



Capability Book
fuel for Healthcare Innovation

Nice to meet you. We are fuelfor.

We provide fuel for innovation in healthcare

fuelfor is a design consultancy specialised in creating health care experiences that work for people.

We have built a deep expertise in the healthcare domain over the last 18 years. We have a strong capability and track record in insights-based design and strategy. And we have a passion to make health care experiences that work for everyone - patients, caregivers, professionals and payers.

We work internationally with a wide variety of clients - public, private and third sector - from healthcare provider organisations to medical device manufacturers, from pharmaceutical companies to research labs, start ups and government agencies.

Every project brief is different, every deliverable too; for example we have developed and implemented new products, services and spaces that measurably improve patient experiences and offer better service delivery, created books to envision new models of care, made movies to communicate insights most powerfully.

We are often hired to help clients step into new territories, define new business opportunities based on trends and foresight, and make tangible new solutions using design.

All our work starts with uncovering human insights into a particular health care experience. It always involves translation of these insights to identify and define new business opportunities, solutions and strategies. We love what we do. We enjoy the complexity of health care and its challenges. We like to work hand-in-hand with people - our clients, patients, caregivers - to reshape, redefine and redeliver health care that can be empowering and empathic.

We would like to share with you here how we work and what we can offer.

If you would like to find out more, or talk to us about how we could work together, please get in touch at: contact@fuelfor.net.

Thank you for your interest in fuelfor!



Our capabilities

Overview



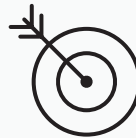
EXPERTS ON HEALTH

- Design Advisory
- fueldrops



UNDERSTAND NEEDS

- Design research
- Participatory research
- Trends research
- Benchmark research
- Glocal research



SPOT OPPORTUNITIES

- Visualised insights
- Insight movies
- Scoping workshops



CREATE SOLUTIONS

- Creativity toolkits
- Design for behaviour change
- Concept development
- Detailed design
- Experience prototyping



COACH TEAMS

- Building innovation capability

Design Advisory

Our domain knowledge in health care has become wide and deep over the years, encompassing a broad number of important health topics and specific disease conditions. It continues to grow as we learn by working alongside patients, caregivers and frontline care teams in numerous locations and health systems around the world.

As such, we can offer you Design Advisory services to bring our specialist health care knowledge and experience to your project, organisation or team. Our fueldrops service provides curated insight and inspiration on a topic of your choice, working with a tailor-made panel of experts from our fuelfor network.

Personal healthcare

Obesity
Dialysis
Rehabilitation care
Preventative health
Telecare
Health wearables

Family healthcare

Pregnancy care
Neonatal ICU
Ultrasound screening
Labour & delivery

Cardiology

Cardiac ICU
Cardiac EMS
Heart Failure Management
CVD prevention

Oncology

Nuclear medicine
Radiation therapy
Chemotherapy
Psycho-social care
Mammo screening
CRC screening
GBM treatment

Opthalmology

Diabetic Retinopathy screening
Lasik surgery

Radiology

X-Ray
Magnetic resonance
Computer tomography
Ultrasound
PET-CT
Cathlab

Healthcare IT

Reading room

Social care

Caregiver support
Dementia care
Elderly care

Regional health

Access infrastructure
Healthy city
Health system transformation

Pharmaceuticals

Patient support services

Palliative care

Hospice care



Europe AMC, Amsterdam EKZ, Amsterdam UMC, Utrecht UMCG, Groningen Catharina Hospital, Eindhoven NKI, Amsterdam University Hospital, Leuven Marzahn Hospital, Berlin Hôpital Privé d'Antony, Paris S.S. Trinità Hospital, Fossano S.Croce Hospital, Mondovi Matia Foundation, Zarautz Matia Foundation, San Sebastian Sant Joan de Deu Hospital, Barcelona Hospital del Mar, Barcelona Hospital Nou, Barcelona Edinburgh General Hospital Hospital Clinic Barcelona Onkologikoa, San Sebastian Quiron Hospital, Barcelona Our Ladies Children Hospital, Dublin	Asia Deep Hospital, Ludhiana Iqbal Nursing Home, Ludhiana KMCH, Coimbatore Women's Center, Coimbatore AIMS, Parkway Mount Elizabeth, Singapore Tan Tock Seng Hospital, Singapore Khoo Teck Puat Hospital, Singapore SMG Paragon Lasik Clinic, Singapore Raffles Hospital, Singapore NCCS, Singapore AWWA, Singapore SNEC, Singapore SGH, Singapore Changi Hospital, Singapore Dover Park Hospice, Singapore Assisi Hospice, Singapore St Josep's Home, Singapore
USA Edward Heart Hospital, Chicago Lutheran General, Chicago St. Josephs Hospital, Burbank St. Vincents Hospital, New York Washington Hospital Center, DC St. Francis Hospital, Indianapolis Hoag Hospital, Newport Beach	



Design research

Understanding people's needs in the context of their lives.



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1 Interviews with terminal patients inside a hospice in Singapore.

2 Ethnographic observation of stroke rehab in Italy.

3 In-home visit with elderly in Spain.

Every project begins with a strong understanding of the issues and needs of people before we can meaningfully designing for them; we practice user-centred design. However, since each project has a different start point and end point, we do tailor our qualitative design research approach and toolkits every time.

Over the years we have learnt what it takes to help people open up and share their most intimate, confronting or challenging stories around health and care.

As a result our design research approach has been specifically tuned to work for health care; it is sensitive enough to tackle difficult subjects, visual and open to encourage people to start sharing their stories in rich detail, and layered to be able to drill down to uncover deeper insights and unpack the complexity that usually exists around health care experiences.

Methods



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Design research toolkits

Understanding people's needs in the context of their lives.

Tools



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- 1 Business scoping cards.
- 2 Field research toolkit.
- 3 Spatial analysis tools.

- 4 Photo-ethnography.
- 5 Design research notebook.
- 6 Design Probe Toolkit

- 7 Design Probe Homework for users.
- 8 Experience Metaphor cards.

Participatory research

Inviting people to share their care experiences with us.



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1 Concept evaluation and feedback session with hospice care team in Singapore.

2 Group journey mapping session with an A&E team in Singapore.

3 Emotional trigger card set.

In our experience, health and care challenges nearly always involve a variety of people - we call them stakeholders - and they each have distinct and unique voice, perspective and experience of any given product, service or space.

We find it important to involve key stakeholders in the innovation process so that they can own and drive the change that comes with new solutions; this often begins by engaging them in the design research phase of a project and inviting them to participate in interactive group sessions where we give them tools to express their experiences and thoughts in words, images and journey maps. We also invite them to co-create ideas or to test potential solutions later on in the innovation process.

These sessions and the resulting 'picture of understanding' is often revealing and exciting, not just for the project team, but also for the stakeholders themselves. They are enthused to have a way to describe the complexity of what is happening to them, and relieved to be able to express how it makes them feel. Participatory research is a key working principle at fuelfor, it's the way that we do our research - with people and for people.

Methods and Tools



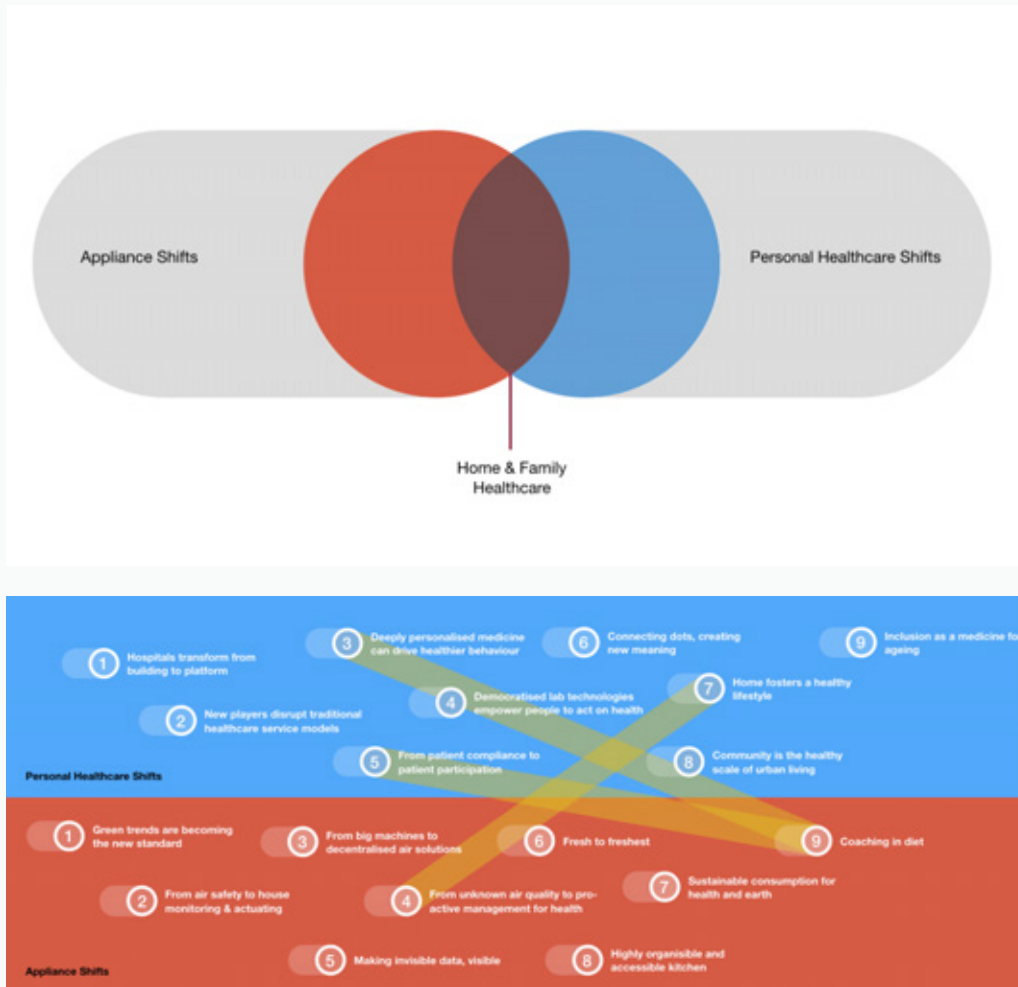
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Trends research

Uncovering the path to the future.



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1 Identifying the key trends and shifts that will redefine the home health care landscape in 5 years.

2 Inspirational design trends folio.

3 Visualising a future design strategy for hospices.

Our focus on health care means that we naturally stay abreast of global trends that are reshaping the industry, through our day-to-day practice in projects and through our professional network. Since we love what we do, we can't help also watching these trends develop in our everyday life!

Our real strength is in identifying the significant trends that will affect your business and activities in health care; we connect the dots between the relevant emerging trends both inside and outside of healthcare. For example, patients are consumers and their expectations of health services are also driven by their experience of banking, retail, transportation, technology services etc. We are curious to speculate how changes in these industries will drive change in healthcare.

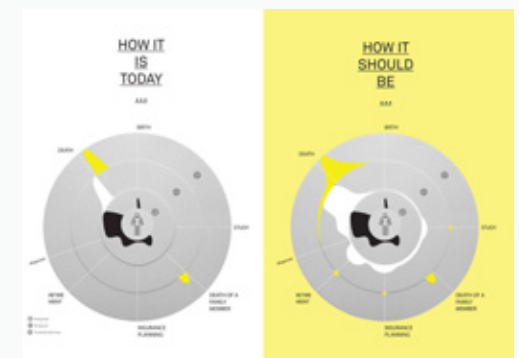
We tap into our network of multidisciplinary experts who are each at the forefront of a particular field of knowledge; from generalists to specialists, technologists to artists, academics to extreme users. Our job is to curate and synthesise their foresight with our design viewpoint, and translate this towards actionable information you can use to design new solutions and strategies.

We believe it is important to deliver an understanding of trends in formats that allow you to debate and discuss the impact they can have on your business or activity - to be inspired and informed by the changes that are happening in the world around us and to determine what this can all mean for you.

Methods and Tools



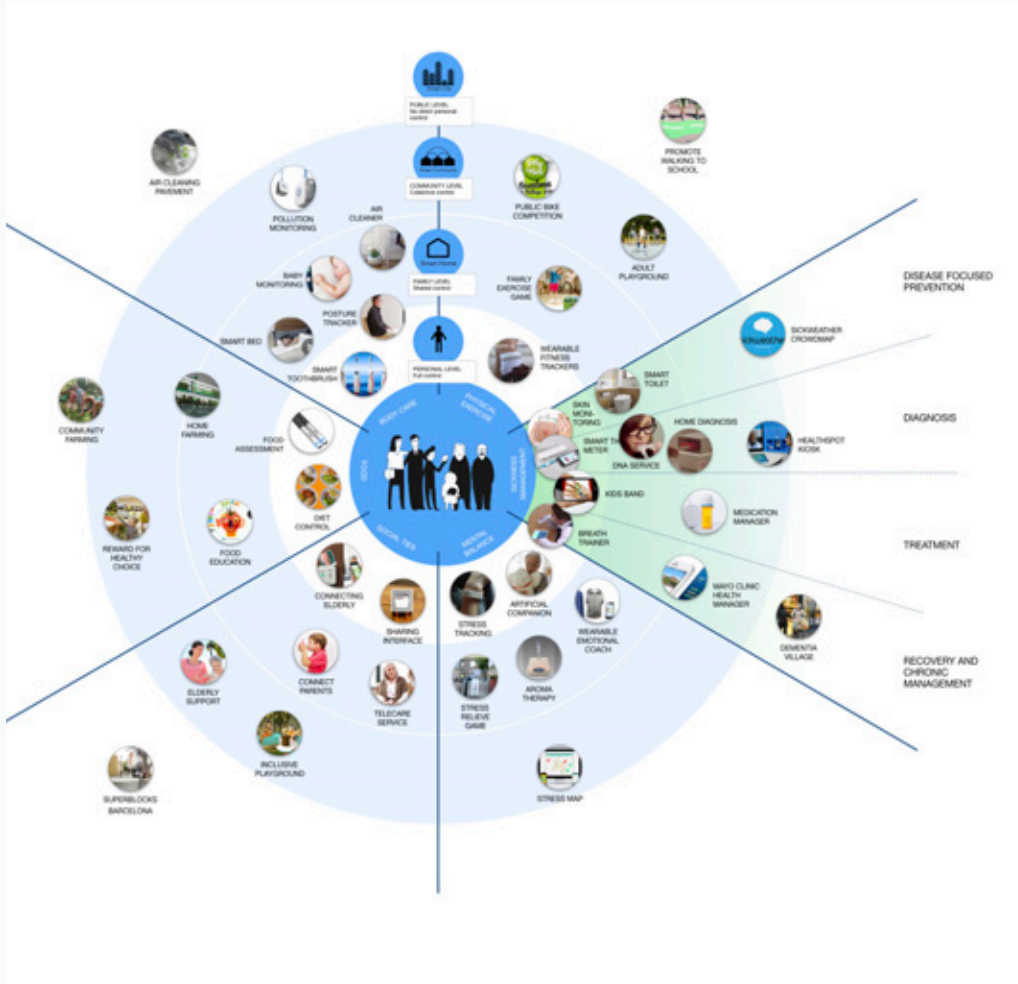
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Benchmark research

Mapping the health care landscape.



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1 Inspirational benchmarking card set for workshops.

2 Visual mapping of global competitor landscape.

3 Our ever-growing Tumblr database of international health care experience design case studies.

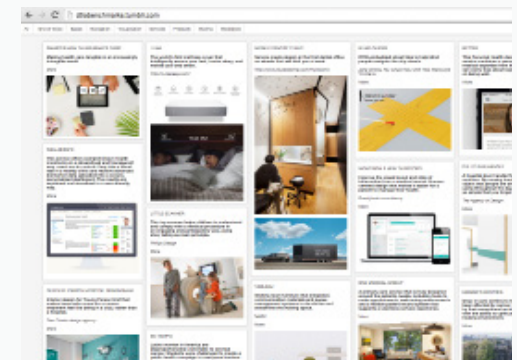
There are already many interesting health care design solutions in the world. Before we help you to identify new business opportunities or new territories for innovation, we can help you see how the current competitor landscape look with our benchmarking research capability.

This step can be both informational as well as for inspirational, as designers we seek out a strong mix of examples and analyse, synthesise them to structure and organise examples so that you can spot potential gaps in the market, saturated areas, compare solutions and importantly identify new opportunity areas.

Methods and Tools



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Glocal research

Partnering for local insights.



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1The friendly faces of our REACH partner network!

2 REACH has 11 partner locations around the world.

3 GOOD13, the REACH conference at Dutch Design Week 2013.

In 2008 fuelfor was a founding partner in the global design research network called REACH. Now we operate in this network of 10 partners, located around the globe, together able to deliver compelling design research insights and strategy, at scale and in a cost-effective manner.

We are all agile, highly-skilled agencies that share a consistent design research methodology and a common work ethic and values; to gather qualitative insights into people lives' and deliver these learnings to drive design, strategy and innovation. fuelfor is the only agency in the network that is specialised in health care, however our partners have experience working across a broad range of industry sectors and organisations.

The beauty of this networked, collective approach is that you can uncover global design research insights using experienced local teams - a REACH project can therefore provide you with rich, localised insights from various countries, along with a global synthesis to extract key findings across locations. The combination has proved valuable and powerful for several of our REACH clients.

You can also visit www.globadesignresearch.com for more information.

Locations



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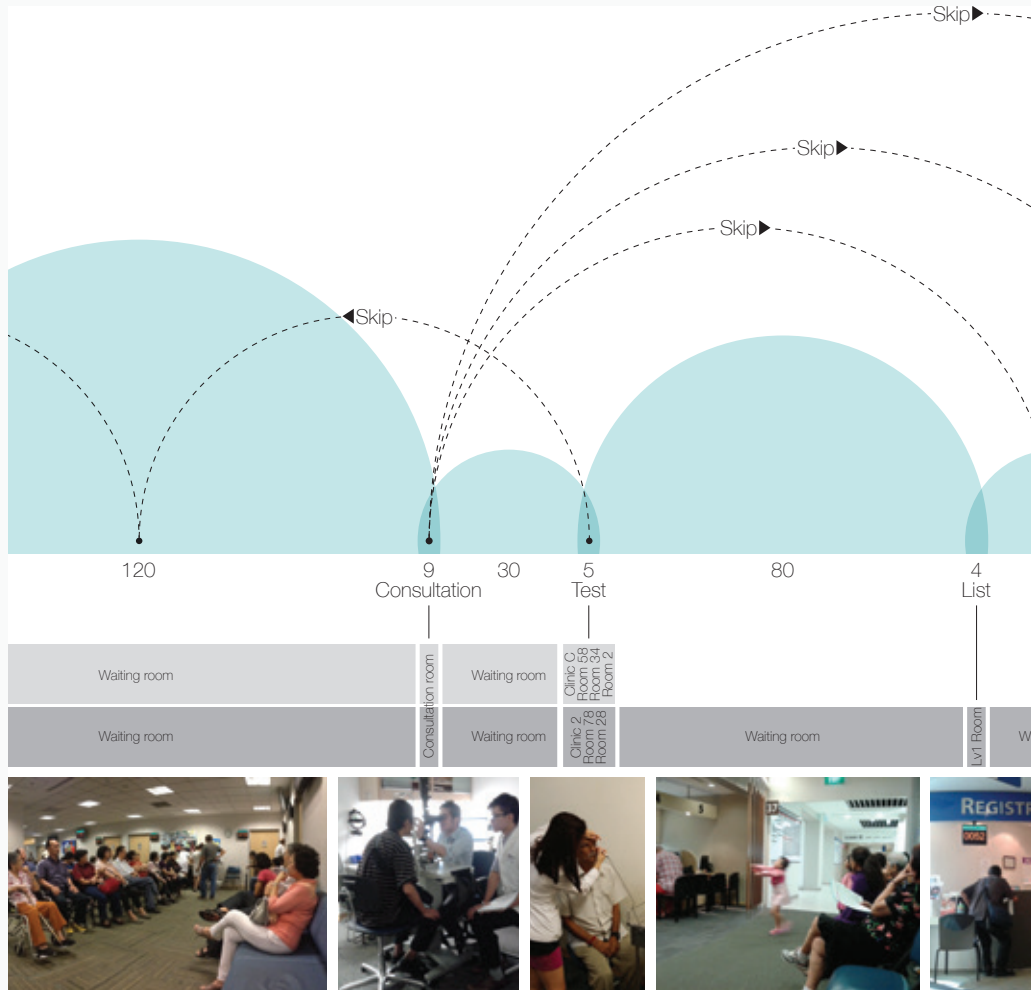


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Visualised insights

Making insights visual to make them actionable.



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1 Diabetic Retinopathy Patient Experience Journey for Singapore National Eye Centre.

2 Six reasons why the waiting experience in healthcare always hurts.

3 Representing insights over time in the form of Experience Journeys.

As designers, we think visually. This is very handy when it comes to understanding complex data sets such as that found when unpacking complex health care challenges; spotting visual patterns in insights data is something that we do well and it can reveal the most surprising new opportunities.

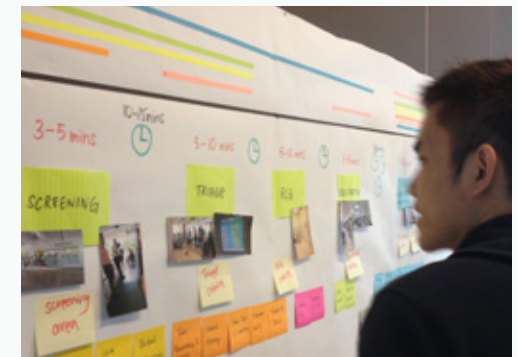
As designers we like to make opportunities tangible, so that they can more smoothly lead to real solutions that work. This starts by making insights more tangible so that they can be shared, debated, discussed and prioritised to move a project forward to design.

We believe insights are most powerful only when they can be acted upon by a team, especially by multidisciplinary teams who are involved in healthcare innovation and who are charged with building new and meaningful propositions and claiming new innovation territory.

Methods and Tools



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Visualised insights tools

Making insights visual to make them actionable.

Tools



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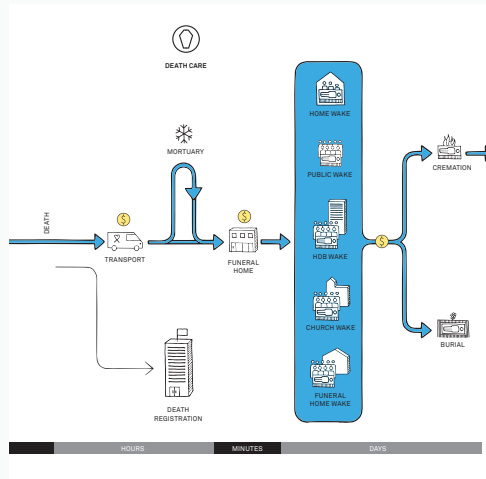
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- 1 Mammography process icons.
- 2 Medical product-system purchasing scenario.
- 3 Persona cards for Indonesian consumers.

- 4 Rheumatoid arthritis service innovation toolkit.
5 End-of-life Experience Journey.
6 Strategic Planning Toolkit

- 7 Detailed Wellness Persona Poster.

Insight movies

Bringing insights to life.



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1 In-home video ethnography to understand what wellness means to Indonesians.

2 Insights synthesis by blending movie editing and design research techniques.

3 The Experience of Ageing short films to highlight new business opportunities.

Everyone loves great movies. We remember them, we empathise with the people in them, we respond to them both rationally and emotionally, we share the stories they tell and we imagine the future they might bring. It's a natural medium to engage us mere mortals.

We are really excited about this specific capability - incorporating documentary film-making techniques into our repertoire of design research and creating in the process a hybrid method that offers the best of insight, in the best format for making an impact.

Our methodology once again takes into account the sensitivities in the health care topics and situations we work within, and contains different ways to put people at ease and open up to in a sense 'direct their own movie' and share their stories with us.

Whether you want to share insights with internal or external stakeholders; to use them to communicate to the outside world about the innovation work you do, ensure that your in-house innovation team are all on the same page to deliver a new solution that is based on what your customers actually need and want, or simply to inspire ideation and spread knowledge - insight movies can be designed for you to deliver on these types of goals.

Methods and Tools



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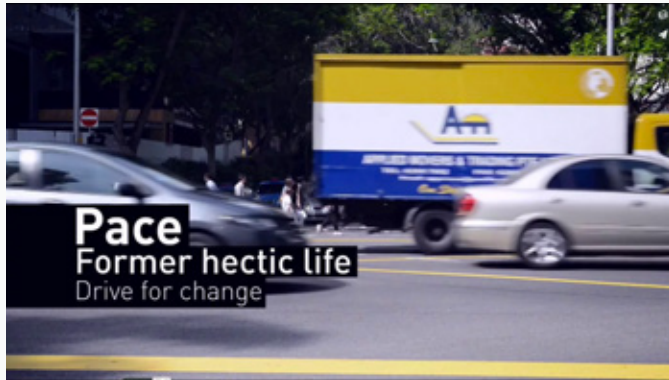


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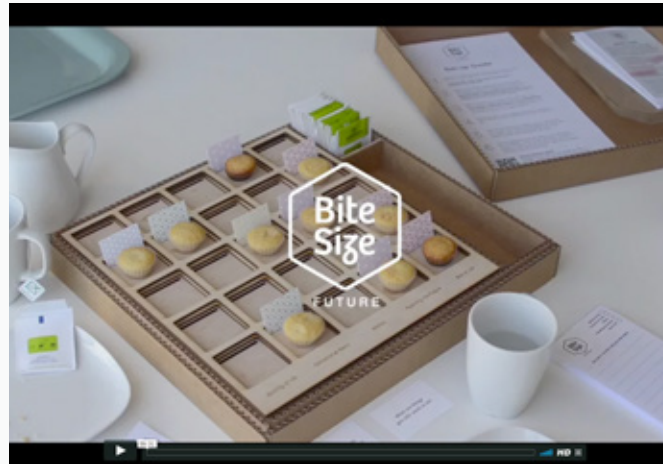
Insight & Design movies

Bringing insights to life.

Movies



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1 The Experience of Ageing short films
2 Bite Size Futures Training Movie
3 Globuddy's concept movie

4 Making of - Who Cares process movie
5 Movie about the experience of caregiving
6 Movie on health and wellbeing in Indonesia

Scoping workshops

Prioritising opportunities and ideas.



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1 Voting for action points along the Rheumatoid Arthritis Patient Journey with NHS Scotland.

2 Spotting opportunities to improve the service experience along a Care Journey.

Translating insights to strategy involves making data visual and tangible in order to make it shareable and actionable; we design and run opportunity scoping workshops with client teams to facilitate collective decision-making towards new strategies, roadmaps and value propositions.

Each organisation is different in how it is structured and how it behaves, its culture. With this in mind we work with our clients to create events that bring the right disciplines and stakeholders together to share in understanding the insights and opportunities they may face as an organisation.

Our workshop toolkits are tailored to support dialogue towards taking decisions on where, how, when and with whom to innovate. Card sets, posters, brainstorming activities, voting, criteria setting are just some of the ingredients for such sessions. The result is a prioritised set of opportunities or ideas that can drive strategy, design and innovation next steps.

Methods and Tools



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Design for behaviour change

Facilitating healthy habit creation.



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1 Design for Behaviour Change trigger cards to challenge, enrich and develop consumer health care solutions.

The meeting of behavioural science and experience design in the field of healthcare innovation is making for exciting times; how might we design new products, services and systems that support people to adopt healthier habits and give a chance to live a better quality of life?

Behaviour change is also of great interest for service providers in healthcare, to create teams that are fit, well and effective in delivering care. We believe that good design can help to shape and influence human behaviour, but always keeping control with the end user.

We have been developing our expertise and knowledge in this area of design for health care, learning by doing and applying this capability in projects where it can bring added value. For example, in family healthcare solutions that harness the social dynamics of the family to promote healthy habits at home and in lifestyle.

Methods and Tools



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Creativity toolkits

Playing with possibilities.



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1 fuelfor team design workshop for Experience of Waiting in Healthcare project.

2 Making fast prototypes of design concepts.

3 Storyset tools for quickly visualising and communicating new product-service scenarios.

Innovation is inextricably linked with the notion of creativity. As designers we tend to be naturally creative, but are also professionally trained to think creatively. Increasingly our clients want to harness and enhance the creativity in their own teams and people.

We translate research insights, both informative and inspirational, into creativity tools so that we can work with validated insights to create new ideas and solutions; making these tools surprising, engaging and effective is part of our expertise. Whether we are designing a co-creation toolkit to use with nurses, or tools for our fuelfor design team, we think about the content we want to work with and create different formats to play with. We make tools that are visual, tangible, playful, flexible, triggering the imagination.

Creativity toolkits can comprise any number of elements depending on the project intent, scope and topic: movie screenings, insight trigger cards, personas or profiles of key customers/stakeholders, architectural lego, experience journey posters, inspiration booklets, guided tours, expert dinner dates etc.

Methods and Tools



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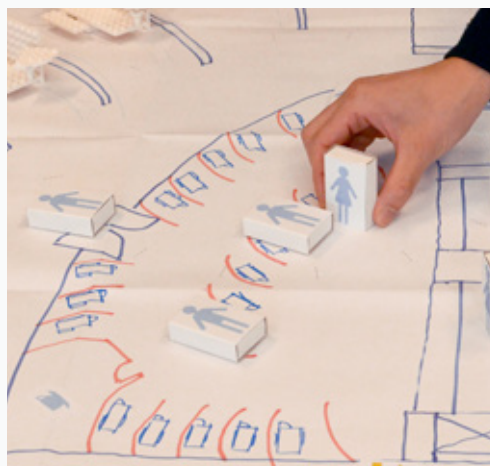
Creativity toolkits

Playing with possibilities.

Tools



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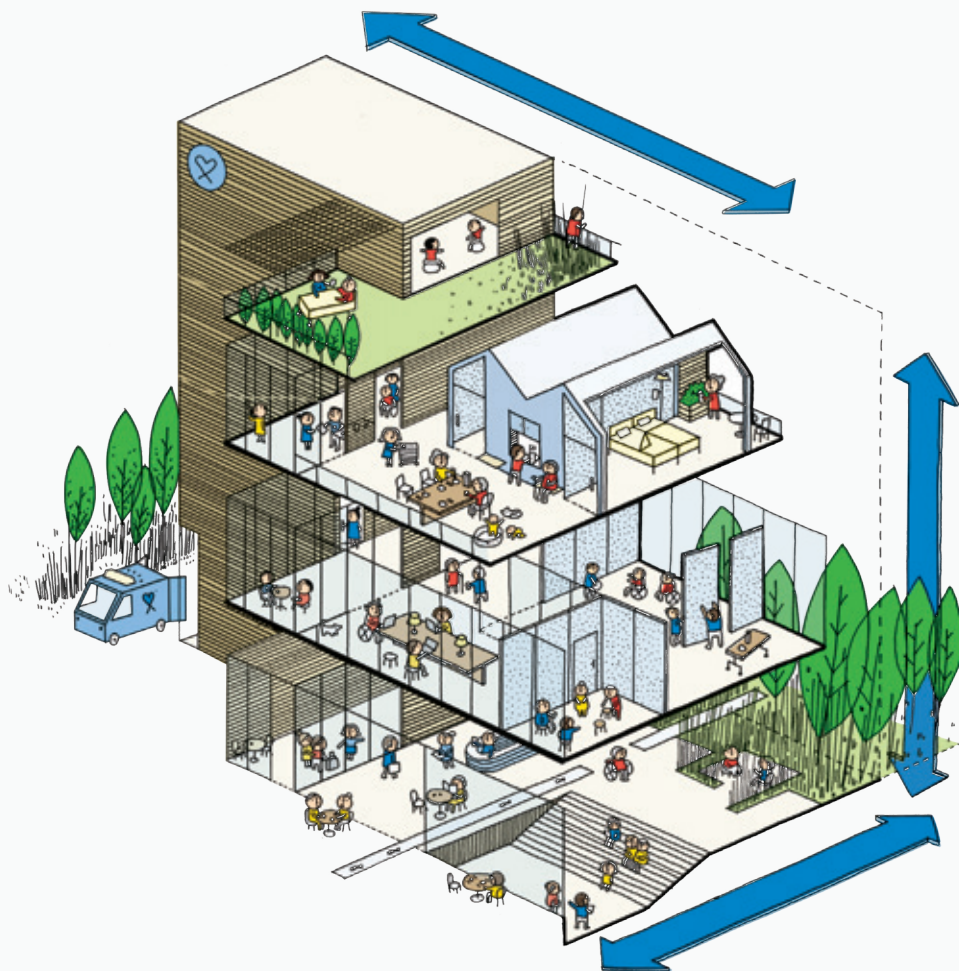
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- 1 Storyset innovation tools for sale.
- 2 Scale model scenario roleplaying.
- 3 Private healthcare service experience.

- 4 Inspiration booklet and cards.
- 5 Design qualities inspirational mood boards.
- 6 Ideation trigger cards, based on research.

Concept Development

Visualising new experience scenarios.



1

- 1 Concept Map showing the Open Hospice building and service model.
- 2 Scenario sketches explaining the new ultrasound scanning experience and interaction paradigm.
- 3 3D visualisation of a new family-based chemotherapy clinic experience.

As designers, our ability to visualise and communicate concepts in easy-to-understand and simple-to-share formats allows ideas to be evaluated by end users and stakeholders, and enriched with their feedback.

fuelfor's experience designers visualise their ideas in a time-based format, creating storyboards that allow them to show how concepts develop and evolve over time and across touchpoints e.g. along the course of a patient journey.

A variety of design skills and techniques allow the design team to move from sketching, scenario creation and storyboarding to paper prototypes, 3D mock ups and experience demonstrators as a means of exploring the full potential of an idea.

In doing, so we reach a clear definition of the desired experience design qualities and goals for any given solution. This enables us to articulate how an idea will look, feel and behave when interacted with.

Methods and Tools



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Detailed Design

Translating experience qualities to suitable design details.



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1 Globuddys kids distraction tool.

2 New identity of a Pet-CT.

3 An interface showing how palliative professionals can access a network of caregivers around each of their patients.

Healthcare experiences often feel mechanical, impersonal and process-driven. Behind many of our design intentions is the aim to offer experiences for people that empower them to take greater ownership and a sense of control of their health.

Designing experiences allows us to think about key product or service interactions, their contexts-of-use and the related tone-of-voice in an holistic way; to orchestrate all the key elements of the experience for the desired effect.

Designing products and services for implementation additionally requires the design team to bring the continuity of the insights and intended experience qualities all the way through to the final design detailing and development process.

During this process we constantly need to ensure that the original design intention and qualities are safe guarded during the development process.

Methods and Tools



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Detailed Design

Translating experience qualities to suitable design details.



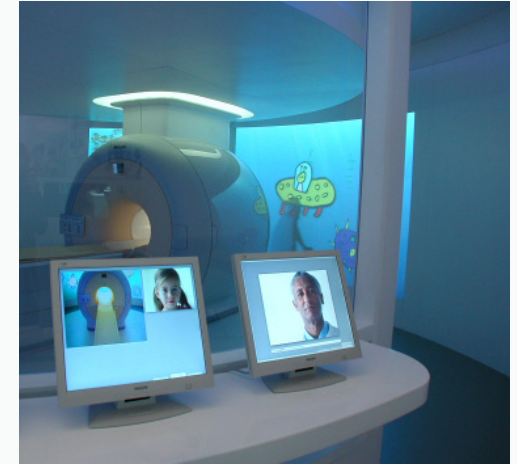
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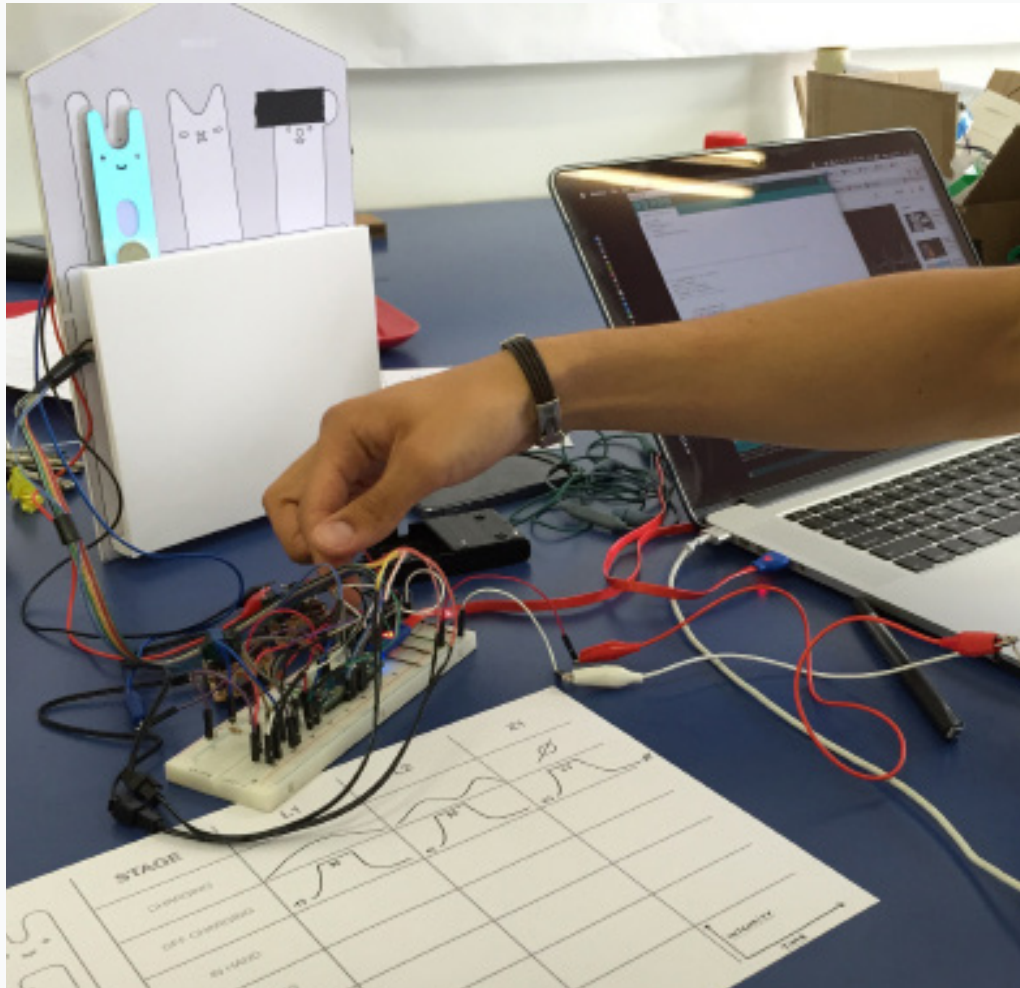
1 Wall Bump display for ultrasound scanning.
2 Lumbia wearable posture coach.
3 Thank you Cookies End of Life conversation toolkit.

4 Future imaging clinic.
5 NEST modular elderly home furniture.
6 Globuddys kids distraction tool.

7 Patient activation tools for specialist consultation.
8 Patient-centred dialysis seating.

Experience Prototyping

Test Experiences in context.



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1 Globuddys is an interactive patient experience prototyped on an Arduino platform.

2 Prototype brainstorm during the Lumbia wearable posture coach creative workshop.

3 Testing the first working prototype and interaction qualities of the Wall Bump from the Celebrating Pregnancy project.

Experience prototyping is a powerful communication platform between designers, engineers, providers, and end users.

We use our in-house capabilities to create design prototypes that can communicate the intended qualities of a desired health care experience.

We have a deep knowledge and expertise in prototyping wearable electronics & soft technologies for health and wellbeing applications. And the skills to quickly build electronics prototypes to prototype interactive products and services.

We often use role-playing in the early phases of our prototype development process to be able to check and test key touchpoints and interaction scenarios of a product, service or system.

Experience prototyping allows us to gather quick feedback on the quality of the interaction and therefore iterate to define the best possible interaction and experience.

Methods and Tools



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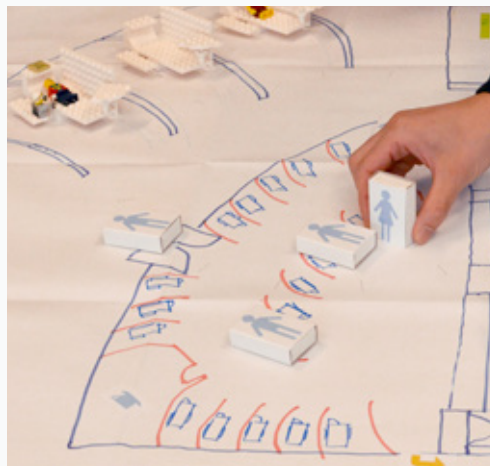
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Experience Prototyping

Test Experiences in context.



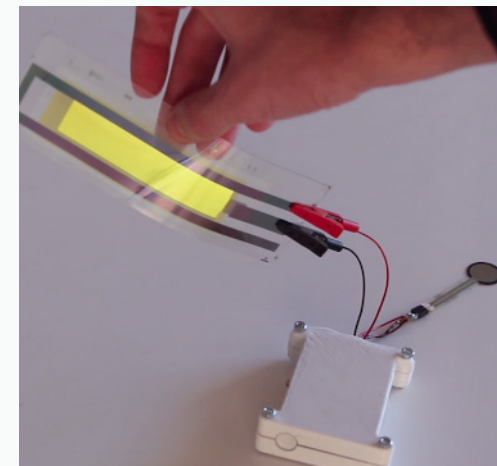
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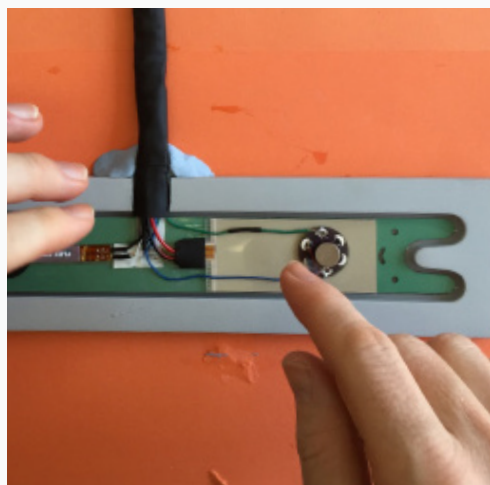
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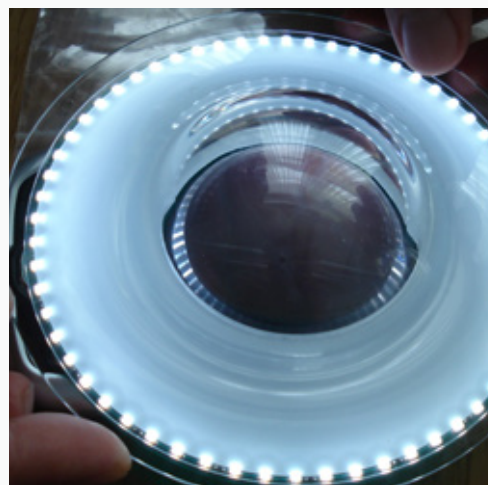
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1 Building the 1:1 prototype of the pregnancy clinic.

2 Spatial role-play of a new emergency room.

3 Prototype and interaction role play of Lumbia.

4 Functional experience prototype of Globuddys.

5 Service tools testing within an eye hospital.

6 Globuddys tool making.

7 Bebescope handheld prototype.

8 Healthpoint system clinic implementation.



Building innovation capability

Training Design Thinking for Healthcare.



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1 SingHealth 3-day Design Thinking in Healthcare Workshop Program 2014.

2 Persona Lense Game for Healthcare Innovators Forum 2013.

3 Teaser card set to introduce Design Thinking in Healthcare.

Design Thinking has become a hot topic in healthcare in the past few years, and as experienced practitioners fuel for we have been asked to train a number of different non-design teams around the world; from the nursing team of a Barcelona children's hospital, to the management team of a Asian chain of private hospitals, the innovation team of the National Health System of Scotland and healthcare professionals from SingHealth the largest healthcare provider organisation in Singapore.

We design training workshops that introduce the basic principles of Design Thinking for Healthcare through a learning-by-doing approach; part classroom-based, part project-based. From 1 day introductory workshops for C-suite executives to 8-day programs designed around a specific challenge brought in by an innovation team. Our most successful training programs combine our coaching and consultancy capabilities, to add greater value by working with your innovation team to carry out a specific project, adding our design capabilities along the way to enrich the process and deliver stronger results.

Through our training work we have gained rich experience in how Design can make a difference for health care innovation; learning about how health care systems, service organisations, solution providers and the industry as a whole functions around the world. This provides us invaluable insight into the state of the industry and its ambitions, the needs and challenges of the people involved in providing solutions today, and simultaneously building up our global network of health care innovators.

Methods and Tools



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