen også fungerer som en social investering og ikke bare som en offentlig udgift. Designet af bygningen er ikke så højt, men tæt nok til at det tillader, at der kan betales for dyrt, og godt placeret land, uden at man overbefolker, og med mulighed for udvidelse. Alejandro Aravena fortæller: "Ved at indramme det tomrum, hvori udvidelse kan finde sted, gør vi ikke bare processen strukturelt sikker og økonomisk sikker for familierne, men vi tager os også af kvarteret i fremtiden efter selvbyggeriet. Dette er vigtigt, da vi er på udkig efter værdiforøgelse for ejendommene. Vi forventer alle, at når vi køber et hus, vil dets værdi forøges over tid. Vi identificerede et sæt designbetingelser, der ville værdiforøge en bolig over tid. Hvis det sker, kan socialt boligbyggeri blive set som en investering og ikke bare en social udgift."

INDEX: Juryen siger: "Basale værktøjer og infrastruktur gør brugeren i stand til at tilpasse de ikke-tekniske dele af hjemmet, hvilket skaber en følelse af ejerskab samt mulighed for udvidelse og fleksibilitet – således at det tillader hjemmet at gro med behov og ressourcer. Det faktum, at designet kan reproducere i andre storbyer, mens det på samme tid er et eksempel på storslået arkitektur med en interessant form, gør det meget unikt."

**CHALLENGING THE TRADITIONAL ENERGY-EFFICIENT LIGHT BULBS IN A FUN AND INNOVATIVE DESIGN**  
 UDFORDRER DEN TRADITIONELLE LAVENERGIPÆRE MED ET SJOVT OG NYSKABENDE DESIGN

**PLUMEN 001**

DESIGN: SAMUEL WILKINSON & HULGER  
 (UNITED KINGDOM), 2007

**ENG** Unsatisfied with the trivial selection of low energy light bulbs available today, the design firm Hulger sought to broaden their appeal by exploring different design options. Despite there being an abundance of low energy light bulb producers, Hulger saw only three basic bulb formats available: The Radiator, The Ice Cream Whip and the Tungsten-esc types. Each style is uniform in shape and with little variation. It seems strange that the bulb, an object so synonymous with ideas, is almost entirely absent of imagination.

Hulger's beautiful re-envisioning of the common low energy light bulb is motivated by a desire for people to purchase the bulbs from not only a sustainability perspective, but also from an aesthetic perspective. Named for the plume-like forms that spiral and descend from the light's pendant fitting, these bulbs encourage the use of low energy light bulbs. The Plumen works like any other high quality low energy bulb—saving you 80% on your energy bills and lasting eight times longer than a standard incandescent bulb. Finally, the Plumen screws into any standard bulb fitting, gives off a warm white light and will work shaded or even better, completely exposed.

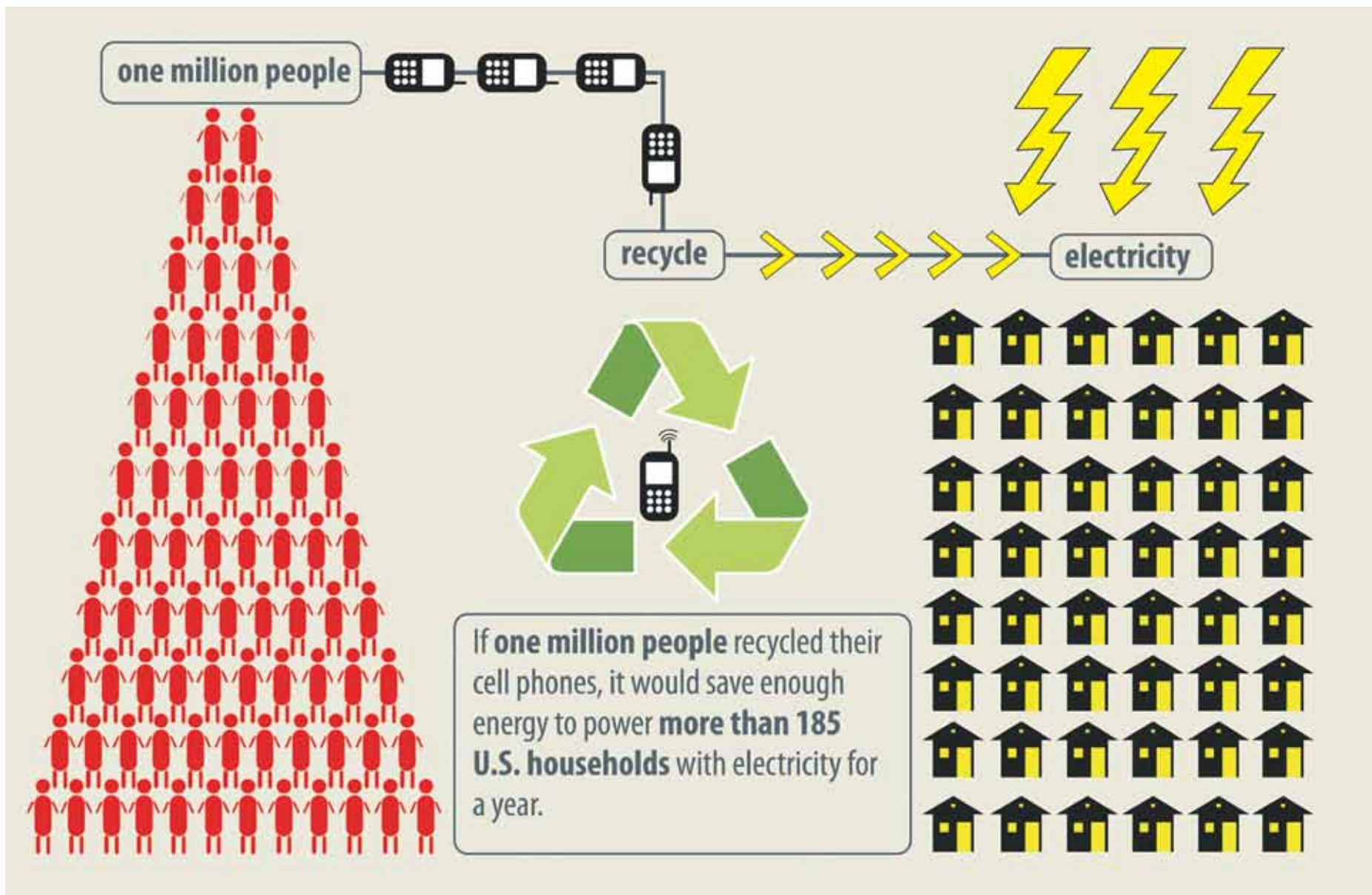
The Plumen 001 offers a new vision for the low energy light bulb, encouraging us to use them out of desire rather than moral obligation.

**DK** Designfirmaet Hulger var utilfreds med det udvalg af lavenergipærer, der er tilgængeligt i dag, og fik derfor den idé at gøre dem mere tiltrækkende ved at afprøve forskellige typer design. Selvom der er et stort antal forskellige producenter af lavenergipærer, kunne Hulger kun finde tre forskellige grundlæggende former; Radiator, Iskage og Tungsten. Det virkede mærkeligt, at lyspæren, der er et kendt symbol på dét at få en god idé, næsten er komplet idéforladt.

Hulgers smukke nytænkning af den almindelige lavenergipære er inspireret af ønsket om, at folk skal købe dem, ikke kun af hensyn til bæredygtigheden, men også af æstetiske grunde. Pærerne er opkaldt efter røgspiralen, der slynger sig ned fra lysets fatning, og Plumen fungerer som alle andre lavenergipærer af høj kvalitet; den reducerer nemlig elregningen med 80% og har otte gange længere levetid end normale glødepærer. Endelig kan Plumen skrues fast i alle standardfatninger og giver et varmt, hvidt lys. Den virker bedst, når den er helt blotlagt, men fungerer også afskærmet.

Plumen 001 er et nyt bud på en lavenergipære, der får forbrugerne til at bruge den af lyst snarere end af pligt.





## HIGHLIGHTING THE ENVIRONMENTAL IMPACT OF CONSUMER CHOICES

### FOKUS PÅ FORBRUGERNES PÅVIRKNING AF MILJØET



#### THE SECRET LIFE SERIES

DESIGN: VIRGINIA RAMSEY, NATE ACKERMAN, LOCH PHILLIPS & YOGEETA DASTANE (UNITED STATES OF AMERICA), 2010

**ENG** The environment is in crisis, yet governments have not been able to co-operate on solutions because politics and misinformation always get in the way. And despite the impending climate crisis, only 18% of Americans take action to combat global warming or act in environmentally responsible ways. Many people do not understand how things are produced, what happens as a result of the production process or where things go after they are discarded.

However, once people have access to the tools necessary to understand a product's life cycle, they recognize their own role in the value chain, which enables them to make greener choices. The Secret Life videos are done in documentary style with a light touch, the videos are concise,

entertaining and have the potential to reach viewers of diverse backgrounds in a multitude of contexts. The videos combine interviews with ordinary people, scientists, researchers and green entrepreneurs with humorous animation, music and stock footage to produce entertaining and thoroughly researched accounts of the subjects.

The videos are designed to be easy to understand and nonpolitical in order to communicate with as wide an audience as possible and provide solutions that empower viewers from all walks of life to take more environmentally responsible actions. The Secret Life series decisively transcends politics in an effort to inspire a bottom-up movement.

**DK** Miljøet er i fare, men regeringer har endnu ikke kunnet samarbejde om at finde løsninger, fordi politik og vildledende informationer altid kommer på tværs. På trods af den truende klimakrise er det kun 18% af amerikanerne, der gør noget for at bekæmpe global opvarmning, eller handler med omtanke for miljøet. Mange mennesker forstår ikke, hvordan ting produce-

res, hvad produktionsprocesserne medfører, eller hvor ting ender, når de er blevet smidt ud.

Men når folk har adgang til informationer, der sætter dem i stand til at forstå produkters livscyklus, kan de se, hvilken rolle de selv spiller i værdikæden, hvilket gør det muligt for dem at foretage klogere valg. Secret Life-videoerne laves i dokumentarstil med en let tone, og videoerne er konkrete, underholdende og har potentiale til at nå ud til seere med forskellige baggrunde og i en lang række forskellige sammenhænge. Videoerne kombinerer desuden interviews med almindelige mennesker, forskere og grønne iværksættere med humoristiske animationer og musik, hvilket giver en underholdende, men samtidig seriøs gennemgang af de forskellige emner.

Videoerne er letforståelige og ikke politiske, så de kan nå ud til et så bredt publikum som muligt og foreslå løsninger, der gør seerne i stand til at handle mere miljøvenligt.

Serien Secret Life har som mål at inspirere til græsrodsaktivisme.



**TULIP SIPHON WATER FILTER**  
 DESIGN: KLAAS VAN DER VEN  
 (THE NETHERLANDS), 2008

## AN INNOVATIVE, LOW-COST WATER FILTER FOR FAMILIES IN DEVELOPING COUNTRIES

### ET INNOVATIVT OG BILLIGT VANDFILTER TIL FAMILIER I UDVIKLINGSLANDE

**ENG** Hundreds of millions of people still use unsafe drinking water sources. Inadequate access to safe water and sanitation services, coupled with poor hygiene practices, kills and sickens thousands of children every day and leads to impoverishment and diminished opportunities for millions more.

The Tulip Water Filter is designed as a point-of-use filter in households. The filter element is impregnated with silver in order to increase the bacterial removal efficiency of the filter and to reduce the recontamination risk of stored filtered water. By using a hose with a siphon approach, the flow per hour multiplies. The innovative design results in a high flow rate of 4-5 liters per hour, while the filter element can be cleaned by backwashing.

A rubber bulb is used to start the flow and to backwash the filter element. To prevent premature clogging of the filter element in dirty water, a washable pre-filter is added. By pressing and releasing the bulb, a valve closes

and the vacuum in the bulb starts a siphoning process, passing water through a ceramic filter. Filtered water flows by gravity into a storage container for safe drinking water. When flow becomes too low, by closing the tap and pressing the bulb, most of the collected dirt will be blown out of the filter (backwashing).

Usage of the Tulip Water Filter could improve health by reducing water borne diseases, costs for medical treatment and lost working days.

**DK** Mange millioner mennesker får stadig drikkevand fra usikre kilder. Manglende adgang til rent vand og sanitet, kombineret med dårlige hygiejnevener, dræber og påfører tusindvis af børn sygdomme hver eneste dag og fører til fattigdom og forringede muligheder for millioner af mennesker.

Tulip er et husholdningsvandfilter. Filteret er imprægneret med sølv, så det mere effektivt kan fjerne bakterier,

og samtidig mindsker det risikoen for, at det opbevarede filtrerede vand bliver snavset igen. En gummikugle starter gennemløbet, og for at forebygge at filterelementet tilstoppes for tidligt i det snavsede vand, er der tilsat et forfilter, der kan rengøres. Ved at trykke én gang på kuglen lukkes en ventil, og vakuummet i kuglen begynder en opsugningsproces, hvor vandet løber gennem et keramikfilter. Det filtrerede vand løber ved hjælp af tyngdekraften ned i en beholder, hvorfra det kan bruges som rent drikkevand. Ved at bruge en slange med en vandlås øges gennemløbet fra beholder til beholder, og dette nyskabende design kan filtrere 4-5 liter vand i timen.

Med Tulip Siphon Water Filter kan man nedbringe antallet af sygdomstilfælde, der skyldes snavset drikkevand, og desuden mindske medicinudgifter og tabt arbejdstid.

**WASARA**DESIGN: SHINICHIRO OGATA  
(JAPAN), 2008

# BIODEGRADABLE TABLEWARE FOR ONE-TIME USE

## BIOLOGISK NEDBRYDELIGT ENGANGSSERVICE

**ENG** Existing paper tableware generally offers only minimal strength and quality. Moreover, it is seldom designed to be either practical or visually pleasing. Featuring the aesthetic and sensitive design that invokes the feel of Japanese ceramics, WASARA fits comfortably in the hand, with an elegant form and sturdy support.

With its elegant pure Japanese design, WASARA truly offers the best in biodegradable, disposable tableware. WASARA is made entirely from tree-free renewable materials using materials such as sugar cane fibers, bamboo and reed pulps.

WASARA is a product of idiosyncratic Japanese sensibility. Japanese culture has the technique of shakkei, which interprets the landscape seen through a window as a part of the interior. It represents the spirit of living in harmony with nature. A lattice and a shoji screen create a certain type of beauty with a repetition of simple patterns. WASARA is paper tableware inheriting such spirit. Fitting comfortably in the hands, WASARA has a sense of stability and accentuates food and drink. While WASARA tableware is by design temporary, it represents the essence of Japanese tradition and spirit.

**DK** Eksisterende papservice kan som regel kun tilbyde minimal styrke og kvalitet. Desuden er det sjældent designet til at være praktisk eller pænt at se på. Med det æstetiske og nænsomme design, der leder tankerne hen på japansk keramik, ligger WASARA godt i hånden med sin elegante form og robuste kvalitet.

Med det elegante og rene japanske design er WASARA det bedste inden for biologisk nedbrydelig engangsservice. WASARA er udelukkende lavet af bæredygtige materialer som for eksempel fibre fra sukkerrør og bambus.

Shakkei-teknikken er en del af den japanske kultur. Teknikken går ud på, at man fortolker det landskab, der ses gennem vinduet, som en del af boligindretningen, og WASARA er inspireret af denne teknik.

WASARA er behageligt at holde på, føles stabilt og fremhæver både mad og drikkevarer. WASARA papservice er dybt inspireret af den japanske designtradition

# WORK CATEGORY

- ASK NATURE
- AUTODESK SUSTAINABILITY WORKSHOP
- BUSINESS MODEL GENERATION
- DESIGN FOR CHANGE
- ENVIROMESH
- HACKFWD
- LULAN ARTISANS BUSINESS STRATEGY
- MYCOBOND
- NOVACEM
- PUMA CLEVER LITTLE BAG
- SANA

**ENG** The WORK category comprises all designs related to the workplace, for example: Architecture and interior design, work tools, education, manufacturing machines, online services, control and management systems. Including strategies for work environment issues as well as strategies for organizational and managerial development.

**DK** WORK-kategorien indeholder alle designs der relaterer sig til arbejde, f.eks.: arkitektur, interiør design, uddannelse, værktøj, fremstillingsmaskiner og online-services, kontrol- og managementsystemer. Endvidere strategier for arbejdsmiljøforbedringer samt strategier for organisations- og managementudvikling.







**ASKNATURE BIOMIMICRY WEBSITE**  
 DESIGN: JANINE BENYUS, SHERRY RITTER,  
 MEGAN SCHUKNECHT, JON-MICHAEL DELDIN,  
 ANDREA LEGGITT & ALI SOLOMON  
 (UNITED STATES OF AMERICA), 2008

# A FREE DATABASE OF NATURE'S SURVIVAL STRATEGIES FOR USE IN SUSTAINABLE DESIGN

## EN GRATIS DATABASE OVER NATURENS OVERLEVELSESSTRATEGIER

**ENG** AskNature is the only free, open source website devoted to cataloging nature's survival strategies by biological function. For example, when engineers want to know how nature adheres, they could type "attach" in AskNature and find corresponding strategies, such as the specialized pads of sucker-footed bats and sticky proteins that help mussels attach to wet, dirty surfaces.

These strategy pages provide users with a summary of the inspiring organism's tactic, an excerpt from a scientific journal, expert references, photographs or videos and possible design applications or current products based on the strategy. The strategy pages also contain natural history information about the organism, including if it is in danger of extinction, as well as the chance for users to comment or share design ideas.

The Biomimicry Institute launched AskNature in 2008 to foster a respect for life based on what we can learn from nature rather than on what we can extract from it. We are not the first species to build, purify water, fight infection or fly. Living things have done everything we want to do, without guzzling fossil fuel, polluting the planet or mortgaging their future. After 3.8 billion years of research and development, the species that exist today have secrets to survival that we can learn from and

emulate. AskNature brings biology out of the darkness of journals and laboratories and into a common space — a free, open source space — and puts scientific language into accessible terms that biologists, physicists, chemists, as well as architects, business leaders and designers can understand.

The goal of AskNature is to give innovators access to nature's strategies, so that when they begin a project, the first question they ask is: "How would nature do this?"

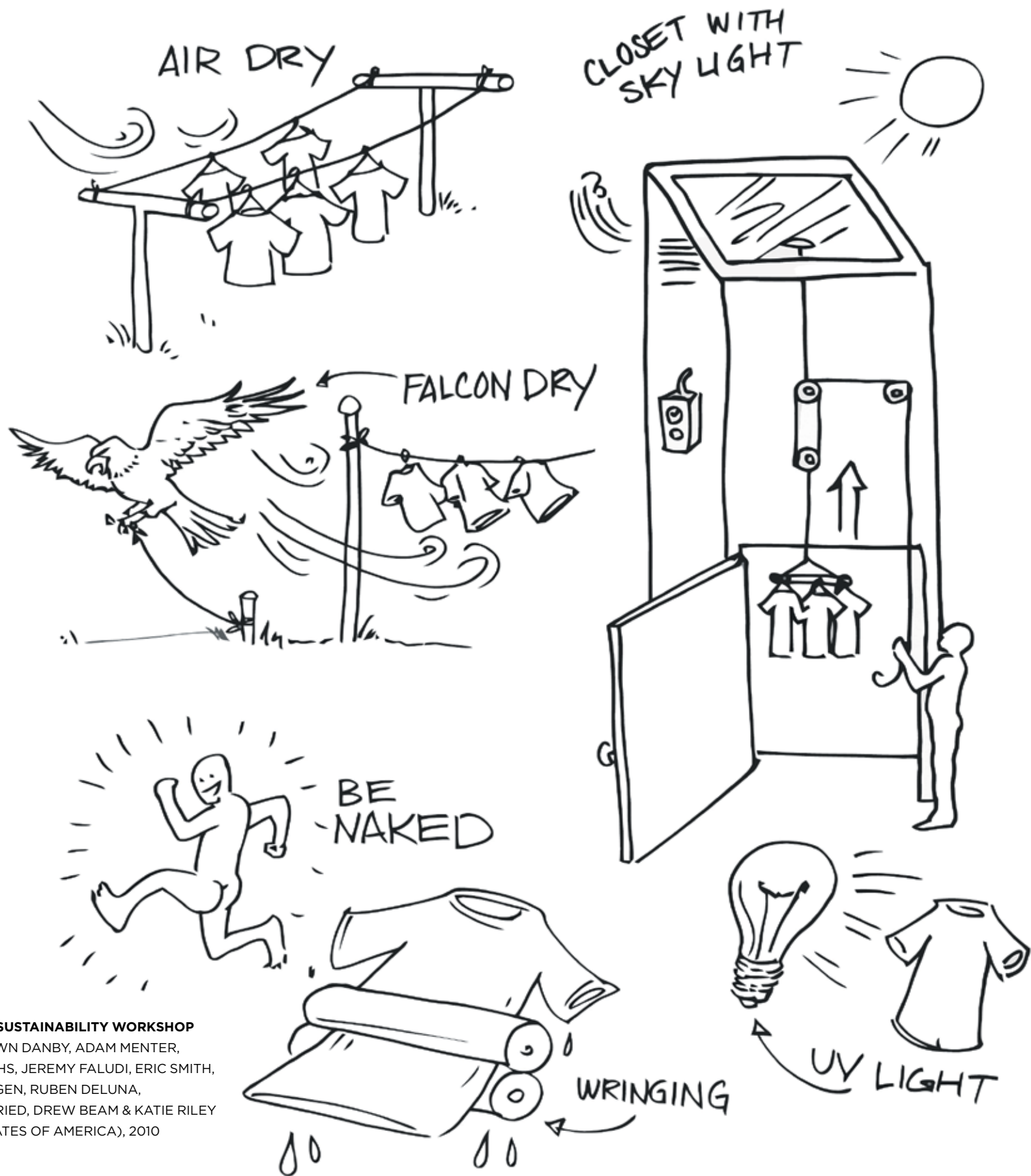
**DK** AskNature er den eneste gratis, open source hjemmeside, der beskæftiger sig med at kategorisere naturens overlevelsesstrategier. Når ingeniører for eksempel gerne vil vide, hvordan naturen klæber ting sammen, kan de taste "klæbe" i AskNature søgefeltet og finde eksempler på, hvordan naturen i løbet af millioner af år har forfinet forskellige klæbemekanismer hos dyr, planter etc. F.eks. findes der specielle puder på flagermusens sugefodder og der findes klæbende proteiner, der hjælper muslinger med at sidde fast på våde overflader.

Websitet giver brugerne en oversigt over inspirerende organismers taktik, et udsnit fra et videnskabeligt tidsskrift, henvisninger til eksperter, fotografier og videoer samt mulige designanvendelser eller nuværende pro-

dukter baseret på naturens eksisterende løsninger. Oversigten indeholder også naturhistoriske informationer, f.eks. om en organisme er udryddelsestruet. Brugerne har også mulighed for at kommentere eller dele designidéer.

Biomimicry Institute lancerede AskNature i 2008 for at skabe respekt for livet med fokus på, hvad vi kan lære af naturen, snarere end hvad vi kan få ud af den. Vi er jo ikke den første art, der bygger, renser vand, bekæmper infektioner og flyver. Andre levende organismer har allerede gjort alt det, vi gerne vil, men uden at bruge fossile brændstoffer, forurene planeten eller trække veksler på fremtiden. Efter 3,8 mia. års forskning og udvikling gemmer de arter, der findes i dag, på hemmeligheder, som vi kan lære af og efterligne. AskNature trækker biologien ud af de mørke laboratorier og ind i et fælles, åbent rum og sætter almindelige ord på det videnskabelige sprog, som biologer, fysikere, kemikere arkitekter, forretningsledere og designere kan forstå.

Formålet med AskNature er at give udviklere gratis adgang til naturens strategier, så de, når de starter på et nyt projekt, straks spørger sig selv: "Hvordan ville naturen gøre det her?"



**AUTODESK SUSTAINABILITY WORKSHOP**  
 DESIGN: DAWN DANBY, ADAM MENTER,  
 JONAH SACHS, JEREMY FALUDI, ERIC SMITH,  
 ERICA PRIGGEN, RUBEN DELUNA,  
 JULIET UNFRIED, DREW BEAM & KATIE RILEY  
 (UNITED STATES OF AMERICA), 2010

## A FREE ONLINE RESOURCE TEACHING SUSTAINABLE ENGINEERING ONLINE UNDERVISNING I BÆREDYGTIG PRODUKTION

**ENG** Tens of thousands of young engineers and designers enter the workforce every year. At the same time, they are often trained to focus on fixing small things—not to look at the whole system. Sustainable design is still completely missing from most design and engineering programs. Engineering courses focus on important theory and principles, but often fail to link theory to the practical and hands-on.

The Autodesk Sustainability Workshop is a teaching resource using videos, tutorials and case studies to teach basic principles of sustainable design and engineering. One video introduces an artist drawing ideas “at the speed of thought” as a perfect solution, engaging both

the visual and verbal parts of the brain. The Autodesk Sustainability Workshop can be accessed through a range of mobile devices. Using short films, a core of topics about sustainable design is presented. The films are followed by more concrete tutorials which put the ideas into practice. A further benefit of the Sustainability Workshop is that the content is free to anyone, usable in multiple ways and easy to access.

The aspiration of Sustainability Workshop is to improve how students imagine, design and create our built environment. The workshop inspires and trains the next generation of engineers to incorporate sustainability into their design process.

**DK** Titusinder af unge ingeniører og designere træder hvert år ind på arbejdsmarkedet, og de er ofte blevet uddannet til at fokusere på de små detaljer, og ikke til at se på det overordnede system. Bæredygtigt design glimter stadig ved sit fravær på de fleste større design- og ingeniøruddannelser, og disse uddannelserne fokuserer istedet på vigtige teorier og principper, men knytter sjældent teorien sammen med praktisk kunnen.

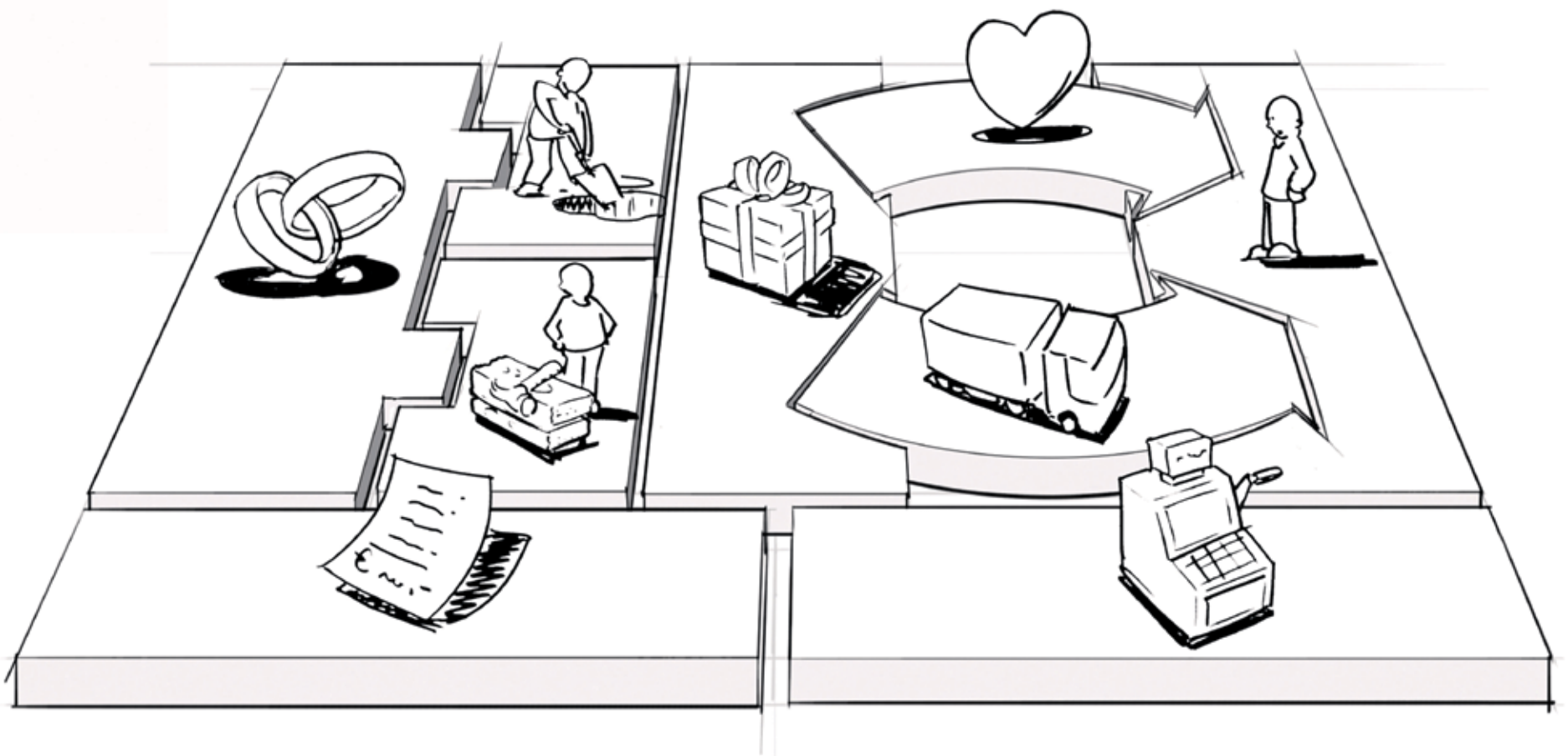
Autodesk Sustainability Workshop er undervisning, der gør brug af videoer, vejledninger og case studies, der omhandler de grundlæggende principper inden for bæredygtigt design og produktion. En video viser for eksempel en kunstner, der tegner sine idéer ved tankens hastighed som et perfekt eksempel på hvordan man kan bruge både hjernens visuelle og verbale dele.

Autodesk Sustainability Workshop er tilgængelig via en række mobile enheder, og der præsenteres på hjemmesiden blandt andet en række centrale emner om bæredygtigt design i korte film. De efterfølges af mere konkret undervisningsmateriale, der omsætter idéerne til praksis. En yderligere fordel ved Sustainability Workshop er, at indholdet er gratis, let tilgængeligt og kan bruges på mange forskellige måder.

Autodesk Sustainability Workshop har til formål at forbedre de studerendes evne til at udtænke, designe og skabe vores omgivelser på en klogere måde. Workshoppen inspirerer og lærer den næste generation af ingeniører at indarbejde bæredygtighed i deres designprocesser.

# HELPS PEOPLE TO DESIGN BETTER BUSINESS MODELS

## HJÆLPER MED AT DESIGNE BEDRE FORRETNINGSMODELLER



**ENG** The lines between industries are blurring, and a lot of new models are emerging. It is time for a better unit of analysis and a joint language to describe the process that every company goes through. Business Model Generation is for those ready to abandon outdated thinking and embrace new, innovative models of value creation: Executives, consultants, entrepreneurs and leaders of all organizations.

Business Model Generation is a beautifully designed and practical book with 280 pages on business model innovation. The business model describes the rationale of how an organization creates, delivers and captures value. The book is a realization of how powerful design is when creating a good management book. It's not "just" about the content but also about the form. Management concepts are inherently visual, because they deal with simplifying the complexity of today's business environment in order to make it manageable.

The book is spearheading an entirely new generation of management books. Osterwalder and Pigneur got their insight for the book from more than 470 "co-creators" from 45 countries. Each paid a small sum to participate

in the idea exchange, which partially financed the initial print run of 5,000 copies. The handbook was pre-sold through the website [www.businessmodelgeneration.com](http://www.businessmodelgeneration.com) that also contributed to financing the first print run. The books sold out in eight weeks, and the project is now self-financed. Based on the waiting list, a current second print run of 10,000 is expected to sell out, and plans for a third are gearing up.

**DK** Grænserne mellem brancherne bliver mere og mere utydelige, og mange nye forretningsmodeller er på vej frem. Tiden er inde til at skabe et bedre analysesæt og et fælles sprog til at beskrive den proces, som alle virksomheder gennemgår. Business Model Generation er en bog for dem, der er klar til at sige farvel til gammeldags tankegange og tage imod nye, innovative modeller for værdiskabelse, for konsulenter, entreprenører og ledere af alle typer organisationer.

Business Model Generation er en flot designet og praktisk bog på 280 sider om en nyskabende forretningsmodel. Modellen beskriver logikken bag, hvordan en organisation skaber, leverer og indsamler værdi. Bogen er en erkendelse af, hvor vigtigt design er, når man skriver en god managementbog. Det handler ikke "kun" om indholdet, men også om formen. Management-

koncepter er i sig selv visuelle, da de har til formål at forenkle kompleksiteten i nutidens virksomheder, så de bliver nemmere at styre.

Business Model Generation er en helt ny type managementbog. Osterwalder og Pigneur fik input til bogen fra over 470 "medskabere" fra 45 lande. De betalte hver et lille beløb for at deltage i idéudvekslingen, hvilket delvist finansierede det første oplag på 5.000 eksemplarer. Håndbogen blev solgt forud på hjemmesiden [www.businessmodelgeneration.com](http://www.businessmodelgeneration.com), som også bidrog til at betale for det første oplag. Bogen blev udsolgt på otte uger, og projektet er nu selvfinansieret. At dømme ud fra ventelisten bliver det nuværende andet oplag på 10.000 eksemplarer også udsolgt, og der er allerede planer om et tredje oplag.

#### **BUSINESS MODEL GENERATION**

DESIGN: ALEXANDER OSTERWALDER, YVES PIGNEUR (SWITZERLAND), ALAN SMITH (UNITED KINGDOM), PATRICK VAN DER PIJL (THE NETHERLANDS) & TIM CLARK (UNITED STATES OF AMERICA), 2010



# INDEX: AWARD 2011 WINNER

## DESIGN FOR CHANGE

**DESIGNER(S):** Kiran Bir Sethi & Pranay Desai (India), 2010, **ADDITIONAL CREDIT:** Jim Ratcliffe (D.School, Stanford) & Sandy Speicher (IDEO)

**YEAR:** 2010 **COUNTRY:** India **PRODUCTION:** Kiran Bir Sethi, Riverside School **WEBSITE:** [www.designforchangecontest.com](http://www.designforchangecontest.com)

**NUMBERS:** An estimated 158 million children aged 5-14 are engaged in child labor / one in six children in the world / 6.4 million Indians under the age of 18 are married / 130,000 Indian girls under 18 have become widows / In Rajasthan alone, 56% of the women are married before they are 15 / Maternal mortality in India is 25 times higher for girls under 15, and two times higher for 15 to 19 year-olds / Rajasthan is the largest state of the Republic of India by area.

**Design for Change is the largest global movement designed to give children an opportunity to express their own ideas for a better world and put them into action. Children and adults learn through Design for Change that “I Can” are the two most powerful words in the world. Children who have discovered this are changing their world. Design for Change asks students to do four very simple things: Feel, Imagine, Do and Share.**

**Children are dreaming up brilliant ideas all over the world, for example challenging age-old superstitions in rural communities, earning their own money to finance school computers or solving the problem of heavy school bags – children are proving that they have what it takes to design the future that they desire.**

### WHAT IS THE PROBLEM?

Citizens in today's globalized, fast changing and knowledge based world need different skills from those needed long ago in the industrial age. Design thinking and the creative methodologies connected to this is one of the ways to establish the learning environments needed to give the coming generations the skills they need in a future we do not know what is going to look like. Kiran Bir Sethi who is the founder of Design for Change explains her position: “*Design thinking allows one to invent a future that is desired, and who better to drive this change than our children. Design for Change empowers children to improve the quality of life by helping them see that they can ‘Be the Change’, and in this process, ‘Be Changed’.*”

### MAKING IT IN THE 21<sup>ST</sup> CENTURY TAKES SKILL

Though there are timeless skills and knowledge important for success in any age – language, literacy, problem solving and initiative to name a few – what was needed to be a skilled person in the 20th century differs dramatically from the expertise needed now and in the future to be a well-educated, capable and successful 21<sup>st</sup> century citizen. Kiran Bir Sethi elaborates: “*When I started Riverside school 10 years ago it became*

*a lab, a lab to prototype and refine a design. And I uncovered, that if learning is embedded in real-world context, that if you blur the boundaries between school and life, then children go through a journey, where they can see the change, enable, be changed, and then empower and lead the change. And that directly increased student wellbeing. Children became more competent and less helpless. But this was all common sense.*”

### CHILDREN CHANGING THE WORLD

Design for Change developed a simple design process that enables children to become drivers of change. The process got children to feel (any issue that bothered them), imagine (a way to make it better), do (implement the act of change) and share (make it visible). This was created as a toolkit that was translated into 15 languages including Braille to make it the most inclusive movement of change to date. The toolkit included guidelines, teacher tips, an example of a “change story” and inspirations. The style of the toolkit is child-friendly and uses appealing colors. In 2011, Design for Change reached 33 countries and over 300,000 schools - inspiring hundreds of thousands of children and their teachers and parents to celebrate the fact that change is possible and that they can lead that change!

“*By winning the Index Award, Design for Change can now truly reach its vision of being able to infect all children with the ‘I CAN’ bug. The honor, visibility and credibility that the INDEX: Award stands for, will serve to enhance the global impact and penetration of Design for Change.*”, Kiran Bin Sethi says.

“*We applaud that the design of this adaptable teaching program considers the users themselves – teachers, students, by providing an easy to use downloadable, customizable toolkit,*”, says the INDEX: Jury

### ALCOHOL, CHILD LABOR, FLOODS AND OTHER FUN STUFF

Spurred by Design for Change, children design solutions and implement acts of change for a large number of issues across the world ranging from social evils,

environment improvements, education, alcohol, child labor, floods, traffic and discrimination. Not only does Design for Change impact the children, but also the teachers and communities. The children change the perception in the minds of the adults and become “drivers of change”. Design for Change is creating a curriculum for schools, using the stories as inspirational case studies, allowing the children to become role models for other children. Design for Change works on the premise that if you let children believe that they can, then they will. It is independent of age, culture, geography or language as it is fueled by the power of an idea. Design for Change believes that since children are the future, they need to be given the tools to design a better future. Design for Change is building better citizens who are concerned, proactive, aware and responsible.

Kiran Bir Sethi says about the beginning of the project: “*We designed a simple toolkit, converted it into eight languages, and reached 32,000 schools. We basically gave children a very simple challenge. We said, take one idea, anything that bothers you, choose one week, and change a billion lives,*”, she continues, “*and they did. Stories of change poured in from all over India. Children were designing solutions for a diverse range of problems – from loneliness and filling potholes in the street to alcoholism, and 32 children even stopped 16 child marriages in Rajasthan. I mean, it was incredible. Basically again re-affirming that when adults believe in children and say, ‘You can, then they will.’*”

The INDEX: Jury says: “*All over the world, there is a growing understanding of the importance of changing the old education paradigms. Societies need critical, innovative and responsible citizens. Businesses need co-workers capable of developing new and better solutions and individuals need 21st century skill sets, enabling them to reach their full potential. Design for Change addresses this challenge, while at the same time enabling and empowering children around the world to have impact in their local communities and to be the change they want to see in the world.*”



**Design for Change er den største globale bevægelse specifikt designet til at give børn en mulighed for at udtrykke deres egne idéer til en bedre verden – og sætte dem i værk. Børn og voksne lærer gennem Design for Change, at “Jeg Kan” er de to mest magtfulde ord i verden, og at børn, der har lært dette, ændrer deres egen verden. Design for Change beder studerende om at gøre fire meget simple ting: Føle, Forstille, Gøre og Dele.**

**Børn finder på geniale idéer over hele verden, lige fra at udfordre gammel overtro i landdistrikter til at tjene deres egne penge til at finansiere skolecomputere, til at løse problemet med tunge skoletasker – børn beviser, at de har hvad der skal til for at designe den fremtid som de ønsker.**

#### HVAD ER PROBLEMET?

Borgere i nutidens globaliserede, hurtigt forandrende og vidensbaserede verden har brug for andre evner, end der var brug for i den industrielle tidsalder. Designtænkning og de kreative metoder, der er forbundet hermed, er en af måderne hvorpå, der kan etableres indlæringsmiljøer, der kan give kommende generationer de færdigheder, de har brug for, i en fremtid, som vi ikke ved, hvordan kommer til at se ud. Kiran Bir Sethi, som er grundlæggeren af Design for Change, forklarer sin holdning: “Designtænkning tillader os at opfinde den fremtid, som man ønsker ... og hvem bedre end vores børn til at være drivkraften? Design for Change gør børn i stand til at forbedre vores liv ved at hjælpe dem til at se, at de kan ‘selv være forandringen’ – og i denne proces ‘blive forandret.’”

#### AT KLARE SIG I DET 21. ÅRHUNDREDE

Selvom der er tidløse færdigheder og viden, der er vigtig for succes i alle tidsalder – sprog, læsefærdigheder, problemløsning og initiativ for at nævne nogle få – er det, som var behovet i det 20. århundrede, dramatisk anderledes end det, der er behov for nu og i fremtiden for at være en veluddannet og succesfuld borger i det 21. århundrede. Kiran Bir Sethi uddyber: “Da jeg startede Riverside skolen for 10 år siden, blev det til et labora-

torium, hvor man kunne lave prototyper og raffinere design. Og jeg fandt ud af, at hvis indlæring er indlejret i den virkelige verdens kontekst, at hvis du slører grænserne mellem skole og liv, kan børnene tage på en rejse, hvor de kan se forandringen, muliggøre, blive forandrede, og derefter og lede forandringen. Og dette øgede direkte børnenes velfærd. Børnene blev mere kompetente og mindre hjælpeløse, men det var alt sammen sund fornuft.”

#### BØRN, DER FORANDRER VERDEN

Design for Change udviklede en simpel proces, der gør børn i stand til selv at være drivkraften i forandring. Processen fik børnene til at føle (hvilket som helst emne, der generede dem), forestille sig (en måde at gøre tingene bedre), gøre (implementere forandringen) og dele (gøre det synligt). Det blev lavet som en værktøjskasse, der blev oversat til 15 forskellige sprog inklusiv blindskrift, og værktøjskassen indeholdt retningslinjer, tips til lærere og eksempler på en “forandringshistorie” og anden inspiration. Værktøjskassens stil er børnevenlig og har tiltalende farver.

I 2011 nåede Design for Change 33 lande og over 300.000 skoler og inspirerede hundredetusindvis af børn, deres lærere og forældre til at fejre det faktum, at forandring er mulig, og at de kan være forrest den forandring! “Ved at vinde INDEX: prisen kan Design for Change nå sit mål om at smitte børn med ‘jeg kan’-baccillen. Den ære, synlighed og troværdighed, som INDEX: står for, vil tjene til at forbedre den globale indvirkning og gennemslagskraft af Design for Change”, siger Kiran Bin Sethi

“Vi hylder, at designet af det her fleksible indlæringsprogram tager brugerne selv i betragtning – både lærere og studerende – ved at lave en nemt anvendelig og tilpasset værktøjskasse, som kan downloades af alle,” siger INDEX: Juryen

#### ALKOHOL, BØRNEARBEJDE OG ANDRE SJOVE TING

Ansporet af Design for Change designer børn selv løsninger og implementerer forandringer indenfor en lang række emner verden over, lige fra sociale proble-

mer, miljømæssige forbedringer, uddannelse, alkohol, børnearbejde, oversvømmelser, trafik og diskrimination. Design for Change har ikke bare en indvirkning på børnene, men også på lærerne og lokalsamfundene. Børnene ændrer altså opfattelsen i de voksnes hoveder og bliver “forandringsdrivkræfter”. Design for Change laver et skoleskema, hvor de bruger inspirerende historier, der gør børnene til blivende rollemodeller for andre børn, og arbejder ud fra den præmis, at hvis man lader børnene tro, at de kan, så vil de også kunne det. Dette er uafhængigt af alder, kultur, geografi eller sprog, da det er drevet af en idéskraft. Design for Change mener, at siden børn er fremtiden, skal de have de redskaber, de skal bruge til at designe en bedre fremtid. Design for Change bygger bedre medborgere som er vedkommende, proaktive, bevidste og ansvarlige.

Kiran Bir Sethi fortæller os, hvordan de kom igang: “Vi designede en simpel værktøjskasse, oversatte det til otte sprog og nåede 32.000 skoler. Vi gav grundlæggende børnene en meget simpel udfordring. Vi sagde, tag en idé, hvad som helst, der generer dig, vælg en uge, og forandr en milliard liv. Og de gjorde det! Historier om forandring strømmede ind fra hele Indien, og børn designede løsninger for en række meget forskelligartede problemer – fra ensomhed til at fylde huller i gaden, til alkoholisme. 32 børn stoppede endda 16 børneægteskaber i Rajasthan. Jeg synes, det var utroligt, grundlæggende at få genbekræftet, at når voksne tror på børn og siger “du kan”, så vil de også kunne.”

INDEX: Juryen siger:

“Over hele verden er der en voksende forståelse af vigtigheden af at ændre gamle uddannelsesparadigmer. Samfundene har brug for kritiske, innovative og ansvarlige borgere. Forretningslivet har brug for medarbejdere, der er i stand til at udvikle nye og bedre løsninger, og de enkelte mennesker har brug for evner, der matcher det 21. århundrede, således at de kan nå deres fulde potentiale. Design for Change forholder sig til denne udfordring, mens man på samme tid bemyndiggør og gør børn verden rundt i stand til at have en indvirkning på deres lokale fællesskaber og til at være den forandring, som de gerne vil se i verden.”



**A NEW GENERATION OF  
REINFORCING TECHNOLOGY  
FOR CONCRETE CONSTRUCTION**  
NY FORSTÆRKNINGSTEKNOLOGI  
TIL BETONBYGGERI

**ENVIROMESH**

DESIGN: GLENN BEVAN, ADAM DOYLE  
& CRAIG ROUGHAN (AUSTRALIA), 2010

**ENG** Enviromesh is a simple, light-weight building product that improves current concrete reinforcing practice. Enviromesh is comprised of a recyclable polymer and glass-fiber construction material. It is corrosion resistant and significantly improves the longevity of civil, industrial and residential structures with clear advantages in regards to environmental impact. Enviromesh comes pre-assembled and it can be carried and maneuvered by just one person.

Current concrete reinforcing practice has remained relatively unchanged since its invention in 1849 by Joseph Monier. Steel reinforcing mesh has been the standard concrete reinforcing solution largely because there have been no suitable alternatives. Enviromesh provides the same benefits as steel reinforcing, but removes some of the negative aspects associated with the use of steel. The manner in which builders use Enviromesh is almost identical to current building practice when using steel reinforcing mesh. The only differences are actual improvements such as the integration of the chairs to the mesh assembly, which means builders are required to do less work during installation.

There should be no barriers to full acceptance of the Enviromesh as a highly advantageous alternative to steel reinforcing mesh. The use of Enviromesh means buildings and structures can last longer, as the materials will not degrade over time. Steel tends to develop "concrete cancer", which means that the steel mesh rusts inside the concrete, thus damaging the structure, eventually requiring expensive repairs or replacement. Enviromesh can be used with confidence in the harshest environments, and the extra longevity of structures means less drain on our resources and a significant reduction in the environmental impact of building practice.

**DK** Den nuværende praksis med forstærkninger i beton har stort set ikke ændret sig, siden den blev opfundet i 1849 af Joseph Monier. Stålnet (armeringsjern) har været den mest anvendte løsning til at forstærke betonbygninger, fordi der ikke har været nogen egnede alternativer. Enviromesh giver samme fordele som stålförstærkningen, men fjerner nogle af de negative aspekter, der følger med brugen af stål.

Enviromesh er et simpelt og let byggeprodukt, der forbedrer den aktuelle praksis for forstærkning af beton og består af genbrugte byggematerialer såsom polymer og glasfiber. Det kan ikke ruste, forlænger levetiden for civile, industrielle og beboelses-egendomme betydeligt og har klare miljømæssige fordele. Enviromesh leveres monteret, og det kan bæres og håndteres af kun én person. Den måde, bygningsarbejdere anvender Enviromesh på, er næsten identisk med den nuværende byggepraksis, når der bruges stålnet. De eneste forskelle er faktiske forbedringer såsom integration af bøjler i nettet, hvilket gør, at bygningsarbejderne har mindre arbejde under monteringen.

Når man bruger Enviromesh, betyder det, at bygninger og strukturer holder længere, da materialerne ikke forringes over tid. Stål har tendens til at udvikle "betonkræft", hvilket betyder, at stålnettet rustet inde i betonen og dermed beskadiger strukturen, hvilket kræver dyre reparationer eller udskiftning. Enviromesh kan trygt anvendes selv under de mest hårdføre forhold, og strukturerens ekstra lange levetid betyder mindre udnyttelse af vores ressourcer og en betydelig reduktion af byggeriets miljøpåvirkning.

# AN EARLY-STAGE INVESTMENT COMPANY DESIGNED TO FUEL TECH INNOVATION IN EUROPE

ET INVESTERINGSSKAB, DER ER DESIGNET TIL AT SÆTTE GANG I DEN TEKNOLOGISKE INNOVATION I EUROPA

**ENG** HackFwd founder Lars Hinrichs is one of Europe's internet icons. XING, the company he co-founded in 2003, was the first Web 2.0 business to go public in Europe; it now ranks among the world's most popular social networking sites for professionals. In 2008, the Startups Initiative named Hinrichs as the most important web entrepreneur in Germany. In 2009, the World Economic Forum recognized him as a Young Global Leader.

By providing pre-seed, evergreen venture backing, HackFwd frees top talent from their corporate jobs and helps them start their own companies. This allows developers, coders, and engineers to focus on doing what they do best—inventing—and encourages tech development in Europe. HackFwd's mission is to revolutionize the European technology scene and put Europe on the global innovation map.

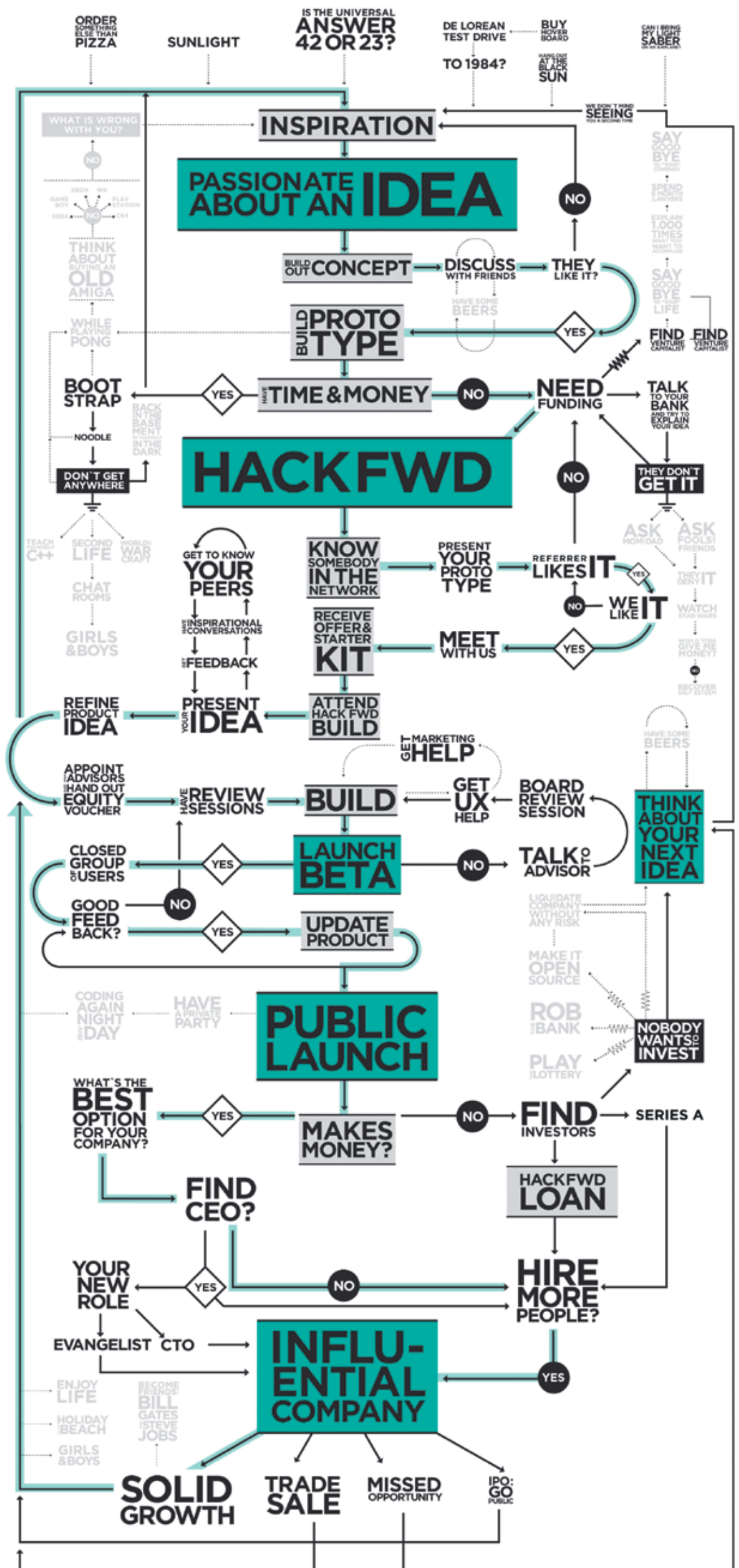
In exchange for financial support, creative and strategic advice and marketing assistance, HackFwd gets 27% of the equity; the start-up's founders keep 70%, and advisers who assisted receive up to 3% in options. In other words, when new ventures succeed, everybody benefits. HackFwd founded and invested in seven start-ups in 2010 and plans to scale up in 2011. These investments have a halo effect on the broader European tech ecosystem, by making potential entrepreneurs aware of career choices beyond keeping their day jobs. All participants receive at least one year of funding and education.

**DK** HackFwds grundlægger Lars Hinrichs er et af Europas it-ikoner. Han var i 2003 med til at grundlægge XING, der var den første 2.0-virksomhed, som blev børsnoteret i Europa. Nu befinder den sig blandt verdens mest populære sociale websites for erhvervsfolk. I 2008 udnævnte Startups Initiative Hinrichs til den vigtigste webentreprenør i Tyskland, og i 2009 blev han udnævnt til Young Global Leader af World Economic Forum.

Med sin iværksætterhjælp frigør HackFwd de bedste talenter fra deres lønmodtagerjob og hjælper dem med at starte deres egen virksomhed op. På den måde kan udviklere, kodere og ingeniører fokusere på det, de er bedst til, nemlig at opfinde, og dermed fremmes den teknologiske udvikling i Europa. HackFwds mission er at revolutionere det europæiske marked for teknologi og sætte Europa på det globale innovationskort.

Til gengæld for økonomisk støtte, kreativ og strategisk rådgivning og hjælp til marketing får HackFwd 27% af egenkapitalen i de nystartede. Grundlæggerne beholder de 70%, og rådgiverne får op til 3%. Når nye virksomheder får succes, får alle altså udbytte af det. HackFwd grundlagde og investerede i syv nye virksomheder i 2010 og har planer om at øge antallet i 2011. Alle entreprenører involverede modtager mindst et års støtte og oplæring.

**HACKFWD**  
DESIGN: IDEO & LARS HINRICHS  
(GERMANY), 2010



# HOPE, HOLISTIC SUSTAINABILITY AND TRUE PARTNERSHIPS TO PREVENT HUMAN TRAFFICKING

## HÅB, HOLISTISK BÆREDYGTIGHED OG TÆT SAMARBEJDE OM BEKÆMPELSE AF MENNESKEHANDEL



### LULAN ARTISANS BUSINESS STRATEGY DESIGN: EVE BLOSSOM (UNITED STATES OF AMERICA), 2005

**ENG** According to UNICEF, as many as two million children are exposed to prostitution in the global commercial sex trade. Worldwide, an estimated 158 million children (44 million in South Asia alone) ages 5-14 are engaged in child labor — one in six children in the world.

In 2000, the United States enacted the Trafficking Victims Protection Act (TVPA), and the United Nations adopted the Protocol to Prevent, Suppress, and Punish Trafficking in Persons, Especially Women and Children, also known as the Palermo Protocol.

By redefining human trafficking as a marketplace, Lulan can create an alternative economic engine. Lulan's goal is to use artisan skills and design to make systemic social change. Their "bottom up" approach stimulates artistic processes that have been used for centuries.

Honoring the beautiful talents of master weavers, Lulan brings authentic craftsmanship rendered in contemporary designs.

Lulan designed a business model that produces strong communities and economic options for artisans. By aligning their skills to the right markets, artisans can have stable, ongoing jobs and in turn have choices in their lives. Lulan pays all artisans fair trade wages and offers tailored benefits such as education for children, housing stipends, healthcare and literacy classes.

**DK** Ifølge UNICEF udsættes to millioner børn for prostitution relateret til globa sexhandel, og på verdensplan anslås det, at 158 millioner børn (44 millioner alene i Sydasiens) i alderen 5-14 år er udsat for børnearbejde, hvilket svarer til hvert sjette barn i verden.

I 2000 vedtog USA Trafficking Victims Protection Act (TVPA) FN, en protokol til forebyggelse, bekæmpelse og retsforfølgelse af menneskehandel – særligt handel med kvinder og børn – også kendt som Palermo-protokollen.

Lulan skaber alternative økonomiske muligheder ved at påvirke markedet for menneskehandel, og det er Lulans mål at anvende de lokale håndværkeres færdigheder og design til at skabe social forandring. Denne tilgang stimulerer de håndværksmæssige processer, der har været brugt i århundreder, og ved at fremhæve vævernes talent bringer Lulan den oprindelige håndværkerkunnen ind i det moderne design.

Lulan har designet en forretningsmodel, der skaber stærke lokalsamfund og økonomiske muligheder for håndværkerne. Ved at tilpasse deres færdigheder til de rigtige markeder kan håndværkerne få fast og vedvarende beskæftigelse og dermed mulighed for at påvirke deres eget liv. Lulan betaler alle håndværkerne fairtrade-lønninger og tilbyder dem andre goder såsom uddannelse til børn, boligstøtte, sygeforsikring og læseundervisning.



**MYCOBOND™**

DESIGN: EBEN BAYER & GAVIN MCINTYRE  
(UNITED STATES OF AMERICA), 2007

ADDITIONAL CREDITS: SAM HARRINGTON,  
EDWARD BROWKA, CHRISTOPHER SCULLY,  
DAWN HARFMANN, BILL GRAYSON, DAN FLAGG,  
EMILY CARROLL, JUSTIN FRISINO, SUE VANHOOK,  
BURT SWERSEY, MIDGE MARSHALL, ALICIA LIN  
& MIKE DEFRANCO

## A SUSTAINABLE ALTERNATIVE TO STYROFOAM, GROWN USING MUSHROOM ROOTS

### ET BÆREDYGTIGT ALTERNATIV TIL FLAMINGO (POLYSTYRÉN)

**ENG** Disposable plastics are the greatest source of plastic pollution. Every year, an estimated 6.5 billion kilos of trash, a majority of that being plastic, is dumped into the oceans. Even the straw for your soda or the plastic bag you buy at the mall for your groceries are small conveniences that remain forever, impacting people, animals and the environment. In fact, nearly every piece of plastic that has ever been made still exists today.

By relying heavily on petrochemicals for energy, fertilizer and materials, civilization is setting itself up for systemic collapse. MycoBond™ is developing viable material alternatives similar to Styrofoam that can out-compete on performance and cost. Styrofoam is often used for just a few weeks as packaging and then persists for thousands of years.

MycoBond™ is made from locally sourced agricultural by-products bonded together by mycelium (mushroom

“roots”). This mycelium grows over the course of 5-10 days and acts as self-assembling living glue. Unlike petrochemical derived synthetics, MycoBond™ is renewable, has low embodied energy, is nontoxic and is home compostable. Different than some new bio-plastics, MycoBond™ can achieve a 100% biological yield using non-food crop remains. Kept dry and clean, it will last as long as wood. Exposed to soil biota and moisture, it will break down in a few weeks.

**DK** Engangsplastik er den største kilde til plasticforurening i verden, og det anslås, at der hvert år smides 6,5 milliarder kilo skrald ud i verdenshavene, hvoraf størstedelen er plastik. Selv sugerøret i din sodavand eller den plasticpose, du køber i supermarkedet til dine indkøbsvarer, er små ting, der gør livet nemmere, men som aldrig forgår og påvirker mennesker, dyr og miljøet. Faktisk eksisterer næsten al den plastik, der nogensinde er fremstillet, stadig i dag.

Civilisationen er på vej mod kollaps, da vi er alt for afhængige af petrokemikalier til at lave energi, gødningsmidler og materialer. MycoBond™ udvikler bæredygtige, alternative materialer, der minder om flamingo. Flamingo bruges ofte kun i et par uger som emballage, men bliver i naturen i årtusinder.

MycoBond™ er lavet af restprodukter fra landbruget og bundet sammen af mycelium (“svamperødder”). Myceliummet dyrkes i løbet af 5-10 dage og fungerer som levende, selvbindende lim. Modsat syntetiske stoffer lavet med petrokemikalier er MycoBond™ vedvarende, ikke energikrævende at fremstille, ikke giftigt og kan komposteres i private hjem. Det holder lige så længe som træ, hvis det opbevares tørt og rent, men nedbrydes i løbet af et par uger, hvis det udsættes for levende organismer i jordmiljø.

# A CARBON NEGATIVE CEMENT SOLUTION

## EN CO<sub>2</sub>-NEGATIV CEMENTLØSNING



**ENG** Cement is responsible for approximately 5% of man-made CO<sub>2</sub>. Production of one ton of Portland cement—the industry standard—typically emits 800 kg of CO<sub>2</sub>. Emissions are driven by the processing of limestone (carbonate) raw materials and use of fossil fuel energy. For every ton of Portland cement substituted by Novacem, CO<sub>2</sub> emissions will be reduced by up to 850 kg.

Novacem is carbon negative cement based on magnesium oxide manufactured from magnesium silicates, of which more than 10,000 billion tons exist worldwide. No carbon emissions are released from the raw material by leaving limestone and its stored carbon in the ground. Additionally, low carbon fuel such as biomass can be used to drive production, and manufacture includes the creation of magnesium carbonates which absorb CO<sub>2</sub>. Overall, more CO<sub>2</sub> is absorbed than emitted during cement production.

Novacem cement is currently being produced on a pilot level in London as part of a testing and development program. The intent is to commission a semi-commercial plant during 2011 to support development of commercial applications for the cement. The cement is not yet available for purchase, but Novacem expects it to be in full-scale production from 2014-15.

Novacem is a transformational solution to cement CO<sub>2</sub> emissions and will empower societies to choose more sustainable constructions as they develop.

**DK** Cementproduktion står for ca. 5% af den menneskeskabte CO<sub>2</sub>-udledning. Produktionen af et ton Portland-cement, der er standarden i industrien, udsender typisk 800 kg CO<sub>2</sub>. Udledningen opstår, når kalksten (karbonat) behandles og ved brugen af fossile brændstoffer. For hvert ton Portland-cement, der udskiftes med Novacem, reduceres CO<sub>2</sub>-udledningen med op til 850 kg.

Novacem er CO<sub>2</sub>-negativ cement baseret på magnesiumoxid fremstillet af magnesiumsilikat, som der på verdensplan findes over 10.000 milliarder ton af. Til produktionen skabes der magnesiumcarbonater, der absorberer CO<sub>2</sub>, og overordnet set absorberes der mere CO<sub>2</sub> under cementproduktionen, end der udsendes, og derfor er produktet CO<sub>2</sub>-negativt.

Novacem-cement bliver i dag produceret på forsøgsbasis i London som en del af et test- og udviklingsprogram, og formålet er at opføre en delvis kommerciel fabrik i løbet af 2011 til at støtte udviklingen af kommercielle anvendelser af cementen. Det er endnu ikke muligt at købe cementen, men Novacem forventer, at cementen kan lanceres i 2014-15.

Novacem er en nyskabende løsning på udfordringerne ved CO<sub>2</sub>-udledning og vil give os mulighed for at vælge mere bæredygtige konstruktionsformer fremover.

### NOVACEM

DESIGN: SANDEEP RANA (INDIA), NICHOLAS DUGGAN (UNITED KINGDOM), DANIEL BOWDEN (UNITED KINGDOM), DR. DIEGO MARTINEZ-VELANDIA (COLUMBIA), JUAN MUNOZ (SPAIN), DR. RADIM SKAPA (CZECH REPUBLIC), WILLIAM MORA (VENEZUELA), JOHN CHANDIYAMBA (MALAWI), GU XIAOTIN (CHINA), SYED ALI (BANGLADESH), DR. RICHELIEU BARRANCO (COLUMBIA), LUCY KING (UNITED KINGDOM), DR. HAI XIANG LEE (CHINA), CLAUDIA FRANCO (MEXICO), DR. JOHN PRENDERGAST (IRELAND), HOWARD SIMONS (UNITED KINGDOM), STUART EVANS (UNITED KINGDOM), DR. NIKOLAOS VLASOPOULOS (GREECE), DAVID WALKERDINE (UNITED KINGDOM) & DR. AMUTHA DEVARAJ (INDIA), 2010



## A SUSTAINABLE REPLACEMENT FOR THE TRADITIONAL SHOEBOX

### EN BÆREDYGTIG ERSTATNING AF DEN TRADITIONELLE SKOTØJSÆSKE

**ENG** Boxes contribute to millions of tons of waste a year; and even with proposed second uses, they are eventually thrown out. The Clever Little Bag is a sustainable replacement for the traditional shoebox, using 65% less cardboard. This bag and box system has no printing or tissue, easily assembles, takes up less space, weighs less in shipping, replaces the plastic retail bag and is completely recyclable. It will reduce water, energy and diesel use on the manufacturing level alone by over 60% per year. The second use bag opportunities are also a fundamental part of this design, furthering the system's environmental reach and brand extension.

In partnering with PUMA, former INDEX: Award winner fuseproject has created a packaging system that greatly reduces PUMA's environmental footprint and builds on their initiatives toward cleaner, greener and safer practices. To achieve significant impact in retail industry, it was needed to create an easily adaptable system that would seamlessly integrate into an established infrastructure. Therefore, the design maintains important shoebox qualities like a stackable structure and protection for the shoes inside.

With this minimalist design approach, PUMA not only dramatically decreases their own environmental impact, but as an industry leader, the company inspires change among other companies, creating an eco-conscious ripple effect.

**DK** Skotøjsæsker bliver til mange millioner ton affald hvert år. Selv hvis de anvendes flere gange, bliver de på et eller andet tidspunkt smidt ud. Clever Little Bag er et bæredygtigt alternativ til den traditionelle skotøjsæske, der produceres med 65% mindre pap. Dette pose- og æskesystem har ikke noget print, er let at samle, fylder mindre, vejer mindre under transporten, erstatter plastikposen og er fuldstændig genanvendelig. Den mindsker vand-, energi- og brændstofforbruget alene på fabrikningsniveau med over 60% om året.

I samarbejde med Puma har designfirmaet fuseproject (tidligere INDEX: Award-vinder) skabt et emballagesystem, der skærer drastisk ned på Puma's klimafodaftryk, og bygger videre på deres initiativer om at stræbe mod en renere, grønnere og sikrere praksis. For at kunne vinde indpas i detail-industrien var det nødvendigt at skabe et system, der let kunne tilpasses, og som kunne integreres gnidningsløst i en allerede eksisterende infrastruktur. Derfor har designet beholdt de vigtige egenskaber ved en skotøjsæske, for eksempel at den kan stables, og at skoene ligger beskyttet inde i den.

Med dette minimalistiske syn på design skærer Puma ikke kun voldsomt ned på deres egen miljøbelastning, men som førende i branchen inspirerer virksomheden også andre virksomheder til forandring.



**PUMA: CLEVER LITTLE BAG**  
DESIGN: YVES BÉHAR (SWITZERLAND),  
JOSH MORENSTEIN, NICK CRONAN &  
SETH MURRAY (UNITED STATES OF AMERICA),  
2010



## A MOBILE-DEVICE SOFTWARE TO HELP IMPROVE HEALTHCARE ACCESSIBILITY

### MOBILSOFTWARE, DER GIVER BEDRE ADGANG TIL SUNDHEDSPLEJE



#### **SANA**

DESIGN: DR. LEO CELI, KATHERINE KUAN, JOHN BLACKENEY & R.J. RYAN (UNITED STATES OF AMERICA), 2009

**ENG** One of the largest problems facing the developing world is a lack of trained physicians, while there is not a shortage of untrained or semi-trained workers. Sana offers an open source data collection and collaboration platforms for clinical research and best practice healthcare delivery for underserved rural populations.

Sana recognizes that with local leadership and commitment, ripples of innovation can be aggregated into waves of sustainable change. By revolutionizing healthcare delivery in remote areas through innovative mobile information services, Sana improves patient access to medical specialists for faster, high quality and more cost-effective diagnosis and intervention.

The software provides assessment of medical illnesses, decision support for medical personnel and patient data and images can be saved to a phone and uploaded to an electronic medical record. However, the team realized that technology alone cannot solve the healthcare crisis in developing countries, so they supplemented the open source software with an educational course hosted at the Massachusetts Institute of Technology (MIT) and is available on their website to all who share the goal of learning ways to improve healthcare systems and policies.

Sana revolutionizes healthcare delivery in remote areas through innovative mobile information services that improve patient access to medical specialists for faster, high quality and more cost-effective diagnosis and intervention.

**DK** En stor udfordring i udviklingslande er manglen på uddannede læger, men samtidig er der ikke mangel på uuddannede eller delvist uddannede medarbejdere. Sana tilbyder gratis platforme til dataindsamling for

lægeundersøgelser, så der kan leveres bedre behandlingstilbud til isolerede landbefolkninger.

Sanas princip er, at lokalt engagement kan skabe strømme af innovation, der bliver til floder af bæredygtig forandring. Ved at revolutionere sundhedsplejen i fjerntliggende områder med innovative informationstjenester via mobiltelefonen forbedrer Sana patienternes adgang til specialister, så der hurtigere og bedre kan stilles diagnose og foretages behandling – det hele med lavere omkostninger til følge.

Software leverer vurdering af patientens sygdom, beslutningsgrundlag for sundhedspersonalet, og patientdata og billeder kan gemmes på en telefon og uploades til en elektronisk patientjournal.

Designerne blev dog klar over, at teknologi alene ikke kan løse sundhedsproblemerne i udviklingslandene, og derfor afholdt de som supplement til den gratis applikation et kursus på Massachusetts Institute of Technology (MIT), som er frit tilgængeligt for alle på deres website.

## PLAY CATEGORY

- EDHEADS.ORG
- IMAGINATION PLAYGROUND IN A BOX
- HÖVDING
- LEARNING LANDSCAPE
- LIFEPLAYER
- THE DREAM BALL PROJECT
- UN GLOBAL COMPACT DILEMMA GAME

**ENG** The PLAY category comprises all designs related to sport, play, leisure and culture, for example: The design of free time facilities, tools, games and equipment used for sports, cultural activities and other free time activities. Including design of strategies, services and concepts within these areas.

**DK** PLAY-kategorien indeholder alle designs der relaterer sig til sport, leg, fritid og kultur, f.eks. design af fritidsfaciliteter, spil og sportsudstyr, kulturaktiviteter og andre fritidsaktiviteter. Endvidere design af strategier, services og koncepter indenfor disse områder.

# ACTIVE LEARNING THROUGH GAMING

## AKTIV LÆRING GENNEM SPIL

**ENG** Formal education often lacks imagination and creativity—the elements that spark learning and are essential for producing engaged, responsible world citizens. Too often online educational tools are read like textbooks and therefore fail to capture the excitement that motivates learning.

Edheads are committed to activate learning through interactive games available for free online. The games are designed to apply classroom curriculum to real-world situations. Edheads partners with experts at higher education institutions or with innovative, forward-thinking corporations to deliver the games. The games help bridge the gaps in formal education, reaching children who have trouble excelling in traditional classroom settings with games that are multi-disciplinary, fun and challenging.

Each game mirrors real-world dilemmas facing scientists and other professionals, thrusting students into the position of investigators, researchers and problem solvers. These interactive experiences demonstrate how science and math are involved in every aspect of life,

and each activity involves careers students may pursue. Edheads has introduced 10 games that have reached over 54 million unique users, with two more games currently in development and plans to launch up to three more games every year.

The ability to impact students has been praised by educators, parents and partner institutions that have seen firsthand how innovative education can engage students.

**DK** Traditionel undervisning mangler ofte fantasi og kreativitet, som er de elementer, der fremmer læring og er vigtige i forhold til at skabe engagerede og ansvarlige verdensborgere. Alt for ofte skal undervisningsmateriale online læses som gammeldags lærebøger, og derfor skaber de ikke den interesse, der motiverer eleven til at lære noget.

Det er Edheads mål at skabe læring gennem interaktive spil, der er gratis tilgængelige på nettet. Spillene er designet til at anvende undervisningsstoffet i situationer fra den virkelige verden. Edheads samarbejder med eksperter fra højere uddannelsesinstitutioner og med

nyskabende, fremadrettede virksomheder om at skabe spillene. Spillene er med til at bygge bro over hullerne i den traditionelle undervisning og når ud til de børn, der har svært ved at klare sig i den almindelige undervisningsform, med spil, der er tværdisciplinære, sjove og udfordrende.

Hvert spil afspejler virkelige dilemmaer, som videnskabsfolk og andre eksperter står over for, så eleverne bliver sat i forskeres og problemknuseres sted. De interaktive oplevelser viser, hvordan videnskab og matematik kan bruges i alle aspekter af livet, og hver aktivitet involverer karrierer, som eleverne kan vælge at gå efter. Edheads har udgivet 10 spil, der allerede har haft over 54 mio. unikke brugere, og der er i øjeblikket yderligere to spil under udvikling, ligesom der er planer om at udgive op til tre nye spil om året.

Undervisere, forældre og samarbejdspartnere har rost spillenes evne til at fange eleverne, og man kan se, hvordan nyskabende undervisning kan engagere eleverne.



### EDHEADS.ORG

DESIGN: GAIL WHEATLEY & ERIC BORT  
(UNITED STATES OF AMERICA), 2009





## ENCOURAGES CHILD-DIRECTED AND UNSTRUCTURED, FREE PLAY FREMMER BØRNEVENLIG, USTRUKTURERET OG FRI LEG

### IMAGINATION PLAYGROUND IN A BOX

DESIGN: DAVID ROCKWELL, MARC HACKER, CARMEN AGUILAR, BARRY RICHARDS, GLEN FULK, LESLIE ARMSTRONG, MALA PARIKH, STERLING MCMURRIN, CLAUDIA OPEL, CAROLINE KIM, SHUNYI WU, CAS HOLMAN, LUCINDA WAITE & CAT EMIL (UNITED STATES OF AMERICA), 2005

**ENG** There is a play deficit—especially in the developed world—that is impacting the health and well-being of children. This fact has dangerous implications for the future of children. The decline of play has been shown to accompany impeded social, emotional, cognitive and physical development, as well as increased levels of aggression and anti-social behavior. It has also been linked to a number of health problems among children and youth.

Promoting unstructured play during early childhood is an exceptional way to increase healthy levels of physical activity. When given the authority and autonomy to direct and conduct their own play, children begin to widen their sphere of experience, which increases levels of imagination and agility as well as physical, cognitive and emotional strength. Play also allows children to more easily understand their environment, putting language, emotion, movement and social norms into a context with which they can relate.

Imagination Playground in a Box gives communities an easy-to-install, cost-effective means to offer their

children opportunities for open-ended, free play. The concept centers around a set of 90 uniquely designed large foam parts. The block set consists of 15 different shapes and a wide variety of play patterns. Imagination Playground Blocks are biodegradable, lightweight, waterproof, non-toxic and resistant to germs, mold and mildew. They are sturdy enough to withstand the elements and soft enough for children to play with safely. The “in a Box” model can be wheeled indoors and outdoors and can be used as open shelving or as closed storage.

**DK** Især i udviklingslandene er der mangel på legemuligheder for børn, hvilket påvirker deres helbred og velvære og det har farlige indvirkninger på børnenes fremtid. Manglen på adgang til leg har vist sig at hæmme den sociale, psykiske, kognitive og fysiske udvikling samt føre til øget aggression og asocial adfærd og har desuden været kædet sammen med en række sundhedsproblemer hos børn og unge.

Det er en enestående mulighed for at øge sund, fysisk aktivitet, hvis man tilskynder ustruktureret leg i den tidlige barndom. Når børn får autoritet og autonomi

til at styre deres egen leg, udvider de deres erfaringshorisont, hvilket fremmer fantasien samt den fysiske, kognitive og psykiske styrke. Når børn leger, lærer de også bedre at forstå deres omgivelser og sætte sprog, følelser og sociale normer ind i en kontekst, som de kan relatere til.

Imagination Playground in a Box giver børnene muligheder for fri og åben leg på en billig måde og er let at montere. Konceptets base er et sæt med 90 store skumdele i et unikt design. Klodserne består af 15 forskellige former og en lang række legemønstre.

Imagination Playground Blocks er bionedbrydelige, lette, vandtætte klodser uden giftstoffer, og de er modstandsdygtige over for bakterier, mug og svamp. De er robuste nok til at bære elementer og bløde nok, til at børn kan lege sikkert med dem. Kassemodellen kan køres indenfor og udenfor og kan bruges i åben eller lukket tilstand.



**DESIGNER(S):** Anna Haupt & Terese Alstin **PRODUCTION:** Hövding **YEAR:** 2010 **COUNTRY:** Sweden

**IP STATUS:** Patent **STATUS OF REALIZATION:** In production **WEBSITE:** www.hovding.com

**NUMBERS:** Approximately 105 million bicycles are made every year / 63,7% of the Swedish population rides a bicycle / 9 out of 10 Danes have a bicycle / In Amsterdam, 40% of all traffic movements are by bicycle / 60% of cycling fatalities are head injuries

# INDEX:AWARD 2011 WINNER

## HÖVDING

### ENG AN INVISIBLE AIRBAG FOR CYCLISTS' HEADS

**Hövding is a bicycle helmet unlike any other on the market. It's ergonomic, it's practical, it complies with all safety requirements and it's subtle and blends in with what you are wearing. Hövding is a collar for bicyclists, worn around the neck. The collar contains a folded up airbag that inflates only if you have an accident.**

#### WHAT IS THE PROBLEM?

Every year, about 30,000 people are injured or die in bike-related traffic accidents in Sweden alone. Many of these accidents would have been a lot less serious if the cyclists were wearing bike helmets. However, according to a Swedish government survey, less than 30% of all cyclists wear helmets — mainly due to lifestyle, vanity or cold issues. People do not want their hair messed up or cannot fit a warm hat under the helmet in cold weather.

*“The range of bicycle helmets available is extremely narrow, they all look the same and the lack of variety*

*results in very few people wearing them. For most people, bicycling isn't a sport. They're just using their bicycles to get from A to B, bicycling to work, into town or to go out in the evening. Despite this, almost all the traditional bicycle helmets on the global market have a sporty design. At the same time, image is becoming increasingly important to us and our clothes and accessories are an essential part of the way we express ourselves. Lots of people are deciding not to wear bicycle helmets because they think they look horrible and because they really don't go with their own personal style. The fact that people are choosing not to wear bicycle helmets when we all know how important the protection they provide is, was a clear sign that the design needed a radical makeover, adapting it to the demands of today's bicyclists and all the latest styles. A helmet that just sits on the shelf is no good to anyone”, say inventors of Hövding, Anna and Terese.*

The INDEX: Jury says:

*“We see this as a first step in fueling a paradigm change in the area of bike safety. It hinges on the professional competency of the designers, not the adaptive capability of the users, other than in the most superficial sense. This illustrates how design still provides users with what they never thought they could have.”*

#### TOO MANY CARS - TOO FEW BICYCLES

In the first half of the 20th century the bicycle was a much more common mode of urban transport than it is today. After the Second World War however, the ownership of private cars increased continuously to today's level of more than six cars for every ten people in some EU countries, meaning that a great number of journeys that previously occurred by bicycle are now undertaken by car. In these times of increasing anxiety about climate change, the question of environmental sustainability - in every aspect of our society - is of the utmost importance, and urban transport is just one of the sectors that need to be reformed, since the environmental problems caused by mass private car transportation in modern cities are many. The bicycle can play a part in the resurrection of our cities to sustainable places. Anna and Terese elaborate: *“Between 1990 and 2003, the number of bicycles produced in the world remained steady around 100 million bicycles per year. But since then, production has increased up to 130 million bicycles in 2007. The climate change is believed to be one major reason for the increase in bicycling – people are choosing the bicycle instead of the car. The financial crisis in 2008 had a vast negative impact on the automotive industry, while the bicycle industry was hardly affected.”*



The INDEX: Jury explains:

*“There is a global surge in biking in urban environments – for environmental reasons, lifestyle reasons and health reasons. Taking part in this change raises both problems and opportunities, shifting the intersection between lifestyle and a movement. This design is addressing exactly these issues.”*

#### AN AIRBAG WORN AS A COLLAR, TRIGGERED BY SENSORS

Hövding is a bicycle helmet unlike any other on the market. It's ergonomic, it's practical, it complies with all safety requirements and it's subtle and blends in with what you are wearing, because it is worn as a collar around the neck. The collar contains a folded up airbag that you will only see if you happen to have an accident. The inflated airbag is shaped like a hood, surrounding and protecting the bicyclist's head, and the trigger mechanism is controlled by sensors which pick up the abnormal movements of a bicyclist in an accident. The actual collar is the visible part of the invention, and it is covered by a removable shell that you can change to match your outfit. Hövding is a practical accessory that is easy to carry around, it has a great-looking yet subtle design – and it will save your life. *“The shell surrounds the collar, and the most important function of the shell is to enable you to change the look of your Hövding – every day if you feel like it. The shell is removable and attaches to the collar with zippers. It's easy to change the shell to match your outfit, to suit the season or to wash it. The shell's appearance can be varied in a virtually endless number of designs, colours, patterns and fabrics, turning Hövding into a fashion accessory. At the moment there are two different shell designs to choose from but we will be launching new collections all the time. Unlike the collar, the shell is washable”*, says Anna and Terese.

#### PEOPLE WOULD RATHER GET HURT THAN MESS UP THEIR HAIR

The most effective protection against serious skull injuries is to wear a helmet when bicycling. Although people are well aware of the risks on the roads, a large majority are choosing to ride their bikes without wearing a helmet. And this decision is for the most part based on not wanting to look “stupid”, as many cyclists put how they look with a helmet on. So by approaching the problem from an entirely different angle – and by eliminating the classic shape and design of the bike helmet – the designers have come up with a very cool and attitude-changing solution to a problem that has been draining government treasuries (helmet campaigns) and killing cyclists for many years. Anna and Terese shares their process: *“We started out with a survey, asking people on the streets why so few people wear bicycle helmets. They came up with plenty of reasons: ‘They're a pain to carry about, they all look hideous, they ruin your hair, nobody else wears them, you can't get your hat on underneath.’ Some good arguments, it's true, others more like excuses. It was clear that bicycle helmets are a hot topic that everyone has an opinion on and strong feelings about. Bicycling is something we do every day and there's a sense of freedom that goes with it. Although people are well aware of the risks on the roads, the vast majority are choosing to bicycle without a helmet. When it comes down to it, people really do want to protect their heads in road accidents, but there are limits. It isn't the bicyclists who need to change, it's the product.*

*“When we asked people what they'd ideally like the bicycle helmet of tomorrow to look like, we got responses like these: ‘Something small that you can fold up and put in your pocket. Something that lets you change what it looks like, like you can with mobile phone skins or wigs. Invisible. The instant we heard the word invisible, we realised that was what the world was waiting for. An invisible bicycle helmet. That wouldn't ruin your hair.”*

*“The team behind Hövding defined the problem, not as a design of a helmet, but as a solution to a problem. We applaud the shift in frame from helmet to protection as*

*it is an important part of the design thinking approach. The solution takes into account both safety, protection and an underlying streak of vanity”*, The INDEX: Jury says about the decision to select Hövding as a winner of INDEX: Award 2011

#### DK EN USYNLIG AIRBAG TIL CYKLISTERES HOVEDER

**Hövding er en cykelhjelm, der ikke ligner andre hjelme på markedet. Den er ergonomisk, den er praktisk, den opfylder alle sikkerhedskrav og den er diskret og passer til det, man ellers har på. Hövding er en krave for cyklister, der bæres rundt om nakken. Kraven indeholder en foldet airbag, som pustes op, hvis man kommer ud for en ulykke.**

#### HVAD ER PROBLEMET?

Hvert år kommer omkring 30.000 mennesker til skade eller dør i cykelrelaterede ulykker i Sverige alene. Mange af disse ulykker ville have været meget mindre alvorlige, hvis cyklisterne havde haft cykelhjelme på. Alligevel viser en undersøgelse fra den svenske stat, at mindre end 30% af alle cyklister bruger cykelhjelm – mest på grund af forfængelighed, eller fordi de fryser. Folk vil ikke have deres frisure ødelagt eller kan ikke få plads til en hue under hjelmen, når det er koldt.

*“Almindelige cykelhjelme ligner alle sammen hinanden, og manglen på alternativer gør, at for få mennesker bruger dem. For de fleste er det at cykle ikke en sport. De bruger deres cykler til at komme fra A til B. De cykler til arbejde, til byen eller for at gå ud om aftenen. På trods af det har næsten alle traditionelle cykelhjelme på markedet et sporty design. Mange mennesker vælger ikke at bruge cykelhjelme, fordi de synes, de er grimme, og fordi det ikke rigtig passer til deres personlige stil. Det faktum at folk vælger ikke at bære cykelhjelm, selvom alle ved, hvor vigtig en beskyttelse de giver, var et klart tegn på, at designet behøvede en radikal forandring, således at det kunne tilpasses de behov, som nutidens cyklister har. En hjelm, der bare ligger på en hylde, gør ikke nogen noget godt”*, fortæller opfinderne af Hövding Anna og Terese.

INDEX: Juryen siger om Hövding:

*“Vi ser det som det første skridt mod et paradigmeskift indenfor cyklistsikkerhed. Designet udspringer af designernes professionelle kompetencer, ikke brugernes evne til at tilpasse sig, på nær i den mest overfladiske betydning. Det illustrerer, hvordan design stadig giver brugere noget, som de aldrig troede, de kunne få.”*

#### FOR MANGE BILER – FOR FÅ CYKLER

I den første del af det 20. århundrede var cyklen en meget mere almindelig transportmåde i byerne, end det er i dag. Efter anden verdenskrig steg antallet af private biler voldsomt, og i nogle europæiske lande er der i dag mere end seks biler for hvert tiende menneske. Det betyder, at en stor del af de ture, som tidligere fandt sted på cykel, nu køres i bil. Med det øgede fokus på klimaforandringer er spørgsmål omkring miljømæssig bæredygtighed – i alle områder af vores samfund – meget højt på dagsordenen, og bytransport er bare én af de sektorer, der skal transformeres, da miljømæssige problemer skabt af massiv privat biltransport i moderne byer er massive. Cyklen kan spille en rolle i byers indsats på bæredygtige områder.

Anna og Terese uddyber: *“Mellem 1990 og 2003 lå antallet af cykler produceret på verdensplan på omkring 100 millioner cykler om året. Men siden da er produktionen steget til 130 millioner cykler om året. Klimaforandringer er set som en af de afgørende grunde til, at folk vælger cyklen i stedet for bilen. Den finansielle krise i 2008 havde også en stor negativ indvirkning på bilindustrien, mens cykel-industrien knap nok blev berørt.*

INDEX: Juryen siger:

*“Der er en global stigning i cykling i urbane miljøer – af miljømæssige årsager, livsstilsårsager og sundhedsårsager. At tage del i den forandring skaber både udfordringer og muligheder i krydsfeltet mellem livsstil og en global bevægelse. Dette design forholder sig til netop disse emner.”*

#### EN AIRBAG BÅRET SOM EN KRAVE OG UDLØST AF SENSORER

Hövding er en cykelhjelm, der ikke ligner andre hjelme på markedet. Den er ergonomisk, den er praktisk, den opfylder alle sikkerhedskrav og den er diskret og blander sig naturligt med det, man ellers har på. Hövding er en krave til cyklister, der indeholder en foldet airbag, som pustes op, hvis man kommer ud for en ulykke. Den oppustede airbag er formet som en hætte, der beskytter cyklistens hoved, og udløsermekanismen er kontrolleret af sensorer, som opfanger anomale bevægelser ved en ulykke.

Den faktiske krave er den synlige del af opfindelsen, og er dækket af en skal, som man kan udskifte, så den kan matches med det tøj, man har på. *“Skallen omkranser kraven, og dens vigtigste funktion er at gøre det muligt at skifte Hövdings udseende – hver eneste dag hvis du har lyst. Skallen er sat fast på kraven med en lynlås, og skallens udseende kan varieres i et uendeligt antal designs, farver, mønstre og stoffer. Lige nu findes der kun to skal-designs at vælge fra, men vi vil lancere nye kollektioner hele tiden. Modsat kraven er skallen vaskbar,”* forklarer Anna og Terese.

#### HELLERE KRANIEBRUD END HATTEHÅR

Den mest effektive beskyttelse mod alvorlige ulykker er at bære en hjelm, når man cykler. Selvom mange folk godt er klar over risikoen ved ikke at bære hjelm, vælger et stort antal alligevel at køre på cykel uden. Ofte er beslutningen baseret på ikke at ville se “dum ud”. Ved at eliminere den klassiske form og det klassiske design på en cykelhjelm er designerne kommet frem til en meget cool og holdningsændrende løsning på et problem, der har dræbt cyklister i mange år. Anna og Terese forklarer om deres proces: *“Vi startede med en undersøgelse, hvor vi spurgte folk på gaden, hvorfor så få bruger cykelhjelme. De kom med masser af grunde: ‘De er irriterende at bære rundt på, de ser allesammen forfærdelige ud, de ødelægger din frisure, ingen andre bruger dem, man kan ikke have sin hue nedenunder.’ Nogle argumenter var gode, mens andre lød mere som undskyldninger. Cykling er noget, vi gør hver eneste dag, og det er forbundet med en fornemmelse af frihed. Selvom folk er klar over risikoen på vejene, vælger en stor del at cykle uden hjelm. I sidste ende vil folk gerne beskytte deres hoveder ved færdselsulykker, men der er grænser. Det er ikke cyklisterne, der skal forandres, det er produktet. Da vi spurgte folk, hvordan de ideelt set kunne tænke sig, at morgendagens cykelhjelm så ud, fik vi svar i retningen af dette: ‘Noget, der er så småt, at det kan foldes og puttes i lommen. Noget der lader dig ændre, hvordan det ser ud, ligesom man kan med covers til mobiltelefoner. Usynlig. I det øjeblik, vi hørte ordet ‘usynlig’, gik det op for os, at det var det verden ventede på. En usynlig cykelhjelm, der ikke ødelægger din frisure.”*

INDEX: Juryen siger samtidig:

*“Teamet bag Hövding definerede problemet ikke som design af en hjelm, men som løsningen på et problem. Vi bifalder rammeskiftet fra hjelm til beskyttelse, da det er en afgørende del af den tænkende designproces. Løsningen tager hensyn til både sikkerhed, beskyttelse og et underliggende strøg af forfængelighed.”*

## AN EDUCATIONAL PLAYGROUND WHERE KIDS CAN LEARN WHILE THEY PLAY

### EN LEGEPLADS, HVOR BØRN LÆRER, MENS DE LEGER

**ENG** For many children, verbal classroom instruction is not the ideal way to learn. Problem solving-based learning is a much more engaged way for children not only to grow comfortable with new concepts but also to apply them to real-world scenarios.

The Learning Landscape responds to children's needs to move, interact and learn social skills. It also provides an outdoor learning space in which children can be physically active. The Learning Landscape is in addition an effective tool for teachers to estimate their students' understanding of new concepts in real time, based on their engagement with the game. Most importantly, Learning Landscape is fun, making play central to the elementary learning experience. In terms of geographical context, Learning Landscape can be built anywhere in the world and is ideal for ages 4-13.

Learning Landscape has two major advantages. First, the design is accessible, both in use and in its construction. The playground can be built in one day by unskilled labor using found and reclaimed materials. Second, Learning Landscape is a play-based solution for any subject, any age group and any language, making it a solution for literally any location in the world.

**DK** For mange børn er den traditionelle klasseundervisning ikke den optimale måde at lære på. Læring baseret på problemløsning er en meget mere engagerende måde for børn at lære på, ikke kun i forhold til at vænne sig til nye begreber, men også i forhold til at anvende dem på virkelige problemstillinger.

Learning Landscape opfylder børns behov for at bevæge sig, kommunikere og tilegne sig sociale færdigheder.

Det skaber samtidig et udendørs undervisningsområde, hvor børn kan være fysisk aktive. Learning Landscape er derudover et effektivt redskab, hvor lærere kan vurdere elevernes forståelse af nye begreber ud fra, hvordan de lever sig ind i legen. Vigtigst af alt er Learning Landscape et sjovt legeområde, hvor legen bliver sat i centrum af undervisningsoplevelsen for de yngste. Learning Landscape kan sættes op hvor som helst i verden og egner sig særligt for aldersgruppen 4-13 år.

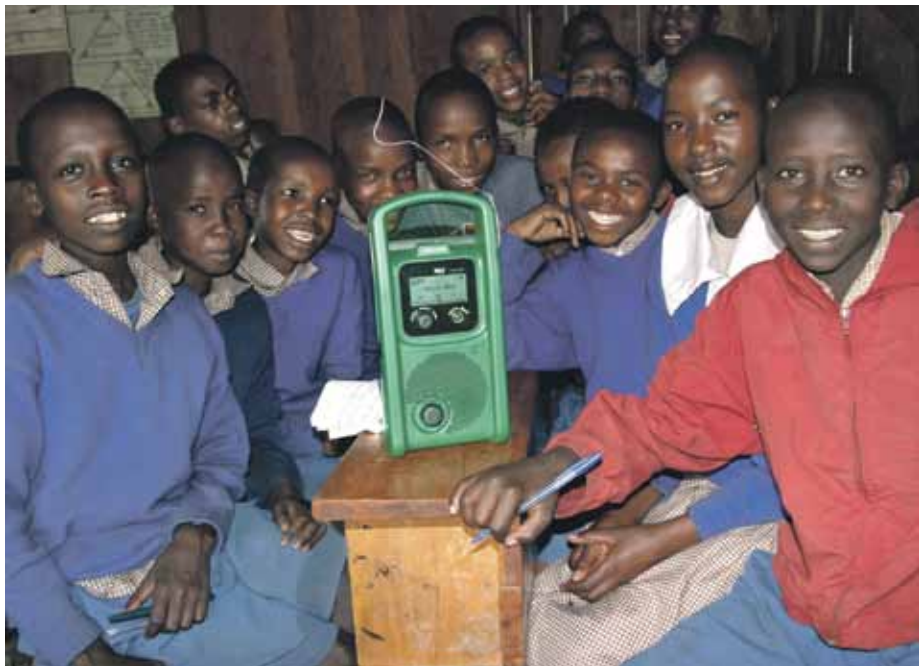
Learning Landscape er designet til at være let at sætte op og bruge. Legepladsen kan opføres på en enkelt dag af ufaglært personale med genbrugsmaterialer, og Learning Landscape giver mulighed for at bruge leg i forbindelse med alle emner, aldersgrupper og sprog, så det er en løsning, der kan bruges hvor som helst.



#### LEARNING LANDSCAPE

DESIGN: HELEEN DE GOEY, ILONA DE JONGH (THE NETHERLANDS), MATTHEW MILLER, NEHA THATTE, EMILY PILLOTON, KRISTINA DRURY & DAN GROSSMAN (UNITED STATES OF AMERICA), 2008



**LIFEPLAYER**

DESIGN: KRISTINE PEARSON  
(UNITED STATES OF AMERICA),  
PHILIP GOODWIN & ROBIN GILHAM  
(SOUTH AFRICA), 2009



## A SOLAR-POWERED MEDIA PLAYER AND RADIO BRINGING INFORMATION TO REMOTE, OFF-THE-GRID AREAS

### EN SOLDREVET MEDIEAFSPILLER OG RADIO, DER GIVER INFORMATION TIL OMRÅDER UDEN ELEKTRICITET

**ENG** In Africa, where 85% of people have no access to electricity, and in India, where 56% of the rural poor have no grid access, the Lifeplayer can provide children with years of primary school lessons loaded onto the media player. It allows community elders to record oral histories for eternity, and farmers can listen to agricultural radio programs and health dramas. Health ministries can distribute HIV/AIDS prevention messaging from 3G cellular downloads—all in local languages. Like an oversized iPod for development, the Lifeplayer offers unprecedented learning opportunities, presenting a pathway toward reaching the UN's 2015 Millennium Development Goal of universal education.

The design of the Lifeplayer focuses on economy, simplicity and durability in form and material choice. Robustly constructed in ABS and nylon, the Lifeplayer uses higher material thickness, and its control knobs and lens are recessed against impact. A tough carry handle houses an unbreakable wire antenna, and the graphic intense LCD screen and simple 1-button control interface simplifies the significant feature set for less technologically sophisticated users. A removable

magnetic solar panel benched on top is the primary energy source – which also provides power for charging mobiles, and at the back a sturdy nylon crank handle is housed, driving a modular internal gearbox. A 12V DC input rounds off the power options, making the Lifeplayer a power independent and reliable media player. Colors are customizable as appropriate for regional deployment.

The Lifeplayer is designed to provide millions of people sustainable, 24/7 access to modern multimedia options that many take for granted. The design opens up the world to the very poor and brings communities together.

**DK** I Afrika, hvor 85% af befolkningen ikke har adgang til elektricitet, og i Indien, hvor 56% af den fattige landbefolkning heller ikke har adgang, kan Lifeplayer levere undervisning fra grundskolen, der hentes ned på medieafspilleren til børnene. De ældre i samfundet kan indtale historier, der kan gemmes for eftertiden, og bønderne kan lytte til radioprogrammer om landbrug. Sundhedsministerierne kan udsende kampagner til forebyggelse af HIV/AIDS via 3G-downloads på de lokale sprog. Som

en slags iPod i stor størrelse giver Lifeplayer uanede muligheder for uddannelse og kan bidrage til at opnå FN's 2015-mål om at sikre uddannelse til alle.

Der er i designet af Lifeplayer blevet fokuseret på økonomi, enkelthed og holdbarhed, hvad angår udformning og valg af materialer. Lifeplayer er robust bygget med ABS og nylon, materialerne er tykke, og betjeningsknapperne og linsen er beskyttet mod stød. Et solidt håndtag indeholder en antenne, der ikke kan gå i stykker, og den tydelige LCD-skærm og simple brugerflade med én knap gør den let at betjene for brugere, der er mindre vant til teknologi. Det aftagelige, magnetiske solpanel ovenpå er den primære energikilde, og det kan også levere strøm til at oplade mobiltelefoner. Endelig er der også et 12V jævnstrømsstik, der er med til at gøre Lifeplayer til en pålidelig medieafspiller, der er uafhængig af elnettet. Farverne kan tilpasses de regionale forhold.

Lifeplayer er designet til at give millioner af mennesker bæredygtig og konstant adgang til de moderne medier, som mange tager for givet. Designet åbner verden op for de fattigste og bringer samfund nærmere sammen.

# USING AID BOXES TO MAKE FOOTBALLS LAVER FODBOLDE AF NØDHJÆLPSKASSER

## THE DREAM BALL PROJECT

DESIGN: KYUNGCHAN HWANG, SONGKYOU JIN,  
HAKSU LEE, MINHYUN HAN & JIN JUN  
(REPUBLIC OF KOREA), 2009

**ENG** Today's children and youth represent the single largest group of young people in history. There are 2.2 billion children and 1.5 billion youth in the world today. Of these, 1.9 billion and 1.3 billion, respectively, live in developing countries. Together, these young people represent an unprecedented opportunity to reduce global poverty and advance development.

Sports can contribute significantly to international, national and local efforts to give children a healthy start. Sports can help those who have not received a good start in life and equip youth with the information, skills, personal and social resources and support needed to make key life transitions successfully. Well-designed sports-based programs focused on healthy development, integrated with other community level interventions, and involving parents, teachers and peers, can positively affect the lives of children and youth.

The Dream Ball Project helps children in disaster zones by providing them with footballs made by recycling famine relief packaging. The design team behind The

Dream Ball Project has redesigned relief packaging in a way that after it has served its primary purpose it can be turned into different types of balls depending on the size of the boxes.

UNICEF uses the game of football in various ways, from helping children recover from trauma to encouraging their physical and emotional development. The sport is more than just a game. It is a positive lifestyle and a way to promote a peaceful approach to conflict resolution. It lures the children away from drugs, unsafe sex and violence.

**DK** Der har aldrig været så mange børn og unge i verden, som der er i dag – 2,2 mia. børn og 1,5 mia. unge. Heraf lever henholdsvis 1,9 mia. og 1,3 mia. i udviklingslandene. Tilsammen udgør de en hidtil uset mulighed for at mindske den globale fattigdom og hjælpe udviklingen fremad.

Sport kan være et vigtigt bidrag til den internationale, nationale og lokale kamp for at give børn en sund start

og kan desuden give unge de informationer, evner, personlige og sociale ressourcer og den støtte, de skal bruge, for at klare livets forskellige udfordringer. Veldesignede sportsprogrammer med fokus på sund udvikling i samarbejde med andre tiltag på lokalt niveau, som involverer forældre, lærere og andre unge, kan påvirke børns og unges liv på en positiv måde.

Dream Ball-projektet hjælper børn i katastrofeområder ved at give dem fodbolde, der er lavet af emballage fra nødhjælpskasser. Designteamet bag Dream Ball-projektet har redesignet emballagen, så den, når den har opfyldt sit primære formål, kan laves om til forskellige typer bolde alt efter kassens størrelse.

UNICEF bruger fodboldsporten på forskellige måder; lige fra at hjælpe børn med at komme sig oven på traumer til at fremme deres fysiske og psykiske udvikling. Sporten er mere end bare en leg. Det er en positiv livsstil og et middel til at fremme en fredelig tilgang til konfliktløsning. Det får børn væk fra narko, usikker sex og vold.



## USING GAMES TO MAKE BUSINESSES MORE RESPONSIBLE

### BRÆTSPIL, DER GØR VIRKSOMHEDER MERE ANSVARLIGE



**UN GLOBAL COMPACT DILEMMA GAME**  
DESIGN: CHRISTIAN HONORÉ (DENMARK)  
& DAWN BAGGALEY (NEW ZEALAND), 2010



**ENG** Businesses have a significant impact on helping to raise living standards and uphold human rights. By helping businesses to understand the connection between their activities and the impact they have on the world, the lives of millions of people – who work for businesses, buy their products and live in the communities in which they operate – can be improved.

The Global Compact has over 8,000 member organizations in over 130 countries. In the six months since the game was launched, 500 free games have been donated to members of the Global Compact and hundreds more purchased by large multinational companies. In keeping with the aim of the game to reach as wide an audience as possible, there is no license fee to use it. Translation of the game into local languages is encouraged and the design templates will be provided to companies who want to produce copies of the game locally.

Many businesses accept they have responsibilities that encompass a wide group of stakeholders and issues but need guidance on how to act. Other businesses do not see how they are relevant to them. The game shows businesses why such issues are relevant and what they

can do. It does this through the use of real business cases and practical examples. The game offers players the opportunity to role-play complex situations in a safe environment and to explore stakeholders' expectations. They are also asked to self-assess their actions. This type of learning has a proven significant impact on players and empowers them to take action. As no specialist knowledge is required to play the game, it can educate a wide variety of business people. Businesses benefit from greater stakeholder satisfaction, reduced business risks and new business opportunities. The environment and society benefit as negative impacts are reduced.

**DK** Virksomheder har stor indflydelse på at øge levestandarderne og sikre menneskerettigheder. Ved at hjælpe dem med at forstå sammenhængen mellem deres aktiviteter og den betydning, de har på verden, kan livet forbedres for millioner af mennesker, der arbejder for virksomhederne, køber deres produkter og lever i de samfund, som de er aktive i.

Global Compact har over 8.000 medlemsorganisationer i over 130 lande, og i de seks måneder, der er gået, siden spillet blev udsendt, er der blevet doneret 500 gratis spil

til medlemmer af Global Compact, og store multinationale virksomheder har købt flere hundrede eksemplarer. I henhold til spillets mål om at nå ud til så mange som muligt skal der ikke betales gebyr for at bruge spillet. Der opfordres til at oversætte spillet til lokale sprog, og designskabelonerne bliver udleveret til virksomheder, der ønsker at producere lokale kopier af spillet.

Mange virksomheder accepterer, at de har et socialt ansvar, der omfatter en bred gruppe aktører og emner, men mangler vejledning i, hvordan de skal føre det ud i livet. Spillet viser virksomhederne, hvorfor sådanne problemstillinger er relevante, og hvad de kan gøre ved at bruge ægte problemstillinger og praktiske virksomhedseksempler. Spillerne udsættes for komplekse rollesituationer i sikre omgivelser, hvor de kan undersøge aktørernes forventninger. De bliver også bedt om at vurdere deres egne handlinger.

Spillet kræver intet forudgående kendskab og kan bruges af en lang række forskellige forretningsfolk. Virksomhederne kan konstatere større tilfredshed blandt de mange aktører, færre risici og nye forretningsmuligheder, og de negative indvirkninger på miljø og samfund reduceres.

# COMMUNITY CATEGORY

- ANTI SLEEP PILOT
- AQUACUBE
- GREEN SCHOOL
- DESIGN SEOUL
- HIGH LINE
- KONBIT
- OPENIDEO.COM
- RECLAIM—BAHRAIN'S NATIONAL PAVILLION
- REFUGEES UNITED
- SEOUL CALL CENTER, DASAN120
- SHOKAY
- T.27 CITY CAR
- THE CHEONGGYEcheon RESTORATION PROJECT
- THE COPENHAGEN WHEEL
- WATAIR
- YUNEEC E430

**ENG** The COMMUNITY category comprises all designs of things that we share communally, for example: roads, public spaces and parks, cities, infrastructure, means of transport, signage, mass media and communications. Including the design of strategies, services and concepts for society, networking and communities.

**DK** COMMUNITY-kategorien indeholder alle designs der relaterer sig til det vi deler, f.eks. veje, offentlige pladser og parker, byer, anden infrastruktur, transport, skiltning, massemedier og kommunikation. Endvidere design af strategier, services og koncepter samfund, netværk og fællesskaber.



# PREVENTS DRIVER FATIGUE BY ALERTING WHEN TO STOP FOR BREAKS

## MINDSKER ANTALLET AF ULYKKER, SOM SKYLDES, AT BILISTEN FALDER I SØVN

**ENG** Globally, traffic accidents cost hundreds of thousands of lives and billions of dollars every year. Fatigue-related accidents are responsible for 20 % of all traffic accidents worldwide and 40 % of single vehicle accidents. Current solutions to prevent driver fatigue caused accidents have predominantly been made available only in high-end luxury cars.

On his way home from a late night meeting in 2007, the initiator, Troels Palshof, fell asleep behind the wheel and just narrowly avoided a crash. Frightened by this experience, he decided to develop a solution that would help people avoid similar situations. Unlike other solutions in the after-market, Anti Sleep Pilot is not designed to wake you once you have fallen asleep. Instead it helps drivers avoid dangerous situations caused by driver fatigue. Anti Sleep Pilot automatically registers your level of tiredness, maintains your alertness through simple tasks while driving, and it recommends a preventive break before tiredness becomes dangerous.

In the beginning of 2011, Anti Sleep Pilot developed an application for smartphones. It holds the same basic functionality as the Anti Sleep Pilot and the same poten-

tial to prevent fatigue related accidents. As the application is a software product that can be downloaded to existing smartphone platforms, it has the potential to quickly reach a worldwide digital distribution—without any environmental impact of packaging, production and transportation.

The Anti Sleep Pilot holds the potential of saving thousands of lives and billions of dollars every year.

**DK** På verdensplan koster trafikulykker hvert år flere hundrede tusinde menneskeliv og mange milliarder kroner. Træthedsrelaterede ulykker står for 20% af alle trafikulykker i verden og for 40% af alle soloulykker. De eksisterende løsninger, der skal forhindre køretræthed, findes primært i de dyreste biler.

På vej hjem fra et aftenmøde i 2007 faldt opfinderen Troels Palshof i søvn bag rattet og undgik kun med nød og næppe at køre galt. Skræmt over sin oplevelse besluttede han at finde en løsning, der kunne forhindre andre i at komme i samme situation. Modsat andre produkter på markedet er Anti Sleep Pilot ikke designet til at vække dig, når du er faldet i søvn. I stedet hjælper

den føreren til undgå farlige situationer, der skyldes køretræthed. Anti Sleep Pilot registrerer automatisk dit træthedsniveau, fastholder din opmærksomhed gennem simple test under kørslen, og den anbefaler en forebyggende pause, inden din træthed bliver farlig.

I starten af 2011 udviklede Anti Sleep Pilot en applikation til smartphones. Den har de samme grundlæggende funktioner som Anti Sleep Pilot og samme evne til at forebygge træthedsrelaterede ulykker. Da applikationen er et softwareprodukt, der kan downloades til smartphones, har den mulighed for hurtigt at nå ud til et bredt publikum – uden miljøbelastende emballage, fabrikation og transport.

Anti Sleep Pilot har potentiale til at redde flere hundrede tusinde liv og spare mange milliarder kroner hvert år.

**ANTI SLEEP PILOT**  
DESIGN: THOMAS GREGERS  
& TROELS PALSHOF (DENMARK), 2007

# CONTAINERIZED WATER TREATMENT PLANTS

## VANDRENSNINGSANLÆG INDBYGGET I CONTAINERE

### AQUACUBE™

DESIGN: HUGH O'DONNELL  
& DR. KEITH GAVIN  
(UNITED KINGDOM), 2007



**ENG** With an infinite amount of water and only a small proportion of this being useable, a growing global population increases the demand on this scarce commodity. Aquacube™ enables a large proportion of the world's currently unusable water to be treated and utilized.

Standard shipping containers act as universal building blocks in which the water treatment plants are assembled. The plant is self-contained and can carry an on-board power supply, spare parts, maintenance tools and collapsible storage tanks. Versatility is achieved by adopting a modular approach to determining the most appropriate method for treating different types of source water. Each module treats water by the scientific methods regarded as most applicable to the water treatment required. The standardized format also enables the Aquacube™ to produce high volumes of treated water with minimal infrastructure needs. The applicable systems are designed for use in the most challenging environments. The combination of these technologies results in a clean water supply suitable for irrigation,

industrial applications or drinking water.

Provision of clean water has a huge impact on the most vulnerable members of our society. In continental Africa, water is mostly collected by young females and it can take up to four hours a day getting to the source of clean water and then back. Aquacube™ can be located closer to villages and can provide clean water close to the point of use. Aquacube™ is often operated and controlled by small community groups.

**DK** Vores planet består af en kolossal mængde vand, hvoraf kun en brøkdel er anvendelig som drikkevand. Oven i købet øges efterspørgslen på denne sjældne vare på grund af den stadig stigende befolkning. Med Aquacube™ kan en stor andel af det vand, der i dag ikke kan anvendes, behandles og bruges.

Traditionelle fragtkontainere fungerer som universelle byggeklodser, hvori man placerer vandrensingsanlæg. Anlægget er selvstændigt og kan indeholde egen strømforsyning, reservedele, vedligeholdelsesværktøj og sam-

menklappelige opbevaringstanke. Det er gjort alsidigt med moduler for at finde den mest velegnede metode til at behandle forskellige typer vand, og hvert modul behandler vandet med den videnskabelige metode, der anses for bedst til den pågældende vandbehandling. Det standardiserede format giver også Aquacube™ mulighed for at producere store mængder behandlet vand med et minimalt behov for infrastruktur. De gældende systemer er designet til brug i selv de mest udfordrende miljøer, og kombinationen af forskellige teknologier giver forsyning af rent vand, der egner sig både til kunstvanding, industriel anvendelse eller som drikkevand.

Adgang til rent vand er af afgørende betydning for de svageste mennesker i verden. I det kontinentale Afrika indsamles vand oftest af unge kvinder, og det kan tage dem op til fire timer om dagen at hente rent vand til hjemmet. Aquacube™ kan placeres tættere på landsbyerne og kan levere rent vand tættere på det sted, hvor det skal bruges.



## PROVIDES STUDENTS WITH A RELEVANT, HOLISTIC AND GREEN EDUCATION

### GIVER ELEVER EN RELEVANT, HOLISTISK OG GRØN UDDANNELSE

**ENG** The Green School in Bali was conceived by its founders in 2006, and the school opened its doors in September 2008 with around 100 pupils and a tailor-made campus that had only recently emerged from the jungle and rice fields. Since then, it has grown both physically and in student numbers. The Green School aims to turn its students into responsible global citizens. Curriculum teaches carbon footprint analysis, water studies, organic farming and gardening, where each class has its own flower/vegetable garden, which students design, prepare, tend, harvest, cook, and eat. Students are also learning traditional academic subjects (math, English, science) along with creative arts and sustainability studies.

The school enrolls students from both the local and global communities. Teachers are also from a wide spectrum of backgrounds, both Balinese and other

cultures. The whole campus is a year-round community of summer camps and symposia. The campus hosts environmentalists and change-makers from all over the globe, giving students the opportunity to learn about the importance of respecting the planet year round.

The Green School is preparing students to be critical and creative thinkers who are confident to champion the sustainability of the world and its environment..

**DK** Opførelsen af Green School i Bali blev påbegyndt i 2006, og skolen blev indviet i 2008 med ca. 100 elever og et skræddersyet skoleområde, der kun for nylig er vokset op fra junglen og rismarkerne. Siden da er skolen vokset både fysisk og i antallet af elever. Green School har til formål at gøre sine elever til ansvarlige verdensborgere. Der er stadig fokus på de traditionelle fag som matematik, sprog, samfundsfag, naturvidenskab og form-

ning, men samtidig kan eleverne udfolde sig i kurser i chokoladeproduktion, økologisk landbrug og nye metoder inden for bæredygtig konstruktion med bambus.

Skolen tager imod elever fra både de lokale og de globale samfund, og lærerne har vidt forskellige baggrunde og kommer både fra Bali og andre kulturer. Hele skoleområdet er aktivt året rundt med sommerkurser og symposier. Her mødes miljøaktivister og iværksættere fra hele verden og giver eleverne mulighed for at lære om, hvor vigtigt det er at respektere planeten året rundt.

Green School lærer eleverne at forholde sig kritisk og tænke kreativt og have mod på at skabe en bæredygtig verden.



#### GREEN SCHOOL

DESIGN: CHEONG YEW KUAN (MALAYSIA), EFFAN ADHIWIRA (INDONESIA), MIYA BUXTON (UNITED STATES OF AMERICA), HANNO BURTSCHER (AUSTRALIA), PHILLIP BECK, STEPHANIE GUNAWAN (AUSTRALIA), ERIN JOHNSON, KENDRA SPANTON (CANADA), YULIANTO MALIANG, I NYOMAN KERTA, I GUSTI NGURAH PUTRA WIARSA & HERU WIJAYANTO (INDONESIA)  
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FOUNDERS: CYNTHIA HARDY (UNITED STATES OF AMERICA) & JOHN HARDY (CANADA), OPENED 2008

# INDEX: AWARD WINNER 2011

## DESIGN SEOUL



### CHANGING A CITY INHABITED BY 10 MILLION PEOPLE - BY DESIGN

**The first ever coherent design based approach to improve life for citizens in a very large city. The plan is based on the vision to "design caringly for citizens", and the city of Seoul has been designing people-oriented solutions, not only to solve aesthetic challenges, but also to solve social, environmental and public health issues.**

#### WHAT IS THE PROBLEM?

More than half of the world's population now lives in cities. For some people, this means enhanced employment opportunities, free exchanges of ideas, culture, enterprise and wealth. Modern day cities are the biggest and most complicated structures that man has ever created, but unfortunately these massive structures hold within them a long list of social issues. Some of the major challenges are concentration of population, overpopulation and subsequent lack of decent housing, pollution, traffic congestion, educational problems and - by extension - marginalization of people. H.E. Oh Se-hoon, Mayor of Seoul explains: *"The central concept of the Design Seoul Project is: How could we put people at the center and make all policies, hardware and software of the city human centered?"*

#### A STRUGGLING CITY DESTROYED BY WAR

The trend towards urban living in the developed and developing world is set to continue and 3.3 billion people on this planet still choose to crowd together in skyscrapers, high-rises, subways and buses. Not too long ago, it looked like our cities were dying, but in fact they boldly threw themselves into the information age, adapting and evolving to become the gateways to a globalized and interconnected world. Now more than ever, the well-being of human society depends upon our knowledge of how the city lives and breathes.

The INDEX: Jury says: *"Today, the driver of design innovation is the metropolitan region. This is the scale at which policy, capital, and social systems can affect positive change. Design Seoul is a design-driven project that captures the macro to micro scale of potential to improve people's lives."*

The Korean War left the city of Seoul almost completely destroyed, and the reconstruction and expansion of the city in the 1960's and 1970's was rapid, massive and in tune with the impressive economical development at the same time. This left Seoul with a number of substantial challenges both in relation to urban planning and livability. *"The city of Seoul is a metropolis that has achieved rapid expansion after the Korean War. But because we focused solely on practicalities, while quickly building the city's infrastructure we gained a bad reputation and was known as a city of gray concrete"*, says Mayor Oh.

#### WHEN LIFE GIVES YOU LEMONS - MAKE LEMONADE

Based on the vision to "design caringly for citizens", Seoul has been designing people-oriented solutions, not only to improve the quality of living, but also to enhance its competitiveness by vitalizing the design industry in Seoul. To make Seoul a more people-centered city, Design Seoul established five principles: Airy, Integrated, Preserving, Collaborative and Sustainable design. It also formulated Design Seoul Guidelines, which have been applied to Seoul's public spaces, facilities, buildings, visual media, outdoor advertisements and other relevant items. A few examples are: The Dasan Call Center, which is a telephone service that has revolutionized city services in Seoul; the Gwanghwamun Square Project that has transformed part of a 16-lane road without a walkway into a new public space in downtown Seoul; the Namsan Renaissance Project that turned the Mount Nam Park District into an extraordinary tourist venue with a very scenic jogging route with easy access for the public and the Hangang Renaissance Project, which has created a leisure infrastructure along the Han

River, which is known mostly for its crude, concrete embankments and jungles of cookie-cutter buildings. *"The changes were gradual so Seoul residents did not feel a big change within a short period of time"*, the Mayor explains and elaborates: *"It has been five years since we began this project, and foreign visitors, who only come to Seoul every once in a while, praise the notable changes in Seoul."*

The INDEX: Jury adds: *"This solution tackles the problem from a holistic perspective - usually this is addressed piece by piece, but Seoul takes it on from a systems perspective. Furthermore, the phase-staged design strategy created to roll out the changes makes the plan visible on the scale of the individual, neighborhood and city, ensuring the support of the citizens - from the Han River to street lights to the sewer system."*

#### FROM HARD TO SOFT

For the city of Seoul, design is a way not only to upgrade its appearance, but also a way to improve the daily life and address social, environmental and public health issues for its citizens. This approach has made Seoul a safer, healthier and more fun city to live in. The aim was to make Seoul soft, emphasizing on culture and design, moving away from the previous hard paradigm with a strict focus on efficiency. Design Seoul is an excellent illustration of how the use of design solutions can make a city healthier, more eco-friendly and more enjoyable to live and work in: *"In order to make Seoul a soft city, I have set up a few principles - as I mentioned. Through these principles, we try to make a coherent design-oriented city atmosphere."* Mayor Oh concludes.

*"This approach is incredibly brave in terms of confronting a huge problem with a determination to affect improvement of the population of the city as a whole. It involves the citizens of Seoul with both local and international professional designers and architects to co-create their future environment"*, The INDEX: Jury says about their selection of Design Seoul as INDEX: Award 2011 winner.

## AT FORANDRE EN BY MED 10 MIO. INDBYGGERE - VIA DESIGN

**Den første sammenhængende designbaserede tilgang til at forbedre livet for en storbys indbyggere. Planen er baseret på en vision om "design, der drager omsorg for borgere," og Seoul har designet løsninger med mennesket i centrum, ikke bare til at løse æstetiske udfordringer, men også for at løse udfordringer indenfor sociale, miljømæssige og folkesundhedsmæssige forhold.**

### HVAD ER PROBLEMET?

Mere end halvdelen af verdens befolkning bor nu i byer. For nogle mennesker betyder dette forbedrede arbejdsmuligheder, friere udveksling af idéer, kultur, foretagelse og velstand. Moderne byer er de største og mest komplicerede strukturer, som mennesket nogensinde har skabt, men desværre har disse massive strukturer indbygget en lang liste af sociale udfordringer. Nogle af de afgørende udfordringer er koncentrationen af mennesker, overbefolkning og efterfølgende mangel på anstændige boliger, forurening, trafikale problemer, uddannelsesmæssige udfordringer og – i forlængelse heraf – marginalisering af mennesker. Seouls borgmester H. E. Oh Se-hoon forklarer: "Det centrale koncept for Design Seoul projektet er: Hvordan kan vi sætte mennesket i centrum og lave alle vores politikker, samt byens hardware og software med mennesket i centrum."



### EN BY ØDELAGT AF KRIG

Tendensen at bo i byer i både den udviklede og den udviklende verden vil fortsætte, og 3,3 milliarder mennesker vælger i dag at stuve sig sammen i skyskrabere, metroer og busser. For ikke så lang tid siden så det ud til, at vores byer var døende, men rent faktisk har de dristigt kastet sig ind i informationsalderen, mens de har tilpasset og udviklet sig, og fungerer i dag som porte til en globaliseret og sammenhængende verden. Derfor er vores viden om, hvordan byen lever og ånder vigtigere end nogensinde, da vores samfunds velfærd afhænger af den.

INDEX: Juryen tilføjer: "I dag er storbyerne drivkraften bag innovativt design og designprocesser. Det er på dette niveau, at politik, kapital og sociale systemer kan skabe positive forandringer. Design Seoul er et design drevet projekt, der indfanger hele skalaen af potentiale til at forbedre menneskers liv fra mikro- til makroniveau."

Korea-krigen efterlod Seoul næsten fuldstændigt ødelagt og genopbygningen og byens ekspansion i 1960'erne og 1970'erne var hurtig og massiv og fulgte den imponerende økonomiske udvikling, der foregik på samme tid. Det efterlod Seoul med en række substantielle udfordringer i relation til både byplanlægning og LIVABILITY. "Byen Seoul er en metropol, der har opnået hurtig ekspansion siden Korea-krigen. Men fordi vi udelukkende fokuserede på praktiske spørgsmål, mens vi hurtigt byggede byens infrastruktur, har vi fået et dårligt ry og blev kendt som en by af grå beton", fortsætter borgmester Oh.

### LAV LEMONADE HVIS LIVET GIVER DIG CITRONER

Baseret på visionen om "design, der drager omsorg for borgeren" har Seoul designet løsninger med mennesket i centrum, ikke bare for at forbedre livskvaliteten, men også for at forbedre dens konkurrencedygtighed ved

at vitalisere byens designindustri. For at gøre Seoul en mere menneske centreret by etablerede Design Seoul fem principper: Luftig, Integreret, Bevarende, Samarbejdende og Bæredygtigt design. De formulerede også Design Seoul Guidelines, som er blevet brugt i byens offentlige rum, faciliteter, bygninger, visuelle medier, udendørs annoncering og andre relevante steder. Et par eksempler er: Dasan Call Center, som er en telefon-service der har revolutioneret serviceområdet i Seoul; Gwanghwamun Plads, der har transformeret dele af en 16-baners gennemfartsvej uden fortove til en ny offentlig plads i centrum af Seoul; Namsam-projektet, der ændrede Mount Nam parkområdet til en ekstraordinær turistattraktion med en smuk løberute med nem adgang for offentligheden og Hangang-projektet, hvor man har skabt fritidsinfrastruktur langs Han-floden, som ellers bedst er kendt for dens rå cement dæmninger og en jungle af typehuse. "Ændringerne var gradvise, så byens indbyggere følte ikke store ændringer på kort tid", forklarer borgmesteren og uddyber: "Der er gået fem år, siden vi begyndte det her projekt, og besøgende fra udlandet, der kun besøger Seoul en gang imellem, roser de synlige ændringer i byen".

"Denne løsning tackler problemet fra et holistisk perspektiv – som regel er den slags behandlet en ting ad gangen, men Seoul angriber det fra et system perspektiv. Derudover vil den faseinddelte designstrategi gøre, at ændringerne vil være synlige på individplan og dermed sikre opbakningen fra byens borgere – fra Han-floden til gadebelysning til kloaksystemet", siger INDEX: Juryen

### FRA HÅRD TIL BLØD

For Seoul er design ikke bare en måde at opgradere byens udseende, men også en måde, hvorpå man kan forbedre det daglige liv og behandle sociale, miljømæssige og sundhedsmæssige emner for byens indbyggere. Denne tilgang har gjort Seoul til en sikrere, sundere og sjovere by at bo i. Målet var at gøre Seoul blød ved at understrege kultur og design, ved at flytte sig væk fra det tidligere hårde paradigme med et snævert fokus på effektivitet. Design Seoul er et fremragende eksempel på, hvordan man kan bruge designløsninger til at gøre en by bedre: "For at gøre Seoul til en blød by har jeg – som jeg nævnte – fremlagt nogle få principper. Gennem disse principper forsøger vi at skabe en sammenhængende design orienteret byatmosfære", slutter borgmester Oh.

"Denne tilgang er utrolig modig i forhold til at løse en kæmpe udfordring. Den har fokus på at skabe forbedringer for befolkningen som helhed, og den skaber involvering mellem Seouls indbyggere og lokale og internationale professionelle designere og arkitekter, der samarbejder om at skabe deres fremtidige miljø – sammen!" siger INDEX: Juryen om deres valg af Design Seoul som vinder af INDEX: Award 2011.



**DESIGN:** Seoul Metropolitan Government **YEAR:** 2007 **COUNTRY:** Republic of Korea **CATEGORY:** Community **STATUS OF REALIZATION:** In production **WEBSITE:** <http://design.seoul.go.kr> **NUMBERS:** By 2030, an estimated 5 billion of the world's 8.1 billion people will live in cities / Today, 10+ million people live in Seoul city / 25% Seoul citizens have home access to broadband Internet connections, the highest broadband penetration rate in the world / Seoul Subway is the third largest in the world, with over 200 million passengers every year / Seoul has helped plant 3.3 million trees since 1998 and recently developed Seoul Forest, a \$224 million patch of urban woodland comparable to London's Hyde Park.

## ELEVATED RAIL TRACKS MADE INTO A PARK IN NEW YORK CITY

### GAMLE TOGSPOR LAVET OM TIL EN PARK I NEW YORK CITY

**ENG** The High Line was built in the 1930s as part of a massive public-private infrastructure project called the West Side Improvement. It lifted freight traffic 30 feet in the air, removing dangerous trains from the streets of Manhattan's largest industrial district, but no trains have run on the High Line since 1980.

The design process of the High Line began with an open ideas competition in 2003. All 720 entries were made available to the public, and response to the ideas helped shape the process.

As a public-private partnership, the realization of the High Line underwent intense community participation, intricate agency coordination with federal, state and city agencies and private donor engagement to establish an endowment for the maintenance and operation of the park. Since its opening, the High Line has been used and loved by local residents, tourists, design critics and even the most cynical of New Yorkers. It has provided a much needed open space in New York and reintroduced the notion of "promenading" back into the urban park experience.

Since it opened as a park in 2009, the High Line's success has motivated a whole host of public officials and city planners to consider or revisit efforts to convert relics from their own industrial pasts into potential economic engines. Though the High Line is not fully completed, more than two million people have already visited. It has become an amazingly popular meeting spot for people of all backgrounds and a great success for what began as a grassroots effort.

**DK** High Line blev bygget i 1930'erne som en del af et stort offentligt/privat infrastrukturprojekt, der blev kaldt West Side Improvement. Den løftede fragttrafikken 9 meter op i luften og fik de farlige tog væk fra gaderne i Manhattans største industriområde, men der har ikke kørt tog på High Line siden 1980.

Designprocessen bag High Line begyndte med en åben idékonkurrence i 2003. Alle 720 bidrag blev offentliggjort, og de reaktioner, der kom, var med til at forme processen. Som et offentligt/privat samarbejde opnåede udformningen af High Line en stor deltagelse fra lokalbefolkningen, koordination med statslige, regionale og lokale agenturer samt private donationer for at etablere en bevillingsramme for vedligeholdelse og drift af parken. Siden indvielsen i 2009 er High Line blevet brugt og tiljuble af lokale indbyggere, turister, designmeldere og selv de mest skeptiske newyorkere. Den har skabt tiltrængte, åbne omgivelser i New York og genindført begrebet "at gå en tur" i storbyen.

Siden parken åbnede i 2009, har High Line's succes motiveret en række offentlige embedsmænd og byplanlæggere til at overveje at omdanne levn fra den industrielle fortid til potentielle økonomiske initiativer. Selv om High Line endnu ikke er helt færdiggjort, har der allerede været over to millioner besøgende. Den er blevet et utrolig populært mødested for folk med forskellig baggrund og en stor succes for det, der startede som et græsrodsprojekt.



#### HIGH LINE

DESIGN: JAMES CORNER, LISA TZIONA SWITKIN, NAHYUN HWANG, SIERRA BAINBRIDGE, TOM JOST, DANILO MARTIC, TATIANA VON PREUSSEN, MAURA ROCKCASTLE, TOM RYAN, LARA SHIHAB-ELDIN, HEEYEUN YOON, HONG ZHOU, ELIZABETH DILLER, RICARDO SCOFIDIO, CHARLES RENFRO, MATTHEW JOHNSON, ROBERT CONDON, TOBIAS HEGEMANN, GASPAR LIBEDINSKY, JEREMY LINZEE, MILES NELLIGAN, DAN SAKAI, JOSHUA DAVID & ROBERT HAMMOND (UNITED STATES OF AMERICA), 2008



## AN INTERACTIVE COMMUNICATION PLATFORM THAT HELPS COMMUNITIES REBUILD THEMSELVES

### EN INTERAKTIV KOMMUNIKATIONS-PLATFORDM, DER HJÆLPER LOKALSAMFUND MED AT GENOPBYGGE SIG SELV

#### KONBIT

DESIGN: GREG ELLIOT & AARON ZINMAN  
(UNITED STATES OF AMERICA), 2010

**ENG** When the earthquake hit Haiti in January 2010, professors at the MIT Media Lab organized a class to put together a MIT response. As a result of that class, Greg Elliot and Aaron Zinman came up with Konbit, an interactive communication platform.

In a country that is at least 50% illiterate, professional internet network companies fall short because they require literacy, access to internet and a résumé-driven culture. And many of the jobs in Haiti do not require literacy. As a result, Konbit lowers the barrier of entry by allowing users to call and communicate with an automated system in their own language. With the support from telecommunications companies, these phone calls are free.

Konbit improves skill-set collection by using statistical analysis to expose hidden skill associations. By gathering which skills are often associated together, we can help people determine additional skills they may have forgotten to mention. The system integrates crowd-sourced translation via phone and web. The search

function uses probability theory for better results, but also provides an extremely simple interface for bulk recruitment via SMS and provides a dual-channel feedback loop for both employee and employer accountability. This feedback mechanism also avoids reducing humans to context-less ratings that often fail to capture complicated hiring scenarios.

**DK** Da Haiti blev ramt af jordskælv i 2010, oprettede lærere på MIT Media Lab en gruppe, der skulle finde ud af, hvordan de kunne hjælpe. Det førte til, at Greg Elliot og Aaron Zinman fandt på Konbit, en interaktiv kommunikationsplatform.

I et land, hvor over 50% af befolkningen ikke kan læse, kommer professionelle netværkssider på internettet til kort, fordi de kræver, at man kan læse, har adgang til internettet og er vant til at oprette et CV. Til mange job i Haiti er der ikke behov for at kunne læse, og derfor fjerner Konbit denne barriere ved at give brugerne mulighed for at ringe og kommunikere med et automatisk system på deres eget sprog. Disse opkald kan foretages gratis takket være hjælp fra teleselskaberne.

Konbit forbedrer indsamlingen af ansøgernes færdigheder ved at bruge statistisk analyse til at finde skjulte

færdigheder frem. Ved at sætte færdigheder sammen, som ofte associeres med hinanden, kan Konbit hjælpe folk med at komme på yderligere færdigheder, som de måske har glemt at nævne. Systemet integrerer oversættelse via telefon og internet. Søgefunktionen bruger sandsynlighedsmatching for at få bedre resultater, men har også en meget enkel brugergrænseflade, der leverer masserekruttering via sms samt feedback – både for den ansatte og arbejdsgiveren. Med feedbackmekanismen undgår man også, at mennesker reduceres til ren statistik, hvor de problematiske ansættelsesforhold ofte ikke opdages.

Endelig stræber Konbit efter at levere økonomisk vækst ved at foretage en lokal optælling af arbejdsstyrkens størrelse. Internationale virksomheder, der gerne vil investere i et land som Haiti, vil vide, hvilke kompetencer der findes der, hvor de befinder sig, og hvor pålidelige arbejderne er. Desuden kan dette færdigheds-optællingssystem også anvendes på internationalt plan. Katastrofer, der måtte ske i fremtiden, vil kræve hurtig genstrukturering af arbejdskraft og hjælp, og jo mere vi ved om befolkningens primære og sekundære færdigheder, jo bedre kan de færdigheder bringes i anvendelse for hurtigt at hjælpe efter tab og ødelæggelse.

# A WEB-BASED PLATFORM FOR OPEN SOURCE, COLLABORATIVE SOCIAL INNOVATION

## EN WEBBASERET PLATFORM TIL SOCIAL INNOVATION

**ENG** All design challenges posted on OpenIDEO.com seek a solution for social good. The site's first challenge got more people involved in British chef Jamie Oliver's Food Revolution. Subsequent challenges have helped generate a catalogue of potential low-cost educational tools and services for the developing world. Furthermore, the platform's technology has been used to build a separate online community for Sony and the World Wildlife Fund, marking the first time that Sony has opened up its proprietary technologies for environmental causes.

To this end, OpenIDEO.com is designed to leverage IDEO's abilities to attract creative talent, to encourage a collaborative approach to problem solving and to provide clear feedback on design concepts. What is in it for the users? The knowledge that their actions are doing some social good, the opportunity to be inspired and to inspire others, and the recognition they receive when they contribute to a winning design. Winning designs may be produced by whoever choosing to do so; all con-

cepts are generated under a Creative Commons license. IDEO believes that innovation requires collaboration and that technology can facilitate teamwork across great distances. They considered 100+ ways to engage people in design challenges, but could not find an online platform that accommodated all of their needs, so they created their own. IDEO's aim was to include people on their virtual team and signal that all contributions are helping to achieve a larger goal.

**DK** Alle designudfordringer, der kommer på OpenIDEO.com, søger en socialt ansvarlig løsning. Sittets første udfordring fik mange mennesker til at involvere sig i den britiske kok Jamie Olivers Food Revolution. Efterfølgende udfordringer har været med til at oprette et katalog af potentielle, billige undervisningsværktøjer og -tjenester til udviklingslandene. Desuden er platformens teknologi blevet brugt til at oprette et separat onlinefællesskab til Sony og WWF. Det markerer, at Sony for første gang har åbnet sine teknologier op for miljømæssige formål.

OpenIDEO.com er designet til at forbedre IDEO's evne til at tiltrække kreative talenter, fremme samarbejde i forbindelse med problemløsning og til at levere klar og tydelig feedback på designkoncepter. Hvad får brugerne så ud af det? De ved, at deres handlinger medvirker til at hjælpe sociale formål, de får lejlighed til at blive inspireret og inspirere andre, og de får anerkendelse, når de har deltaget i et design, der får succes. De designs, der vinder, kan frit produceres af dem, der vil. Alle koncepter fremstilles under en fælles kreativ licens.

IDEO er af den opfattelse, at innovation kræver samarbejde, og at teknologi kan fremme samarbejde over store afstande. Virksomheden overvejede mange forskellige måder at engagere folk på i designudfordringer, men kunne ikke finde en onlineplatform, der kunne opfylde alle deres behov, så de valgte at lave en selv. Det var IDEO's mål at få folk til at deltage i deres virtuelle team og slå fast, at alle bidrag hjælper med at nå et større mål.



**OPENIDEO.COM**  
DESIGN: IDEO DESIGN TEAM  
(UNITED KINGDOM), 2010



**RECLAIM—BAHRAIN'S NATIONAL PAVILION**  
DESIGN: NOURA AL SAYEH  
& DR. FUAD AL ANSARI  
(BAHRAIN), 2010



## AN ARCHITECTURE INSTALLATION CONVERGING BAHRAIN CULTURE BAHRAINS NATIONALE PAVILLON, DER AFSPEJLER LANDETS HAVKULTUR

**ENG** Reclaim, Bahrain's national pavilion at the Venice Architecture Biennale 2010, is a study on the impact of the evolving coastlines of the Island of Bahrain. It sheds light on the social implications of the extensive land reclamation that has been reshaping much of the urban coast of the Persian Gulf—an issue that is seldom talked about. It provides an international platform to the often neglected voices of the Bahraini fishermen that have witnessed a tremendous change in their relation to the sea; fishermen, who grew up in coastal villages where the sea would brush the doorsteps of their homes and today find themselves stranded a few kilometers inland.

In a bid to reconquer a more immediate relation with the sea, people have started constructing huts along the lines of the temporary coastlines. Conceived as informal gathering spaces, they are an attempt to re-introduce leisurely, non-commercial gathering spaces along the coast. Transported to the grounds of the exhibition, they are a stark reminder of the fragility of the vernacular culture and the importance of secular public spaces in

societies where modernization has been happening at a dramatic pace.

The design is an example of how exhibitions can help draw attention to significant social issues. Reclaim has launched a much needed debate that has raised awareness toward the fragile cultures that are at risk of disappearing in Bahrain, in the Gulf and elsewhere where urban development continues to dramatically reshape our landscapes.

**DK** Reclaim er Bahrains nationale udstillingspavillon på Arkitekturbiennalen i Venedig 2010 og viser konsekvenserne af de skiftende kystlinjer på øen Bahrain. Projektet kaster lys over de sociale konsekvenser ved den omfattende landindvinding, der har ændret meget af kysten i den Persiske Bugt. Et emne, der ikke har været talt meget om. Det giver en international platform til Bahrains fiskere, der sjældent bliver hørt. De har været vidne til en kolossal ændring i deres forhold til havet. Fiskere, der er vokset op i kystlandsbyer, hvor

havet var lige uden for døren, er i dag strandet et par kilometer inde i landet.

For at få et mere direkte forhold til havet er indbyggerne begyndt at bygge hytter langs den midlertidige kystlinje. De bliver opfattet som uformelle mødesteder og er et forsøg på at genintroducere afslappede, ikke-kommercielle samlingssteder langs kysten. De er blevet flyttet ind til udstillingen og er et stærkt vidnesbyrd om den skrøbelige, lokale kultur og vigtigheden af ikke-religiøse, offentlige områder i samfund, hvor moderniseringen sker i et dramatisk tempo.

Designet er et eksempel på, hvordan udstillinger kan være med til at sætte fokus på vigtige, sociale problemer. Reclaim har startet en tiltrængt debat, der har skabt opmærksomhed om de skrøbelige kulturer, der risikerer at forsvinde i Bahrain, den Persiske Bugt og alle andre steder, hvor byudviklingen konstant ændrer på landskabet.



### REFUGEES UNITED

DESIGN: DAVID MIKKELSEN  
& CHRISTOPHER MIKKELSEN  
(DENMARK), 2006



# REUNITING REFUGEE FAMILIES ALL OVER THE WORLD GENFORENER FLYGTNINGEFAMILIER OVER HELE VERDEN

**ENG** Across the world, more than 36 million people live as refugees. Refugees United was formed in 2006 to streamline the efforts of international refugee family tracing after discovering the critical lack of an IT infrastructure between NGOs, hampering their ability to share information on families separated across borders, conflicts and organizations.

Up until the birth of Refugees United, no refugee agency had created a global database centralizing information on separated families: A database to be applied across organizations, across conflicts and across time. Through the use of mobile technology, Refugees United provides organizations with powerful tracing -tools applicable in most settings.

It is functional on all phones from a US\$10 handset and up. This digital infrastructure promotes information sharing among family tracing and reunification agencies, and it gives refugees the ability to become directly involved in their search for missing family via an anonymous, safe forum, easily accessible tools and an ever-expanding, user-driven family finding network.

Refugees United does not provide physical reunification. It assists refugees in relocating missing family and friends, a task which can otherwise be an overwhelming obstacle for refugees not knowing their new country or

region. In addition, a very large number of refugees are unable to register with formal institutions, as they have not been granted asylum, are stateless or plainly fear registering.

Refugees United is currently helping close to 20,000 refugees in their search for missing loved ones, with an additional 5,000 new people signing up every month. Throughout North and East Africa, Refugees United is deploying its tech-tools with the Red Cross, UNHCR, Refugee Consortium of Kenya and others to help families reunite.

**DK** På verdensplan lever over 36 millioner mennesker som flygtninge. Refugees United blev oprettet i 2008 for at effektivisere den internationale søgen efter familier, da det blev konstateret, at der var kritisk mangel på it-infrastruktur mellem NGO'er. Dette forhindrede udveksling af informationer om familier, der var adskilt på tværs af grænser, konflikter og organisationer.

Indtil Refugees United så dagens lys, var der ingen flygtningeorganisation, der havde skabt en global database, der kunne centralisere informationer om adskilte familier. Databasen kan anvendes på tværs af organisationer, konflikter og tid, og ved hjælp af mobilteknologi giver Refugees United organisationerne effektive søgeværktøjer.

Disse værktøjer fungerer fra alle telefoner - også de billigste håndholdte telefoner. Den digitale infrastruktur fremmer informationsudveksling mellem familiesammenføringsagenturer, og den giver flygtninge mulighed for at blive direkte involveret i jagten efter savnede familiemedlemmer via et sikkert og anonymt forum, lettilgængelige værktøjer og et brugerdrevet netværk, hvor man kan finde sin familie.

Refugees United kan ikke hjælpe med fysisk familiesammenføring, men hjælper flygtninge med at finde savnede familiemedlemmer og venner, hvilket ellers kan være en uoverskuelig opgave for flygtninge, der ikke kender deres nye land eller region. Desuden kan et meget stort antal flygtninge ikke blive registreret af de officielle institutioner, hvis de ikke har fået asyl, er statsløse eller er bange for at lade sig registrere.

Refugees United hjælper i dag næsten 20.000 flygtninge med at finde dem, de savner. Dertil bliver der tilmeldt 5000 nye mennesker hver måned, og i hele Nord- og Østafrika bruger Refugees United sine teknologiske værktøjer sammen med Røde Kors, UNHCR (FN's Flygtningehøjkommissariat), Kenyas flygtningekonsortium og andre til at få sammenført familier.



# REFORMING PUBLIC SERVICE FOR SEOUL CITIZENS

## EN REFORM AF DEN OFFENTLIGE SERVICE I SEOUL

### SEOUL CALL CENTER, DASAN 120

DESIGN: SEOUL METROPOLITAN GOVERNMENT  
(KOREA), 2007

**ENG** The new administration of Seoul, elected in 2006, set a goal of “citizen delight” rather than satisfaction. The first step toward reaching this goal was to reform the public services, including call services. The Dasan Call Center is one of the results of this reform.

Dasan Call Center is a public service that resolves the concerns of citizens in real-time through telephone, video-phone, text messages and internet. Before launching the center, Seoul residents had to find the right phone number from among 69 numbers to reach the right one of 46,000 city officials. By integrating 69 numbers into one, Seoul residents no longer need to find the right number for the right person or department. Call agents answer over 90% of inquiries directly with the aid of a task manual and a consultation application. This allows city officials to focus on more creative tasks.

Thanks to this new system, the time it takes to get a response by phone has been reduced from around 70 min-

utes to a maximum of 3 minutes. Any Seoul resident can reach this public service 24/7. The hearing and speaking impaired can use sign language or text messages. Seniors living alone receive regular phone calls from the agents and foreigners can use the foreign language services. Daily calls to the center have increased from 1,100 in January 2007 to 40,000 as of December 2010, with an accumulated record of 23 million calls.

**DK** Det nye byråd i Seoul, der blev valgt i 2006, satte sig et mål om “borgerglæde” snarere end tilfredshed. Første skridt mod dette mål var at reformere den offentlige sektor, herunder telefonskemaerne. Dasan Call Center er et af resultaterne af denne reform.

Dasan Call Center er en offentlig tjeneste, der løser borgernes problemer direkte via telefon, videotelefon, sms-beskeder og internettet. Inden centeret startede, skulle indbyggerne i Seoul finde det rigtige telefonnummer blandt 69 numre for at komme i kontakt med den

rigtige person blandt 46.000 offentlige embedsmænd. Alle disse numre er nu blevet lagt sammen til ét nummer, og derfor behøver indbyggerne i Seoul ikke længere at lede efter det rigtige nummer og den rigtige person. Call Center-medarbejderne svarer direkte på over 90% af forespørgslerne ved hjælp af en vejledning og et skema. På den måde kan byens embedsmænd koncentrere sig om mere nyskabende opgaver.

Takket være det nye system er den tid, det tager at få et svar via telefonen, blevet reduceret fra ca. 70 minutter til højst 3 minutter. Alle indbyggere i Seoul har adgang til denne offentlige service 24 timer i døgnet, og høre- og talehæmmede kan bruge tegnsprog eller sms-beskeder. Ældre, der bor alene, bliver regelmæssigt ringet op af medarbejderne, og udlændinge kan bruge tjenesterne på fremmedsprog. Antallet af opkald til centeret er steget fra 1.100 i januar 2007 til 40.000 i december 2010 med et samlet antal på 23 mio. opkald.



# EMPOWERING CHINA'S POOREST COMMUNITIES

## HJÆLP TIL SELVHJÆLP I KINAS FATTIGSTE LOKALSAMFUND



### SHOKAY

DESIGN: CAROL CHYAU & MARIE SO (CHINA), 2006

**ENG** Although China is one of the fastest growing economies in the world, Tibet still remains an impoverished region, where people are living mainly from subsistence agriculture. Herdsmen and farmers account for 80% of Tibet's 2.7 million people and yet they produce less than 20% of the region's economic output. The herders live in remote and isolated areas with minimal infrastructure and lack market access. With one million people in Tibet living below the poverty line, it makes the region the poorest in China.

Shokay currently works with 2,600 people from the Hei Ma He village of Qinghai Province in Western

China, where they are providing a sustainable source of employment and income to the herders. By setting up fiber cooperatives in each sub-village, it is the goal to help provide safe means for local development.

Shokay aims to impact the lives of marginalized communities by introducing luxury yak materials to the global market. They hope to create a market for yak fiber, thus increasing the value of the raw fiber in order to provide the herders with long-term employment and a greater and more sustainable income. The products can already be found in more than 100 stores in 10 countries around the world.

**DK** Selv om Kina er en af de hurtigst voksende økonomier i verden, er Tibet stadig en fattig region, hvor indbyggerne hovedsageligt lever af subsistenslandbrug. Hyrder og bønder udgør 80% af Tibets 2,7 millioner mennesker, men de producerer mindre end 20% af

regionens økonomiske output. Hyrderne bor i afsidesliggende og isolerede områder med minimal infrastruktur og mangler adgang til markeder. En million mennesker i Tibet lever under fattigdomsgrænsen, hvilket gør det til den fattigste region i Kina.

Shokay samarbejder i dag med 2.600 mennesker fra landsbyen Hei Ma He i Qinghai-provinsen i det vestlige Kina, hvor de giver hyrderne beskæftigelse og en indtægt. Ved at oprette fiberkooperativer i hver landsbydel er det målet at levere sikre midler til den lokale udvikling.

Shokay sigter efter at påvirke livet i marginaliserede samfund ved at indføre luksusmaterialer fra yakoksen på det globale marked. De håber på at skabe et marked for yakoksefiber og dermed øge værdien af de rå fibre for at give hyrderne beskæftigelse på lang sigt og en større og mere bæredygtig indtjening. Produkterne kan allerede købes i over 100 butikker i 10 lande verden over.



# THE WORLD'S MOST EFFICIENT ELECTRIC VEHICLE

## VERDENS MEST EFFEKTIVE ELEKTRISKE KØRETØJ

### T.27 CITY CAR

DESIGN: GORDEN MURRAY, FRANK COPPUCK,  
BARRY LETT, ANDY JONES, PHIL STONESTREET,  
ANDY CHARLTON & AUBREY MOORE  
(UNITED KINGDOM), 2010

**ENG** Electric cars produce no emissions at point of use, so they don't contribute to air pollution on the streets. They have fewer moving parts, making them more reliable and low on maintenance and they are silent, so noise pollution is not a factor either. Lightweight electric cars can be more efficient than internal combustion cars, as they use much less energy, and they are energy-flexible, since the source of electricity that powers them can come from anything—you can choose a renewable source, a cheap source, a domestic source, anything you want—and you can change your mind whenever you want.

The T.27 city car is a pure electric vehicle designed to fully optimize packaging, weight and performance. The newly developed iStream® assembly process is a complete rethink and redesign of the traditional manufacturing process. The simplified assembly process means that the manufacturing plant can be designed to be 20% of the size of a conventional factory. This could reduce

capital investment in the assembly plant by approximately 80% and the flexibility of this assembly process means that the same factory could be used to manufacture different variants.

The iStream® design process is a complete re-think on high volume materials, as well as the manufacturing process and will lead to a significant reduction in CO2 emissions over the lifecycle of the vehicles produced using it, compared with conventional ones.

**DK** Elektriske biler udleder ingen CO2 under brug, og derfor bidrager de ikke til luftforurening på vejene. De har færre bevægelige dele og er derfor mere pålidelige og kræver mindre vedligeholdelse. Desuden er de meget mere effektive end biler med forbrændingsmotorer og bruger langt mindre energi. Og så er de energifleksible, da strømkilden kan komme fra en hvilken som helst strømkilde – heriblandt miljøvenlige, vedvarende energikilder.

Bybilen T.27 er en 100% elektrisk bil, der er designet for at optimere udformning, vægt og ydelse. Den nyudviklede monteringsprocedure iStream er en komplet nytænkning af den traditionelle produktionsproces og betyder, at selve bilfabrikken kan formes, så den kun fylder 20% af en normal fabrik. Dette kan mindske den nødvendige kapital til at bygge og drive fabrikken med 80%, og den fleksible monteringsprocedure gør også, at den samme fabrik kan producere flere forskellige udgaver af bilen.

Designprocessen iStream er en komplet nytænkning for store mængder materialer og selve produktionsprocessen, hvilket fører til markant mindre CO2-udslip i løbet af bilernes levetid sammenlignet med traditionelle biler.



**THE CHEONGGYEHEON RESTORATION PROJECT**  
DESIGN: SEOUL METROPOLITAN GOVERNMENT  
(KOREA), 2005



## CHANGING A WATER STREAM – FROM TRAFFIC CORRIDOR TO PEOPLE-FRIENDLY DESTINATION

### GENOPBYGNING AF ET VANDLØB – FRA TRAFIKKORRIDOR TIL IMØDEKOMMENDE OMRÅDE

**ENG** Based on the vision to “Design Caring for Citizens”, the city of Seoul has been designing people-oriented solutions, not only to solve aesthetic challenges but also to address social issues. The Cheonggyecheon Restoration Project is one of these landmark design projects that have contributed to improve the quality of life for the citizens of Seoul, changing the city into a place where nature and humans can coexist better.

The design dismantled the structures covering the Cheonggyecheon Stream and the Cheonggye Elevated Highway and built facilities to restore the stream, including the sewage system, roads, bridges, landscaping and lighting. The stream has been made into a Central Park-like gathering place. Apart from sidewalks for stores, there is a two-meter-wide sidewalk along the stream. Access to the stream is by bridges and water-front roads.

Creating an environment with clean water and natural habitats has resulted in increased wildlife around the stream. Furthermore, the stream helps to cool down the

nearby areas and finally, the number of vehicles entering downtown Seoul has decreased, which has increased the number of users of buses and subways as a result.

The restoration has created a new urban structure resulting in a more balanced and sustainable development of the northern and southern areas of the Han River that runs through the city of Seoul.

**DK** Ud fra målet om at “designe med omtanke for indbyggere” har byen Seoul designet menneskeorienterede løsninger, ikke kun for at løse æstetiske udfordringer, men også med henblik på at tage fat på sociale problemer. Genopbygningsprojektet Cheonggyecheon er et af disse nyskabende designprojekter, der har været med til at forbedre livskvaliteten for borgerne i Seoul og gjort byen til et sted, hvor mennesker bedre kan leve i samklang med naturen.

Designet fjernede de strukturer, der dækkede Cheonggyecheon-vandløbet og den forhøjede Cheonggye motorvej, og byggede faciliteter, der kunne genskabe vandløbet

bl.a. kloaksystem, veje, broer, landskabsarkitektur og smuk belysning. Vandløbet er blevet til et sted, der minder om Central Park i New York, og foruden fortove til butikkerne er der en to meter bred gangsti langs vandløbet. Adgangen til vandløbet sker via broer og veje langs bredden, og biler er ikke tilladt.

Ved at skabe et miljø med rent vand og naturlige levesteder er der kommet øget dyreliv ved vandløbet, og vandløbet er med til at nedkøle områder i nærheden. Endelig er der færre køretøjer i centrum af Seoul, hvilket har ført til flere passagerer i busser og metroer.

Genopbygningen har skabt en ny struktur i byen, hvilket har givet en mere afbalanceret og bæredygtig udvikling af områderne nord og syd for Hanfloden, der løber gennem Seoul.

**A NEW, FUN TO RIDE SYMBOL FOR SUSTAINABLE MOBILITY**  
**ET SYMBOL PÅ BÆREDYGTIG MOBILITET, DER GENERERER OG LAGRER ENERGI, MENS DU CYKLER**

**ENG** Transportation poses an ongoing dilemma: It is necessary for economic development, and yet it has immense environmental impact. The Copenhagen Wheel aims to address this issue by providing a combined technical, behavioral and systemic solution.

The wheel is perfect for individuals—the elderly, the physically impaired, the design-savvy or those with a long or hilly commute—but can also be used in shared bike fleets—for bicycle and parking police, municipal workers or the general public. Beyond being a vehicle that gets you from A to B, it is also a smart sensing device. Sensors inside the wheel gather information that help you pick less polluted bike routes, achieve exercise goals or challenge others to ride more. The wheel uses a technical solution (a motor and batteries with regeneration capabilities) to help people overcome distance and topography and a real-time data network and a series of cycling-related mobile applications to support city infrastructure creation and foster a sense of safety. Unlike other e-bikes on the market, The Copenhagen Wheel is designed to be a plug-and-play device that makes the cycling experience more fun.

Lastly, when many cyclists donate the data their wheel collects, cities gain access to unprecedented, fine-grained environmental information that can impact resource allocation or the implementation of environmental and transportation policies.

**DK** Transport er et konstant dilemma. Transport er nødvendig for den økonomiske udvikling, mens den nuværende brug af fossil brændsel har alvorlige konsekvenser for miljøet. Copenhagen Wheel tager fat på dette problem ved at levere en teknisk og brugervenlig løsning.

Copenhagen Wheel fungerer i kraft af en innovativ, teknisk løsning (motor og batterier med generatorfunktion), der hjælper folk med at kunne cykle langt og op ad bakke uden at blive for trætte, og i kraft af et datanetværk og en række cykelrelaterede mobilapplikationer, der er med til at skabe bedre byinfrastruktur og give en følelse af sikkerhed. Hjulet lagrer desuden strøm, både når man cykler hurtigt, men også når man bremser! Modsat andre elcykler på markedet er Copenhagen Wheel designet til at kunne sættes direkte på og tages i brug med det samme, hvilket gør cykeloplevelsen sjovere.

Copenhagen Wheel er perfekt til enkeltpersoner; både ældre, handicappede, hipsters og folk, der pendler langt eller op ad bakke. Hjulet kan også bruges til cykelpoliti, parkeringsvagter, kommunale medarbejdere eller den brede offentlighed. Ud over at være et køretøj, der bringer dig fra A til B, er det også en smart sensor-enhed. Der sidder nemlig sensorer inde i hjulet, der indsamler oplysninger, så du kan vælge en cykelrute med mindre forurening, overvåge din egen fysiske træning eller udfordre andre til at cykle mere.

Når mange cyklister deler disse data, som hjulet indsamler, får byen adgang til hidtil usete detaljerede oplysninger om miljøet, der kan påvirke politikere til at skabe en ny og bedre miljø- og transportpolitik.



**THE COPENHAGEN WHEEL**

DESIGN: CHRISTINE OUTRAM (AUSTRALIA), CARLO RATTI (ITALY), ASSAF BIDERMAN (ISRAEL), VINCENZO MANZONI (ITALY), XIAOJI CHEN (CHINA), ROON E. KANG, MARK YEN, JENNIFER DUNNAM (UNITED STATES OF AMERICA), MYSHKIN INGAWALE (INDIA), ARI KARDASIS (UNITED STATES OF AMERICA) & ANDREA CASSI (ITALY), 2008

# COLLECTS DEW AND RAINWATER AND TURNS IT INTO FRESH WATER

## INDSAMLER DUG OG REGNVAND OG FILTRERER DET TIL RENT VAND

### WATAIR

DESIGN: JOSEPH CORY (ISRAEL),  
EYAL MALKA (ISRAEL),  
& RINZE WELS (NETHERLANDS),  
2006

**ENG** Water is an essential resource for life and good health. A lack of water to meet daily needs is a reality today for one in three people around the world. Globally, the problem is getting worse as cities and populations grow, and the needs for water increase in agriculture, industry and households.

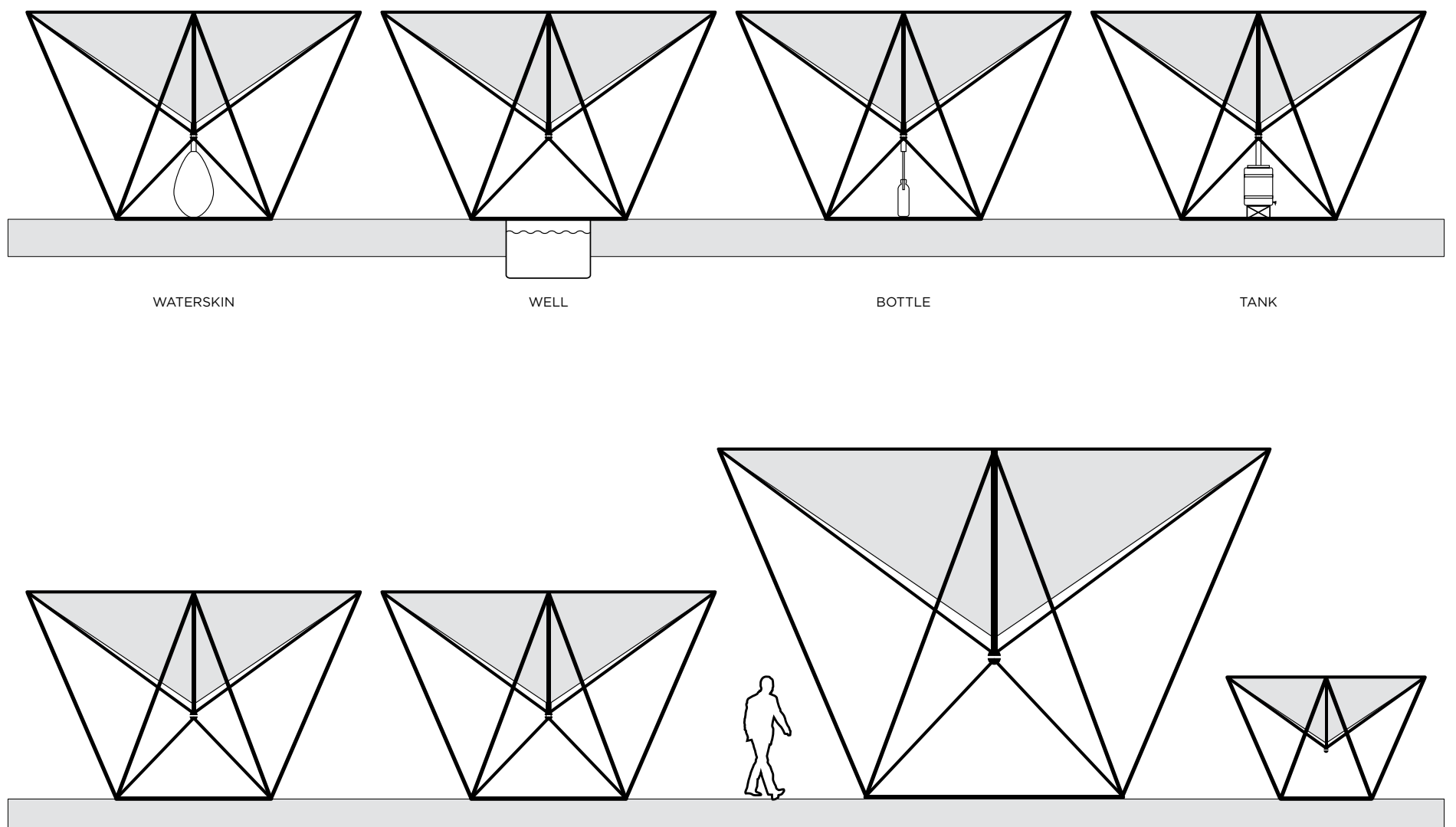
In order to make safe water more accessible worldwide, the following was taken into account in the WatAir design: Minimal cost for manufacturing, easy and quick deployment in remote places, low technological requirements and the implementation of local materials.

WatAir is well positioned to serve the needs of a number of different users. It has been designed with international development and disaster relief in mind. It folds to less than one meter, weighs less than 3.5 kg and can be made from various materials, making it possible to use local materials. WatAir has many possible uses, including individual clean water supply and treatment. It can also be used for drip irrigation in agriculture or as a supplementary water source. The shelter provided beneath the device can be used to provide temporary living accommodation and can be incorporated into both urban and rural landscapes.

**DK** Vand er en vigtig kilde til liv og godt helbred, og mangel på vand til de daglige fornødenheder er i dag virkelighed for mere end hvert tredje menneske i verden. Globalt set bliver problemet kun værre og værre, efterhånden som byerne og befolkningerne vokser, og behovet for vand stiger i landbruget, industrien og husholdningen.

For at gøre rent vand mere tilgængeligt på verdensplan er der taget højde for følgende i designet af WatAir: minimale produktionsomkostninger, let og hurtig implementering i fjerntliggende områder, lave teknologiske krav og anvendelse af lokale materialer. WatAir er velegnet til at opfylde de behov, mange forskellige brugere kan have. Den er således blevet designet med international udvikling og hjælp i katastrofesituationer for øje. Den kan foldes sammen, så den er under 1 meter høj, vejer under 3,5 kg og kan laves af forskellige typer materialer, således at konstruktionen kan bygges af materialer, der er til rådighed lokalt.

WatAir har mange anvendelsesmuligheder, bl.a. individuel vandforsyning og vandrensning. Den kan også bruges til drypvanding i landbrug eller som supplerende vandforsyning i husholdningen. Den skyggeplads, der findes under enheden, kan bruges som midlertidigt, svalende opholdssted og kan indarbejdes i både byer og landområder.





# AN ELECTRIC AIRPLANE FOR COMMERCIAL USE

## ET ELEKTRISK FLY BEREGNET TIL KOMMERCIEL BRUG

### YUNEEC E430

DESIGN: YUNEEC INTERNATIONAL (CHINA), 2009

ADDITIONAL CREDITS: LI SHIHAO, CHEN YOUXIN & GAO GUOJUN (CHINA)

**ENG** Airports are among the greatest sources of local air pollution. A major airport's idling and taxiing planes can emit hundreds of tons of VOCs and nitrogen oxides annually. And airplanes alone are responsible for creating 12% of CO<sub>2</sub> emissions from transportation sources in the United States. Estimates say that aviation is responsible for about 3.5% of global warming, and this number could increase to 15% by 2050. With these figures in mind, finding an alternative for airplanes could have a significant impact on preventing global warming.

The E430 is at the forefront of electric powered aircraft design. Designed as a kit aircraft for the US market, the 2-seat single airplane is the world's first electric aircraft made for commercial production. The E430 was de-

signed for commercial production from the beginning and is not just an experimental prototype.

Because of the self-developed electric power system, the airplane emits no CO<sub>2</sub> and little to no noise pollution. Due to its electric motor, the cost of operating the aircraft is relatively low compared to a gas powered aircraft – the E430's cost can be as low as US\$2.50 per hour. The aircraft is not only environmentally friendly, but also easy for the pilot to fly.

Recharging the plane's battery has also been designed to be easy. By using a standard 110 or 230 volt AC system, the pilot simply plugs in the power cord, waits for a minimum of one hour to recharge and the airplane is ready to fly again.

**DK** Lufthavne er en af de største kilder til lokal luftforurening. Fly under tomgang og taxiing i store lufthavne kan udsende flere hundrede tons CO<sub>2</sub> og andre ubehageligheder om året. Fly alene antages at være skyld i 12% af CO<sub>2</sub>-emissioner fra transportkilder i USA, og det anslås, at verdens samlede flytrafik står for ca. 3,5% af

den globale opvarmning. Et tal, der forventes at stige til 15% i 2050. Med disse tal for øje kan det være et meget vigtigt tiltag mod global opvarmning at finde et alternativ til brændstof-afhængige fly.

Takket være den selvudviklede elektriske energiforsyning udsender flyet ingen CO<sub>2</sub> og næsten ingen støjforurening, og på grund af den elektriske motor er driftsprisen for flyet relativt lav sammenlignet med gasdrevne fly. E430 kan koste så lidt som \$2,50 i timen at flyve, og flyet er ikke bare miljøvenligt, men også let for piloten at flyve. Det er også let at genoplade flyets batteri: Med et standard 110 eller 230 volt vekselstrømsystem kan piloten sætte stikket i, vente i cirka en time, og så er flyet klar til at flyve igen.

YuneeC E430 er med helt fremme, når det gælder design af elektriske fly. Det enmotorede fly med to pladser er designet til det amerikanske marked og er verdens første eldrevne fly til kommerciel produktion. E430 er helt fra starten blevet designet med kommerciel produktion for øje og er ikke blot en eksperimentel prototype.

## PAST WINNERS TIDLIGERE VINDERE

2005



### LIFESTRAW (BODY CATEGORY)

DESIGN: TORBEN VESTERGAARD-FRANSEN (DENMARK), ROB FLEUREN (HOLLAND) & MOSHE FROMMER (ISRAEL).

**ENG** LifeStraw™ is a safe and user friendly tool which eliminates disease causing bacteria, viruses and parasites. LifeStraw™ can prevent waterborne diseases like diphtheria, cholera, typhoid and diarrhoea – diseases that kill millions each year. With LifeStraw™, everyone from school kids to farmers can easily sip water from any source.

**DK** LifeStraw™ er et sikkert og brugervenligt hjælpemiddel, der eliminerer sygdomsfremkaldende bakterier, vira og parasitter. LifeStraw™ kan forebygge vandbårne sygdomme som difteritis, kolera, tyfus og diarré - sygdomme, der dræber millioner hvert år. Med LifeStraw™ kan alle, fra skolebørn til landmænd, let få en slurk vand fra en hvilken som helst kilde.

### SOFTWALL (HOME CATEGORY)

DESIGN: STEPHANIE FORSYTHE & TODD MACALLEN (CANADA).

**ENG** Softwall is - unlike fixed walls or conventional partitioning systems - an ever changing separation module that can form space in a spontaneous, flexible and ephemeral way. The compressed Softwall is small, lightweight and highly transportable and when needed, it can be easily and instantly expanded up to 300 times its size. Softwall can absorb and transmit light, reduces sound and is 100% recyclable.

**DK** Softwall er - i modsætning til faste vægge eller konventionelle opdelingsanordninger - et bestandig skiftende adskillelsesmodul, der kan danne plads på en spontan, fleksibel og flygtig måde. Den komprimerede Softwall er lille, let og transportabel, og når der er behov, kan den nemt og hurtigt udvides op til 300 gange sin normale størrelse. Softwall kan optage og transmittere lys, dæmper lyden og er 100% genanvendelig.

### OBSERVATORIO IBEROAMERICANO (WORK CATEGORY)

DESIGN: FUNDACIÓN ESPAÑOLA PARA LA INNOVACIÓN DE LA ARTESANÍA & MINISTRY FOR INDUSTRY, TOURISM AND COMMERCE, (SPAIN).

**ENG** Observatorio Iberoamericano is a strategy, a network and a website focused on improving life for 40 million craftsmen in Latin America, threatened by globalization. The main activities include research of new design methods, information transfer, networks, technological development, design, product development and access to new markets. Thousands of craftsmen have been trained and have promoted their craft since 2005.

**DK** Observatorio Iberoamericano er en strategi, et netværk og en hjemmeside fokuseret på at forbedre livet for 40 millioner latinamerikanske håndværkere, som trues af globaliseringen. De vigtigste aktiviteter omfatter forskning inden for nye designmetoder, informationsudveksling, netværk, teknologisk udvikling, design, produktudvikling og adgang til nye markeder. Tusindvis af håndværkere er blevet trænet siden 2005.

### APPLE ITUNES & IPOD (PLAY CATEGORY)

DESIGN: APPLE, (UNITED STATES OF AMERICA).

**ENG** You could be forgiven for thinking that the iPod and its media-download system iTunes won the INDEX: Award because of the look-and-feel qualities that relate to form. But in fact, what transcends the acclaimed physical design is the Digital Rights Management (DRM) called FairPlay, built into the QuickTime software on your computer. What DRM meant to the industry six years ago was protection for those who hold the rights to the music and other media work that we all can enjoy in downloadable format.

**DK** Man kunne forledes til at tro, at iPod og dets medie-downloadsysteem iTunes vandt INDEX: Award på grund af overfladiske kvaliteter, der relaterer til form. Men i virkeligheden overskrider det lovpriste fysiske design af dets Digital Rights Management (DRM) kaldet FairPlay, indbygget i QuickTime-software på computeren. Hvad DRM betød for branchen for seks år siden var beskyttelse af dem, der har rettighederne til musik og andet mediarbejde, som vi alle kan nyde i downloadet format.

### SIYATHEMBA - THE FIELD OF HOPE (COMMUNITY CATEGORY)

DESIGN: CAMERON SINCLAIR & SWEE NG, (UNITED STATES OF AMERICA).

**ENG** Siyathemba was a web-based competition hosted by Architecture for Humanity inviting designers and architects from all over the world to submit proposals for a combined soccer field and health-care facility, focusing on HIV/AIDS in the South African community of Somkhele in KwaZulu-Natal. 275 teams from 37 countries entered the competition.

**DK** Siyathemba var en webbaseret konkurrence, arrangeret af Architecture for Humanity, der inviterede designere og arkitekter fra hele verden til at indsende forslag til en kombineret fodboldbane- og sundhedsplejefacilitet, med fokus på HIV/AIDS i det sydafrikanske område Somkhele i KwaZulu-Natal. 275 hold fra 37 lande deltog i konkurrencen.

2007



### MOBILITY FOR EACH ONE (BODY CATEGORY)

DESIGN: SÉBASTIEN DUBOIS, (CANADA)

**ENG** A UN report indicates that more than 110 million landmines of various kinds, along with millions of unexploded bombs, shells and grenades, remain hidden or buried around the world. Mobility for Each One is an affordable and highly effective prosthetic for the 25,000 people (mostly civilians and children) that are injured every year by these devices. The design is light, durable, water-resistant, easy to clean, made to the standards of the Red Cross and best of all; it only costs around US\$8 and can be made in any local conventional workshop using easily found materials.

**DK** En FN-rapport viser, at mere end 110 millioner landminer af forskellig slags, sammen med millioner af ueksploderede bomber og granater, er skjult eller begravet rundt omkring i verden. Mobility for Each One er en overkommelig og meget effektiv protese for de 25.000 personer (primært civile og børn), der kommer til skade hvert år. Designet er let, holdbart, vandtæt, nemt at rengøre og lavet efter Røde Kors' standarder. Og bedst af alt: den kun koster omkring \$8 og kan laves i ethvert lokalt værksted med materialer, der er lette at finde.

### SOLAR BOTTLE (HOME CATEGORY)

DESIGN: ALBERTO MEDA (ITALY) & FRANCISCO GOMEZ PAZ (SPAIN).

**ENG** One sixth of the world's population has no access to safe drinking water, increasing their risk of waterborne diseases such as diarrhea, cholera, typhoid fever, Hepatitis A and dysentery. Solar Bottle is a low-cost, four liter transparent plastic bottle that treats contaminated water using the sun's UV-A and infrared rays (SODIS system) in only six hours. The high ratio surface/thickness of the container improves the performance of solar disinfection and its flat shape makes it stackable and facilitates storage. A handle makes it possible to regulate the angle for best solar exposition and ensures easy transportation.

**DK** En sjettedel af verdens befolkning har ikke adgang til rent drikkevand, hvilket øger deres risiko for vandbårne sygdomme som diarré, kolera, tyfus, hepatitis A og dysenteri. Solar Bottle er en gennemsigtig plastflaske på fire liter til lav pris, som behandler forurenet vand ved hjælp af solens UV-A og infrarøde stråler (SODIS-systemet) på kun seks timer. Det høje forhold mellem overflade og tykkelse af beholderen forbedrer ydeevnen af soldesinfektion og dens flade form gør, at den kan stables og letter opbevaring. Et håndtag gør det muligt at regulere vinklen for bedste soleksposering og sikrer nem transport.



### TONGUE SUCKER (WORK CATEGORY)

DESIGN: PHILIP GREER, LISA STROUX, GRAEME DAVIES & CHRIS HUNTLEY (UNITED KINGDOM).

**ENG** The Tongue Sucker is a small plastic chamber with a bright colored bulb-like air reservoir, which allows untrained bystanders at the scene of an accident to free the airways of an unconscious person immediately and effectively by sucking the tongue out of the back of the victim's throat. An unconscious person's tongue will fall to the back of the throat, blocking the airways and causing death or severe brain damage within 4 minutes. The inspiration for the design was the July 2005 bombings of several London Underground targets.

**DK** Tongue Sucker er et lille plastikkammer med et lyst farvet, pære-lignende luft reservoir, der gør det muligt for utrænede omkring-stående på et ulykkessted at befri luftvejene på en bevidstløs person umiddelbart og effektivt ved at suge tungen ud af ofrets hals. En bevidstløs persons tunge vil falde tilbage i halsen og blokere luftvejene og forårsage dødsfald eller alvorlig hjerneskade inden for 4 minutter. Inspirationen til designet var bombningerne af Londons metro i juli 2005.







### TESLA (PLAY CATEGORY)

DESIGN: ELON MUSK, MARTIN EBERHARD & BARNEY HATT OF TESLA MOTORS (UNITED STATES OF AMERICA).

**ENG** Normally, a new car brand penetrates a market at mid-level price, affordable for many. However, to rid electricity powered cars of their golf cart reputations and make them objects of desire, the stylish Tesla sports car targeted the high-end market. Tesla is an entirely electric vehicle, with zero emissions and 0-100 km/h acceleration in less than 4 seconds. It is the first production electric vehicle to incorporate a 350+ km range per charge and it boasts a fuel efficiency equivalent of almost 60 km/liter. The battery recharges in three-and-a-half hours, and driving the Roadster costs less than one cent per kilometer.

**DK** Normalt vil et nyt bilmærke forsøge at trænge ind på bilmarkedet med priser, der er overkommelige for mange. Men for at slippe af med el-drevne bilers ry som golf-vogn er den stilfulde Tesla sportsvogn rettet mod luksusmarkedet. Tesla er hundrede procent elektrisk med nul CO<sub>2</sub>-udledning og accelerer fra 0-100 km/t på mindre end fire sekunder. Med en brændstoføkonomi svarende til næsten 60 km/liter og smuk design, beviser Tesla Roadster, at elbiler kan være cool og sjove at køre.



### ONE LAPTOP PER CHILD (OLPC) XO (COMMUNITY CATEGORY)

DESIGN: REBECCA ALLEN, CHRISTOPHER BLIZZARD, V. MICHAEL BOVE, YVES BEHAR, WALTER BENDER, MICHAEL BLETSAS, MARK FOSTER, JACQUES GAGNE, MARY LOU JEPSEN, NICHOLAS NEGROPONTE & LISA STRAUSFELD.

**ENG** The XO computer is a rugged, simple, hand-powered laptop made to address the problem that 99% of children in developing countries leave school without ever having touched a computer. It is about the size of a textbook and lighter than a lunchbox, making it easy for children to carry, and it is designed to be used in parts of the world where many classes are taught outside, and therefore it is sunlight-readable as well as shock- and moisture-resistant. In order for students to interact, a mobile ad-hoc network allows many machines to gain internet access from one connection and a maze-network connects all the laptops within reach.

**DK** XO computeren er en robust, enkel, hånddrevet laptop rettet mod de 99% af børn i udviklingslandene som forlader skolen uden nogensinde at have rørt en computer. Den er på størrelse med en lærebog og lettere end en madkasse, hvilket gør den nem for børnene at bære, og den er designet til at blive brugt i dele af verden, hvor mange klasser bliver undervist udenfor. Derfor er den også læsbar i sollys samt modstandsdygtig over for chok og fugt. For at gøre det nemmere for eleverne at arbejde sammen, gør et mobilt ad-hoc-netværk det muligt for mange maskiner at få adgang til internettet fra én tilslutning, og et labyrint-netværk forbinder alle de bærbare computere inden for rækkevidde.

## 2009

### FREEPLAY FETAL HEART RATE MONITOR (FHRM) (BODY CATEGORY)

DESIGN: PHILIP GOODWIN, STEFAN ZWAHLEN & JOHN HUTCHINSON (SOUTH AFRICA).

**ENG** FHRM is created expressly for the harsh conditions of rural and remote settings in the developing world and works off-grid (it has a hand crank for generating its own electricity), where there's no electricity to support deliveries and to safeguard childbirth for mothers and infants. It works by measuring the infant's heart rate during birth. Should the child not get enough oxygen in the mother's placenta, the infant heart rate slows down to lower the need for oxygen. This is considered by childbirth experts as a very reliable sign that the fetus is not managing the birth process well. 500,000 women die annually in childbirth, often from causes that could be prevented with basic care like this.

**DK** FHRM er skabt specielt til de barske forhold i landområder og fjerntliggende egne i udviklingslande og virker uden at være tilsluttet el-nettet (den har et håndsving, der genererer strøm). Den beskytter mødre og spædbørn under fødslen ved at måle barnets hjerterytme. Hvis barnet ikke får nok ilt i livmoderen, vil barnets puls blive langsommere, og dette anses af fødselseskøperter som et meget pålideligt tegn på, at fosteret ikke har det godt. 500.000 kvinder dør hvert år i forbindelse med fødsler - ofte af årsager, der kunne forebygges med grundlæggende pleje som dette.



### CHULHA (HOME CATEGORY)

DESIGN: PHILIPS DESIGN.

**ENG** The Chulha stove addresses the dangerous health conditions caused by traditions of indoor cooking in many rural areas of the developing world. The stove is made available to the universe of social entrepreneurs so that they can, free of charge, produce the stove, themselves, and generate local business while helping counter what the WHO estimates is some 1.6 million deaths per year from conditions prompted by the toxic fumes of indoor cooking with "bio-mass" fuels (wood, dung, peat, etc.). The Chulha creates a safer environment for indoor cooking by trapping and directing smoke and heat through a chimney that cleans the toxic smoke.

**DK** Mere end halvdelen af jordens befolkning tilbereder mad over åben ild. I kulturer, hvor madlavningen foregår indendørs, fører det til store helbredsproblemer - særligt for kvinder og børn. Over en million mennesker dør hvert år som følge af lungelidelser, fremkaldt af denne type af luftforurening. I Chulha-komfuret føres røgen gennem et sodkammer, der renses røgen. Sodkammeret kan nemt tages ud af komfuret og vaskes rent, og komfuret har en skorsten opbygget af moduler, så det er nemt at transportere og rengøre. Philips sælger ikke selv komfuret, men i stedet har de gratis givet tegningerne væk til velgørende organisationer og små indiske iværksættere, der har lyst til at lave komfurerne.

### KIVA.ORG (WORK CATEGORY)

DESIGN: KIVA.ORG (USA).

**ENG** Kiva is the world's first person-to-person micro-lending website. It empowers people to lend directly to unique, small entrepreneurs in many parts of the world, and as of September 2011, Kiva.org users have lent almost \$250 million to developing-world entrepreneurs - micro finance loans made by almost 1 million online participants, most of whom make loans of \$25 at a time. Lenders at Kiva.org are not paid interest as entrepreneurs pay back the money. The site does, however, have a 98.79-percent payback rate. To choose an entrepreneur to loan money, users search by region, gender and business sector, and the user then selects a loan applicant and how much funding to provide.

**DK** Kiva er verdens første person-til-person mikrolån-hjemmeside. Den bemyndiger folk til at låne direkte til små iværksættere i mange dele af verden, og til og med september 2011 har brugere på Kiva.org udlånt næsten 250 millioner dollars til iværksættere i udviklingslande. Hjemmesiden har en tilbagebetalingsrate på 98,79 procent, og når en långivers penge er blevet returneret, har långiveren mulighed for at hæve pengene eller genudlåne beløbet til andre iværksættere.

### PIG 05049 (PLAY CATEGORY)

DESIGN: CHRISTIEN MEINDERTSMA (THE NETHERLANDS).

**ENG** PIG 05049 is a communications design developed to track all the products made from a single pig. The intent is to help people in a "pre-packaged" world understand how things are made and where they come from so that the resources involved can be cared for by enlightened, informed people. 05049 was an actual pig, raised and slaughtered on a commercial farm, and the designer, Christien Meindertsma was shocked to discover that she could document 185 products contributed to by the animal. And not only predictable food-stuffs - pork chops and bacon - but far less expected non-food items: ammunition, train brakes, automobile paint, soap, washing powder, bone china and cigarettes.

**DK** Hvor kommer ting fra? Bogen PIG 05049 er en omfattende samling af fotografier, der sætter fokus på netop dette spørgsmål ved at gennemgå en forbløffende vifte af produkter lavet fra forskellige dele af én gris med det mundrette navn 05049. Øl, biodiesel, bilbremser, tyggegummi og ammunition er nogle af de mere uventede produkter. Bogen viser, hvordan de mange processer, der forbinder råvarer, producenter, produkter og forbrugere, stadig bliver mere usynlige og udviskede i den globaliserede verden.

### BETTER PLACE (COMMUNITY CATEGORY)

DESIGN: SHAI AGASSI & BETTER PLACE (UNITED STATES OF AMERICA).

**ENG** Better Place is an electrical car infrastructure focused on the effort to move drivers, the automotive industry and energy-distribution past the internal-combustion engine in order to move away from the current dependency on oil by building an electric vehicle infrastructure that makes electric transport convenient and affordable. This infrastructure includes hundreds of thousands of plug-in charge-spots, battery switching stations, advanced computing platform and unique software integrated into electric vehicles, energy-demand management capabilities and an open network capable of serving all electric vehicle drivers to aid everyone in the accelerated transition to electric vehicles.

**DK** Hvis omstillingen fra benzin- og dieseldrevne køretøjer skal lykkes, er det nødvendigt med en infrastruktur, der er ligeså dækkende som netværket af tankstationer er i dag. Med et helt system af opladningsstationer og batteriskiftestationer understøtter Better Place overgangen til miljømæssig bæredygtig transport, hvor energien kommer fra vedvarende kilder. Systemet gør det muligt for bilister at køre el-biler uden at skulle bekymre sig over, hvor de kan lade deres køretøjer op.



## INDEX: INITIATIVES

## INDEX: INITIATIVER

### INDEX: NETWORK

INDEX: frequently organizes meetings and seminars to discuss Design to Improve Life in relation to global challenges, and to enable our international guests to meet the Danish design community and vice versa. Sign up for our newsletter at [www.designtoimprovelife.dk](http://www.designtoimprovelife.dk)

### INDEX: Partner Cities

INDEX: advocates, cultivates and generates Design to Improve Life and one of its most important drivers is the Partner City program. The program is a cornerstone in INDEX:’ global network and perfectly aligned with INDEX:’s mission to promote and to apply design and design processes that have the capacity to improve people’s lives worldwide.

### INDEX: is very proud to be working with these great partner cities:

Singapore  
Helsinki  
Copenhagen  
Risør

Furthermore, INDEX: have entered formal agreements with Guangzhou and Yangsan

### INDEX: COMMUNICATION

INDEX: communicates knowledge about Design to Improve Life through newspapers, magazines, its own publications, television, websites, Facebook, Twitter, Flickr etc.

### INDEX: ORGANIZATION

All the programs and initiatives mentioned above are run from the INDEX: Head Office in Copenhagen, located at Design Museum Denmark in the center of the city. It is also from this location that the global network of designers, decision makers, organizations, institutions and cities, that INDEX: has built – and keeps building – is run. The network helps to spread the concept of Design to Improve Life and secures its implementation around the world, while at the same time ensuring the continued recording, registration and communication of the challenges facing the design field, its agents and their results. INDEX: also helps to maintain and secure Denmark’s position as an international design powerhouse.

### INDEX: EDUCATION

Under the headline Educate to Improve Life, INDEX: run the following projects:

#### INDEX: Design Challenge

We challenge students from all over the world to design solutions to an actual global challenge. The 2010 topic was education in developing countries, and the challenge was co-formulated by UNICEF and INDEX:. More than 1300 students from over 90 universities in 35 countries rose to the challenge and created more than 100 unique solutions.

#### INDEX: Education Program

Over the next 3 years INDEX: will develop, test and implement a large-scale education program in the Øresund Region. The project has been developed in partnership with Malmö Högskola, University College (UCC), University of Southern Denmark (SDU), four high schools and four primary schools in the Øresund Region. The project has two main purposes; to develop new teaching formats based on design thinking and design methodologies in primary schools and high schools, and to educate and re-educate teachers in organizing courses based on the methods, thinking and approach that designers use in their creative processes.

#### Yonsei INDEX: Design Summer School

A unique partnership between the prestigious Yonsei University in Korea and INDEX: The objective is to give each student a unique and lifelong learning experience, fostering engagement, creativity and courage to play a crucial role in the future.

#### INDEX: LABS

Together with partners, INDEX: organizes design labs where we bring together experts to solve a tangible problem e.g. working with the World Toilet Organization to solve the challenge of creating sanitation solutions for the 2.3 billion people in the world that lack basic sanitation.



### INDEX: AWARD EXHIBITION 2011

The exhibition is a presentation of the INDEX: Award finalists. This year INDEX: has come up with a brand new exhibition design in collaboration with American architect Greg Lynn and Danish architect Christian Ditlev Bruun. The new design is far from the minimalist traditions of Scandinavia and features several 12-foot black, organic shapes with square, golden insets containing the displayed designs. INDEX: Award Exhibition features the finalists for INDEX: Award, representing about 6% of the total number (966) of nominations for the world’s biggest design award.

From the 1st – 25th of September 2011 the INDEX: Award Exhibition will be shown at Kvæsthusmolen. Afterwards, the exhibition will tour the world.

### INDEX: AWARD CEREMONY 2011

Staged before a black-tie audience led by INDEX: royal patron HRH the Crown Prince and HRH the Crown Princess of Denmark, INDEX: Award Ceremony names the winners of the world’s largest design award, the INDEX: Award. The INDEX: Award carries a total purse of €500,000 and takes place at the Copenhagen Opera in front of an audience of more than 1,000 Danish and international designers, politicians, business leaders and celebrities, who are all invited to the ceremony to celebrate design that makes a difference in people’s lives.

The INDEX: Award Ceremony takes place on the 1<sup>st</sup> of September 2011 at The Opera House in Copenhagen.

**INDEX: AWARD EXHIBITION 2011**

Udstillingen indeholder alle INDEX: Awards finalister i 2011. I år har INDEX: skabt et helt nyt udstillingsdesign i samarbejde med den amerikanske arkitekt, Greg Lynn, og den danske arkitekt, Christian Ditlev Bruun. Det nye design er langt fra de minimalistiske skandinaviske traditioner og består af sorte organiske størrelser med gyldne vitriner.

Fra den 1. til den 25. september 2011 vil INDEX: Award Exhibition blive vist på Kvæsthusmolen ved siden af Skuespilhuset i København. Efterfølgende vil udstillingen turnere rundt i verden.

**INDEX: AWARD CEREMONY 2011**

Foran et festklædt publikum, anført af INDEX: Protektor Hans Kongelige Højhed Kronprinsen og Hendes Kongelige Højhed Kronprinsessen, vil INDEX: Award Ceremony udnævne vinderne af verdens største designpris, INDEX: Award. Uddelingen foregår i Operaen i København, og publikum udgøres af mere end 1000 danske og internationale designere, politikere, erhvervsledere og berømtheder, som alle er inviteret til ceremonien for at fejre design, som gør en forskel i folks liv.

INDEX: Award Ceremony finder sted den 1. september 2011 i Operaen i København.

**INDEX: UDDANNELSE**

Under overskriften Uddannelse der forbedrer liv foranstalter INDEX: følgende projekter:

**INDEX: Design Udfordring**

Vi udfordrer studerende fra hele verden til at designe løsninger på en faktisk global udfordring. I 2010 var emnet uddannelse i udviklingslande, en udfordring, der var medformuleret af UNICEF og INDEX: Mere end 1300 studerende, fra over 90 universiteter i 35 lande, tog imod udfordringen og skabte mere en 100 unikke løsninger.

**INDEX: Uddannelsesprogram**

Over de næste tre år vil INDEX: udvikle, teste og implementere et uddannelsesprogram i stor skala i Øresundsregionen. Projektet er blevet udviklet i partnerskab med Malmö Högskola, Professionshøjskolen, UCC, Syddansk Universitet SDU, fire gymnasier og fire folkeskoler i Øresundsregionen. Projektet har to overordnede formål: at udvikle nye undervisningsformer baseret på livsforbedrende designtænkning og designmetodologier i folkeskole og gymnasier. Og, at uddanne og efteruddanne lærere i at organisere kurser baseret på de metoder og den tænkning og tilgang, som designere bruger i deres kreative processer.

**Yonsei INDEX: Design sommerskole**

Et unikt partnerskab mellem det prestigefyldte Yonsei Universitet i Korea og INDEX: Målet er at give hver studerende en unik oplevelse af, at fordr engagement og kreativitet samt mod til at spille en afgørende rolle i fremtiden.

**INDEX: LABS**

Sammen med partnere organiserer INDEX: design-labs, hvor vi sammenbringer eksperter med henblik på at løse et håndgribeligt problem. Eksempelvis ved at samarbejde med World Toilet Organization for at løse udfordringen om at skabe ordentlige sanitære forhold for de omkring 2,3 milliarder mennesker i verden, der mangler adgang til grundlæggende sanitet.

**INDEX: NETVÆRK**

INDEX: organiserer ofte møder og seminarer for at diskutere Design to Improve Life i relation til globale udfordringer og for at gøre det muligt for vores internationale gæster at møde det danske designsamfund og vice versa. Meld dig til vores nyhedsbrev på [www.designtoimprovelife.dk](http://www.designtoimprovelife.dk)

**INDEX: Partnerbyer**

INDEX: advokerer, kultiverer og genererer design, der forbedrer liv, og en af de vigtigste drivkræfter er partnerby-programmet. Programmet er en hjørnesten i INDEX:s globale netværk og perfekt tilpasset INDEX:s mission om at promovere og anvende design og design-processer, der har kapacitet til at forbedre folks liv på verdensplan.

**INDEX: er meget stolt af at samarbejde med disse fantastiske byer:**

Singapore  
Helsinki  
København  
Risør

Derudover har INDEX: indgået formelle aftaler med Guangzhou og Yangsan.

**INDEX: KOMMUNIKATION**

INDEX: kommunikerer viden om Design to Improve Life gennem aviser, magasiner, vores egne publikationer, fjernsyn, hjemmesider, Facebook, Twitter, Flickr etc.

**INDEX: ORGANISATION**

Alle de nævnte programmer og initiativer bliver styret fra INDEX:s hovedkvarter i København. Det er også fra denne placering, at det globale netværk af designere, beslutningstagere, organisationer, institutioner og byer, som INDEX: har opbygget – og bliver ved med at bygge på, bliver styret. Netværket hjælper med at sprede Design to Improve Life tankegangen og sikrer dets implementering rundt omkring i verden. Endeligt bidrager INDEX: til at fastholde Danmarks position som internationalt kraftcenter indenfor design.





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**THANK YOU, MARTIN**

Martin Bubandt is one of INDEX:s trusted photographers, having documented several events for INDEX: in the past. His images cover the dividing pages of this catalog, and we are very grateful for his contribution.

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