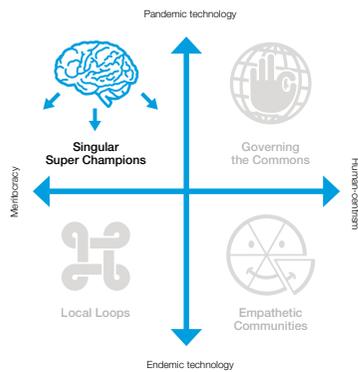


Singular Super Champions



Singular Super Champions

Alternative Sustainable Society 1: Supporting 8 000 kg Sustainable Lifestyles

In the scenario Singular Super Champions Europe has made the leap to a new type of sustainable, competitive and equitable economy: a result of numerous treaties, declarations and official goals starting from 2035. The leap is achieved with the deployment of market instruments that also radically reform many conditions that have shaped European lifestyles over the past decades. Cleantech and upcycling businesses flourish as sustainability has become the business opportunity of the century. Europe of Singular Super Champions is a society that celebrates an ethos of learning, achieving and self-mastery.

An ageing Europe receives a transformative and rejuvenating spark, in order to survive as China began its strides towards gaining total global dominance in cleantech markets at the start of the 2010 decade. At almost the last moment, in 2015, the EU wagered all of its political power and public resources to force companies and consumers into the era of a new industrial revolution. Developing new materials and bringing about a revolution in production technologies comes about through incentives and political measures. European nations agree to remove all subsidies from industries operating with inefficient legacy technologies in the energy and resource intensive fields. All available budget in the member states is invested in massive R&D centres, demonstration projects and especially in education.

This was not a pain-free road to success. Revolutionising technologically and ecologically outdated production processes, as well as, cutting subsidies from fuel and many other commodities means that many people lost their jobs. All transportation, and especially single car use became much more expensive and all associated housing costs rose. The big reform didn't treat every citizen or region equally. This created turmoil in declining regions in the 2020's but, the masses were forced to adapt. Simultaneous reforms in welfare provisions due to budget cuts drove many Europeans to migrate and search for income opportunities from thriving metropolitan regions thus speeding up the concentration of the population and sources of wealth.

Big investments paid off: Scientific breakthroughs in material technology made the up-cycling of raw materials profitable. Firms in the cradle to cradle business started to make solid profits in the latter half of 2020's. Access to the consumption cycle and what was previously called waste became the key determinant of success to the large multinational firms. New service and distribution models were created. They put new emphasis on building lasting relationships with customers. This was the only way to make the valuable resources stored in material products return to production. Consumers experienced this through services that equipped them constantly with up-to-date models of the goods they have once bought access to. For some, these technologically driven lifestyle goods compensated and replaced their past needs for spacious single-family houses and modestly priced cars.

Singular Super Champions is a society in which success, both for individuals and societies alike, is gained through persistent faith in education and enterprise. In job markets expertise is everything because technology develops fast and the only source of success in the era of resource scarcity is expert knowledge.

Everyone has access to basic education, learning and knowledge. But beyond that there is a moral obligation for continuous development of personal and professional skills that drive sustainable societies. Leisure time is therefore quite different from leisure time in 2012. It is spent on learning and education that is self-centred yet

pragmatic. The most affluent people, The Singular Super Champions, have transcended material consumption. Instead of consuming, they make investments in themselves through studying new skills, both to improve professionally and to become champions of their individual lifestyle.

How are sustainable lifestyles achieved?

The road towards sustainability started with people having to pay more for the necessities and luxuries that are less expensive in 2012.

Due to extreme urbanisation, people live in even more dense cities than they did in the 2010's. As the importance of cities and their centres rise at the same time, the most talented people aspire to be in the downtown areas of progress in the metropolis. This raises the prices of apartments and location starts to compensate for space – which leads to more sustainable housing alternatives for the mainstream.

With regards to mobility, rising resource prices started to influence people's behaviour even more directly. As the price of gas hit new peaks, some of the poorest households ended up sacrificing significant amounts of their income for their personal mobility. This drove urbanisation, which again led to people needing to use their resources for mobility less. Only the most wealthy people had the possibility to travel exceedingly as air travel was out of reach for many. Mobility in general has

decreased dramatically over the years. The painful measures provided a catalyst for rapid change.

Sustainability has become the business opportunity of the century. It breathes new life into entrepreneurship, new business models, and people experiment with various aspects of sustainable living at home which saves money in the short term and proves resilient in the long term.

As people started to get access to detailed data on their own behaviour through their smart phones in real time, and science provides increasing amounts of information regarding healthy and sustainable alternatives, people started rationalizing their diets. Instead of taste, nutrition became the key driver of day-to-day food choices.

In addition to price drivers changing the ways people behave, technological innovation has provided many sustainable choices and alternatives not available in 2012. New materials made it possible to build houses that are extremely energy efficient. Breakthroughs in technology enable retrofitting and new construction as viable ways to provide sustainable living possibilities. The post-oil era, in turn, changed cars into mobile solutions for electricity. Locally produced renewable energy is stored in idle car batteries when cars are parked. In a society of Singular Super Champions sustainability is accomplished through changes in behaviour patterns and consumption practices and consumer choices along with technological innovations.

Singular Super Champions scenario narrative – how did it all happen?

- » The European Green New Deal
- » Transparency gets the prices right
- » The upcycling economy
- » Learning, not earning

These drivers are depicted as events on the timeline.

What is life like in Singular Super Champions

What changes between 2012 and 2050?

Education	Embedded into everyday life and practices, lifelong instead of short cycles in the beginning of life. Individualized and commoditized. Basis of welfare provision.
Work	Human resources highlight work. Talent is concentrated in global organizations. Entrepreneur vs. super talented multinationals class.
City	10-15 highly urbanized metropolises in Europe. Extremely dense. Lots of new infrastructure. New specialised areas of excellence.
Health	Preventative public healthcare. Rational diets. Self-diagnosis.
Living	Location compensates size of the flat. New materials and design. Price drives density.
Food	Price and health efficient diet. Large scale organic production.
Mobility	New rail systems within and between metropolises. Personalized rapid transport systems. Smart mobility solutions. High prices.
Consuming	Meanings and symbols get consumed more than products. Education and self-projected me. Price mechanism.
Economy	Large multinational firms. Efficiency. Competition. Eco-industrial revolution. Standardized transparent data
Sense of security	From technological progress. Transparency. Surveillance. Individual choices. Thought leaders.
Leisure time	Investing in own education and training.

The European Green New Deal

2015: EU prime ministers conclude that reforms of unprecedented scope need to be implemented in all EU countries to prevent them from falling into a permanent state of zero growth. Evidence-based policy-making gains prominence and brings politics and research closer together.

2018: People all around Europe invest in large firms that compete over hegemony in sustainable technologies.

2019: Afraid of citizens growing restless, leaders of the Communist party in China announce a new five-year plan which is about investing a great share of China's massive dollar reserves in the clean-tech sector, into which it has already poured a considerable amount of money over the past 10 years.

Transparency gets the prices right

2015: In China, there's an outbreak of problems related to climate change. Natural catastrophes, including drought, eliminate a growing share of crops, causing food prices to rise dramatically.



I just bought an app that allows me to track my consumption. My personal purchase history is my own property now!



It's so cool that the lunch cafe at our work serves food for healthy and cost-efficient diets. It's the hottest food trend around and now I don't have to visit the coolest areas in town to enjoy it. It's right here, where I work!

2020: There is pressure to revolutionise technologically and ecologically outdated production processes and eliminate expensive and harmful incentives. Economic subsidies (e.g. fuel) will be cut and ecological costs will be internalized in prices.

The upcycling economy

2015: The beginning of the financial year started with a remarkable boom in renewables in emerging markets. The vitality of renewables comes largely from a vibrant private sector.

Me and my wife are happy that our 5-year-old daughter got accepted into a specialist maths school for the very talented. This means talent hunters will notice her in no time.

"Education is everywhere in daily life. Kids can log in to any object and access the so-called 'situated education programmes' and learn flexibly all through the day."

Learning, not earning



"Would you like to learn something new?" asks the new computer program I just bought. All around Europe we learn the same things from state-of-the-art software.

2016: In Denmark and Norway comprehensive educational reforms aim at improving learning capacity through moving primary education partly outside the classroom.

2018: A coalition of the 5000 biggest enterprises based in the EU launches an initiative to award joint degrees. Leadership and competitiveness are nurtured through international exams and other learning events including e.g. competitions, which are seen as the best way to provide students with the skills they need.

Diffused learning embedded in everyday products

School programs integrating in daily activities



2015

2020: People celebrate the launch of the high-speed rail network that has been expanded to cover all routes between Europe's major cities. These trains start to push airline companies out of the market.

2021: New competitiveness mechanisms are introduced in the Euro zone. Governments support R&D activities to explore ecological production methods.

2022: Desertec attracts solar companies all over the world to conquer spots in the Sahara. One of the largest firms in the sector announces that they will start providing transparent information on the production cycle, energy and natural resource consumption on all their products.

Bank of energy

Dear client, you just spare 10 000 megawatts and with this you can get a 30% discount on!

Solar tiles for your roof

Domestic wind turbine for your garden!!

Banks start to provide new energy solutions for people to finance the energy retrofitting of their house.

2022: The majority of EU member states introduce new cross-cutting road pricing for all roads due to the need to compensate for losses in fuel tax revenues that are attributed to increased vehicle energy efficiency and a shift to electric cars. As a result, people start to prefer short commuting distances, service-rich neighborhoods and good location over large living space.

2024: Possessing half of world's phosphorus reserves, Morocco starts to regulate sales of this "new gold". This in turn leads to unforeseen hike in fertilizer prices. Decreased use eventually starts to affect annual crop yields.

2025: The biggest companies in food, construction, ICT, manufacturing and car industries agree on transparency standards on data concerning the energy and natural resource consumption of their production processes. The EU countries, China and USA soon adopt these standards as basis for legislation, which means that practically all production and services have to meet similar transparency standards.

Some of my employees have to spend 40% on travel as long distance commuting and rising gas prices have really hit their budgets. Most of them have already made the move to public transport and many are considering moving closer to our office.

2023: Global digital integration brings product cycles and systems closer together, enabling new innovations to be introduced easily across the globe. This applies to households, too, as specific technological monitoring programmes support individuals in reducing food waste to practically zero.

My cousin Michael bought a farm last week. The global rise of food prices is turning people towards agricultural careers.

Through transparent information and increased education, I'm very knowledgeable about what is healthy to eat, how much exercise is needed and what are the symptoms of different diseases. Healthcare is more preventative.



2024: Plans to shift the emphasis of welfare programmes gradually towards supporting young people and education passes at an EU summit. On the basis of good examples from Denmark, it is also agreed that basic education should be reformed to include more training on skills for life, e.g. adopting healthy lifestyles.

2020

2025

The European Green New Deal

2025: A new smart grid solution is announced that connects the UK, Germany and France's energy consumption. The amount of energy used in households drops significantly.

One of the suburbs in Bilbao was rebuilt with the newest state-of-the-art energy efficient materials. A friend of mine just moved there. It is attracting people who previously could not have imagined living in such a location.

2028: China, USA and the EU make massive investments in clean-tech that together with drastic price hikes in scarce natural resources bring the prices of ecologically sustainable goods below the prices of their unsustainable, resource-intensive rivals across all sectors. These three global powers drive sustainable industry.

Transparency gets the prices right

2026: Flying changes dramatically as the major airlines agree on minimum service efficiency standards. Planes can now only fly with over 90% passenger capacity; otherwise they must re-schedule or postpone take-off – unless someone is willing to pay full-price for the vacant seats.

I eat only food that's hyper-efficient in terms of nutrition levels. Cabbages, lentils and berries are key elements in my diet. It just makes sense!



2028: With the help of transparent product data people learn to understand how individual consumer choices in food, housing, mobility build their overall lifestyle.

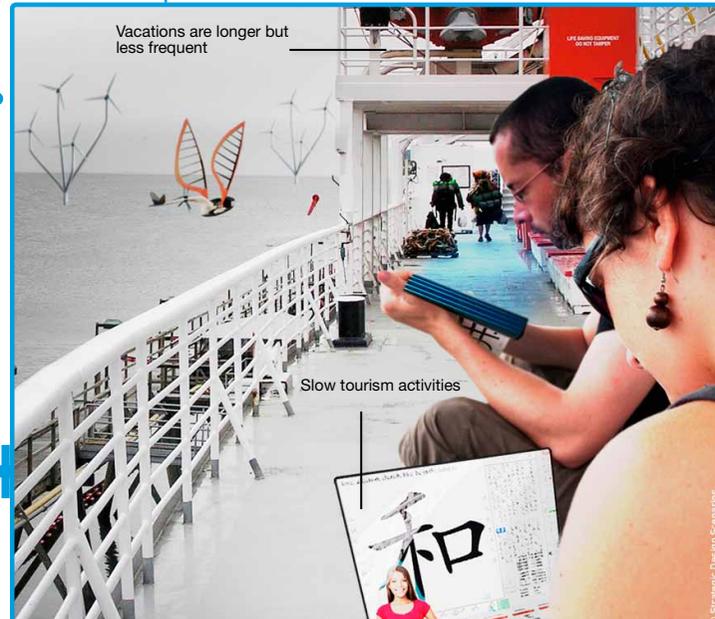
When I flew to Berlin last month, I had to wait 11 hours until the flight was fully occupied. Regardless, it cost me a month's salary, as aviation taxation is steeper than ever.

The upcycling economy

2025: Thanks to major leaps in technology, the first cost-effective large-scale upcycling processes are launched in the European markets. New enterprises start to develop around the provision and distribution of resources. They lease products in order to make sure that they retain ownership of resources used in production. Cradle-to-cradle is the fastest growing business and area of research.

2030: Most of the major economic papers acknowledge that cradle-to-cradle is the most efficient production method regardless of production sector or materials required. It quickly reaches all parts of production systems. As a significant proportion of usable resources is owned by users, they also become part of these networks.

Learning, not earning



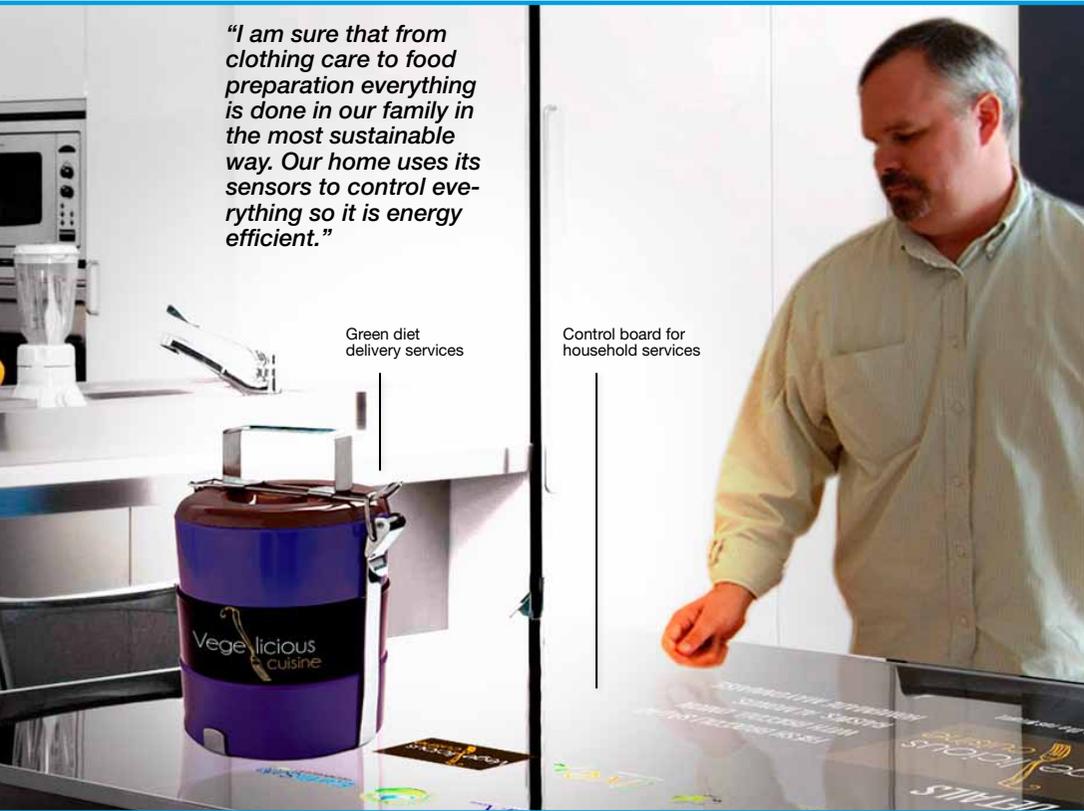
... We have carefully prepared a sustainable trip to China. We are going by boat and are starting to learn the language so that we can communicate with the people who will host us there.

2030: Thanks to informatics apps, educational software and online learning networks, people are empowered to make excellent rational choices and their desire for material goods declines. material goods decline.

2025

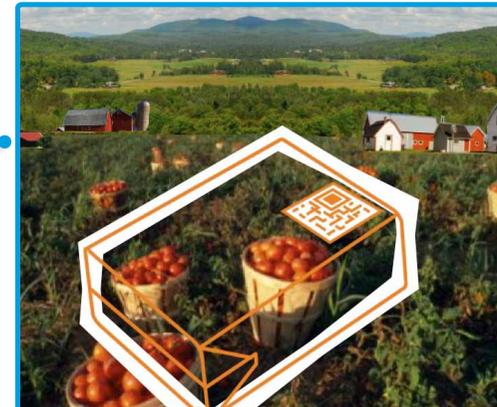
2030

"I am sure that from clothing care to food preparation everything is done in our family in the most sustainable way. Our home uses its sensors to control everything so it is energy efficient."



2035: New concentrations of R&D and production clusters based around large firms, and closely linked to one another, emerge around Europe. One of the best examples of these new clusters is located in Portugal.

We lived in the suburbs when I was a child and drove everywhere. I can't imagine living so far away and having so much space at home now. My parents sold their house seven years ago and now live two blocks from us in a nice one living room apartment.



A new waste mine opened nearby. They collect waste from old landfills and provide job opportunities for the locals.

Intelligent and smart packaging of food for transparency, awareness and less waste.



2034: Austrian children with the most potential to become members of the future champions are identified at an early age and hand-picked for future training, i.e. their skills are improved in learning studios and top schools.

I'm so proud of my daughter. She's so curious about her environment and enjoys the possibilities of the embedded education everywhere. To be honest, I enjoy it personally as well. I learn new things every day!

There's a dental club for those who want to learn and take care of their teeth in my apartment building. I go there every month to learn self-dentistry.

2037: There's a re-allocation of non-productive leisure time into an opportunity to learn, including subconscious learning (e.g. computer games that are linked with the city environment). Schools that hone skills are established, nourishing and nurturing individual skills.

2035

The European Green New Deal

2040: Due to a shift in tax regulation, information transparency and public pressure, most of the businesses have turned into social enterprises, which are beneficial to the environment and society.

Personal rapid transit rails have revolutionised the way we travel here in Ulm. There is a two minute walk to the stop where the pre-routed cart awaits me. I can reach the railway station in six minutes. We just got rid of the family car and our lives are now much easier.

Copenhagen – Barcelona, 4,5 hours! reads an advertisement for high-speed trainline that just opened in May.

Transparency gets the prices right

2039: All around Europe, technological breakthroughs allow information to circulate without barriers. The development of stocks of natural resources can be tracked in real time by everyone. Resource prices increase hand in hand with decreasing stocks, further encouraging the smart use of resources. Thanks to the transparent information, speculation on natural resources in the finance sector decreases.

“My aluminium usage is taxed!” cries out a woman in Denmark as the country prepares for taxation based on natural resource usage. A group of people gets marginalised from society as they fail to adapt to changing consumption patterns.

Personal water accounts make sure that the water I use for showering always stays at around 38 degrees.

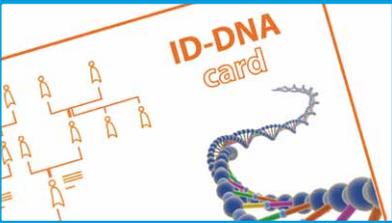
The upcycling economy

2039: Production businesses are competing over rights to exploit waste concentrations, e.g. that of the Pacific Ocean. Large production entities enjoy economies of scale and possess resources extensive enough to lead large waste mining processes.

The No-Waste World Cup contest has been one of the most popular leisure time activities in recent years.

2043: A handful of large firms dominate cradle-to-cradle business. These super-firms drive sustainable development.

Learning, not earning



ID-DNA Cards personalise medicine for individuals. Everybody has a card that contains their genetic map, biological data, as well as information about their diet and habits, in order to provide all information necessary for doctors and other caregivers to provide personalised healing solutions.

2042: According to the Euro Facts Survey, time spent doing physical exercise among young people and young adults is soaring. Thanks to education reform and its new focus on health promotion, there are very few young people smoking and overall, the health differences between different social groups have diminished.

I want to spend my leisure time doing something productive. I go to schools for everyone to hone my skills.

2040



Global energy consumption target fixed by user

I returned my old shoes to the shoe store and got my store credit returned by doing so. I can now get brand new shoes and I know that it's great for the environment as well!

 *My hometown is rather segregated nowadays as Super Champion groups form their own suburbs. They don't have more material wealth than others as they're more aware of sustainability. Instead, they have more political and economic power and better education.*

"...In order to live ecologically and economically, I have chosen the 'energy budget card' of master Shashang Shrinivadu. I will follow his training so that my ecological footprint becomes as light as his, and I will save money while doing so."

2047: Access to waste becomes one of the key determinants of success for companies. The most valuable resources extracted from waste, e.g. rare earth metals, are among the items that circulate globally.

2049: A global research and knowledge bank creates standards for all national and local level political decision-making. It guarantees a scientific basis for all government action, and can be used to veto any decision that is economically, ecologically or socially irresponsible.

2050: Over 2/3 of the population in European countries spend at least 10 hours a week of their free time in learning institutions in order to network with their field's sustainability elite.

2045

2050

Gatekeepers for lifestyle changes



Manufacturing and retail companies

...provide transparent lifecycle data on their products.



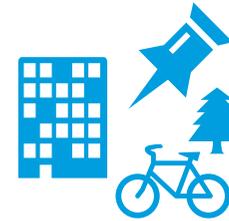
New digital service providers

...help consumers to translate open lifecycle and footprint data into smart consumer choices.



Super Champion lead user group

...change the status system behind consumer culture and spread best practices on sustainable lifestyles.



Urban planners

...create urban environments that attract people and enable dense, sustainable living.

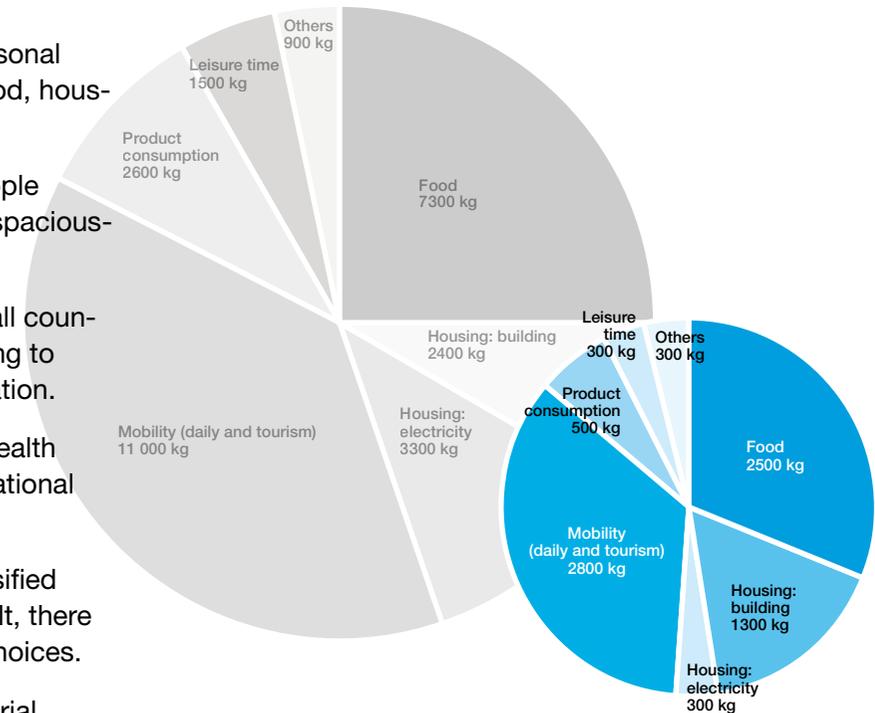


Dietary experts

...provide detailed information on nutrition, resource and cost-effective diets.

Six-pack of most influential lifestyle triggers

1. Transparent product data allows people to understand the environmental cost of their personal consumer choices and their overall lifestyle. Comparing the sustainability of choices of food, housing, mobility and consumer goods in 2050 is as easy as comparing prices was in 2012.
2. Road pricing and the overall rise of transportation costs change housing preferences. People prefer short commuting distances, well-serviced neighbourhoods and a better access to spaciousness.
3. Improved design of public spaces and flats draws people to densely populated areas. In all countries, areas around city centres turn into the most desirable places to live. People are willing to trade off a spacious dwelling for the status and comfort provided by a flat in a central location.
4. New dietary alternatives emerge from a combination of rising food prices and increased health consciousness. Media, primary education and catering companies help environmentally rational diets become a mainstream lifestyle option.
5. Apps for personal informatics, educational software, online learning networks and a diversified educational services sector become attractive and influence people's spending. As a result, there is less desire for material goods, as more people have excellent skills in making rational choices.
6. New upcycling approaches to consumer goods have changed product lifecycles. All material goods are sold with an additional deposit on their material resources, which encourages people to return used materials to the retailer.



The average material footprint of a European in 2050 in the Singular Super Champions scenario (8000 kg per person in a year) compared to the average material footprint in 2007 (29000 kg).