

Future Forces

2017

What will affect
the world around us

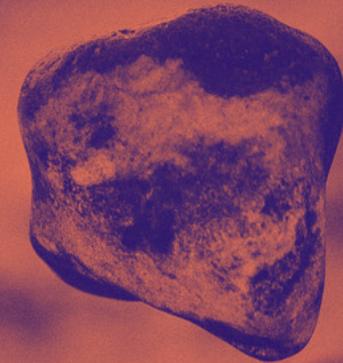
futurice
FUTURE CO-CREATED

Introduction

At Futurice we're always looking at 'what's next' and how we can help our customers navigate the future.

With the world around us changing, we're trying to view the year ahead with a fresh perspective. We have identified five opportunities, which we're calling Future Forces. They bring everything together from the past year, the present as well as looking to the future.

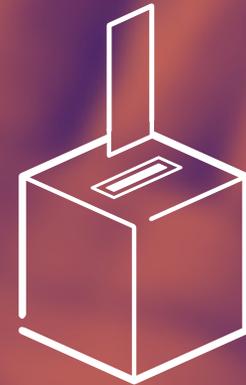
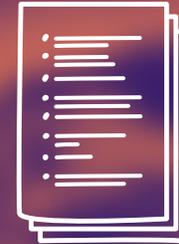
We've brought together design, business and technology forces that will start to impact us in the year ahead. As many things have changed and will be changing, we ended up exploring the theme of – *what's the next normal?*



How we did it

We didn't want to just rely on what we think, we wanted to test our ideas with real people. This is how we did it.

- 01 • Identified 70 forces and shortlisted them to 30 forces.
- 02 • Created fortune cookies which were given to 1000 people at Helsinki's startup conference, Slush. Each cookie contained one force, we asked people to eat the cookie and place the force in a 'Yes I believe this will happen' or 'No I don't believe this will happen'.
- 03 • We asked everyone at Futurice and digital commerce consultancy, Columbia Road, to vote using an online survey.
- 04 • We split into tag teams and deep dived into the most prevalent.



Future Forces 2017

01 The Rise of the Maximoment

02 The Code-ification of Trust

03 Do Good Data

04 Introducing H-Commerce

05 Fluid Mobility

01

The Rise of the Maximoment

With everything becoming possible, we now seek to try less and enjoy more.

Busy, hectic lives, and too many choices have left some of us too perplexed and on the verge of burnout. We're seeing people skip planning, cut out social media and generally slow down. In 2017 it's ok to be 'out'. It's the moment for laggards. Take a nap, sleep properly and feel invigorated. The emphasis is on listening to our own needs whether it's physical, emotional or psychological.

We're revelling in joyful spontaneity as our lives aren't fully booked. We're moving from micromoments to maximoments, as we stretch the time we want to spend on the things we want to do, we're fully enjoying monotasking.

Futurice findings

80%

believe going offline is
the new adventure.

60%

don't believe virtual
trips will offer instant
relaxation.

31%

of people think we'll live
in a device free world.

Driving forces

A Clean &
perfect sleep

B Gaining new
sources of time

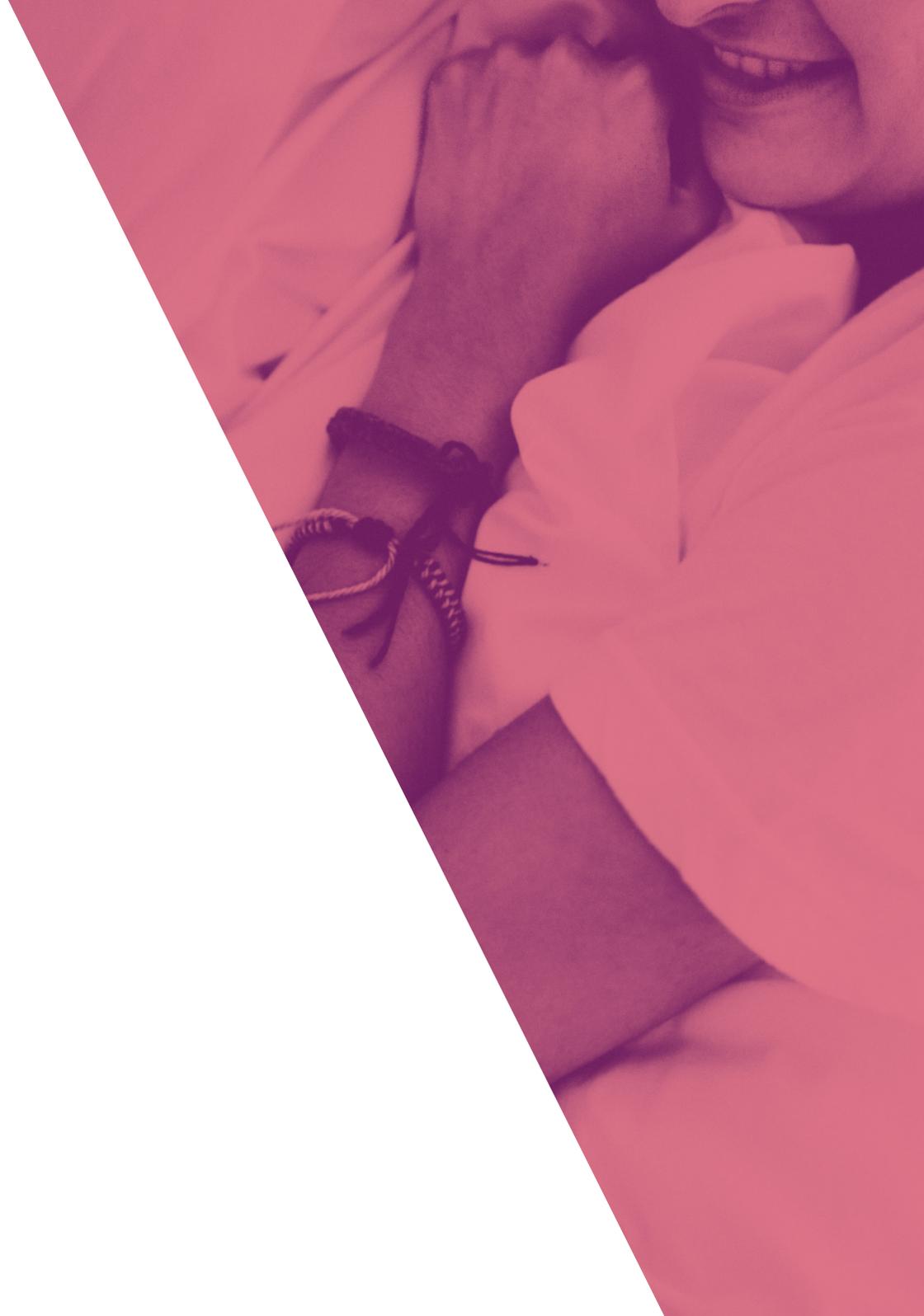
C Robots take the
pressure off

A Clean & perfect sleep

The want to live a 'clean' lifestyle, extends to our sleep, says Gwyneth Paltrow, who defines this as the "biggest health trend for 2017".

There's no escaping the more traditional sleep aids such as the Hullo 'Magic' pillow, the self-making Smart Duvet and of course better PJs to help achieve the optimum sleeping temperature, by Lunya.

Thriving through better sleep is the new health angle consumers are opting for, as Adriana's Huffington's bestseller, The Sleep Revolution proved.

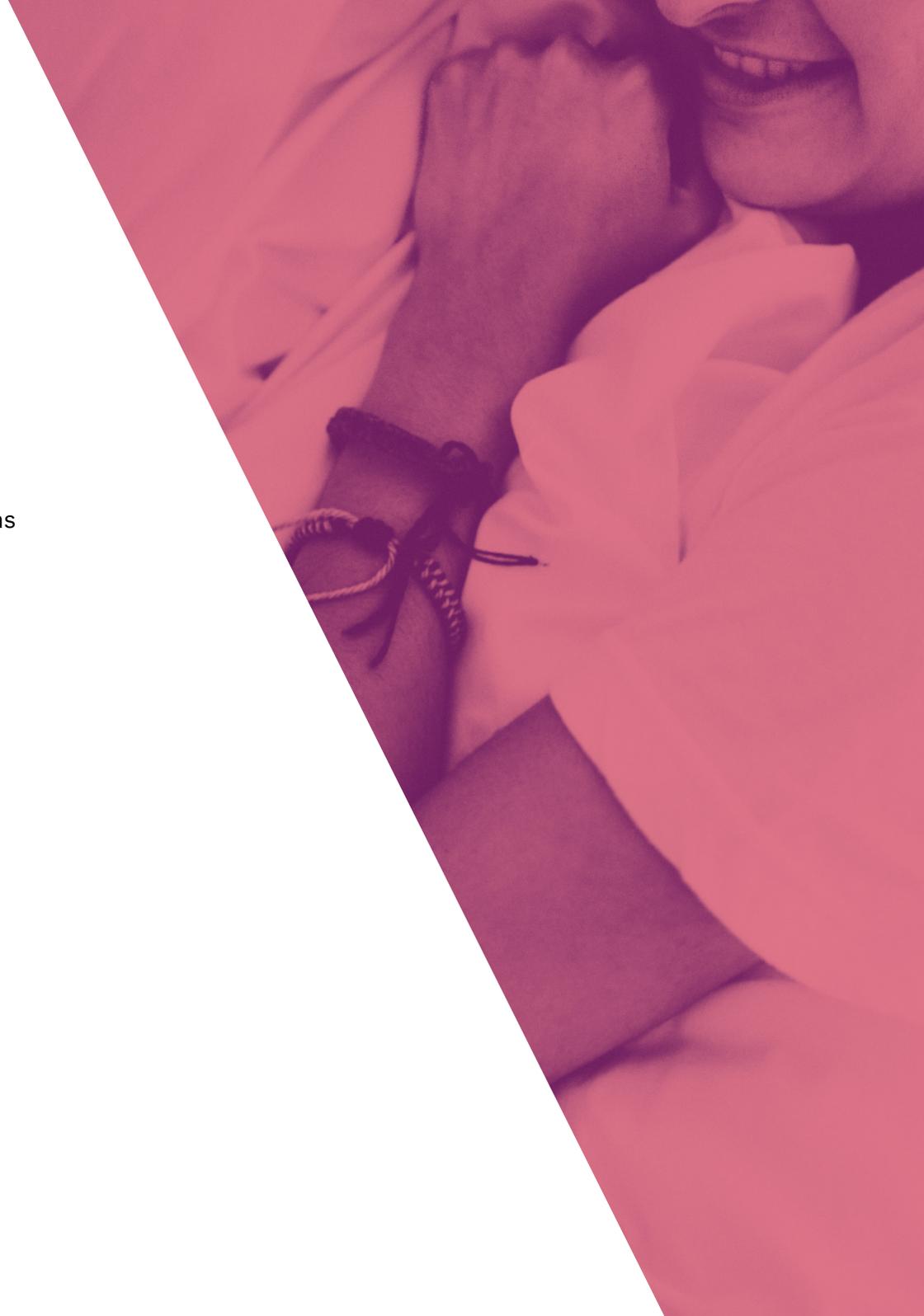


A Clean & perfect sleep

Numerous in-sleep wearable trackers have entered the market including: Beddit Sleep Tracker and ReST Smart bed, which monitor sleep and in some cases respond to give you a better night's sleep.

And if you struggle with insomnia you could text a specially designed chatbot to keep you company when you can't sleep.

Whilst others focus on getting us into the right frame of mind, such as siesta video platform, Napflix. SleepCogni is a relaxation system that emits personalised lights, sounds and touch to lower users' heart rate before sleep.



B Gaining new sources of time

Driverless cars are going to give us more time to do the things we enjoy and we'll see the introduction of specially designed in-car experiences. In Singapore nuTonomy, launched its first fleet of driverless taxis in September, the aim is to reduce the number of cars on the road by one third.

In 2016, the first 3D printed driverless 12-seat bus, Olli, was launched. The bus can be printed in under 10 hours and can be assembled in under one hour. The bus which is currently operating in Florida, Las Vegas and Washington D.C, can be called by an app and uses IBM's Watson for passenger interactions.

Drones running errands:
7-eleven hopes to make drone delivery a regular thing. Starship technologies is testing out delivery bots in the U.S.



C Robots take the pressure off

We seek new ways to improve our concentration and relieve stress that has spurred from constant connectivity. Meditation has become a billion dollar business and last year there were already over 1000 mindfulness apps available for smart phones.

Up to 25% of tasks in manufacturing, packing, construction, maintenance, and agriculture may be lost to robots and artificial intelligence by 2025, according to the McKinsey Global Institute.

According to the Disappearing Routine Jobs: Who, How, and Why? paper, routine occupations employed 40.5% of the U.S. working-age population in 1979, but only 31.2% by 2014.



C Robots take the pressure off

Robots are becoming more widely accepted to help with menial tasks such as vacuum cleaning, clearing snow or cutting grass.

Robots are also helping us to do everyday tasks such as gardening. Franklin Robotics has created Tertill, which aims to take away the mundane task of weeding.

Moley is releasing a robot in 2018 that can cook any dish for you and do the washing up for you too, signalling that robots are getting even closer to our lives.



On the horizon

Horizon 1

6-12 months - 2017

- Consumers seek to achieve 'clean sleep' - influx of media articles and solutions enter the market.
- Exploitation of autonomous technology.



Horizon 2

12-24 months - 2018-2019

- Robots helping us to do everyday tasks such as gardening, hit the mainstream.
- Driverless cars hit the road and give us more time to do the things we enjoy.



Horizon 3

2-5 years - 2019-2021

- Sleep scores accepted by doctors, as a way to prevent certain health conditions or monitor patients from afar.
- Smart censoring and robotics applied to all imaginable gadgets and gears.
- Drones become part of urban traffic.



Future proofing

01

Are your customers well-rested and happy? Could you promise a good night sleep in your homes or buildings? Sleep guarantee for new homeowners?

02

Happiness index: What does happiness mean to your customers? Are they happy? How can you enable happiness both in digital and physical interactions with your products and services?

03

How are you helping your customers to have a smart home? What is your home's IQ? Can you make a promise to your customers that they never need to lift their finger, just sit back and enjoy - the house will take care of itself, and the family living in it?

04

What is your understanding of robotics? Could housing company's own janitor be a robot? Taking care of the building and surroundings, and welcoming people back home?

05

What to robotise and what to digitalise? What do you provide to your customers that could be replaced by robots or by digital services?

02

The Code-ification of Trust

In a digital world security is a daily cause of concern. Personal information, identities, home security you name it. We're surrounded by firewalls and drowning in passwords to secure our data traffic and storage. Security is unnerving and can be scary too as complexity and intelligence of everyday objects increase, ethical and legislative boundaries will need to be considered.

More goods are connected. Data privacy becomes ever more topical, as the public speaks out about their concerns. From 2017 onwards, technological development is enabling a whole new level of privacy and security. We can start using our physical uniqueness to secure and identify where needed. You can move freely as biometric and gesture-based safety features grant access; you enter in a blink of an eye. Safety can be fun by winking your way to safe data protection. We expect next level sign language, created to help navigate a gesture filled world. We're moving away from passwords and tokens to a much more diverse and sensorial approach.

Futurice findings

65%

of respondents think we'll use our identity as our currency.

58%

of people believe our face carries our personal data.

51%

believe every movement & gesture will be designed.

Driving forces

A Biometrics -
beyond the chip & pin

B Rise of gesture
related innovations

C Innovative methods to
provide safety

D Bitcoin &
Blockchain

A Biometrics - beyond the chip & pin

With more than 90% of consumers concerned about their data privacy we are searching for new, safer options. 66% of consumers are very open or somewhat open to biometrics, including fingerprints and voice scanning.

Biometrics came to age in 2016 as an estimated 120 countries are now deploying electronic passports, with super secure features and over 50 countries are implementing eID cards.

Startup EyeVerify, which is used by Wells Fargo, offers software that identifies users by vein patterns in their eyes. CitiGroup introduced an eye-scanning ATM too. They both work by the user taking a selfie. Mastercard offers 'selfie pay' too.

For the Japan 2020 Olympics visitors will have their fingerprints, credit card information and other details taken when they arrive. They can then pay in up to 300 stores and restaurants.

B Rise of gesture related innovations

'Air-clicking', the gesture used to control the HoloLens in much the same way you would use your index finger on a mouse. A new and widely accepted gesture.

KickSoul, which is a project from MIT, allows users to operate digital devices using foot gestures. Using insole maps it allows devices to be controlled by kick gestures, for example whilst typing you could move feet to save a document.

Bixi, allows you to control your devices through sensing your in-air gestures and commands.



C Innovative methods to provide safety

Safety reflections in the traffic. Bike-shaped projections that land 20 feet in front of riders introduce a new visual cue into the safety lexicon.

The U.S. Department of Homeland Security is already looking to see whether body odour and the way a person walks could be used as ID.

SkullConduct, uses the unique sound of users' skulls to securely identify owners of wearables. It is one of the newest physiological authentication methods and uses soundwaves to identify users via unique pattern vibrations produced by their skull.



D Bitcoin & Blockchain

Bitcoin gave rise to a new way of thinking about money, or more specifically currency, as it created a public ledger system, which is verified by cryptographic algorithms to ensure no one else can use funds without a private key. Market research firm ConvergEx, predicts that bitcoins will be capped at 21m coins by the year 2140.

Joi Ito, director of the MIT Media Lab believes that “the launch of Blockchain will be for banking, law and accountancy as The Internet was to media, commerce and advertising”.



D Bitcoin & Blockchain

Within a car ownership setting, blockchain does not focus on eliminating human drivers but eliminating the actual middle management that matches the customers with rides and charges a transaction.

At the core of this technology is blockchain-enabled identity that allows you to carry proof of identity age, insurance coverage and a way to pay, while protecting the anonymity of the passengers.



On the horizon

Horizon 1

6-12 months - 2017

- Research into replacements for passwords and tokens - new authentication methods.
- Large organisations explore the security and legacy systems ability to allow new verification techniques.
- Blockchain explored outside of financial services.
- Facial recognition technology trialled across service industries (outside of security).
- More gestures enter our (online) lives.



Horizon 2

12-24 months - 2018-2019

- New authentication methods in place.
- Blockchain recognised process for multiple industries.
- Facial recognition technology improves the customer experience.
- Gesture language classes and guides produced.
- Legislative and ethical boundaries considered and more public concerns shared.



Horizon 3

2-5 years - 2019-2021

- Coded trust providers across all services - think Airbnb and eBay for recruitment, grocery shopping and caring.
- New currencies introduced and more currency freedom in forward-thinking countries and environments.
- We use gestures more than today's traditional interaction methods.



Future proofing

01 When defining the identity of your customers what do you really need to know to process a transaction or allow access? What parts of the current process could be removed or replaced to make this a better customer experience?

04 Better targeted marketing and product offers? Could facial recognition provide a key to your customers satisfaction?

02 How do you interact with your customers? If you have a physical experience with them how could we use their bodies data to replace some annoying parts of the customer journey?

05 How do you acquire the image of your customers? Where do you store the images when facial recognition becomes an accepted method of identification for many businesses and governments? How do you attach relevant transactions to the image?

03 Do you use gestures? What are the key actions you want users to do when they are interacting with your brand online? How could new gesture technology be used to encourage or support this? Would you need to educate your users on what gestures to use and if so, how would you go about this?

03

Do good Data

In a world full of sensors, activity meters and wearables, we have the possibility to monitor ourselves from many angles. We can gain understanding and therefore control our behaviour. We feel that we can do better at planning our daily lives, incorporating our physical readiness and well-being to steer our schedules and activities.

Being organised gives a sense of control. Understanding and control comes in the form of monitoring and planning. Self-management is topical. We will be willing to share our data in order to get better services, products, and a healthier life. We can start to see new aspects, cures and solutions for our health. Both physical, emotional and mental. Better medicine, better information, robots as a companion if you're feeling lonely.

Data security has a role here too. As well as personal data management. This might be a big new growth area eventually - platforms that make managing data and permissions easy.

Futurice findings

73%

believe we'll have edible sensors that analyse your present and future nutritional needs.

49%

think gene technology will make sickness a thing of the past.

52%

believe that the modern family includes machines too.

Driving forces

A Predictive and
personalised healthcare

B Vitamins get
high-tech

C Data is changing how
we work and interact

A Predictive and personalised healthcare

The ownership of data is spreading to new stakeholders and healthcare is becoming more personal. Think Apple HealthKit, Google Fit, Arivale and Human Longevity. Challenging questions that arise: ownership, privacy and possible abuse of data.

Remote patient-monitoring system, eCare21, collects thousands of pieces of health data for over 1,000 senior citizens and displays them in a dashboard for doctors and loved ones to view. The system uses smartphones, wearables and sensors to collect information, including blood pressure, physical activity, glucose levels and medication.



A Predictive and personalised healthcare

The Internet of Things will connect devices that can support predictive medicine and products. It can link a patient's wellness to her lifestyle which can go from luxury to necessity. As data becomes more accessible and devices smarter, we can enhance the patients' experience.

Two major medical projects include, cancer being attacked without toxic treatments such as chemotherapy and 3D printed hyper-elastic bone which could change reconstructive surgery.

We're seeing innovation services being introduced all the time including: armpit bacteria changing body odour, selfies to capture genetic disorder, skin patches to protect from allergies and a predictive app that prevents sport injuries.



B Vitamins get high-tech

Vitamins can be high-tech too thanks to vitagene algorithms. Startup, Vitagene, which customises supplement packages, discovered their ideal customers are weight loss surgery patients. The surgery makes it necessary for patients to take a medically required list of nutrients, by marrying science and technology, dietary supplements can move past the hype and into the realm of solid science.

Supplements, food and drinks increasingly available based on person's DNA.

C Data is changing how we work and interact

Data will revolutionise the way doctors diagnose disease and treat patients. Entrepreneurs who are able to adapt and innovate technology that connects doctors with diagnostic tools will be poised to take advantage of the data revolution.

As healthcare becomes more personal, stranded, and mobile, the patient-doctor interaction is bound to change. First, doctors will have new diagnosing tools as well as more data at their disposal and a lot of their will be automated to algorithms.

39% of healthcare executives believe platform-based business models will be critical to business success. And industry analysts expect 10x growth for APIs by 2021.



C Data is changing how we work and interact

AI will also help with our mental state via services such as ‘psychologist’ KARIM for Syrian refugees and virtual girlfriend services such as KARI or LoveDroids.

Robots will slowly gain the ability to sense and understand your emotional state and respond appropriately, through Deep Learning technology.

Emotion and physical body sensing information will continue to mature enabling robots to be more responsive to their human companions.



On the horizon

Horizon 1

6-12 months - 2017

- Biohacking approach gains more awareness.
- Chatbots becoming more popular.
- Smart appliances, such as fridges, begin monitoring us.
- Small projects within the healthcare area around the use of big data are trialled.



Horizon 2

12-24 months - 2018-2019

- Virtual family members are common.
- AI-based solutions seen more in customer service and in healthcare and therapy use.
- Vitamins will become high-tech.
- Health scores begin to be accepted by niche insurers and effect policy prices.



Horizon 3

2-5 years - 2019-2021

- Robots as companions. Robots will slowly gain the ability to sense and understand your emotional state and respond appropriately, through Deep Learning technology.
- Predictive healthcare solutions for mainstream use.



Future proofing

01

Where does the monitoring and measuring for good start? What implications can you offer for your customers that enable them to improve their standard of living? When do you connect with your customer?

04

What relationships do you have with elderly people? Could robots offer a better service to these customers? Or what other caring services could robots do, look after child or pets?

02

How can you improve employee engagement and become a responsive employer brand through different mental and physical monitoring solutions? From these, what do you believe, will be seen to have gone 'too far'?

05

What kind of new products or services can you develop based on more personal data or large quantities of health data?

03

What kind of biocompatible products could exist? For example, Smartwatches and fitness trackers are one option, but what about medical implants that harvest their power from your movements, and never have to be recharged?

06

Considering that data is a kind of currency (has a fluid worth), could it be a new kind of "bank"? Or a new service area for old banks?

04

Introducing H-Commerce

You can start to notice two economies, the established one and then the one that people are participating in. People will begin to realise that creating their own solutions and managing their interests will be required. H-Commerce, or Home Commerce, is increasing family income and enabling self-sufficient urban living.

The sharing economy has brought new income streams for many homeowners. Airbnb disrupted the hotel industry significantly and made a lot more new happy hospitality micro-entrepreneurs. Sustainability holds the key for the next big wave of income streams for homes. There has been lots of talk about energy consumption and low-energy housing, but now we will start to see more and more individual products and services that enable residents to produce their own energy and sell their left-over energy on.

H-Commerce can include food production, urban gardening and farming, as well as product manufacturing with smaller sized home 3D printers. New locality is here. Developments like this may signal a change in urban planning.

Previous industrial revolutions created the need to separate the places where people work from where they live and consume.

Now these lines are blurring - along with the producer/consumer separation in many important industries like energy. In a way we are moving towards a healthier, less polluted and potentially more autonomous version of an earlier model of urban development that dates back to a time before urban planning as a discipline existed.

Futurice findings

58%

of people don't believe
our data and lives will be
open-sourced.

69%

believe refrigerators
need a firewall.

42%

of people think our
appliances will mine
cryptocurrencies.

Driving forces

A

The value of different kinds of waste

B

Next level DIY: urban farming and at home manufacturing

C

Alternative power solutions

D

Sharing economy 2.0

A The value of different kinds of waste

Enevo allows you to follow the fill level of your waste and see how much you are diverting to landfill instead of recycling. In Colombia, a company recently launched a scheme which rewards low wage earning travellers with top-up on their travel card in exchange for their waste plastic.

The use of data. In late 2016, an Australian based student created the 'Uber' of unused data, which enables homes to sell their leftover data on a separate Wi-Fi network.

Israel based HomeBiogas, has created a machine that turns your waste, including meat, dairy and even cat litter, into cooking gas.

We're using waste in new ways, such as making clothing.



B Next level DIY: urban farming and at home manufacturing

In large cities where space comes as a premium, residents are looking at urban farming techniques. This has been a booming area within the U.S. and is now starting to take hold in major cities across the world.

We're taking control in our own homes with the use of 3D home printing such as NexD1, that can make circuit boards as well as a host of other things.



C Alternative power solutions

We've been seeing solar panels take many forms in the last couple of years but most recently we've seen examples such as Arcadia Power which allows renters to take out 'solar subscriptions' which gives users the chance to save on their energy bills by taking advantage of remote solar panels. Australian company, Power Ledger, aims to use Blockchain technology to allow those producing excess renewable energy to sell it on directly to consumers.

Tesla's Powerwall is an answer to consumer energy storage and an enabler for local and distributed micro production.

There's also an influx of motion driven activities that seek to provide power including in Las Vegas where footsteps power street lamps, a boat that is powered by gym-goers on board workouts and Princeton University's small chip that uses motion to power small devices such as a mobile phone.



D Sharing economy 2.0

Park Circa connects people searching for a parking space with those that have an available parking space to share. The future of urban transportation will be integrated around various different kinds of services. This kind of future urban mobility ecosystem delivers seamless transportation and offers cheaper and safer ways of travel.

Apartments that come with a shared car included.

Restaurant food without leaving your home. We've seen the rise of restaurant delivery services such as Deliveroo in the UK and Epic in Finland.



On the horizon

Horizon 1

6-12 months - 2017

- The sharing economy expands from homes and goods to parking spaces, food and clothes.
- More homes with shared cars.
- Mobility as a service enables car, and even bike owners to cover fixed costs caused by owning the car.



Horizon 2

12-24 months - 2018-2019

- H-Commerce will be increasing among forerunners. It will include food production, catering services, urban gardening and farming, as well as product manufacturing with smaller sized home 3D printers.
- Alternative and varied energy sources start to be more widely available for consumer use.
- Smart homes enabling residents to save money.



Horizon 3

2-5 years - 2019-2021

- We will start to see more and more individual products and services that enable residents to produce their own energy and sell their left-over energy on.
- Closed-loop system is the norm.
- Consumers take for granted that every home is connected to smart waste management economies.



Future proofing

01

How do you enable your customers to create value? What guidance and support can you offer them to further use their owned goods?

02

Can you use your customers as part of the logistics chain?

03

What will be valuable waste in the future? What waste do you or your customers create that could be used in new ways? How could you incentive this?

04

If you're a food retailer, what should your role be in urban farming?

05

What can be shared? How can you jump into the sharing economy? What could be your role in sharing economy? What kind of platform can be provided?

05

Fluid Mobility

The fluidity of our urban environment and living is changing, we're communicating our values and our lifestyle overtakes new medias. We have new ways and arenas to do so.

All consumer goods and traditionally slow industries such as construction and transport will become easier and quicker and crucially adjust to our needs and desires. Building will become more modular and furniture will be able to change shapes according to our needs.

The consumer will have more of a role in the life after a house is built or a piece of furniture is delivered, opening up more user-centered, personalised living spaces. It will only be our imagination that will limit new designs. We'll see a new craft industry form as houses, furniture and even body parts can be printed.

Mobility is one of the key drivers as we can undo, pack and change location very easily. Our lifestyles can be more flexible, through where and how we live. There'll be a sea change in our materials and concrete goods, as we invest in pieces to make up our life that can change and live on forever but in many different shapes and forms. Whatsmore, virtual reality is enabling us to build our dream homes, extensions and see and experience big home improvement projects without building one brick.

Futurice findings

70%

of people believe we'll be able to talk to our walls and they'll speak back to us.

77%

of people think 4D printed organs will save lives.

Driving forces

A Compact, but well-thought out
personalised spaces

B Faster construction
times

C Digital crafting
becoming mainstream

D In-home experiences
and virtual extensions

A Compact, but well-thought out personalised spaces

New York City's first micro-apartments were available for leasing in early 2016.

The Carmel Place apartments measure under 370 square feet. Micropads are being used in San Francisco to help solve their homelessness problem.

You can have a Farm in a Box, well a shipping container to be precise. The box contains everything you need to start a two acre farm. Shipping containers are also being put to good use as apartments, which dramatically reduces the build time.



A Compact, but well-thought out personalised spaces

Adaptable furniture for compact living: City dwellers are facing escalating house prices living in smaller, more flexible spaces. Designers have responded with furniture that makes the most of every inch of the space. Architect Silvia Allori added furniture that folds down from the walls, while Japanese kitchen manufacturer Sanwa designed a unit tailored to those with limited living space.

Tinder-style app for urbanisation. “F-Factor wants to change the way cities are developed. The aim is to build an open platform in which communities and urban developers can meet and build more user-centered, personalised living spaces”, says phenomenon creator, Tero Vanhanen, of Fira.



B Faster construction times

Construction times are getting shorter. WikiHouse has created 'Wren', which is a system designed for open digital manufacturing: a kind of digital Lego. It can be shared and written as code.

Parametric design uses open data to instantly calculate cost, time, performance and impact and to produce manufacturing information.

The future of homes will include ones like the PopUp House that can easily be taken apart and put back together. It costs under \$2,000, not including the cost of the construction team. The best part is it can be built in just four days using an electric screwdriver.



B Faster construction times

This year prefabs shook off their makeshift reputation, with architects and designers considering how modular building techniques could be used to build speedy and cost-effective long-term housing. Such as MAPA and Muji's Kengo Kuma -designed prefab house.

In late 2016, Finnish students unveiled Kookon, a three-storey wooden house that can be assembled in 24 hours and Dubai-based start-up Cazza has designed a 3D-printing crane that can decrease construction time by 50%.

In the UK, ShedKM and Urban splash are creating a whole development of modular housing, and in Estonia Kodasema created a tiny cubic living space that allows its owners to up sticks and move on a whim.



C Digital crafting becoming mainstream

Clothes production is getting smarter and tailored. Global brands, like Adidas, are taking advantage of 3D printing in their trainers' production.

Lot of advancements have been made over the past few years in 3D printing. Polaroid is launching an affordable 3D printer for consumer market.

Multisided marketplaces for personalised, 3D printed products like Shapeways.

3D-printed products are being created for different purposes. Researchers are developing 3D-printing techniques for finer structures like hair.



D In-home experience and virtual extensions

Some companies have recognised the opportunity to provide furniture and other interior design through subscription fees or rentals. One example is Cort in New York.

In order to maximise the space you have, Soundstage, allows you to have a VR music studio in your home. Or if you'd rather just have a physical instrument, OBILAB offers a foldable drum kit.

Backyard studios: Artists, architects, writers and designers seeking to maximise limited inner city space have been setting up garden studios. Nicholas Hunt built a micro studio at the back of his Brooklyn home and Surman Weston created a cork-clad workspace for a musician and a seamstress in London.

On the horizon

Horizon 1

6-12 months - 2017

- Compact is beautiful: home owners will turn their attention to furniture that is multifunctional, multipurpose and compact items which can be used based on occasion or need.
- Microapartments concepts, serviced living, will be in its early stages.



Horizon 2

12-24 months - 2018-2019

- Platform business in the construction industry provides more suited homes and apartments for everyone with affordable prices.
- Construction times have decreased significantly.
- Virtual and augmented reality enhancing remote working practises.



Horizon 3

2-5 years - 2019-2021

- Designing and printing your own furniture is more readily available.
- Well-serviced microapartments are mainstream for people in urban areas.
- Virtual extensions, like VR solutions such as a music studio, for your microapartment are available by additional monthly payments or pay per use.
- Food printers enter supermarkets.
- MaaS (mobility-as-a-service) fully operating in bigger cities globally.



Future proofing

01 How do consumers become part of your design process? Do you implement co-creation principles? How much can you provide for consumers to design and build on their own? What role does manufacturing take? What is the competitive edge if consumers design their own products?

03 What in apartment services could your organisation offer to allow customers to experience your products at home? Think tiny spaces and new technology.

02 What kind of services should be included within microapartments? How can the services be affordable for the mainstream?

04 Who will carry the responsibility of safety? How do you guarantee good quality?

Other future findings

During our research we discovered some other interesting statistics.

Robots aren't getting more human

60% of people don't believe a robot will become their best friend.

64% think that robots won't become part of the traditional family set-up.

76% believe robots shouldn't have human rights.

Artificial intelligence is just around the corner

85% believe we'll have virtual assistants who will know we're going to be late before we do.

56% think that a personal drone will run our errands.

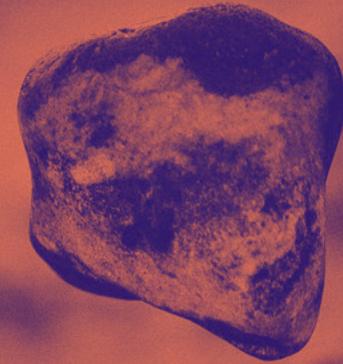
Conclusion

The Future Forces we've identified, aren't a definite prediction of what will happen, but more so a tool to use for discussion around what might affect your organisation and ideas to spur future innovation.

We highlighted trends and driving forces where we see potential. What we can't account for is laws that might delay the development of some of these products and services.

Let's not forget that we have to fail fast to get new products and services to market and we identified some interesting statistics through our research.

We're humans after all and might not be ready to take on all the latest versions of technology. We need to ensure we consider this throughout.



Contact us

Want to know more? We'd be happy to talk to you about this in more detail or host a workshop.

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A hand is shown from the bottom right, palm up, holding a small, dark, irregularly shaped object. The background is a close-up of rippling water, creating a textured, wavy pattern. The entire image has a warm, orange-brown color cast.

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