

NEED, When Design Empowers Human Potential

Bio and project

Teresa van Dongen+Lynn Schammel+Johanna Schmeer+Julia Plevin and Lucy Knops+Jhpiego and Johns Hopkins University's Center+Lara Hanlon+Giacomo Piovan+Fuse Project for Jimmyjane+Mireia Gordi i Vila+Field Innovation Team+Niki Kopck+Mapdwell+Maurizio Montalti+Bennie Meek+Skipping Rocks Lab+Francesco Faccin+Nicholas Felton+Basten Leijh+Smart Citizen

Teresa van Dongen - AMBIO

www.teresavandongen.com

BIO

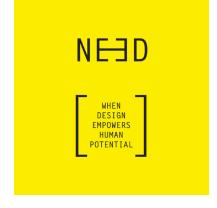
Prior to her education at the Design Academy Eindhoven, Teresa van Dongen studied Biology. This is where she discovered that there are many secrets of nature and great scientific developments that very often don't see the light of day. With projects like "Ambio" she swings the laboratory doors wide open and integrates nature in her designs.

PROJECT DESCRIPTION

Ocean waves glowing blue in the dark of night, anyone who has ever experienced this knows how magical it looks. The phenomenon is caused by bioluminescent micro-organisms in seawater that emit light whenever a wave turnes.

This phenomenon inspired Teresa van Dongen to combine her passion for design and biology in a bioluminescent light installation. Ambio balances two weights and a glass tube half-filled with artificial seawater containing a unique species of bioluminescent bacteria that were obtained from the skin of an octopus. Blue waves light up when Ambio is set in motion. The project explores nature as a source of energy.

Ambio is a design by Teresa van Dongen and was also made possible by two students from the Delft University of Technology, Richard Groen and Bart Joosse.



Lynn Schammel - Autistic Languages

www.cargocollective.com/wearehere

BIO

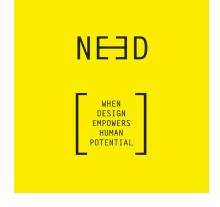
Lynn Schammel graduated in Social Design at the Master of the Design Academy Eindhoven (NL). Her practice is related with new communication methodologies in response to social inclusion. Currently she works as a designer in several protected workplaces in Luxembourg and co-founded the design studio Socialmatter.

PROJECT DESCRIPTION

The book "Autistic Languages" tells about the meeting with three adults with autism. Social designer Lynn Schammel spent a year getting to know them and their uniocommunication. Lea can't speak but she can draw dots. Lots and lots of them. Sonia is as counting. Numbers are her words. Claude writes stories filled with superheroes. The project features original work of them and provides a valuable insight into their world.

"We don't have a monopoly on how to communicate and express ourselves. Every person with autism is an expert in their own language."

Lynn Schammel developed the project by using a crowd founding platform that made possible the publication of the book in 2014.



Johanna Schmeer - BioPlastic Fantastic

www.johannaschmeer.com

BIO

Johanna Schmeer is a designer and researcher based in London and Berlin. Her practice involves the creation of future narratives about the social, ethical, and cultural impact of new technologies on everyday life, described through designed products and interactions. She has exhibited and given talks at conferences, museums and academic institutions internationally.

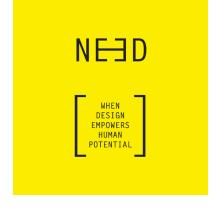
PROJECT DESCRIPTION

As interactive products are growing closer and closer to the body, and scientists are making advances in the use of biological matter in materials suitable for product design, it feasible that soon biochemical processes will be taking place in and on our technological devices.

Bioplastic Fantastic investigates new types of products and interactions which might emerge from these material innovations in the fields of bio- and nanotechnology. It speculates about the future design and use of domestic products made from enzyme-enhanced bioplastics. The concept is based on a recent scientific breakthrough in the synthesis of functioning "biological" cells made from polymers and enzymes. Halfway between products and organisms, seven "biological devices" produce all food and energy needed for humans to survive simply by being exposed to light (through artificial photosynthesis). They produce water, vitamins, fibre, sugar, fat, protein and minerals through biological processes.

The devices are designed to be part of a biologically influenced domestic space, and their aesthetics are not machine-like or lab-like, to emphasise their domesticity and the design opportunities that might arise with these new types of materials: to make design more sensual, and less technical, less industrial. The loss of the natural sensuality of traditional food is substituted by a designed, artificial sensuality. All of the device designs are based on bacteria which have similar functions in nature. They use the functional part of the biological circuit (enzymes), and combine this with non-living matter (bioplastic).

Rather than being a proposal or a solution, the project aims at asking questions and provoking discussions about which kinds of applications of bio- and nanotechnology we would want to be part of our future everyday lives.



Julia Plevin and Lucy Knops - Critter Bitters

www.critter-bitters.com

BIO

Julia Plevin and Lucy Knops are the founders of Critter Bitters. They met in design school in New York City and bonded over their shared non-traditional design background and wanderlust. Now they make products that encourage conversation around the important issues of today.

PROJECT DESCRIPTION

Critter Bitters are handcrafted cocktail bitters made with toasted crickets. There are four flavors in the product line: vanilla cricket, cacao cricket, toasted almond cricket, and -- for the most adventurous -- pure cricket. Each flavor yields a unique, multifaceted taste profile and can be readily mixed into cocktails.

The UN FAO 2013 Report titled, "Edible Insects: Future Prospects for Food and Feed Security," inspired Knops and Plevin to find a way to introduce insects to American culture. The report cited a need to overcome "the disgust factor" in order for western society to willingly consume insects. Given that distillation, fermentation, and mixology are among the most creative industries and people are naturally more open-minded and experimental when they are drinking, it makes sense to normalize entomophagy through alcohol.

From scorpion vodka to cochineal made from beetles to mezcal with a worm, there is a precedent for insects in alcohol. Critter Bitters are a nod to an age-old tradition and a leap into the future.



Jhpiego and Johns Hopkins University's Center - Ebola Protective Suit

www.jhpiego.org

BIO

Jhpiego

Jhpiego is an international, nonprofit health organization affiliated with Johns Hopkins University. For over 40 years, Jhpiego has empowered frontline health workers by implementing effective solutions to strengthen the delivery of healthcare for women and families. Jhpiego breaks down barriers to quality health care for the world's most vulnerable populations.

Harshad Sanghvi Jhpiego

Vice President Innovations and Medical Director Dr.

Harshad Sanghvi is an international expert in reproductive, maternal and newborn health with 30 years of experience in developing innovative solutions for low resource settings and in implementing best practices globally. Dr. Sanghvi leads Jhpiego's technical and clinical approaches by strengthening the delivery of health services for families worldwide.

Matthew J. Petney

Project Manager, PPE for Ebola Health Workers Johns Hopkins Center for Bioengineering Innovation and Design (CBID)

Matt Petney, a mechanical engineer, managed the CBID-Jhpiego effort to develop a new, improved protective suit for health workers, coordinating the work of more than 30 designers and engineers. Mr. Petney is project development manager, guiding and mentoring undergraduate students and providing technical support on prototyping, testing, evaluation and manufacturing.

Brandon Craft

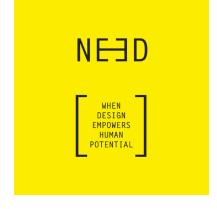
Head of Research and Design, Clinvue .

Industrial designer Brandon Craft focuses heavily on user-centered design principles and processes. He co-founded the medical device innovations consultancy Clinvue, and has spent the majority of his career leading innovation in the healthcare environment. He regularly lectures on medical innovation at Johns Hopkins University, Virginia Tech and around the world.

Jill Andrews

Bridal Designer Owner, Jill Andrews Gowns, Baltimore, Md.

Jill Andrews started sewing at age four, inspired by her Great Aunt Eula Zoe Gideon. She studied merchandising and textile design at FIT in New York, and has spent time designing for film, television and stage. From her Baltimore studio, Jill builds custom gowns and mix and match evening separates.



a project by Logotel

PROJECT DESCRIPTION

An advanced protective suit for health workers who treat Ebola patients, designed by Jhpiego and Johns Hopkins University's Center for Bioengineering Innovation and Design, showcases the unique merging of functional design, bioengineering and knowledge of the control of infectious disease. The suit decreases the steps needed to take off the protective gear, reduces potential contamination points, improves visibility in the hood for better eye contact and keeps health workers cooler, longer. From Clinvue, a medical device innovator, to bridal gown designer Jill Andrews, the new protective suit is a blend of diverse talent and innovation to help health workers everywhere.

Lara Hanlon - éntomo

www.entomoproject.eu

BIO

Lara graduated with a BA (Hons) in Design in Visual Communications from the Institute of Art, Design and Technology (IADT), Ireland, in 2013.

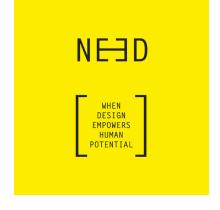
Post graduation she worked at Atelier David Smith and Science Gallery Dublin, designing for both print and screen. Today she is a visual designer at IBM Design.

PROJECT DESCRIPTION

éntomo, a food brand and online digital resource, educates Western society about the values and benefits of insects as a healthy, sustainable and exciting food source for the twenty-first century.

An on-going design and research project, it is a new food perspective that highlights the need for a smarter way of living by encouraging people to explore insects as a tasty and nutritious alternative to traditional meats such as beef and pork.

For western urban-centric societies to sustain — environmentally and economically — viable models of food production we require new answers to the "wicked problems" we are all faced with.



Giacomo Piovan - Farming the Pollution

www.cargocollective.com/giacomopiovan

BIO

Giacomo Piovan is an Italian designer based in Luxembourg.

Together with Lynn Schammel is co-founder of social design studio Socialmatter.

He was trained as an industrial designer at the Politecnico di Milano where he developed a thesis on urban gardens. In 2013 he graduated in Social Design at the Master of the Design Academy Eindhoven, with the project 'Farming the Pollution', a system to soil pollution remediation.

PROJECT DESCRIPTION

Farming the Pollution is a system that uses plants to decontaminate soil in abandoned areas. Based on the principle of phytoremediation, plants are introduced to remove contaminants from soil. Usually decontamination is a costly operation that most of the people can not undertake alone. First a mobile laboratory offers public soil analysis, then different remediation systems are provided. Based on the contamination of the site, specific healing plants are introduced to absorb or degrade the contaminants. When plants have removed enough pollution they are shredded and pressed into dense blocks stored as valuable byproducts. Within the more future-focused element, Farming the Pollution proposes future scenarios able to balance technology with nature and transform wastelands in the industry of the future.

Fuse Project for Jimmyjane - Pleasure to the People

www.jimmyjane.com

BIO

Yves Béhar is the founder of the San Francisco and New York design studio, fuseproject. Ethan Imboden is the founder of Jimmyjane, a design-centric brand founded on the belief that life is better with a sexy twist.

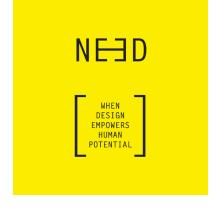
Jimmyjane designs products and experiences to provide pleasure, strengthen connection, and create provocative possibility.

PROJECT DESCRIPTION

PLEASURE TO THE PEOPLE, a groundbreaking, series of waterproof, rechargeable vibrators designed by friends and creative conspirators, Yves Béhar (Fuseproject) and Ethan Imboden (Jimmyjane's Founder). The collaboration commenced in 2007, with plans to develop a single product.

However, the two designers discovered there were numerous opportunities that they wanted to explore. The project was expanded to a series of three distinctive designs. The FORM 2, FORM 3 and FORM 4 were released; each offers its own unique power to please.

The collaboration underscores Jimmyjane's commitment to reimagining Sexual Wellbeing with an emphasis on design excellence, unparalleled quality and - of course - pleasure.



Mireia Gordi i Vila - Fragile

www.cargocollective.com/please draw

BIO

Mireia Gordi i Vila is a product designer from Barcelona currently based in London. She worked across Europe before graduating from RCA's Design Products MA in 2014. She is interested in challenging product typologies and shaping physical interactions

PROJECT DESCRIPTION

An inquiry into the materiality and the typologies of transport packaging for valuable goods. Fragile is a method for shipping valuables. By using the properties of an elastic composite membrane, Fragile traps objects of different shapes and weights in an immediate bespoke packaging. A standard for the non-standards. A quick method to ship works of art, collectibles and other singular objects in a package that is reusable, washable, reparable, modular, collapsible and fits into existing logistics. Questioning disposable packing typologies and proposing instead a system of returnable shipping packs that adapt to oddly, uniquely shaped objects.

Field Innovation Team - Field Innovation Team

www.fieldinnovationteam.org

BIO

The Field Innovation Team helps first responders and communities by bringing together subject matter experts who use innovative techniques to solve problems in disasters. FIT's innovative work ranges from 3D printing topography in mudslides, to bringing art, theater, and technology curriculum to humanitarian crises, to using storytelling to build back communities after disaster

PROJECT DESCRIPTION

In March 2014, the Field Innovation Team (FIT) deployed to a mudslide in the community of Oso in Washington State (USA). The disaster occurred when the top layer of an unstable hillside flowed into Oso, covering about a square mile of the community and leaving 43 dead. FIT worked with partners to fly Unmanned Aerial System (UAS) and LIDAR data to capture the changes in topography and create a 3D printed map of landscape. In this first-of-its-kind effort, the map that was created for use by Incident Command helped in response activity and reconstruction efforts.



Niki Kopck - Mazí Mas

www.mazimas.co.uk

BIO

Niki Kopcke is the founder of Mazí Mas. She is a half-Greek, half-German gender specialist and chef. Mazí Mas is inspired by Niki's grandmother, Maria Moulis, a Greek woman who lived in the United States for nearly twenty years. She always dreamed of opening a bakery, but was prevented from doing so by her husband. Niki is passionate about the rights of migrants and supporting women, as well as a lover of amazing food.

PROJECT DESCRIPTION

Mazí Mas is a social enterprise with four main aims: to provide women with an independent income, develop women's existing culinary skills in a professional setting, foster community through collective enterprise, and preserve women's recipes and diverse cultural heritages.

We celebrate the diversity that makes London unique.



Mapdwell - Mapdwell Solar System

www.mapdwell.com

BIO

Eduardo Berlin

CEO & Co-Founder

Eduardo is Mapdwell's chief executive and leads Mapdwell's concept and product design efforts. As an architect and entrepreneur, he is interested in social enterprises and information models as catalysts of positive change, market evolution, and community-driven sustainability.

Christoph Reinhart

Strategic Development & Co-Founder

Christoph leads Mapdwell's strategic development and new research initiatives. As an Associate Professor in Building Technology at MIT, he runs the Sustainable Design Lab at SA+P. He specilizes in the fields of sustainable building design, environmental modeling and the influence of occupant behavior on building energy use.

Alstan Jakubiec

Applied Science & Co-Founder

Alstan is the head of scientific computing department. He is an Assistant Professor at Singapore University of Technology and Design, where his expertise is in daylighting and thermal modeling at individual building and citywide scales.

Nicolás Waissbluth

Chief Developer & Co-Founder

Nicolás leads Application and Software Development at Mapdwell with a strong focus on powerful, intuitive, interactive, and beautiful consumer-facing tools. His areas of interest are Software Engineering, Communication Systems, Systems Engineering, Statistics, and Finance.

David G Nix

Design & Concept

David focuses on interface and product design, geospatial analysis, and in-house technical operations. He is primarily interested in the intersections of sustainability, design, energy, and economics in the built environment.

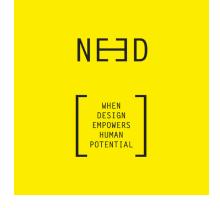
Naomi Hebert

Applied Research

PROJECT DESCRIPTION

Solar System is an open, online rooftop-solar remote assessment tool that allows any community on Earth to discover their underlying solar resources. It reveals the solar potential of building rooftops through state-of-the-art, hyper-precise, advanced technology developed by our team at the Massachusetts Institute of Technology (M.I.T.) and licensed exclusively to Mapdwell.

Solar System is a carefully designed decision-making tool that empowers users with a comprehensive costbenefit analysis through its open, intuitive, interactive platform. Through this education and awareness approach, Solar System enables individual action and broad, organic solar adoption.



Maurizio Montalti - Nasco/sto

www.corpuscoli.com

BIO

With a strongly characteristic and creative trans-disciplinary approach rooted in collaborative practice and experimental research, Maurizio Montalti's work explores design as a discipline to probe and reflect on contemporary culture, inventing new opportunities and visions for both the creative industry and wider society. His studio, Officina Corpuscoli, based in Amsterdam (NL), strives to discover unorthodox relationships in existing paradigms. Its main aim is to develop a new kind of critical thinking that finds expression in the development of tangible alternatives.

PROJECT DESCRIPTION

"...and there, in the distance, comes a young man with a stick, the symbol of old age, wisdom and earned respect, a pillar of hope and future growth..."

The NASCO/STO project consists in a walking stick reworked in contemporary, symbolic vein to extend its practical function as an aid and support for venturing into hostile environments. This traditional object is transformed into a "fragile" (glass) allegorical tool that invites us to reflect on some of the changes that are needed in Italy in the design discipline. Indeed, NASCO/STO tells of the need for a change that can be enacted through the contraband of alien, clandestine knowledge and experiences and the spread of a positive, essential virus, ready to "infect" the immobility of the present: transdisciplinarity.

NASCO/STO's various components incorporate several tools, materials and suggestions that represent the author's multidisciplinary practice and that not only highlight the importance of cross-fertilisation and collaboration between seemingly distant application fields (such as design and microbiology) but also emphasize the need for a vital act of faith and listening.



Bennie Meek - Living Pavement

www.studiomeek.com

BIO

Bennie Meek started the Living Pavement project during his master degree Social Design at the Design Academy Eindhoven and is currently working together with designer Vincent Wittenberg on the further development of Living Pavement. Meek and Wittenberg are interested in working with spontaneous vegetation in order to improve urban spaces.

PROJECT DESCRIPTION

Living Pavement is a modular tile system that enables spontaneous vegetation to grow in urban public spaces. It contributes to the improvement of urban climate and quality of life by addressing issues such as rainfall-floods, the urban heat island effect, fine dust and more interaction with green in their direct surroundings. Living Pavement strives for a "natural" urban nature and shows that spontane vegetation does not have to be equal to neglect when it becomes part of the design. Living pavement can be placed in the existing pavement tiles and can grow, from incidents into a green network. astonishes or sometimes even disturbs.

With special thanks to: Alexandra Green, Alice Gaspari, Catherine Bell, Maja Zamodja, Samuel Pegg, Hanna Donker.

Skipping Rocks Lab - "Ooho!"

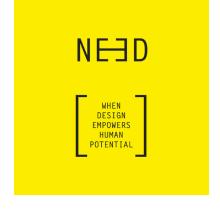
www.skippingrockslab.com

BIO

Skipping Rocks Lab is a Innovation Lab registered in July 2014. The three founders are Rodrigo Garcia Gonzalez, Guillaume Couche and Pierre Paslier. They met In London where they were awarded a double Master degree in science and design from the Imperial College and the Royal College of Art (Innovation Design Engineering). Prior to that, Rodrigo worked as an architect, Pierre as an engineer and Guillaume as an engineer team manager.

PROJECT DESCRIPTION

"Ooho!" encircle the water in a eatable membrane of algae. It is new way of packaging that propose an alternative to the plastic bottle. Using the culinary technique of sphereification, the water is encapsulated in a double gelatinous membrane. The technique consist into apply sodium alginate from the brown algae and calcium chloride in a concrete proportions in order to generate a gelification on the exterior of the liquid. The final package is simple, cheap, resistant, hygienic, biodegradable and even eatable.



Francesco Faccin - Re-fire kit

www.francescofaccin.it

BIO

In 2003, he began his career in Enzo Mari's studio, while also working with Italian and overseas companies as an independent designer. His meeting with Michele De Lucchi in 2009 sparked a collaboration that would last 5 years. In 2010, he participated in the SaloneSatellite for the second time, winning the Design Report Award. His Traverso table gained an honourable mention in the 2014 Compasso d'Oro. He collaborates with major Italian and foreign companies, and his work has been published in the most important national and international magazines (including Domus, Interni, Abitare, Intramuros, Wallpaper, Details, Inventario, Design Report, Monocle, Elle Decor and AD).

PROJECT DESCRIPTION

A manual fire-lighting kit made with contemporary production processes and tools that are sophisticated but accessible to all. "This exciting, physical design has come through hundreds of trials and frustrating attempts at achieving a perfect balance among its various constituent parts. In the end, when I managed to make fire with my hands, I had a momentary but intense feeling of self-sufficiency: ultimately, what more do you need...?"

Nicholas Felton - Reporter

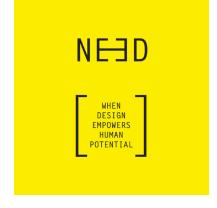
www.reporter-app.com

BIO

Nicholas Felton is a designer, entrepreneur and artist concerned with translating quotidian data into meaningful experiences. He produces personal Annual Reports that condense the year into maps, graphs and statistics. He has been profiled by The New York Times and his work is included in the permanent collection at MoMA.

PROJECT DESCRIPTION

Reporter is a self-tracking application based on the idea that less is more; that measuring a few things at random intervals can ultimately yield great insights. In 2012 Nicholas commissioned a prototype of this concept and used it throughout the year. The results of this experiment were promising and in 2013 he translated the idea into an app for a broader audience. Reporter's commercial release visualizes custom survey responses, illuminating aspects of a user's life that might be otherwise unmeasurable.



Basten Leijh - SandwichBike

www.sandwichbikes.com

BIO

Basten Leijh is an industrial designer who has designed a range of products for lighting, furniture and mobility renowned companies like Modular, Ahrend and Giant. He hit the ground running when graduating from the Design Academy Eindhoven with his Downtown. This bicycle that was introduced in the market by Giant is now an icon of Dutch Design.

As he continues to consult a variety of companies, Leijh is also pursuing his own product designs with Bleijh Industrial Design Studio. When Leijh launched Sandwichbikes, his concept created buzz around the world. The flat-packed innovative wooden re-think on the classic two-wheeled design, is a good representation of his focus on invention development.

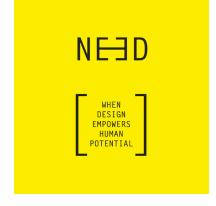
PROJECT DESCRIPTION

Would you have believed that two wooden panels could deliver the funkiest ride there is? Designer Basten Leijh did, and dubbed it the Sandwichbike. A Dutch Design original that was inspired by the concept of flat packing, home assembly and our never-ending drive to create exceptional products.

To enable you to build it yourself, Basten Leijh had to rethink every aspect of the classic velocipede. He came up with a concept that is unlike anything out there. Instead of a welded frame, it is engineered as a 'sandwich' of two weather coated frames of layered plywood. Bonded together by 'smart cylinders', the frames and components become a rock-solid piece of technology that is both durable and extremely attractive

The Sandwichbike fits in a small, flat package, so we can send it to you by post. The fun will begin the moment the postman rings your doorbell. Everything you need is in the box including the tools, so you can start assembling right away. In total, there are less than 50 parts. If you can make a sandwich, you can surely build a Sandwichbike.

The thrill of building your own Sandwichbike is only matched by taking it for a spin. Whether you head downtown, cycle around the park or go cruising down the boulevard, you'll feel the excitement of this smooth ride.



Smart Citizen - Smart Citizen

www.smartcitizen.me

BIO

Smart Citizen is a crowd sensing project that started in 2012 to develop bottom-up citizen science tools under an open source philosophy. It is headquartered in Barcelona where works in collaboration with IAAC, Fab Lab Bcn, Hangar and MID. It has been successfully crowdfunded twice and now is also part of an European consortium under the H2020 program.

PROJECT DESCRIPTION

Smart Citizen is a platform to generate participatory processes of the people in the cities. Connecting data, people and knowledge, the objective of the platform is to serve as a node for building productive open indicators and distributed tools, and thereafter the collective construction of the city for its own inhabitants.

The Smart Citizen project is based on geolocation, Internet and free hardware and software for data collection and sharing, and (in a second phase) the production of objects; it connects people with their environment and their city to create more effective and optimized relationships between resources, technology, communities, services and events in the urban environment.