Future lifestyles in Europe and in the United States in 2020

A trend report for the Horizon 2020 programme
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1. Introduction

This report uncovers and describes the important future lifestyles that are likely to shape the lives of people in Europe and the United States in 2020. The report has been put together for European Forum on Forward Looking Activities (EFFLA) by Wevolve, a Helsinki and New York based research and strategy agency with a broad global experience of futures research and foresight work to inform strategy and design processes with multinational companies and public sector organizations.

EFFLA is looking to review the Horizon 2020 objectives and the related grand challenges in light of foresight with a long-term horizon. The intention of this research is to provide EFFLA with detailed understanding of key trends, events and factors that are likely to challenge and change the current paradigm, societal structures, values, attitudes and practices in the long-term. The objective is also to deliver an outcome that provides EFFLA and the Research Policy Community with instrumental knowledge to support effective implementation of the Innovation Union Strategy and will serve as the backbone for the Policy Brief as in line with EFFLA Work Plan 2013.

The research covers the key lifestyle trends in Europe and the United States with a comparison of the key differences. It is important to note that when studying the forefront of socio-cultural change in Western societies there are always pertinent and interesting variations between the cultures that exist due to the differing societal, political, economic and cultural contexts. However, these differences seldom result entirely disparate lifestyles as the above mentioned contexts share major similarities across the Western societies, especially in the age of freely flowing information.

The research has gathered together the leading reports, articles, publications and other existing information of the relevant trends and shifts, and consolidated a set of relevant macro trends and lifestyle trends. As an outcome, we have identified four lifestyle trends that describe the changing values, attitudes and behaviors of people in both Europe and the United States. For each of the lifestyle trends, we have described the macro trends that act as driving forces and concrete examples of how these lifestyles are already manifesting at the leading edge of the society, as well as compared the lifestyles across the regions. As no two generations or geographical regions are alike as each is composed of their own social and cultural imperatives, these lifestyles are likely to take different shapes and tones across generations and regions. Having said that, our emphasis in the research has been on describing the essential aspects of each lifestyle that we believe are going to shape both European and American societies in profound ways by the year 2020.
2. Executive summary

EFFLA is looking to review the Horizon 2020 objectives and the related grand challenges in light of foresight with a long-term horizon. The intention of this research is to provide EFFLA with detailed understanding of key lifestyle trends in both Europe and the United States that are likely to challenge and change the current paradigm, societal structures, values, attitudes and practices in the long-term.

This research, done by Wevolve, a Helsinki and New York based research and strategy agency, consolidates the existing information and research material, such as reports, articles, trend publications, research articles and other existing information of the relevant shifts and trends. It identifies the key macro drivers of change and maps the relevant lifestyle shifts in values, attitudes and behaviors. The four key future lifestyle trends are Augmented and Programmed Lives, Culture of Production and Sharing, Resilient and Proactive Citizens, and The Quest for Purpose. All trends include relevant subthemes. Below is a summary of the main findings.

2.1 Lifestyle 1: Augmented and programmed lives

We are living in an increasingly digital world where ubiquitous Internet and information continue to shape all aspects of our lives. We will be more connected with people and things in the world, learn to communicate with the systemic technologies through code and enhance our minds and bodies with digital tools and data.

2.1.1 Drivers of change

This trend is being driven by the ubiquitous Internet, big data and cloud computing, the emerging values of the Web, and the increasing digital access. To summarize, the Internet is everywhere. Currently, there are over 35 billion devices connected to the Internet and the figure is expected to rise way over 50 billion by 2020. Similarly, the amount of Internet data traffic has increased a whopping 1696% from 2005 to 2012 – and is likely to swell threefold over the next five years. The values of the ‘digital natives’ drive the development of more collaborative, creative, considerate, conversational and critical digital lives and guide the creation of new technologies. Finally, access to information and digital tools is democratizing. Already 85% of Americans, 75% of the population in EU and over 90% of Scandinavians use regularly the Internet.
2.1.2 Connected with everything
Everything – from people to everyday things and even cities – is becoming connected. One of the premier laboratories for the Internet of Things is home automation. One example is Nest that has developed humanized systems for home safety and wellbeing, such as the smart air monitor Nest Protect and the learning Nest Thermostat.

2.1.3 Programming the world
Instead of simply participating in the digital world, people want to get involved and play with the code and other digital building blocks. LittleBits is an open-source library of electronic modules that snap together with magnets, providing an easy access to electronics and helping to build digitally augmented things.

2.1.4 Individual enhancement
Self-quantifying and augmenting citizens are applying digital tools, sensors and services to track their biological processes and behavioral patterns. Lapka creates modular digital sensors that plug into your phone to understand your environment and you, including background radiation, electromagnetic fields, humidity and the nitrate levels in food.

2.2 Lifestyle 2: Culture of producing and sharing
We are witnessing a perpetual shift from a consumer society to a producer society, where creative producing, making and sharing will outshine consumption, ownership and materialism. These open source and proactive lifestyles are building on the principles of collaboration, self-organization and creativity.

2.2.1 Drivers of change
This trend is being driven by growing DIY culture, democratized technologies of production, economic turmoil and rise of entrepreneurship. To summarize, DIY movement is going through the roof. As an example, there are over 100 Maker Faires worldwide, the biggest one being in San Francisco, where more than 100,000 people attended in 2013. At the same time, the technologies for digital manufacturing have democratized and this unprecedented access to new tools and information will drive future of making. Also, the massive debt deleveraging that typically follows financial crises still has some ways to go, which means that consumption cannot be counted upon to drive economic growth, and finally there is a surge of entrepreneurship and an expectation that the 21st century is being created by entrepreneurial individuals and communities. There are currently nearly 400 million active entrepreneurs around the world.
2.2.2 Open source everything
Open source movement is spreading beyond software, impacting increasingly the development of physical things, cultural artifacts and public services. **Open Institute London**, already having £50m of investments, aims to build shared resources, such as common spaces, tools, and platforms for open education, enterprise, and everyday life.

2.2.3 Maker movement
The maker movement is getting mainstream and taking the DIY mentality to the next level with sophisticated digital tools for production and manufacturing. **Thingiverse** is one of the dominant platforms for sharing of user-created digital design files for collaborative innovation and public dissemination of information.

2.2.4 Resource sharing
The sharing economy has proved its potency across a variety of sectors, including hospitality, transportation, food and education, as digital platforms make it possible to share personal resources. Peer-to-peer hospitality service **AirBnb** has grown exponentially in the past four years and already catered over 4 million guests in 192 different countries.

2.3 Lifestyle 3: Resilient and proactive citizens
In a fast changing and increasingly unbalanced world a growing number of people are turning to lifestyles and principles of resilience – such as access, modularity, diversity, redundancy and social capital – to help vulnerable individuals, communities and cities persist and thrive amid unforeseeable disruptions.

2.3.1 Drivers of change
This trend is being driven by peaking resources, appreciation of systems thinking across society, new resilient approach to sustainability and general accelerating change. To summarize, the age of resource abundance is over. We are extracting resources, such as energy, land and water, over 50% faster than they can be regenerated. We are also shifting from the paradigm of progress and linearity to a new appreciation of connected, unpredictable and systemic nature of the world. Related, this has lead to more systemic view on sustainability; where plain sustainability aims to put the world back into balance, resilient sustainability looks for ways to live, survive and thrive in an imbalanced world.
Finally, we are living in a world where flux has become the only constant. Traditional safety nets provided by the government will no longer be self-evident and sufficient.

### 2.3.2 Training for personal resilience

People are engaging to proactive and preventative lifestyles to build personal resilience and maintain their livelihoods and wellbeing. **SuperBetter** is a game that helps people achieve health and wellbeing goals, or recover from an illness or injury by staying curious, optimistic and motivated even in the face of the toughest challenges.

### 2.3.3 Communities of support

To pool resources and form new support systems people will turn to new models of sharing, co-ops crowd funding, and communal living. The Social Innovation Lab of Kent (SILK) builds communal resilience with projects such as the **Bulk Buying**, where the local community can pool supplementary benefits to buy food with bargain prices.

### 2.3.4 Self-reliant and adaptable living

Transition to self-reliant and sustainable homes, communities and even cities is underway, where energy and goods are produced locally. **Transition Town movement** – as well as its utopian Silicon Valley counterparts – are aiming to build resilient and thriving communities to respond to peak oil, climate destruction, and economic instability.

### 2.4 Lifestyle 4: The quest for purpose

The turbulent times and a shared feeling of an end of an era – driven by simultaneous structural shifts across the environment, economy, society, and politics – are urging individuals and communities to search for a renewed purpose and question the basic assumptions behind good life and better future.

#### 2.4.1 Drivers of change

This trend is being driven by the increasing crisis of capitalism, inherently unpredictable world, the emergence of the wellbeing economics, and growing cultural diversity. To summarize, the capitalistic economic and cultural paradigm seems to be losing its legitimacy in the aftermath of financial crisis, and its core principles, structures and practices are increasingly criticized. The accelerating change, driven by ongoing and looming societal crises, extreme weather conditions and technological disruption, is also spiraling the general feeling of uncertainty and insecurity. At the same time there is an influx of new ideals and models for organizing economy with the ultimate goal to increase
overall wellbeing of people and to create more sustainable value in society. Finally, the era of the global dominance of western values is coming to an end and the increasing cultural diversity will have an impact on cultural identities.

2.4.2 Personalizing purpose
People are re-evaluating what is important in life and what creates that heartfelt feeling of meaningful belonging, developing belief systems that fluently mix ideas from contemporary movements, ancient traditions and science. Mindfulness by Headspace is a project and an app that uses the wonders of science and technology to demystify meditation.

2.4.3 Enlightened consumption
Despite the hardships and gloominess, many people believe the crisis will lead to more sustainable lifestyles. The excessive consumption of the yesteryear is being replaced by a quest for immaterial experiences and holistic wellbeing. Kamppi Chapel of Silence in Helsinki by K2S architects offers a spiritual escape next to a shopping mall.

2.4.4 Meaningful citizen action
When traditional institutions seem incapable of solving the ubiquitous problems, individuals are rolling up their sleeves. The 21st century citizen action is powered by digital tools and global communities. Occupy Sandy, a laterally organized rapid-response for the hurricane Sandy aftermath in New York in 2012, illustrated the new possibilities and power of grass-roots action.
3. Lifestyle 1: Augmented and programmed lives

We are living in an increasingly digital world where ubiquitous Internet and information continue to shape all aspects of our lives. We will be more connected with people and things in the world, learn to communicate with the systemic technologies through code and enhance our minds and bodies with digital tools and data.

3.1 What is changing?

We are living increasingly digital lives. The ever expanding digital technologies affect our lifestyles and our values and behaviors shape the technologies we develop and use. It is expected that digital screens, social networks, online activity, pervasive information and the ubiquitous Internet are continue to increase their influence across all aspects of our daily lives; from work to leisure, health and relationships. We know for sure that future will more digital, but the important question is how different is life in this digital world?

By 2020, it is expected that new digitally augmented lifestyles will become the standard for most people in Europe and in the US. Digital technologies, sophisticated software and systems driven by algorithms are creating an enhanced social and cultural layer. We believe one of the major impacts will be the idea that digital technology is not a separate realm in our lives but the contemporary polarization between the “real world” and the “virtual world” will get many more shades of gray, as people, places, events and things will all encompass a multitude of digital elements.

In short, the emergence of digitally enhanced lifestyles towards the year 2020 can be summarized with four simultaneous developments: people are becoming more connected with each other and the world around as the social networks will include various objects from smart homes to intelligent cars; people are taking a more active role in shaping and programming the digitally augmented world and learning to understand and operate the systemic technologies through the language and philosophy of code; people are enhancing and amplifying their minds and bodies with personal digital technologies with major implications on wellbeing and health; and finally people are making good use of the massive amounts of data and digital information and capitalizing that for personal, public and commercial purposes.
3.2 The drivers of change for more augmented and programmed lives

The drivers of change for the emerging digitally augmented lifestyles include the following socio-technological forces that are likely to create a future where advanced software and complex digital systems are shaping all aspects of our daily lives.

3.2.1 Ubiquitous Internet
The Internet is everyware. Currently, there are over 35 billion devices connected to the Internet and the figure is expected to rise way over 50 billion by 2020.

3.2.2 Values of the Web
The values of the ‘digital natives” drive the development of more collaborative, creative, considerate, conversational and critical digital lives and guide the creation of new technologies.

3.2.3 Humanized machines
The age of the domesticated robot is near. The current worldwide robot population is around 13 million and is expected to grow rapidly. The heaviest migration of bots is likely to be seen at home and at the workplace.

3.2.4 Digital access
Access to information and digital tools is democratizing. Already 85% of Americans, 75% of the population in EU and over 90% of Scandinavians use regularly the Internet.

3.2.5 Big data & cloud computing
Surf’s up. The amount of Internet data traffic has increased a whopping 1696% from 2005 to 2012 – and is likely to swell threefold over the next five years, while the mobile data traffic is expected to grow 13-fold. The computing speeds are up 200,000-fold since 1980 and are continue to increase. At the same time more and more computing power and storage moves to the cloud.
3.3 Augmented and programmed lifestyle trends in 2020

3.3.1 Connected with everything

By 2020 there are more than three generations of people who have lived and worked in a world of the ubiquitous Internet, including the digital natives – people born around and after the change of the Millennium – who basically don’t know a world without social media or mobile Internet. People have become accustomed to the fact that everything from people to everyday things, homes, cars, and cities is now online and connected.

Social media and digital technologies are being used to maintain connections with a broader crowd of contacts and to enhance shared and intimate social occasions with the close relationships. The time people will spend online and connected to networks of other actors, places and things is increasing fast. Also the forms of digital living are expanding. People are using social media sites such as Facebook, Twitter and Pinterest to share their lives with more people than ever before: over 1bn use Facebook and 500m use Twitter. Facebook users in the US now spend an average of six and a half hours on the social networking site, according to comScore.

The expansion of the Internet of Everything is allowing people to interact with their built environments and objects in completely new ways. The trend toward adding sensors to the physical world and stimulating responses is extending the awareness of the world and also bringing these new non-human actors into social networks. As interviewed by the Future Laboratory, Tom Chatfield, author of How to Thrive in a Digital Age: The School of Life says ‘The habits of the digital natives will be fundamentally different from those who grew up switching technology on and off.’ For them the social technologies and the connected physical world feel totally natural and they are expecting connected experiences that are richer, more immediate, interactive and, above all, intuitive than ever before.

The interaction with technology is becoming more natural and in the near future, as we are moving from screen based interaction to more natural interaction with computing, we operate and program the digital systems – for the media and information we use and consume, the social relationships we form, our homes, the public services we use, the cities we inhabit – by simply using them. Our homes will adjust to our living patterns and our cars to our commuting behaviors. However, it is important to note that while all these technologies are becoming an intrinsic and often almost invisible part of people’s lives – people also expect to maintain the control and ability to switch off of the sometimes overwhelming digital hubbub.
The expectations of constant connectedness are already visible in the recent research by the Future Laboratory on the importance of the connected lifestyles in UK and the US. To underline the growing primacy of the virtual world, fifth (20%) of Britons think non-ownership of a smartphone is a reliable sign that you are poor and 44% believe that not having broadband or wireless internet access places you below the poverty line. Similarly, 28% of US citizens believe that anyone who does not own a smartphone is poor – jumping to an astonishing 45% of 18–24-year-olds – and majority (52%) say that not owning a desktop computer puts you below the poverty line, while more than a third (35%) draw the same conclusion about those who don’t have broadband or wireless at home.

By 2020, the expectation that everyone and everything is connected is likely to increase dramatically both in Europe and in the US. The leading future connected lifestyles can be summarized with the ideas that everything should be accessed digitally and be adjustable with software, to make the world more transparent and the readily available and hidden information that surrounds us more usable and useful.

### 3.3.2 Programming the world

Instead of simply participating in the digital world as it is offered to them, people expect to get their digital hands dirty by messing around with the building blocks. Coding clubs, workshops and classes are already springing up around the world, and in 2020 it is expected that coding – the ability to communicate and control the digital layer that
surrounds the entire world – and fluency in some of the major programming languages, such as JavaScript, HTML/CSS, PHP, Python or Ruby, are key capabilities of the new connected generation.

One of the major shifts is exactly the idea that the world is yours to program and that the software that controls the digital systems for smart cities to intelligent homes, appliances, work solutions and personal health should be hackable and tweakable. As Institute for the Future describes the development in their *Everything is Programmable* report: ‘As people begin to live in, and interact with, a world in which everything is programmable, there is a need for tools and institutions that teach the skills required for a programmable reality. Novice-friendly programming languages, early education in algorithmic thinking, and technologies built to teach the fundamentals of programming will enable us to manipulate our built environments, and enhance our interactions with the different programmable domains of our lives.’ [Codecademy](http://www.codecademy.com) is a popular online service and community where people can learn to code, create games, apps and websites for free with likeminded people.

![Image 2. littleBits is an open-source library of electronic modules that snap together with magnets, providing an easy access to electronics and building digitally augmented products for prototyping, learning and fun.](image-url)
There is expected to be a strong backlash on the current opaque and closed approach to technology and people will want to make sound choices in a world through understanding the systems and objects around us. As James Bridle, the London-based technologist and one of the key figures in the recent New Aesthetics movement, has eloquently observed: 'Those who cannot perceive the network cannot act effectively within it, and are powerless.' The future digital lifestyles will be built on the ideas of more open and transparent and hackable digital worlds that have a direct impact on our everyday lives.

3.3.3 Individual enhancement

Self-quantifying citizens are currently applying sensors, social networks, and online data repositories to track their biological processes and behavioral patterns. Using a mix of medical, athletic, Web 2.0, and DIY self-tracking technologies, they collect, analyze, and compare information about myriad physical and mental metrics. These practitioners point toward a future where we will continuously monitor our personal states in great detail and close the feedback loop by reprogramming our lives for improved performance, health, and happiness.

The research by the Future Laboratory points how these behaviors are already becoming mainstream. Digital devices, apps and online services – such as Jawbone’s Up and Nike’s FuelBand – that track and measure performance are already becoming the norm among younger Europeans and Americans looking to use technology to improve their bodies and minds. In the US, one in three (31%) of people have used a self-quantifying app, product or service, with weight, health and exercise trackers leading the field. The proportion is far higher in younger age groups, with 47% of 18–24-year-olds and 56% of 25–34-year-olds using self-quant technologies. In the UK the self-quant urge is becoming established, as people continue to track and measure their physical and mental wellbeing using apps and online services. Now, a quarter (24%) of Britons report using a self-quantifying app or service. The young are the most avid self-quantifiers, with 46% of 18–24-year-olds seeking to measure and improve their health, happiness and lifestyle choices online.

Lapka, a San Francisco -based startup, offers a €160 pack of modules that plug into your iPhone contain sensors for background radiation, electromagnetic field strength, humidity and the nitrate levels in organic matter. ‘If you imagine connected devices and wearables in the near future – there will be no product design, no gadgets and no batteries. Can you imagine product design, when these devices will be implemented in your body? The current products have translated this idea into today’s bulky technology, yet in a beautiful way.’ says Vadik Marmeladov, creative director of Lapka.
By 2020, it is expected that these behaviors and the lifestyles that are based on the philosophy of ‘kaizen’, the Japanese term for ‘improvement’ or ‘change for the better’, is becoming more prevalent in all age groups. ‘As you get closer to the idea of a central repository of the most important data in your life, you gain the ability to do analytics, to become smarter about who you are, to live a better life, a safer life, a healthier life, to make smarter decisions for your kids,’ explains Personal.com CEO Shane Green. ‘Those analytical tools will not just going to be in the hands of companies analyzing our data that they capture. They will be in the hands of individuals looking to become smarter about who they are.’ The future digitally augmented lifestyles will even question the core ideas of what it means to be a human, as Marc Prensky, the American author on digital life, has described: ‘For humans, what used to be this body of flesh and bone, all that is now just the center... Being human is a moving target.’

3.3.4 Personal information exchange
The digital data is already abundant and is expected to increase exponentially. The expansion of digital systems, platforms, sensors and mobile devices is creating a huge
influx of new quantitative social data, including demographics, behaviors, locations, and other previously invisible aspects of individuals and our societies. This information has already become currency for many businesses, and increasingly provides value also for people themselves. In 2020 people are expected to want to take back more control of their data, monitor, measure and analyze it, treating themselves as products to improve their lives.

People are using new tools to marshal their personal data and discover how much of their information is publicly available. They are starting to realize that, in the Personal Information Economy, their data has a monetary value – and they want their cut. ‘Personal data, and the control of personal data, will transform today’s customers from passive to active market participants with more power than even the largest multinational brands,’ David Siegel, author of *Pull: The Power of the Semantic Web to Transform Your Business*, wrote on his blog. ‘Once you are in control of your own behavior, purchasing, viewing and other data, you will be able to trade it for offers, discounts and even cash rebates on various products and services.’

**Image 4.** Movenbank connects with people’s LinkedIn, Twitter, Facebook and Google+ accounts to measure their social credit rating.
Also reputation will become the new currency in a reputation economy, as new models for calculating influence emerge. Personal reputation management has led to the emergence of a reputation economy, in which status and influence are measured through personal information. Services such as PeerIndex, Connect, Me and Klout measure influence and reputation in greater detail.

Services such as Movenbank are even using reputation to determine credit ratings. Movenbank then connects with the user’s LinkedIn, Twitter, Facebook and Google+ accounts to measure their social connectivity. Using this information, Movenbank awards users a CRED score. The score will go up or down based on the user’s behavior. If a user refers a friend to the site, for example, the score goes up. If they are late in paying a bill, the score goes down. ‘It is not about your credit, but your credibility,’ says founder Brett King.

By 2020, it is expected that personal data curation services such as Personal.com and Mydex.org will evolve into personal data lockers that will automatically aggregate our personal information in one or several places that people can manage themselves. There is also a strong counter trend for sharing personal data due to the valid concerns for misuse by governments and corporations.

3.4 Regional differences between Europe and the United States

The above described digitally augmented lifestyles are likely to be in the full swing in 2020 both in Europe and in the United States. There are expected to be some variance, however, in how these lifestyles will develop in the next six years time in the different cultural and goegraphical contexts.

Much of the technological innovation is expected to happen in the US, as Silicon Valley continues to drive the digital and mobile technology development. All major internet companies, such as Google, Amazon, Facebook, Intel, Cisco, Microsoft, Twitter and their digital megaplatforms, are based in the US, as well as massive amount of smaller companies and funding for the emerging startups. Silicon Valley, as well as other North American major cities, are natural hotbeds for these emerging digital lifestyles.

However, as these technologies are inherently global, the same lifestyles are developing also across Europe. There are also a massive amount of digital innovation and startups that use the same enablers and are mushrooming all over Europe. The cultural
differences between the continents, that span across society and politics, will shape the lifestyles more than technology industry. For example the European privacy laws are likely to be stricter than in the US and hindering the broader utilization of personal data for commercial solutions. Also, it is expected that the applications of digital technologies for individual enhancement will be more experimental and advanced in the US because of the strong emphasis on individual rights and personal performance. On the contrary, in Europe the social and communal applications of digital technologies are likely to be more prevalent, driving the broader adoption of lifestyles related to the programmable world and open access to technology.

3.5 Implications on the Horizon 2020 big challenges

3.5.1 On health and wellbeing
There will be interesting developments across the areas of self quantification, biometrics, context-aware sensing and open health information that will drive personal preventive health, diagnostics and holistic and proactive attitudes to health and wellbeing. The digital technologies will not only enhance our senses and cognitive capabilities but also enable us to visualize future benefits of healthier decisions and build new movements for healthier communities across generations and societies across the continent.

3.5.2 On privacy and security
As the Internet has developing from being a web of documents connected by links into a web of people, and now further into a web of the world, where every piece of data leaves a trail leading to whoever created it, who they know and where it was produced. This new internet has vast implications for privacy on societal level as well as on individual level, and there is a need to rethink how we are going to structure our societies and our economies. In the world of the digital panopticon, where intelligence agencies gather, share and analyze massive amounts of personal data, there is a huge importance to create clear policies and transparent services for the use of public, private and personal data.

3.5.3 On society and governance
E-governance and participation through next generation citizen activism platforms (such as Avaaz) are creating new pressure for better dialog between citizens and the government. The thoroughly connected cities and neighborhoods are also allowing new interaction between policy and technology, for example for measuring impact, engaging local communities in policy creation, enabling better transparency, and decentralizing power.
According to the Institute for the Future, Embedded governance will leverage cloud computing, wireless networks, biometrics, and context-aware sensing and feedback to make law and policy downloadable into our official documents and physical environment. Law is code, and when government is programmable, enforcement, regulation, and policy will be rendered automatic and universal—written into the fabric of our core infrastructures, our devices, and the tools of our everyday lives.

The diffusion of sensors and mobile devices is creating a huge influx of new quantitative social data, including demographics, behaviors, locations, and other previously invisible aspects of our societies. The accessibility of new data and advances in the theory and modeling of complex networks are providing an integrated framework that will bring us closer to the elusive goal of predicting the behavior of complex techno-social systems.

### 3.5.4 On cities

As described by Timo Arnall, these new digital structures enable increased and more universal access, better transparency, new possibilities for citizen participation and collaboration as well as create an abundance of new resources for people and organizations. He also cites Adam Greenfield, the author of the book Against the Smart City: ‘the complex technologies the networked city relies upon to produce its effects remain distressingly opaque, even to those exposed to them on a daily basis. [...] it’s hard to be appropriately critical and to make sound choices in a world where we don’t understand the objects around us.’ However, Greenfield believes that we can imagine and support an alternative vision of the smart city, one that responds to the needs, demands, and desires of all of its citizens, and that understands and works with the complex, interconnected, imperfect, and very human realities of urban existence.
4. Lifestyle 2: Culture of producing and sharing

We are witnessing a perpetual shift from a consumer society to a producer society, where creative producing, making and sharing will outshine consumption, ownership and materialism. These open source and proactive lifestyles are building on the principles of collaboration, self-organization and creativity.

4.1 What is changing?

There is happening a comprehensive cultural revision in peoples attitudes and lifestyles where more emphasis is put on active, participatory and creativity than on self-actualization through consumption and consumerism. This is a paradigm shift that has been in the making for decades, but has gained momentum in the past years because of the culminating major shifts, such as the economic un-stability, awareness of the peaking resources, democratized technology for production, and abundant information. Already in 1980, futurist Alvin Toffler coined the term prosumer, a portmanteau of producer and consumer, pointing to a new era in which consumers would help design and improve the goods and services. Products would no longer be mass-produced, but instead customized to the individual needs and desires. More recently, the term has used to mean also the blurring boundary between professionals and amateurs, as well as the idea of consumers as cultural producers, pointing the broader shift from a consumer society to a producer society.

By 2020, it is expected that the idea of producer society is shaping all aspects of our lives and impacting the mainstream of culture both in EU and in the US. The related lifestyles of ‘open-source culture’, ‘maker culture’ and ‘sharing culture’ are all building on the principles of acting symbiotically, collaboration, self-organization and creativity. The original open source movement, in which original source code is made freely available and can be redistributed, has had a tremendous impact within the IT industry over the last two decades. Now, emerging technologies promise to similarly move the fabrication of physical things toward greater digitization and democratization. We are entering a world in which software code can be used to produce objects and algorithms are allowing us to share resources much, much more effectively.
4.2 The drivers of change for culture of sharing and producing

The drivers of change for the new creative and open lifestyles comprise both cultural, social, technological and economic macro trends that are likely to create a future where open source mentality and creative production change most aspects of the society.

4.2.1 DIY culture
DIY movement is going through the roof. As an example, there are over 100 Maker Faires worldwide, the biggest one being in San Francisco, where more than 100,000 people attended in 2013.

4.2.2 Collaborative Web
The next Web will be a collaborative one. The current 1.15 billion Facebook users provide a great reminder of the gigantic promise of the emerging sharing economy and the opportunity for new collaborative business.

4.2.3 Rise of entrepreneurship
The 21st century is being created by entrepreneurial individuals and communities. There are currently nearly 400 million active entrepreneurs around the world.

4.2.4 Economic turmoil
The massive debt deleveraging that typically follows financial crises still has some ways to go, which means that consumption cannot be counted upon to drive economic growth.

4.2.5 Democratized technologies of production
The technologies for digital manufacturing have democratized and this unprecedented access to new tools and information will drive future of making.
4.3 Lifestyle trends of sharing and producing in 2020

4.3.1 Open source everything

Open source mentality builds on the principles of free and open source movements that initiated already in the 1980’s within the software communities. Open source is a mentality change that reflects the new ideas of ownership and value we give for information – it is based on a social principle of sharing what you have with others to get an access to someone else’s knowledge and resources, often without direct monetary compensation. Today, more and more work, creativity and innovation online is happening collaboratively with an open source mindset.

Importantly, the open source mentality is not restricted the digital world anymore, but is gaining relevance also in other areas of life. The goals and philosophy are identical to that of the open source movement, but these are now implemented for the development of physical things, cultural artifacts and public services, rather than only software. By 2020, we are likely to see the open source mentality shaping not only the products we use but also the various aspects of society, covering areas of finance, policy, health and wellbeing, transport, work, leisure and cultural production at large, among others.

An example of open source mentality shifting from the digital towards the physical and social is Openstructures that explores the possibility of a modular construction model in which everybody can contribute parts, components and structures to build things together. Based on the idea of one shared grid, it celebrates the exchange of parts, components, experiences and ideas. As described by its founder Thomas Lommee in Future Laboratory’s report: “It first started as an art project and a concept, looking at how design can be sustainable by using existing parts to create new products and objects,” he explains. “but then I started to wonder, ‘how can this model be applied to people?’ and so Openstructures was born.” The project is not just about creating sustainable products – it is also about sustainable ways of working. Lommee’s biggest inspiration comes from the potential outcomes of putting multiple minds together, as well as the creative output. Collaboration, to him, stimulates the imagination and creates an independent way of thinking that cannot originate from individualistic approaches.

There are also several initiatives that explore and promote the ideas of openness, such as Open Institute London that is being developed in London with an aim to build an infrastructure to offer new opportunities for open education, enterprise, and everyday life for its citizens. The idea is to develop a range of shared resources, such as spaces, tools,
and platforms, which are then put in a commons, where anyone can access them. The initiative has a £50m investment from the UK government.

Image 5. Open Institute London aims to build shared resources on various open domains.

The Open Knowledge Foundation is a non-profit organisation founded in 2004 that is dedicated to promoting open data and open content in all their forms, such as government data, publicly funded research and public domain cultural content. They have an active global network which includes local groups in dozens of countries, including 21 of Europe’s 27 Member States and the US. Their award winning OpenSpending project enables users to explore over 13 million government spending transactions from around the world. Open Source Ecology is a network of farmers, engineers, and supporters building the global village construction set, a modular, DIY, low-cost, high-performance platform that allows for the easy fabrication of the 50 different industrial machines that it takes to build a small, sustainable civilization with modern comforts.
4.3.2 Maker movement

The maker movement is becoming mainstream as it is taking the DIY mentality to the next level with sophisticated digital tools for production and manufacturing. Maker communities are growing both online and offline through sharing information and collaborating in fab labs and makerspaces. The potential of the maker movement is seen in re-invigorating interest in personal manufacturing, highlighting the beginning of the next industrial revolution. As Chris Anderson described the development in his book *Makers – The Next Industrial Revolution*, this is the decade of makers. And it’s not only a new lifestyle, but a force that is likely to change the whole manufacturing landscape forever.

The Maker Movement report by the MAKE Magazine describes makers: ‘They have a desire to do more than just understand how things work, and instead create them; uncompromising attention to detail, from concept to finished product; the leveraging of previous, or concurrent efforts to make substantial gains in the advancement of their own efforts — all getting their start in their own homes. Makers are not just making ‘things’ — they’re making the tools to make the things. Tools that have been, until recently, the domain of major manufacturers — 3D printers, CNC machines and laser cutters — are now available for your workbench, or desktop.’

The maker attitude is understood as being on the frontier of the society, driving the profound revolution in how we imagine and create new things: ‘Today we stand at the edge of the known world, and can look out upon the vast frontier of a new world of making before us. For nearly a decade adventurers have been setting out to explore, create, and find new opportunity. In the process they have come together in communities that have sprouted new industries and re-invented old. From raw materials they have made new tools and currency. In the absence of regulation. They have created new standards for interacting with, and funding each other’s efforts.’

The maker market has developed and evolved along several different, yet interdependent tracks and the report highlights three different categories of makers: *Avocational Makers*, hobbyists who engage in making for personal, family or friend use; *Professional Makers*, who self-identify themselves as ‘artists’, ‘designers’, ‘professionals’, ‘inventors’, and ‘entrepreneurs’; and *Commercial Makers*, that include comparatively large-scale businesses serving the avocational and professional segments, often jointly developing products with professional makers. The avocational maker is the largest segment of the market, accounting for more than half.

It is good to note that ‘making’ is an attitude that spans across the society and is not the sole domain of the young, or the old. For example, a study by the Kaufman Foundation
indicated that in the US, Baby Boomers are launching businesses more rapidly than at any other time and in fact more than other compared age groups. Looking deeper into the attitudes and values of the US-based makers, the Maker Movement study describes that 72% of makers think it is important to share their knowledge and skills with other makers and 65% believe that ideas should be free, which links the maker movement closely to the values of the open source movement. However, 64% of makers state that 'I’m mostly interested in solving my own problems with the things I make’ which highlights the strong emphasis of the ideals of independence and self-reliance.

Image 6. TechShop is a chain of member-based workshops that lets people of all skill levels come in and use industrial tools and equipment to build their own projects.

A good example of the more established maker movement is TechShop, a maker space chain originating from Silicon Valley that operates on the subscription model and provides access to cutting-edge equipment such as 3D printers and laser-cutting machines. TechShop, and the other maker spaces and fab labs that are mushrooming all over the US and Europe, have already enabled the incubation of several maker companies and businesses. Similarly, the London-based collective Technology Will Save Us, who describe themselves as a ‘haberdashery for technology’ and alternative education space dedicated to helping people produce – rather than just consume – technology. They teach members of communities how to dismantle and reassemble old technologies in order to
make new ones. “We want to believe in a world where individuals have the skills to design and re-imagine the gadgets and devices they have – to solve new problems and become useful again,” tells Daniel Hirschman, co-founder of Technology Will Save Us.

Making is blending fluently atoms, bits and ideas. While makers are involved in a wide range of projects – everything from outdoors, such as camping, survival and gardening, to cooking and health – the vast majority of project involve hardware or software. The epitome of the maker movement has long been the 3D printer, in particular often the **Thing-o-matic**, a 3D printer by **Makerbot** that enables people to make whatever they want out of plastic. A vibrant online community has also grown up around makerbot, sharing design files and ideas on Makerbot’s online community platform **Thingiverse**. All these developments point to the fact that in the future, technology is increasingly starting with consumers, and then moving up into business.

**Image 7.** The Global Village Construction Set is an Open Source Ecology project to build an open technological platform that allows for the easy fabrication of the 50 different Industrial Machines that it takes to build a small civilization with modern comforts.
4.3.3 Sharing resources

The third lifestyle related to the broader cultural shift around the trend of producing and sharing is focusing specifically on sharing resources. This movement has often been dubbed as collaborative consumption or the sharing economy, to basically emphasize the fact that more and more people are engaged into sharing, bartering, lending and swapping goods and services with one another rather than purchasing them directly from traditional companies. Sharing economy is already a multi-billion-euro industry and it is expected that by 2016 it could reach a value of $100bn (€78bn) in North America only, according to research and consulting firm Frost & Sullivan.

Image 7. AirBnb is a peer-to-peer rental service and one of the heavy weights of the booming sharing economy.

Currently, the sharing economy has proved its potency across a variety of sectors, including hospitality, transportation, food and education, among others, as digital platforms have made it feasible to share personal resources. Sharing economy heavy weight peer-to-peer hospitality service AirBnb has grown exponentially in the past four years and already catered over four million guests in 192 different countries. By 2020, it is expected that a new market is emerging for products and services that are better suited to being rented and shared than owned or bought. For example, AirBnb, that currently operates within the area of short-term peer-to-peer apartment rentals, has plans to expand to other spatial resources, such as warehouses, backyards, venues, etc.

As space and resources become scarcer, sharing is becoming more convenient, flexible and desirable than ownership. According to think tank Collaborative Lab the movement is being driven also by the fact that the opportunities for ownership are diminishing. ‘We
are moving to a time when access will be more important than ownership,’ says Lauren Anderson, innovation director at Collaborative Lab.

Another example of the sharing economy in action is OuiShare, a Paris-born global network empowering citizens, public institutions and companies to build a society in which every person has access to the resources and opportunities they need to thrive. They believe the collaborative economy needs better exposure and education, which could fasten the adoption of new user practices beyond current models, encourage policy-makers to support more sustainable models of consumption, and drive business model reinvention by enlightened professionals. OuiShare is dedicated to addressing these issues by building knowledge, events, tools and connections as well as by setting up a community-powered accelerator for inspiring projects across Europe and other continents.

### 4.4 Regional differences between Europe and the United States

Open source mentality has spread across Europe and the US and is likely to be one of the major cultural shifts in the West. However, the traditions around open source are quite different between the regions, even if there are strong similarities. Traditionally, the movement has been associated with more commercial applications in the US, best exemplified in the software sector on initiatives such as Google’s Android operating system for mobile devices. In Europe, where projects such as Linux computer operating system have originated, the attention has often been on more public uses of the open approach for development. This heritage is still strongly visible in the types of initiatives that can be seen in both regions, for example the UK based Open Knowledge Foundation and the Open Institute London are both advocating public use of open approach, data and other common resources.

The maker movement is already mainstream in the US, driven by the long cultural tradition of the ideals of DIY culture, independence and self-reliance. There are massive communities of makers who collaborate online and convene together in local maker spaces as well as on major gatherings, such as the Maker Faire that gathered over 100,000 visitors in both 2012 and 2013 in San Francisco. The event takes place also in other cities and has been expanding to Europe and elsewhere in the world in the past years. The triumph of the maker movement – that has been associated with the use of sophisticated digital tools of production and presence of commercial partners – has been slower in Europe than it has in America, although the DIY mentality is prevalent across the European continent. In the past years, more and more well-equipped maker spaces
and fab labs have sprouted across Europe and it is expected that the movement will gain ground rapidly. The major difference between these two regions is likely to be the stronger emphasis of the commercial spin offs and applications in the US, compared to Europe where making and hacking have been often associated with more personal or public contexts.

Very similarly, the lifestyles around sharing economy often have a more commercial inclination in the US, where most of the current heavy weight collaborative businesses originate. Sharing in Europe has been discussed and presented within the context of social innovation, although many purely commercial applications of the sharing practices naturally exist. All in all, the major differences between the regions are often on the level of the profound principles and motivations behind open source, maker mentality or sharing culture. These cultural differences and variance between regulation will shape the expansion of these movements in the regions, but most likely majority of the related services and behaviors will have global appeal across all continents as the making and sharing communities are sprouting up everywhere.

4.5 Implications on the Horizon 2020 big challenges

4.5.1 On health and wellbeing
Open health data and digital health services that allow stakeholders to better share information and resources are expected to have huge impact on healthcare systems. Also the personal applications for healthcare, such as mobile diagnostics, are capable of disrupting the archaic healthcare structures often comprising of hospitals, insurance companies and governmental institutions. The new health commons, where individuals pool resources, are an important aspect for future medical research and healthcare. For example, a startup like Open Healthcare UK can identify hundreds of millions of pounds of savings for the health services simply by using drug prescription data released by the UK government.

4.5.2 On privacy and security
The Open Knowledge Foundation describes well the issues between openness and privacy: ‘Increasing amounts of data are collected by governments and corporations, vast quantities of it about individuals (whether or not they realise that it is happening). The risks to privacy through data collection and sharing are probably greater than they have ever been. Data analytics – whether of “big” or “small” data – has the potential to provide unprecedented insight; however some of that insight may be at the cost of personal privacy, as separate datasets are connected/correlated. The intersection of big
data and open data is somewhat worrying, as the temptation to combine the economic benefits of open data with the current growth potential of big data may lead to privacy concerns being disregarded. They propose a simple typology for open data to better deal with the privacy concerns: ‘Our Data is data with no personal element, and a clear sense of shared ownership. Some examples would be where the buses run in my city, what the government decides to spend my tax money on, how the national census is structured and the aggregate data resulting from it. At the Open Knowledge Foundation, our default position is that our data should be open data – it is a shared asset we can and should all benefit from. My Data is information about me personally, where I am identified in some way, regardless of who collects it. It should not be made open or public by others without my direct permission – but it should be “open” to me (I should have access to data about me in a useable form, and the right to share it myself, however I wish if I choose to do so).’

4.5.3 On society and governance
The language of the “commons” is becoming a new metaphor for understanding the power of networks and new models of governance. Citizens, scientists, non-governmental organizations, businesses, and universities will continue to pool assets and knowledge to create shared, commons-based resources and public goods that can drive new public services and better policies. In our hyper-connected societies more opportunities for collective action are being realised every day – enabling the rise of new voices and promoting the growth of single-issue movements at the expense of traditional political parties. It is the role of the government to support these initiatives and provide access to public sector data to create more active, transparent and citizen-focused society and relevant and effective public services.
5. Lifestyle 3: Resilient and proactive citizens

In a fast changing and increasingly unbalanced world a growing number of people are turning to principles of resilience – such as adaptability, modularity, diversity, redundancy and social capital – to help vulnerable individuals, communities and cities persist and thrive amid unforeseeable disruptions.

5.1 What is changing?

Even if it’s a contemporary cliche that change is accelerating, it’s more true than ever because of the escalating and overwhelming shifts on the macro scale. During this decade we will venture deeper into the world of experience economy, ubiquitous Internet, resource scarcity and climate crisis, to name a few major forces. The digital technologies help us to make sense of the world and the information and data at our disposal is growing exponentially. We begin to understand how the world is a chaotic system, full with complex and unpredictable phenomena – in other words, an inherently unpredictable and uncertain place. The paradigm of progress and the idea of linear, steady growth is becoming a remnant of the 20th century.

The climate crisis that manifests itself on both global and local levels is one of the main forces for increased appreciation of the idea of resilience. The effects and true costs of draining the natural resources are becoming evident and we’ve seen an increase in extreme weather conditions, such as droughts and flooding across Europe and the United States. As the environment will continue to be in a fluctuating state of crisis for the next decades and the changing weather patterns can cause vast damage to cities and individual livelihoods, societies and cultural lifestyles have started to adapt to the new reality.

Sustainability reigned for decades as the key framework to make sense of the interconnected issues like environmental degradation, poverty, food security and climate change. But as the world is becoming increasingly out of balance the principles of sustainability – that with the right mix of incentives, technology, substitutions and social change humanity might achieve a lasting equilibrium with our planet – is increasingly anachronistic. A growing number of scientists, leaders, governments, NGOs, corporations, social innovators and individuals have started to question our ability to create truly sustainable societies in time and started to demand that in addition to
sustainability we ought to aspire also toward resilience. Where sustainability aims to put the world back into balance, resilience looks for ways to manage in an imbalanced world and is based on helping vulnerable people, organizations and systems persist and even thrive amid unforeseeable disruptions.

Resilience has already been widely adopted in the fields of design and architecture and is now starting to shape other areas, such as business and policy. For example, when Hurricane Sandy hit New York in 2012, the hardest impact was in Lower Manhattan, right where the city was most recently redeveloped and which should have been the least vulnerable part of the island. But it was rebuilt after 9/11 to be “sustainable,” and designed to generate lower environmental impacts, instead of being resilient, according to Jonathan Rose, an urban planner and developer. Partly because of these observations, the US based Rockefeller Foundation launched the 100 Resilient Cities Centennial Challenge to make sure that cities around the world would address better the increasing shocks and stresses of the 21st century. They will provide over the next three years technical support and resources for developing and implementing plans for urban resilience for 100 selected cities across the six continents.

There is a major cultural movement taking place in both Europe and the US, where people are adopting more proactive and preventative lifestyles to build individual and communal resilience. People have lost their faith in traditional institutions to help them during the hardships and the social contract that once promised the safety nets and support – at least in many parts of Europe – hardly exists anymore. More autonomous and savvy citizens are increasingly training for personal resilience, developing and learning new skills for maintaining livelihoods, nurturing social networks and building new local and communal safety nets, and creating new platforms for pooling resources. Some are taking even further steps and starting to build autonomous and self-sufficient homes, communities and cities that can withstand the evident future disruptions, including societal upheaval, peaking energy prices and food shortages.

5.2 The drivers of change for resilient and proactive lifestyles

The drivers of change for the emerging resilient and proactive lifestyles include the following socio-cultural and environmental forces that are likely to create a future where people adapt and react to the macro level shifts by developing systemic and savvy practices for better resilience and adaptability.
5.2.1 Lost generation
The economic crisis has given rise to a new class of consumers who work hard, pay their taxes, live within their means and do all the right things, but are unable to live the lives to which they aspire.

5.2.2 Peaking resources
The age of resource abundance is over. We are extracting resources, such as energy, land and water, over 50% faster than they can be regenerated. The current rate of consumption and production can no longer be sustained and the age of abundance, carefree consumption and production is over.

5.2.3 Accelerating change
We are living in a world where flux has become the only constant. Traditional safety nets provided by the government will no longer be self-evident and sufficient, and the evident upheavals are expected to have a broad impact on people’s livelihoods and wellbeing in the coming years.

5.2.4 Systems thinking
We are shifting from the 20th century paradigm of progress and linearity to a new appreciation of connected, unpredictable and systemic nature of the world. This emerging systemic understanding of the world and its structures is shaping the policies as well as personal choices we do.

5.2.5 Resilient sustainability
There is a major cultural shift taking place as societies and individuals have started to adjust to the idea that sustainability alone is not capable of solving the major environmental, economic and societal challenges ahead. Where sustainability aims to put the world back into balance, resilience looks for ways to live, survive and thrive in an imbalanced world.

5.3 Resilient and proactive lifestyle trends in 2020

5.3.1 Training for personal resilience
Even if people often think resilience as something that needs to be developed from top-down and on the level of infrastructure and systems, in reality resilience often starts from the bottom-up and on the level of social structures between individuals, families and communities. There is a growing trend of people starting to prepare for the evident shifts
and train for personal and communal resilience, using the learnings from psychology and sociology that can make people more flexible and endure better economic, societal and environmental stress. For example, the role of social connections, quality of close relationships, access to resources, the impact of genes on health as well as personal beliefs and habits have been under a new scrutiny for better sustainability and resilience. Based on these insights, experts have developed training regimens that are already helping emergency-room physicians and soldiers to better manage periods of extreme stress and diminish the rate and severity of post-traumatic stress that can follow. Researchers at Emory University have shown that similar practices can bolster the psychological and physiological resilience of children in foster care. It is expected that these techniques and tools will find their way into wider use to help people prepare to and rebound from all kinds of emergencies, such as sudden unemployment or illness.

Image 8. 23andMe is a personal genomics and biotechnology company that provides rapid genetic testing and confidential customer datasets to establish genetic associations with specific illnesses and disorders.

Another aspect of training for resilience is related to longer-term flexibility especially in the vocational context. Already today, people must be prepared to rethink and recreate their careers several times during their lives and grasp new job opportunities even amid the hardest economic times. This means constant learning of new skills, continuous updating of the professional expertise and creative problem solving. These skills are natural for younger generations, who have born into a world of uncertainty and major
challenges, while the older generations need to adjust and change their mentalities as well as learn new practices. While the formal education system doesn’t yet prepare children to face the unpredictable future, the digitally native kids and adults are turning to the digital and peer-to-peer learning solutions to learn new skills. A great example of a new solution for training for personal resilience is Superbetter, a gaming platform developed by game designer and author Jane McConigal that helps people achieve health and wellbeing goals, or recover from an illness or injury by staying curious, optimistic and motivated even in the face of the toughest challenges.

Preventative health is third important aspect of training for resilience. The lifestyles that value health and wellbeing have been prevalent across Europe and the US for years. With the democratization of science and growing access to personal health data, people seek and share actively information about healthier food, nutrients and harmful chemicals and additives; with the help of services such as 23andMe become aware of ones genes and their implications on health, such as hereditary diseases and increased risks for certain diseases, helping people to take preventative measures early on and nudging to choose healthier lifestyles.

5.3.2 Communities of support

Another growing trend for building resilience takes a communal spin. Partly because of the new social digital technologies and partly because of the revived community values in both Europe and the US, the practices for pooling resources and forming new social support systems have rapidly proliferated. This is closely related to the lifestyles of sharing resources and open source everything, described in the previous chapter. People will turn to new models of sharing, co-ops, crowd funding and lending, and communal and multi-generational living. One smart example of collaborative and communal resilience is Bulk Buying In Parkwood, a project by the Social Innovation Lab of Kent (SILK) in UK that helped the local low-income community learn to pool supplementary benefits to buy food with bargain prices.

There is also a fast spreading societal trend in shifting responsibility from government to individuals to produce public services, both in sparsely habited areas as well as in densely populated cities with increased demand for services, by using distributed resources, digital tools and automated service stations instead of personal face-to-face service or care. This development has already been seen in the banking industry, where the customer increasingly carries out most of the work and accomplishes tasks independently using the Internet banking interface, or in grocery shopping where especially in the UK Tesco has introduced the unmanned 24/7 shops. While the
digitalization and automatization of services increases the access to services especially in rural areas, there is a growing concern that governments and service providers cannot ensure quality care that meets people’s needs and expectations, when personalized service for some reason fells short. A promising solution is to provide a variety of open resources and tools to the use of citizens and citizen communities for creating “bottom-up” built services and safety networks. The Food Co-op toolkit is another great example of a useful resource for communities seeking to secure access to local, quality produce at reasonable prices, similarly to the previously mentioned project by Social Innovation Lab of Kent.

5.3.3 Self-reliant and adaptable living
The third lifestyle under the theme resilient and proactive citizens takes resilience a step further in its quest for a broader transition toward more self-reliant and sustainable living. The grid doesn’t anymore imply only the energy infrastructure, but increasingly the overt reliance on fragile systems across all areas of life. More and more people experiment with alternative approaches to careers, learning, energy, goods and services. The original homesteading and self-sufficiency mentality gets new tones and the back-to-the-land ideas, hooking up to domestic wind turbines and just making do with less are not that aspirational anymore. Instead, the new resilient lifestyles are self-reliant through a variety of clever solutions. People are living off the grid by being loosely connected to broad number of different systems. Self-reliance is also connected closely to the DIY mentality described in the previous chapter as self-reliance can take many forms. You can run your own business, provide your own food and energy and be your own barber, repair person, home-school teacher, house cleaner, painter, and child care provider. But you can also provide your services to others and create stronger local economies with more resilience to macro economic shifts.

One example of resilience is the rise of the local food movement has grown as self-reliance has become more of an issue. In the UK, 95% of fruit and 60% of vegetables consumed are imported, and 80% of everything eaten by London’s population of 7.5m comes from abroad, according to the Department for Environment, Food and Rural Affairs. The rooftop food revolution has taken over tens of thousands square meters of urban rooftops and unused lots, and established gardens and greenhouses to better cope with climate change and water scarcity. NYC Regional Foodshed Initiative, that explored the regional capacity to produce food in the New York City Metropolitan Region, incorporating localized land use, soil type, transportation infrastructure, and climatic conditions to assess production at several scales, as well as actual consumption data for New York City. They calculated that if all unused lots would be transformed into gardens,
the city would be able to produce 70% of all vegetables consumed in New York City within the city limits. Similarly, the **Park Supermarket** concept from Rotterdam studio van Bergen Kolpa Architecten has the same idea. Designed for the Netherlands’ Randstad area, the concept demonstrates how a retailer could produce all the goods it sells entirely on site. Tilapia fish would be raised in basins, while avocados would grow along fruit walls. While these ideas are now flourishing in mature economies, there is a country that is ahead of the curve as the Future Laboratory notes. In Havana, Cuba, more than 50% of the city’s fresh produce is grown within the city limits, in huertos privados, huertos populares and organicponicos, that is, in private gardens, communal gardens and state-owned research gardens.

Going "off-grid" is becoming an increasingly popular choice for people looking to reduce their carbon footprint, assert their independence and avoid reliance on fossil fuels. **Transition Town** movement is an organisation whose role is to inspire, encourage, connect, support and train communities as they self-organise around the Transition
model, creating initiatives that rebuild resilience and reduce CO2 emissions. Their idea is not focusing only on simply becoming self-reliant, but more broadly developing skills and practices that would enable communities to transition toward more resilient and sustainable lives through diversity, modularity, variability, flexibility, and sustainability to ultimately respond to peak oil, climate destruction, and economic instability.

5.4 Regional differences between Europe and the United States

In the U.S where the government hasn’t traditionally provided much of support in terms of unemployment benefits or healthcare to its citizens, people continue to manage their health and livelihood with an autonomous “bootstrap mentality”. This self-reliant and resilient mentality is rooted deeply in the American society and people in general look for personal and private sector resources and turn to alternative support systems, such as crowd funding and lending as well as local community provided safety networks.

Similar developments are likely to follow in the coming years in most of Europe, where governments are facing the burdening effects of the aging population, national debt and uncertainty. The proactive, autonomous attitude to resilience is likely to spread especially in the economically challenged countries, where people look for new sense of security and want to be in charge of their lives and wellbeing.

5.5 Implications on the Horizon 2020 big challenges

5.5.1 On health and wellbeing
Resilience and its emphasis on preventative measures and adaptability to changing conditions will be central for better health and wellbeing in the coming years. New techniques, games, apps and training regimens that build personal preventative health and help people better rebound from all kinds of emergencies, will gain popularity by 2020. New services such as the 23andMe that give people access to their genomes are helping people to take preventative measures early on to avoid hereditary diseases, such as breast cancer, or understand their heightened risks for obesity or diabetes.

5.5.2 On Europe in a changing world: Inclusive, innovative and reflective societies
As the paradigm of progress and the idea of linear, steady growth is becoming a remnant of the 20th century, resilience will become an essential mindset for citizens as well for governments to be able to survive and thrive in the coming, uncertain years. Resilience
Future Lifestyles in Europe and the United States in 2020

framework is based on the understanding that the world is increasingly complex and societal problems, as well as their solutions, must be viewed from a systemic perspective. Resilience will greatly further the shift toward inclusive, innovative and reflective European societies.

5.5.3 Climate action, environment, resource efficiency and raw materials

It has become evident that the age of abundance is over and the framework of sustainability will not be adequate to address the impacts of environmental change in the future. Resilience will provide new solutions and ideas to increase resource efficiency and even restore and regenerate natural resources. New biomimetic solutions and ways to build smart cities and buildings that produce energy and exist in symbiosis with the surrounding environment are especially promising.

5.5.4 Food security

Food security will become central concern in our lives as it is connected to several areas of societal wellbeing. Progressive cities, including New York, London and Berlin are already building infrastructure and service to secure local agriculture, production and distribution of food for the coming years. Resilient practices and solutions in agriculture, such as permaculture, a self-maintained and sustainable agricultural system modeled from natural ecosystems, has shown great results in cultivating better food systems. The self-reliant and community based food co-ops are also likely to gain popularity in the future, as they offer low cost solutions for accessing local, quality produce.
6. Lifestyle 4: The quest for purpose

The turbulent times and a shared feeling of an end of an era – driven by simultaneous structural shifts across the environment, economy, society, and politics – are urging individuals and communities to search for a renewed purpose and question the basic assumptions behind good life and better future, as well as take action to solve the societal challenges of 21st Century.

6.1 What is changing?

We are living turbulent and crisis-ridden times by any measure, even if there is less crime, less violence and less absolute poverty than ever before. Several major forces from economy to ecology, politics, society and technology are going through seemingly rapid structural transformation. These profound shifts have led everyone from organizations, businesses and governments to individuals and communities to ask the very essential questions of what should we as a humanity and a society aspire to and what kind of future we should aim to build.

As defined in the discussion paper Towards a Sustainable Well-being Society by Sitra – an independent think-and-do-tank under the Finnish parliament, the industrialised world is going through a historical transformation. The structural crisis marks the beginning of the end for the energy- and material-intensive massproduction and massconsumption models that spread throughout the industrialised world during the past century. The crisis stems from various sources, such as the accelerated structural change in national and local economies, ageing of population, unsustainable use of natural resources, changing skill requirements of new technologies, decision making and governance problems in the face of higher uncertainty and growing economic and regulatory complexity, changing values and demand patterns of citizens, as well as outdated institutional rules and models. These problems have made the current societal model of industrialized countries unsustainable economically, environmentally, socially, and in terms of individual well-being.

By 2020, it is likely that we see wholesale redefining of societal structures, economic ideals and governmental models in order to increase overall wellbeing of people and society. In the coming years, it is expected that people are searching for a deeper, redefined and bigger purpose to guide their lives as well as actively engaging to more
meaningful lifestyles and behaviors in consumption, work and leisure. They expect that also the institutions, organizations and businesses to share the same worldviews of post-capitalism, post-materialism and post-consumerism; have a new sense of urgency and commit to creating sustainable and shared value for people, planet and business alike.

6.2. The drivers of change for purpose driven lifestyles

The drivers of change for the emerging purpose driven lifestyles include the subsequent economic and socio-cultural forces that are likely to create a future where people search for a renewed purpose by questioning some of the basic assumptions behind good life and better future.

6.2.1 Crisis of Capitalism

Economy is going trough a paradigmatic shift and the capitalistic economic and cultural paradigm seems to be losing its legitimacy in the aftermath of the continuing financial crisis. At the World Economic Forum in Davos in January 2012, one of the key themes was ‘Is 20th-century capitalism failing 21st-century society?’ in which UK Prime Minister David Cameron dubbed the old-style system ‘turbo capitalism’ and ‘The system, in all its different varieties, is widely perceived to be failing to deliver,’ wrote economic journalist John Plender in The Financial Times, in January 2012.

6.2.2 Wellbeing economics

There is an influx of new ideals and models for organizing economy with the ultimate goal to increase overall wellbeing of people and to create more sustainable value in society. The way to measure the success and progress of societies is also changing: The US and Australia are considering discarding GDP as the yardstick of national success and adopting alternatives based on their citizens’ sense of general wellbeing. Similarly, the governments in France, Canada and Britain all now measure the happiness of their citizens.

6.2.3 Unpredictable world

The accelerating change, driven by ongoing and looming societal crises, extreme weather conditions and technological disruption, is spiraling the general feeling of uncertainty and insecurity. The Future Laboratory states that almost eight out of 10 (77%) of people in the UK believe the world has become more frightening in the past decade, according to a recent survey by the Mental Health Foundation, and 67% are anxious, according to the JWT Anxiety Index.
6.2.4 Cultural diversity
The era of the global dominance of western values and lifestyles is coming to an end with the global power shifts, new connectedness and the growing accessibility to information provided by ICT. Global migration and urbanization are also furthering cultural diversity, which will have an impact on attitudes, identities and behaviors in The US and Europe.

6.3 Purpose driven lifestyle trends in 2020

6.3.1 Personalizing purpose
People will be re-evaluating what is important for them: is life about equity and the acquisition of things, or is it about sustainability, balance, love, family, happiness. Both in Europe and the US many are going to look for new ideals and devoting their time for pursuing their passions and doing meaningful things.

The so called “slow movement” – that started already at mid 1980’s, emphasizes meaningfulness and long-term commitment and rejects the fast-paced and materialistic lifestyle – has paved way for a growing trend of devoting ones time on making more meaningful things and accomplishing personal milestones. The shift to “slow”, purpose-driven lifestyles broke into mainstream few years ago with the booming slow food movement and the flourishing DIY culture of crafters and makers that took quickly over both the US and Europe. Besides consumption and meaningful use of leisure time, the “slow mentality” has now extended to cover also education, career choices and working styles. For example, people increasingly choose purpose-driven entrepreneurship and social enterprises to ditch the 9 to 5 and 24/7 work style and to pursue their life-long dreams, such as working as a yoga instructor after a Wall Street career.

The socially minded entrepreneurs are looking to create better, broader and thicker value in society. For example the responsible and fast growing group of small businesses with B Corp certification (“For Benefit Corporations”) have had a 30 percent higher survival rate than U.S. small businesses as a whole over the last five years. B Corps are also on top of the list for Millennial job seekers, according to Hartford Business and Brandchannel. ‘If your company offers something that's more purposeful than just a job, younger generations are going to choose that every time,’ Blake Jones, president and CEO of Namasté Solar, a solar-technology installer and a B Corp, told the Wall Street Journal recently.
People are also actively seeking to find a deeper connection with the world, looking to often disparate directions, such as new spiritual movements, established religions, ancient traditions and cutting-edge science. The meaning of traditional religious institutions and structures might be in decline, but the spiritual quest for faith and belief is stronger than ever, both in Europe and in the US. In our hyper-connected world where influences and ideas travel fast, people have a vast pool of information, ideologies and religions to choose from.

Image 10. B Corps are certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency.

The Eastern traditions have blended with the Western ones during the past decades to help people offset their busy lives, and during this ongoing decade we are likely to see new hybrid forms of “mix and match” religions and personalized belief systems that people tailor for their needs. Instead of labels, people look for deeper universal meanings. For example, the global Charter for Compassion movement, that aims to find unity in world’s religions from their common compassionate cores and the shared idea of the Golden Rule, has spread rapidly in the last few years and been endorsed by several religious leaders and major cities in the US. This is also a telltale sign of a shift from an individualistic and atomistic worldview toward a more systemic and holistic understanding of ourselves and our connectivity to each other.

By 2020, we expect to see a strengthening emphasis on secular belief in science, that can provide a vehicle for escapism but also provide hope and propose breakthrough
solutions for the massive challenges, such as techno-utopian fixes for the environment, solutions for the energy crisis, extended lives and 3D printed body parts. Ariane Koek, the leader of International Arts at CERN summarized well the contemporary allure of science: "People now feel a hunger for new ideas, for new innovations, for new ways of looking at the world. And in this new Enlightenment, the scientist will be the new rock star." The information that was once held inside the minds of men in lab coats is now, thanks to the Internet, increasingly available to everyone. For example TED Talks, that introduce world-changing ideas and innovations, have spread the scientific inspiration worldwide and been watched more than one billion times.

Image 11. Mindfulness by Headspace is a project and an app that uses the wonders of science and technology to demystify meditation. Mindfulness is a meditative technique that teaches people to live in the now and ignore outer and inner irritants and babble.

6.3.2 Enlightened consumption

Despite the hardships and gloominess of the last few years, people in Europe and the US believe the crisis might lead to something better. According to the Future Laboratory’s Consumer Attitudes Audit in 2012, a belief in economic recovery and a better future has taken root in the British psyche despite a double-dip recession and a seemingly endless Eurozone crisis. Despite an unremitting diet of economic bad news, a fifth of people still think the crisis will ultimately prove to be a good thing for Britain. Among this group, 80% believe the shockwaves of the financial crash have encouraged people to adopt more sustainable finances and lifestyle, while 60% say it has put the brakes on excessive spending habits, and 55% that it has shone a spotlight on a broken banking system. Also, almost two-thirds (64%) of Americans believe they are watching the birth of the US
Rebooted – a new, and perhaps better, country that will bear little resemblance to the consumer excesses of the past. Almost a quarter of Americans (23%) go one step further and say that the crisis was a force for good in the US, compelling people to adopt more financially sustainable lifestyles. In Sweden a resounding 72% believe the economic crisis has been a good thing for the country – but for the puritanical reason that it was a necessary corrective to the lifestyle excesses of the past.

Image 12. Kamppi Chapel of Silence in Helsinki by K2S architects offers a spiritual escape next to a shopping mall.

People have matured to smart consumers during the last five years and have a very critical take on consumption and brands in general, demanding high transparency and responsibility. The Future Laboratory summarizes: ‘Consumers are looking at where [the product they buy] comes from, whether production supports or damages the community, how much companies pay their producers and how companies behave as a whole.’ According to the Consumer Attitude Audit in UK, Eight out of 10 Britons (85%) say for example that brands are too competitive and wasteful, and believe that they should be collaborating and sharing resources in the current difficult economic climate. Companies are also expected to have a bigger and bolder purpose than making fast profits. Aaron Hurst, a leading social entrepreneur and the author of the book *Purpose Economy*, predicts that purpose will actually supplant information as the core driver of our economy in the coming years. We are already seeing the new wave in business of “doing better by
doing good”, ignited by the social entrepreneurs, sweeping over the corporate sector and pushing big businesses to adopt a new proactive role in society, to rethink their purpose and harness the core strengths of business to solve wicked challenges and create shared value in order to attract global talent and leading edge customers.

By 2020, it is expected that the excessive consumption of the yesteryear will be increasingly replaced by a quest for immaterial experiences and holistic wellbeing as well as creative and productive “prosumption”. After going through the frugal times of financial crisis many have already changed their consumption habits dramatically, preferring responsible brands when possible, changing shopping sprees to enjoying cheap or free of charge immaterial experiences and becoming more self-reliant in terms of recycling, swapping and producing things. This enlightened style of consumption has continued to take root despite the slow economic recovery and is interestingly turning to manifest the new ideal of austere and sublime luxury of less materialism and possessions. The new aspirational luxury is found from authentic experiences, meaningfulness, nature and holistic wellbeing instead of material possessions and always-on lifestyle, The Future Laboratory continues.

6.3.3 Citizen action
The third purpose driven lifestyle takes the ideas and runs with them. People have realized that the governmental institutions, global organizations and charities are no longer able to tackle the multifaceted and tangled societal problems alone. The improvements and solutions by the traditional institutions seem to take too long or be too inefficient in the face of the crises we are facing. The democratic system is also suffering from a legitimacy crisis with downturn in voting statistics, especially among the younger generations, and we are likely to see societal and political activism develop new forms and move increasingly to digital arenas.

The attitude toward direct action and measures outside the traditional democratic channels and system has become more accepted and preferred, especially among the younger generations. The Consumer Attitude Audit states that more than a fifth of people in the UK know someone who has participated in protest, strikes or direct action in the past two years, a proportion that rises to more than a third (35%) among 18–24-year-olds. As people in Europe and the US are engaging to seek new meaningful directions, they are also feeling the new sense of urgency for action and rolling up their sleeves for the local and global challenges. For example, social entrepreneurs and citizen activists are using the global scale of digital platforms, such as Avaaz, and crowd power to
amplify their voices and to access a vast pool of tools and resources, from funding to expert networks.

The **Occupy movement**, that spread from the Wall Street and Zuccoti Park protest to become a global statement against unfunctional and unjust systems across society, provided the backbone for **Occupy Sandy**, a laterally organized and digitally enhanced citizen volunteer network that was able to respond rapidly and effectively to the humanitarian crisis created by the hurricane Sandy in New York in 2012, illustrating the new possibilities and power of 21st century grass-roots action.

**Image 13.** Avaaz is a global civic organization launched in January 2007 that promotes activism on issues such as climate change, human rights, animal rights, corruption, poverty, and conflict.

### 6.4 Regional differences between Europe and the United States

In the US the ideological basis for the culture and lifestyles has traditionally been rooted in an individualistic worldview, where citizens are seen as primarily responsible of maintaining their livelihoods and wellbeing and where people turn to private service providers and informal safety nets instead of receiving support from the government. However, in times of growing uncertainty and sudden disruption there has been a rapid rise in community oriented values, attitudes and behaviors. In the aftermath of the
financial crisis several institutions, organization as well as citizen activists are on a mission to rethink the American societal and economic structures to increase the wellbeing and happiness of citizens instead of concentrating on continuous growth.

In Europe, where the values and attitudes emphasize traditionally more community and society, the expectation has been that the governments provide citizens access to healthcare and education. With the burdening debt, sluggish economy and aging population, European countries are facing challenges to secure the quality services and adequate safety nets for their citizens. The so-called "bootstrap" mentality – drawing oneself up from the ground from one’s own bootstraps – that is very common in the US, is increasingly finding its way to Europe. This is already visible on citizen action on solving societal challenges with means of social innovation and entrepreneurship.

It is important to note that often the major differences are not to be found between the regions, but within the regions in the opposite ends of polarizing society. For example, the more optimistic attitudes usually dominate in the economic and cultural pockets that have managed to stay vibrant after the economic crash, such as the diverse and progressive cities like New York and San Francisco or the Europe capitals including London and Stockholm. In other areas, such as in southern Europe or American Rustbelt, the economic gloom is still overwhelming. Pessimistic attitude is widespread throughout the Eurozone, where economic confidence has hit a three-year low of 84.5, according to Reuters.

6.5 Implications on the Horizon 2020 big challenges

6.5.1 On health and wellbeing
Commitment to building the wellbeing of citizens and societies at large will be a determinant factor of future success of European countries. In the coming years, wellbeing will be understood more holistically, including the physical, mental and emotional wellbeing, and people will engage into new holistic wellbeing routines. Additionally, a new dimension to wellbeing is likely to be a universal and altruistic one, as the new sense of wellbeing and health includes also communal and social aspects and comes from the possibility of doing meaningful work, contributing to society and helping others.
6.5.2 On inclusive, innovative and reflective societies
The quest for purpose will greatly further the building of more inclusive, innovative and reflective societies as several societal actors – from governments, organizations and businesses to citizens and communities – are questioning the current societal and economic systems; becoming aware of alternative ideals and models for increasing wellbeing and happiness; and also proactively solving societal challenges with means of social innovation.

6.5.3 On secure societies
The crises and disruptions have increased the feeling of insecurity, which will likely endure as a state of mind for several years in Europe and the US, and catalyzed a worldwide quest for a renewed purpose to restore the feeling of belonging and stability. With new kinds of risks and “black swans”, such as weather events, also the idea of security is changing. Future threats are something to prepare for, but the ongoing financial crisis and environmental crisis will continue to have more urgent, costly and risky effects for both Europe and the US. Instead of fearing to become a victim of terrorism, citizens are becoming increasingly fearful of losing income and livelihood or health in the uncertain future. New security will be built on more flexible official safety nets as well as by citizen activism and social innovators who are helping to solve wicked problems and local challenges from the bottom up, preventing the problems to spiral into bigger risks.
7. References


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8. The Map of the Future Lifestyles in EU and the US

The map below is also available as a supplemental PDF document that highlights the four future lifestyle trends, their drivers of change and interesting examples.