

SITRA

Unsustainable Gets Costly

Ten Theses for a Sustainable Economy



Unsustainable Gets Costly

Ten Theses for a Sustainable Economy

© The Finnish Innovation Fund Sitra and the authors 2013
Cover photo: Kalle Nieminen, Sitra

ISBN 978-951-563-858-8 (print)

ISBN 978-951-563-857-1 (PDF)

ISBN 978-951-563-859-5 (PDF, English edition)

www.sitra.fi/en

Erweko, Helsinki 2013

For enquiries concerning this publication,
please contact: julkaisut@sitra.fi

Table of contents

| | |
|--|----|
| Foreword | 5 |
| Ten Theses for a Sustainable Economy | |
| 1 The Costs of Business as Usual | 6 |
| 2 Economy in the Service of Well-being | 8 |
| 3 Welfare Society Goes Soul-searching | 10 |
| 4 Good Jobs, Better Mood | 12 |
| 5 Bringing Financial Systems Closer to People | 14 |
| 6 Giving the Natural Economy the Value It Deserves | 16 |
| 7 Individuals and Joint Decisions – All Are Needed | 18 |
| 8 Alternatives for Dependency on Growth | 22 |
| 9 Openness Leads to Best Results | 24 |
| 10 Major Changes Are Possible | 26 |
| The participants and facilitators of the Finnish Innovation Fund Sitra's Sustainable Economy Forum | 28 |

The bad news is that we live on a human-dominated planet, putting unprecedented pressure on Earth's ecosystem.

Perhaps surprisingly to you, it is also part of the good news. We are the first generation – thanks to science – to be informed that we may be undermining the stability and the ability of planet Earth to support human development as we know it.

It's also good news, because business as usual is not an option. The planetary risks we are facing are way too large for that. We are in a phase where transformative change is necessary.



*Professor Johan Rockström,
Author of Planetary Boundaries*

Foreword

Failure to react to such topical issues as climate change, economic crisis and inequality costs money. Furthermore, holding on to unsustainable practices in relation to these will become costly. The existing economic institutions and operating models alone are unable to meet these challenges. We need innovative thinking, new dialogue and new ways of addressing problems.

You are now reading a summary of messages gathered at the Finnish Innovation Fund Sitra's Sustainable Economy Forum. This forum brought together people with quite differing views of economic issues to construct a view of an economically, socially and ecologically sustainable economy. The Forum generated ten theses for a sustainable economy.

The purpose of these theses was not to create an overall picture of everything included in a sustainable economy, but to highlight themes on which increasingly open and critical debate in society is needed. The theses are not designed to satisfy the audiences relying on the prevailing way of thinking or seeking consensus, but to provoke new ideas and passion for and against them in the reader, and to encourage people to engage in a more open and bold yet constructive dialogue on the economy.

The first two theses (1–2) give an answer to the question 'why'. They provide the foundations for sustainable economic thinking in which the economy is considered a facilitator of sustainable well-being, not a goal with an absolute value of its own.

The next four theses (3–6) address the question 'what'. They focus on the four important areas of a sustainable economy where novel thinking is required: well-being, work, financing and nature.

One of the key messages from the forum is presented in Thesis 7. The answer to the question 'who' is clear. The transition to a sustainable economy is systemic and requires action at all levels of the economy, from individuals to communities, enterprises and the public sector.

The last three theses (8–10) answer the question 'how'. Among other things, they call for open and critical economic dialogue on difficult issues and build up belief in the fact that even the biggest changes outlined in the other theses are possible.

A range of proposals for solutions is presented in connection with each thesis, some of which came from the Forum participants and others from the open Call for Ideas on Sustainable Economy, organised by Sitra in winter 2012–13. By organising this competition for ideas, open to everyone, Sitra sought the best new solutions and ongoing projects in Finland that put sustainable economic thinking to practice at the level of policy or concrete action. More than 90 projects or new ideas were entered into the competition.

The topics of the theses were jointly identified by the Forum. They consolidate the versatile thinking of the Forum and do not include any specific details representing the views of individual Forum participants or Sitra.

The theses were formulated into the form they are presented here by Miia Savaspuro and Julia Jousilahti on the basis of material gathered at the Forum. An editorial board consisting of Forum participants – Mikko Forss, Maria Joutsenvirta, Piritta Poikonen, Maria Ritola and Kirsi Sormunen – contributed to putting these theses into words by providing valuable comments.

Whilst it was active, the Forum also gave rise to several blogs, articles and virtual debate, available for viewing on the Sustainable Economy Forum's website at www.sitra.fi/en/economy/sustainable-economy-training.



Eeva Hellström
Sitra Fellow

1. *The Costs of* Business as Usual

Looking back, I underestimated the risks. The atmosphere seems to be absorbing less carbon than we expected and emissions are rising pretty strongly. Some of the effects are coming through more quickly than we thought then.



Sir Nicholas Stern, at the World Economic Forum in Davos in January 2013.

Seven years before Davos, in October 2006, Stern released an almost 700-page report, commissioned by the UK Government, which became one of the most famous works tackling the economic impacts of climate change.

The report's key message was this: climate change is the greatest and widest-ranging market failure ever seen in human history. Its effects will permanently reduce global gross domestic product by as much as 20 per cent if no investments are made to stop it.

In seven years, many things have changed. The general awareness of climate issues has increased; many enterprises have adopted green business practices; and states have imposed emission ceilings, enacted climate laws, and replaced fossil fuels with renewables.

In spite of this, the results have remained dangerously modest with a view to global challenges: the rate of global warming is accelerating, the depletion of natural resources is continuing, poverty keeps on spreading, the gap between the well-off and the underprivileged is widening, and the capitalist economic system is in crisis.

The restoration of damaged ecological systems is expensive and difficult, if not downright impossible. Ecological problems have global impacts, but only very few nations have the necessary means to adapt to them. In many countries, the human price of escalating environmental problems is too great.

What can Finland do?

So far, the impacts of environmental problems on Finland have been almost negligible. We have more food and clean water than we need, and extreme weather phenomena do not destroy entire cities. Waste management systems are operational, we can walk outdoors without wearing a mask, and we have a stable supply of electricity. People can live their lives and keep society's wheels turning with ease, in peace and without a daily struggle for survival.

Therefore, many Finnish politicians, business leaders, municipal decision-makers and ordinary citizens do not see any discrepancy between prosperity and sufficiency of natural resources.

GDP
-20%

We wear Finland-coloured glasses and we want to keep on believing that everything is fine.

However, we have problems of our own: the euro crisis is rampant; public debt is increasing; the dependency ratio is weakening; and inequality and social problems are increasing. They must all be stopped in time before the price we will need to pay becomes too high.

In today's world, everyone is strongly dependent on others. The Western lifestyle and consumer habits have an impact all around the world. The same applies the other way round – the way people in other parts of the world consume, carry out politics, enact laws or treat their environment is seen and felt in Finland.

Finland cannot solve global problems on its own. The world would not be saved, even if we turned Finland into an economic and ecological paradise in one go.

Still, we have a moral obligation to take action. Continuing business as usual is not an option. We have stable conditions, plenty of natural resources, a wide range of competencies and few people. We can afford it.

We can turn Finland into a society that observes the principles of sustainable development in all areas of social life. It is a society where the economy facilitates sustainable well-being. It means the promotion of green business, the enhancement of resource efficiency, the radical reduction of emissions, securing work, investing in the well-being of citizens, the reorganisation of welfare services, and changes in the way we eat, live and consume.

First and foremost, it means a change in our way of thinking. If we wish to honour the right of future generations to live a good life, we must let go of the structures and ways of thinking of the industrial age. We must forget our own intellectual silos and cliques and begin working in collaboration with others.

We must understand that the challenges are so complicated that solving them requires extensive systemic changes. It also requires extensive, international cooperation. Like people everywhere in the world, we also need to learn to bear planetary responsibility for our lifestyle choices.

The decrease in natural resources will lead to intense global competition over these resources. The winner will be the party with the cleanest environment and the most efficient strategy for making the most of meagre resources. The challenges of sustainable development should be considered as new business opportunities. To be successful, business activity should be responsible and focused on solving problems. This is how we can secure Finland's success in global competition and promote the achievement of sustainable development on an international scale.

Al Gore taught us that the truth is unpleasant

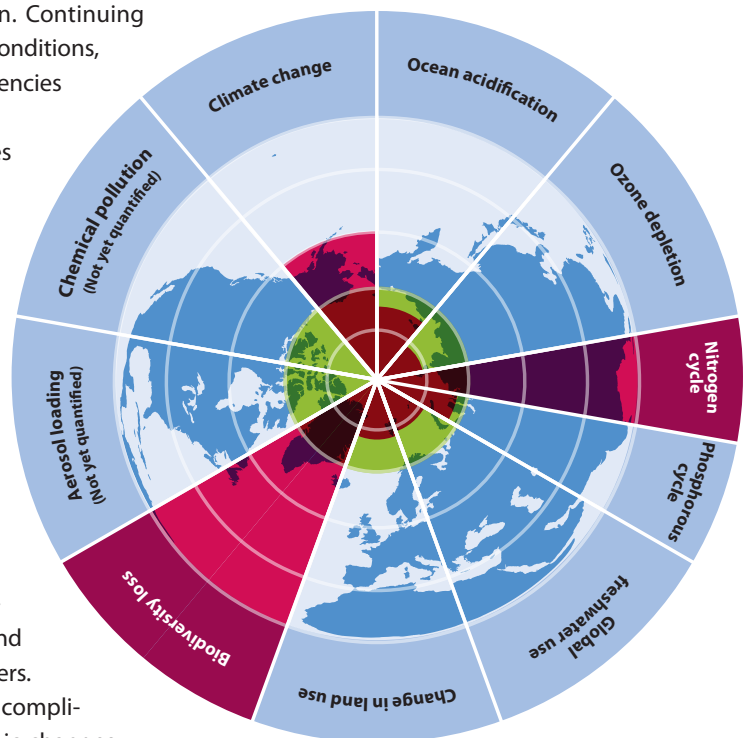
Building a sustainable society is therefore about a shift in paradigm, i.e. a change in the way of thinking steering our actions.

It requires perseverance and patience. It causes the pain of letting go. It forces us to tolerate uncertainty and failure. The shift can only be achieved by taking risks and being courageous. It progresses one small step at a time towards a radical change.

The longer we wait, the higher the price we have to pay. The faster we accept the necessity of change, the more thriving a society we can create here in Finland.

Planetary Boundaries

Sources: Rockström & al.



The green zone describes the safe operating area for humans. If humans by their own actions exceed the planetary boundaries surrounding the zone, the risk of unforseeable and irreversible environmental changes increases. Based on the data from several indicators, the boundaries of the safe zone have already been crossed.

2. *Economy in the Service of Well-being*

The Brundtland Commission, 1987

Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.

The economy is a human-created system with crucial importance for the functioning of society. Its role is to facilitate the desired societal development. The economy consists of the markets, institutions, enterprises, communities and citizens. It is largely based on the interaction between these various actors.

Now, as the economic crisis is running rampant for its fifth year, societal debate over the economy is focused on the future of the eurozone and the indebtedness of the public finances. Control of the public debt, employment, price stability, value of money, productivity, profitability, competitiveness and economic growth hold the key positions in the debate while economists and politicians seek their way out of the euro crisis.

In crisis situations, it often happens that seeking an acute solution to problems obscures the vision of what is best for the patient in the long run. In societal decision-making, the weight of the economy is overwhelming. When making decisions, it is easy to forget that sustainable well-being consists of two other factors as well: social and ecological well-being.

In spite of the economic crisis, the tripartite nature of well-being should be the starting point for economic policy-making. To make this possible, the concepts of economic sustainability and a sustainable economy must be separated from each other. In everyday language, these are often considered synonymous, even though they are quite different matters.

In addition to economic sustainability, a sustainable economy also takes social and ecological sustainability into account. It is an economy that produces human well-being within the limits of the earth's ecological capacity.

In a sustainable economy, the earth's capacity is the basis for everything. A sustainable economy can only be implemented within the boundaries set by nature. Once these boundaries have been acknowledged and approved, we can start creating a society where the ultimate purpose is to provide equitable well-being.

GDP is a good servant, but a poor master

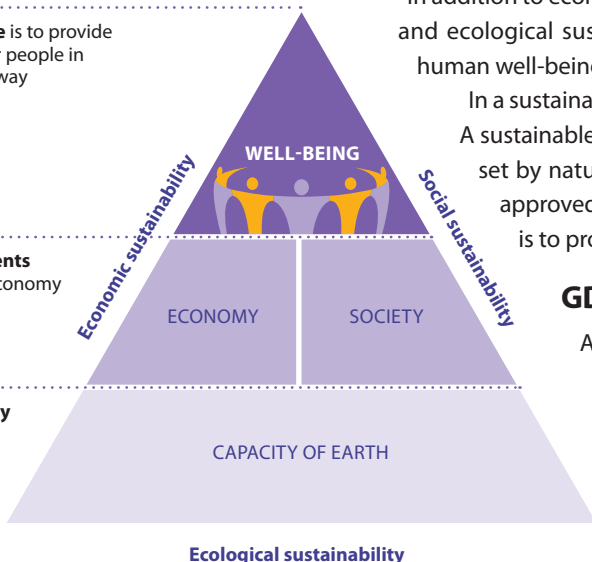
As measured by several indicators, Finns are now richer than ever. For example, gross domestic product (GDP) has been growing steadily since the 1970s, with the exception of the drops during the recession of the 1990s and the financial crisis of 2008. In 1975, GDP per capita was less than 5,000 euros, while today it is more than 35,000 euros.

Putting the Economy in the Service of Well-being

The objective is to provide well-being for people in an equitable way

The instruments include the economy and society

The boundary conditions are set by the capacity of the Earth



Are we really as healthy as the GDP seems to indicate?

This is an issue giving rise to heated debates, but according to several studies, in highly developed countries like Finland the rise in GDP has not significantly enhanced personal happiness for over two decades.

The use of gross domestic product as a measure was an invention of Keynesian economics in the 1930s. At that time, as high economic growth as possible was considered the most important goal for societies. Strong growth of mass production was regarded as the most effective way of enhancing citizens' standard of living.

GDP was never intended to be an indicator of well-being. In 1934, **Simon Kuznets**, the Nobel Prize winner in economics, proposed using GDP as an aid for lifting the United States out of the Great Depression, but he was also quite clear about its limitations: it is not possible to draw conclusions of a nation's well-being by its income.

More than 80 years later, gross domestic product is still the most important indicator applied to national accounts, despite the fact that it does not reveal how happy or unhappy we are. It does not assess which economic activity is good and which is bad, nor does it reveal how much our economic growth swallows natural resources.

At the moment, the functionality or non-functionality of GDP is a topic of heated international debate. Many experts are of the opinion that gross domestic product is a badly outdated indicator for describing post-industrial society. Better alternatives are being sought by, for example, the EU, the OECD and the UN.

One of the key questions relating to the sustainable economy is how to produce well-being once it is removed from the logic of the material well-being of the industrial age.

The new indicators of well-being – such as the Index on Sustainable Economic Welfare (ISEW); the Genuine Progress Indicator (GPI); the Inclusive Wealth Index (IWI), where national wealth equals a nation's natural assets and its material and human capital; and the Sustainable Society Index (SSI) – offer one solution. Most of them give a gloomier picture of our well-being than gross domestic product does.

None of the new indicators has been proven to be better than others. There are major problems in their accuracy and applicability in practice. Several measures place an emphasis on a certain domain for which there are no sufficiently objective grounds. Sometimes the results are highly unbelievable: for example, measured by GPI, well-being in Finland took a downward turn after 1989 and dropped to the level of the 1970s.

The solution may be a combination of several measures. Instead of accuracy of indicators, an increasing number of experts consider it more important that decision-makers learn to use them as a basis for devising policies founded on a more comprehensive concept of well-being than the one currently applied.

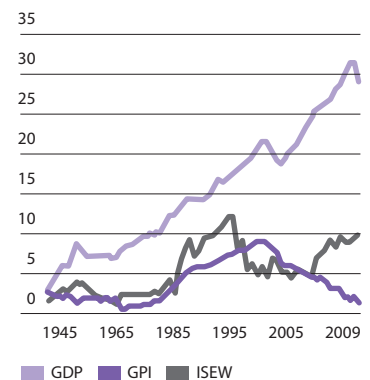
A good indicator can also be a good "game changer": it helps us to come up with more comprehensive interdisciplinary solutions with a view to sustainability and to be able to see the interplay between economic, social and ecological dimensions.

The provision of well-being should be the ultimate purpose of an economy. Gross domestic product – or any other indicator for that matter – should be no more than an interim product, a part of a process whose final outcome is well-being.

Development of Finland's GDP, GPI and ISEW

Source: Hoffrén 2011

GDP per capita, thousand euros in the price level of 2000



Examples of alternative indices:

- Genuine Progress Indicator, GPI
- Index on Sustainable Economic Welfare, ISEW
- Inclusive Wealth Index, IWI
- Sustainable Society Index, SSI
- Green Gross Domestic Product
- The New Welfare Index, NWI (A new German welfare index)
- Genuine Savings, GS
- Human Development Index, HDI
- Environmental Performance Index, EPI (formerly Environmental Sustainability Index, ESI)
- Ecological Footprint, EF
- Happy Life Years, HLY
- Happy Planet Index, HPI
- National Accounts of Well-being, NAW
- Gross National Happiness, GNH
- Canadian Index of Wellbeing, CWI

3. *Welfare Society* Goes Soul-searching

Happiness cannot be bought, sold or stolen.
Happiness does not come easily, and it does not
stay forever. Sometimes it is found the hard way;
and at the moment you least expect it.

Unknown

Status of public finances in spring 2013

Source: Ministry of Finance

The euro crisis and the structural change testing Finnish industry weaken the conditions for economic growth in Finland, which is also reflected in the financial status of public finances.

The Ministry of Finance forecasts that central government finances will remain 3.5 per cent in deficit in relation to gross domestic product. On the other hand, the surplus in the employment pension funds improves the financial status for its part. However, over the next few years, Finland will still need to resort to borrowing to be able finance public sector expenditure.

The public finances sector has not made sufficient preparations for the change in the age structure of population. According to the Ministry of Finance estimates, the financial status of public finances should be more than four per cent stronger in relation to overall production than it currently is, in order to avoid drifting into a situation in which public debt increases in an uncontrollable manner in the long term due to demographic change.

Securing services provided by the public sector therefore requires measures that will strengthen the financial status of public finances and boost economic growth.

The Finnish welfare state has been an unparalleled success story. It was developed during a fleeting moment somewhere between 1970 and 2005, when Finland had a large working-age population and not too many children and older people.

The financial basis of the welfare state as we know it is crumbling. According to forecasts, the ageing of the population and the slow – or even non-existent – growth in the employment rate will result in a situation in which social expenditure rises too high to fit into the public sector budget. The systems that were created in an economic situation when Finland was a technological wonderland with a sufficient working-age population no longer rest on a solid foundation.

Finland is ageing at a world-record rate; the industrial sector is struggling with major structural change; exports are stagnant and public debt is swelling; socially excluded young people are a phenomenon already being referred to as a lost generation; food queues are getting longer; the vicious circle of underprivileged status being inherited from generation to generation cannot be stopped; and the quality of elderly care is deteriorating rapidly.

By international comparisons, income inequalities in Finland are still small, but over the past 15 years their development has begun to diverge more strongly. Despite having the same nationality, the reality of a rich person living in Finland is totally different from that of a poor person. Finns no longer feel that they are in the same boat or experience equal opportunities in society.

Therefore, inequality is probably one of the key factors gnawing away at the foundations of the future.

At the same time, due to the welfare traps built into our system, living on social security is more beneficial to many than entering working life. They hold on to the benefits they have achieved and fight for new ones without understanding that, at the same time, the economic growth serving as a basis of our welfare is crumbling. The pressure to reform the financial base of the welfare state is high.

The problem of myopia

At the moment, Finland has 129 people who do not work for every one hundred who do. If we want to pay pensions in the future, or even the interest on national debt, and take care of the elderly and children, many things need to be re-evaluated.

The problem is the human tendency towards myopia and selfishness. We live in today, not tomorrow. For us, the future is like a sticky presentiment of something that does not really interest us that much.

“Young people do not worry about their future pensions. Future generations are absent when decisions are made, even though the impacts of such decisions will be felt in various ways during their lifetimes. Politicians seek quick victories, with the next general election in mind. Lobbying practised by interest groups emphasises the present at the expense of the future,” says Senior Adviser **Sixten Korkman** from Sitra.

That is why we do exactly the opposite of what we should be doing: we postpone the solutions to future generations. We do not properly understand or recognise the fact that our children and grandchildren will pay for the pensions, health and care expenses, government debt, and the costs caused by climate change. And the bill is going to be huge.

In our democracy, the power of the well-off majority becomes emphasised. The reforms, however, should be made primarily from the perspective of people in the weakest position. For example, in the pension system, special attention should be paid to pensioners with low incomes and, in the health care, to primary health care. Another essential step should be to reform basic security in such a manner that it encourages people to work. Any thresholds to accepting work should be eliminated altogether.

Good news: change is necessary

There are two approaches to change: apprehensive and trustful. Change can be seen as a threat or an opportunity. Since change is necessary in any case, it is better to regard it as an opportunity.

That is why the welfare state needs to be redefined. We must consider what the most important tasks of a state are. What kind of services and technologies are required to implement them? What kind of new forms of cooperation and networks are needed to provide well-being? What kind of policy should be practised to enhance the possibility of future generations to live a good life?

However, to be able to answer the questions above, we need a new understanding of what is actually meant by well-being. For most of us, it means sufficient income, health, close relationships, sense of security and an opportunity for self-fulfilment – a balanced life that reflects our inner self.

In a new welfare society, well-being must also be considered rather as an investment and a business opportunity than an expense item.

Prevention or elimination of ill-being is not sufficient in itself, but new tools are also needed for provision of well-being.

The measures at the core of the reform are demolishing of the rigid institutional structures of the welfare state and the clarification of responsibilities.

However, the most important step is the division of responsibility to other actors than the state alone. Well-being should be regarded as a joint investment of society, not as an expenditure item for the state. Various societal actors should transform more strongly from recipients of services and benefits to producers of such as well.

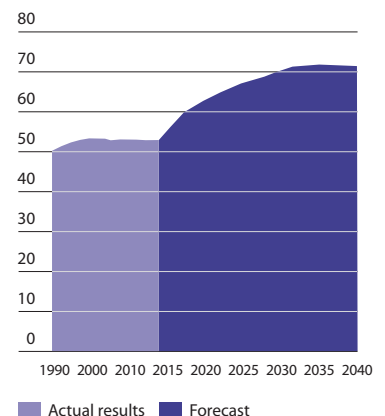
With its various problems, the Big Society model implemented in the UK is controversial, but it also has a lot of positive aspects. It is based on the idea that the cornerstone of a welfare society is not the public sector, but community spirit. The project strives to reform public services by transferring decision-making power and resources from central to local government, communities, companies, public sector employees and citizens – in other words, the users and producers of public services.

In the new welfare society, the funding of services should also be developed in such a manner that citizens should have enhanced opportunities to supplement public services using their own money, if they so wish. The service voucher system, a law on which was enacted in Finland in August 2009, serves as a good example of this.

Demographic dependency ratio

Source: Statistics Finland. Employment statistics.

Children and elderly people/
100 people in working age



In 2020, the national dependency ratio is estimated to be 62.8 and in 2030 slightly over 70. The share of the working-age population will decrease from the current ca. 65 per cent to below 60 per cent.

Proposal for solution

Care fund and self-funding of well-being

Sustainable Economy Forum

The idea of the care fund is to establish a fund with the help of which preparations will be made for future care expenses. The fund could practise normal, long-term investment activity, securing the development of the value of the fund. Part of tax income would be invested in the fund, and a significant part of the health and care expenses that in the future would have to be paid by future generations would be paid from the returns of the fund.

The fund would be administered jointly by Parliament and municipalities. Proposals for a care fund in various forms have been made by the Research Institute of the Finnish Economy (ETLA) and Kela, the Social Insurance Institution of Finland, for example. Citizens should also have better opportunities than they currently do to supplement public services using their own money. In addition to the use of income and savings, own funding could be implemented, for example, by the realisation of property, reverse mortgage, or pension or care insurance.

4. *Good Jobs,* Better Mood

Meaningful work is one of the most important prerequisites for well-being. Promotion of employment is in the best interests of both the individual and the nation. Work is the best coaching for working life. It is an efficient way of preventing social exclusion and loneliness, and enhancing personal self-esteem.

Unemployment, on the other hand, is the most flagrant example of wasted resources.

The level of real wages and consequently, the lowest wages have risen rapidly in recent decades. This has boosted economic growth while unproductive work and entire sectors have disappeared. Some of the workforce has moved on to more productive and demanding tasks. Tough international competition has transferred large numbers of industrial jobs overseas, closer to the markets where labour costs are only a fraction of the Finnish level.

Partly because of this, and partly because of other social or health reasons, a certain share of the labour force has dropped outside working life. In the eyes of employers, they are not productive enough for their work contribution to compensate to the employer the expenses resulting from hiring them.

In Europe, youth unemployment is an epidemic, and even in Finland the unemployment rate of 15 to 24-year-olds is over 20 per cent. Even if people have work, low wages are not always sufficient to cover high housing and food costs.

In Finland, many unemployed people live on social security, because that provides them with a better living. They are caught in the welfare trap and for many, living on social benefits has become a way of life. Why struggle to find a job when it does not essentially change the income level?

However, there are many young people, difficult-to-employ immigrants, part-time pensioners, people with disabilities, or people recovering from a mental illness that would like to work. Even if they were unable to earn their living in full by working, they would still like to earn it at least partially.

In other words, we need solutions that open-mindedly challenge the current practices and dismantle the structures that promote unemployment instead of employment.

MP **Osmo Soininvaara** and **Juhana Vartiainen**, Director General of the Government Institute for Economic Research, suggested in their report "More Jobs for the Low-skilled", released in February 2013, that young people be paid 20 per cent lower wages than the collective agreements suggest. The loss of income would be compensated either by taxation or by a direct subsidy for low-paid jobs.

In the labour market, the proposal was met with a lukewarm reception. However, it is only realistic to remember that some of us will always have lower education than others. Giving everyone an opportunity to enter working life is more important than providing education. The economic and mental multiplier impacts of this are so extensive that Finland cannot afford to lose them. On the other hand, we will lose the mental well-being and taxes of an entire generation if we do not encourage them to work.

Every tenth person without a job

Source: Kauppalehti 29 April 2013

According to the Ministry of Employment and the Economy, in March 2013 there were 37,000 unemployed jobseekers aged under 25 in Finland, which is 7,500 more than the year before. Unemployment has increased by 25 per cent from the situation a year ago.

According to Statistics Finland, in March the unemployment rate of young people was 24.8 per cent, while the number of unemployed young people was 76,000. Statistics Finland also calculates students with short unemployment periods as unemployed.

The unemployment rate is calculated from the labour force, i.e. the employed and the unemployed. About one-half of all young people belong to the workforce, which means that one in every ten was unemployed.

The unemployment rate of the entire population in Finland was 9.0 per cent in March.

Flexible work: no traffic congestion, no worries

The traditional idea of the division of work in society goes roughly like this: an individual goes to work for which he pays taxes, which are divided into various societal sectors through income distribution, and this constitutes well-being. The old societal model rested firmly on regular paid work and long employment relationships.

New thinking regards work as an investment, because it produces well-being, which, on the other hand, generates cost savings.

An increasing number of people have many careers during their working life, employ themselves, hold temporary jobs, and seek meaning and a channel for self-fulfilment from their work. Work is tied less and less frequently to one place and time.

In the future, neither of these models will function on its own; both are needed. Since the bill caused by the weakening dependency ratio is getting very high, we need longer working careers to generate more income to distribute. To enable people to cope longer in working life, work must provide them well-being.

According to studies, the way Finns spend their time is changing. It will lead to a redistribution of time used for traditional work and other sectors of life. Work and spare time are becoming intermingled, but on the other hand, the appreciation of spare time is rising.

The concept of spare time has also changed. It is no longer reserved just for resting and recovering from work. Outside their paid work, many people are involved in voluntary work, for example, that provides them with mental rewards instead of money.

In the future, people will have an increasing amount of overlapping roles. In other words, there is no reason to be afraid of work becoming detached from its dependence on time and place – that will happen in any case. When a change is inevitable, one should strive to be among the first to adopt it.

Accordingly, we should make the Finnish labour market substantially more flexible than it is today. In addition to making the employment of those difficult to employ possible, it would also give information workers, parents with small children and pensioners who are willing to work, for example, an opportunity to work at a pace suitable for them. It should be possible to work part-time without a fear of weakening one's livelihood.

Finnish employees and employers need a new contract of the rules of game applied to working life. Flexibility and the diversity of life situations and duties should be cherished instead of forcing everything into the same mould. The accelerating rate of change in the world requires that both employees and companies are capable of reacting to changing situations.

For companies, flexibility means enhanced employer image, success in competition, savings in costs, and an increase in productivity thanks to employees feeling well.

For civic and voluntary organisations, it means additional resources, as people with shorter working weeks have more time for voluntary activities as well.

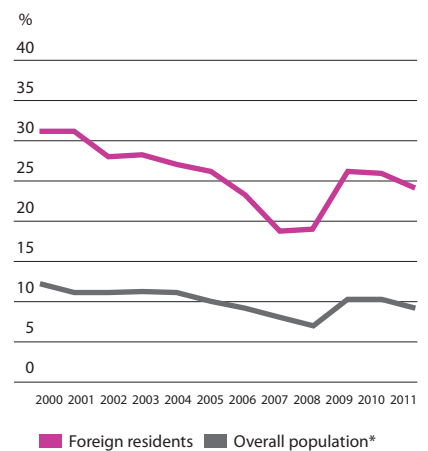
For individuals it means less hurrying, avoiding traffic congestion, and better management of practical issues related to family life; in other words, an enhanced feeling of being in control of one's life.

An unhurried life has also been discovered to lead to lifestyles that place less burden on the environment. Therefore, the rational and flexible organisation of work is also an efficient way of implementing the new "tripartite approach" to well-being, a balance between economic, social and ecological sustainability.

Work is an investment in the future.

Employment rates of foreign residents and the overall population

Source: Annual Report on Immigration 2011



The share of foreign jobseekers of all jobseekers was eight per cent in 2011.

* In the employment rate for the overall population, the information from both the Employment Service Statistics and Labour Force Survey have been taken into account.

Proposal for solution

KnowledgeHub

Maria Leivo

The idea behind KnowledgeHub is making comprehensive use of Finnish competencies with the help of new technologies.

KnowledgeHub efficiently uses the personnel resources outside the labour market. It offers, for instance, stay-at-home mothers and pensioners an opportunity to participate in working life and earn an extra income with a contribution suiting them, without major obligations. This operating model also facilitates the use of other resources, but provides a specific solution to how to use these harder-to-tap resources.

The operation of KnowledgeHub is enabled by a networking and work-sharing tool, by which different networks can be brought together for the purposes of various work entities, projects and business activities. The operating model affords freedom and self-determination comparable to entrepreneurship by offering only the amount of work that suits the person in question.

5. Bringing Financial Systems *Closer to People*

You can fool all the people some of the time, and some of the people all the time, but you cannot fool all of the people all the time.

Abraham Lincoln

Proposal for solution

Sustainable investments and the scaling thereof

Sustainable Economy Forum

The purpose of sustainable investments or impact investing is to finance the kind of enterprises, organisations or projects that produce significant and measurable social or ecological benefits, at the same time as being financially profitable. The precondition for these investments is their scalability. According to a recent survey by JP Morgan, companies that belong to the Global Impact Investing Network (GIIN) intend to invest nine billion dollars on sustainable targets this year.

*Kenneth Rogoff,
Professor of Economics
at Harvard University,
who has done research
on financial sector
legislation*

The euro crisis is a concrete example of what an unsustainable economy and economic policy will lead to. Over-indebtedness caused by low interest rates; erosion of competitiveness; an overheated housing market and structural problems of countries like Greece and Spain caused a chain reaction. Stopping it has turned out to be even more difficult than even the most visionary economic minds could have predicted.

A partial reason for the economic crises of the 2000s is the detachment of the financial market from the real economy. Various financial instruments have become so complicated that their risks are difficult to manage, and their functioning is not properly understood. This, combined with increasingly complicated economic structures, has made the monetary and financial systems vulnerable and exposed to disturbances. The complex financial networks and dependencies easily lead to a situation in which the problems of a single country – or even a single sector – soon become problems for the global economy as a whole.

In complicated networks and financial instruments, it has become almost impossible to predict major changes under development and manage risks. Forecasters are particularly wrong in predicting major shocks, in other words, in those situations in particular where correct insight would be most valuable.

In 1933, the famous Glass-Steagall Act was enacted in the US, separating the operations of business and investment banks from each other. The Act is 37 pages long. In 2010 the Dodd-Frank Act was enacted, which increases financial sector regulation. This Act comprises 30,000 pages.

It is an arms race that underfunded government agencies have no chance to win.

The example above shows that the current economic system is locked into industrial-age logics and the institutions and operating methods generated by it. Governments relying on neoliberalism and orthodox economic policy have been powerless against corruption, speculation and self-interest.

The complexity of an economy created by globalisation is a necessary by-product of economic development. The economy is in a state of constant turmoil, unpredictable and unbalanced. Accordingly, it is high time to accept the fact that the traditional methods of economics are better suited for analysing a stable and balanced world. Business as usual is no longer a functional approach.

Democracy is the worst form of government, except all the others that have been tried.



Winston Churchill

Change begins with the acknowledgement of facts

Has the free market economy reached the end of its road? Are there alternatives to it? Or is this question even relevant?

Winston Churchill once said, “Democracy is the worst form of government, except all the others that have been tried.”

The same applies to the market economy. The problem is that we do not know what alternatives we have.

In spite of that, the answer to the question above is yes. It is clear that the economic and monetary systems as we know them today are too fragile to maintain societal stability and economic well-being. We need alternatives. We need a new economic paradigm.

The former Professor of Oxford University and University of New York **Nassim Nicholas Taleb**, praised as one of the most significant economic scholars of the 21st century, is of the opinion that the most important feature of successful economies is endurance – or “antifragility” to be exact. When facing shocks, instead of shaking or falling apart, societal structures should be able to endure them and should even be made stronger by them.

According to Taleb, the opposite of an “antifragile” system is a system designed from top down, such as a banking system. These systems do not regard crises as opportunities, as they should, but as threats.

Financial market = Gordian knot

The Gordian knot is an apt metaphor for our approach to disturbances in the financial market.

There was a complex knot in the temple of Zeus, in Phrygian Gordium. He who was able to undo the knot would be the future king of Asia. Many people tried to untie the knot using their fingers without success.

In came Alexander the Great, who solved the mystery of the knot by cutting through it with his sword. Did he cheat? Or did he think that the dilemma could not be solved with the same understanding with which it was created?

When the ailment is serious, old remedies rarely work. The solutions needed may at first seem totally absurd. This is also what Alexander the Great did: he changed the rules of the game, while staying loyal to the original challenge.

For practical economic policy, the increasing complexity of the world means that it should open-mindedly try different alternatives, make tests, and choose the best solution on a case-by-case basis. The new-age economic policy requires humility before big and partly uncontrollable problems, because it is simply impossible to calculate all impacts in advance.

Proposal for solution

Making crowd funding easier

Sustainable Economy Forum

Crowd funding and crowd sourcing are functional, light, democratic and communal alternatives to sustainable economy funding and implementation. Crowd funding releases resources from public administration and, on the other hand, facilitates the implementation of such small-scale sustainable development projects for which public authorities would not grant funding.

Ethical bank

Winner of Sitra's idea competition

The basic principle of an ethical bank is the same as that of an ordinary bank, but its credit granting criteria include, in addition to risk assessment, the ecological, social and cultural impacts. For example, an ethical bank does not grant credit for projects that, according to its criteria, destroy the environment or otherwise function in an unethical manner.

The operations of an ethical bank are fully transparent. All the targets financed by it are displayed on the company's website. One can become a shareholder of an ethical bank by making an investment of a certain size in the bank. The investment is paid back after an agreed period with the agreed interest. With these investments, the bank finances projects promoting sustainable economy and, thanks to transparency, every customer of the bank knows where the money goes.

In Europe, ethical banking activities are already quite common. For example, the German GLS Bank operates nationwide and its balance sheet stands at EUR 2.5 billion. The Dutch Tridos, the Danish Merkur, the British CharityBank and the Italian BancaEtica are also ethical banks.

www.pankki2.fi

6. Giving the Natural Economy *the Value It Deserves*

*Hugo Chávez,
the late President
of Venezuela*

If the climate was a bank,
the US would already
have saved it.

According to the fundamental definition, the economy allocates scarce resources. Money, on the other hand, is an important instrument of financial exchange and allocation. However, for the most part, the current economic system makes decisions using criteria that can be measured in monetary terms.

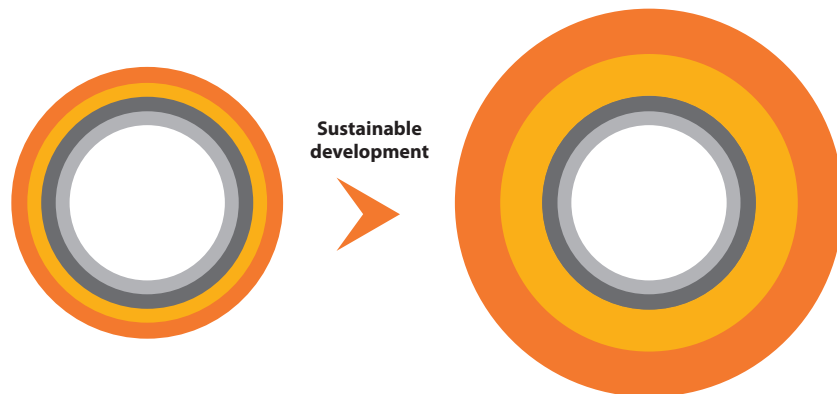
Money should not hold such a dominant position in decision-making as it currently does. If we want to build societies on stable and sustainable foundations, the environment and natural resources must be included as part of the financial decision-making and the international agreements related to that.

The prevailing economic thinking evaluates key natural resources as assets. The environmental impacts caused by their exploitation have traditionally been considered external impacts of economic activity. The non-material values of natural resources and the environmental impacts caused by their use can be taken into account in decision-making if we can set a price on them and devise a way to create markets for them.

The current problem is that the natural economy is difficult to evaluate. For example, from the perspective of enterprises, setting prices on environmental impacts in one country but not in another puts them in unequal competitive positions. Therefore, global prices and international steering mechanisms should be

Capital and sustainable development

In sustainable development, we leave future generations with as many opportunities as we had ourselves, if not more. In this system, the natural capital does not decrease at the expense of human-made capital. Still, capital may increase as a whole if social and human capital is made stronger.



■ Natural capital ■ Human-made capital ■ Social capital ■ Human capital

set for carbon dioxide emissions and other environmental damage caused by the use of natural resources. So far, attempts to establish functional systems like these have failed. For example, emission trading has not evolved into a functional instrument for preventing climate change.

From the environmental viewpoint, the problem is the difficulty and inaccuracy in setting prices. How are the prices formed? How do we define a price for an ecosystem whose complex operations we do not accurately know? Or is it impossible to estimate what upsetting a system like that would come to cost? How can we be sure about what the ecological, social and health impacts of the use of natural capital are in the long run? One risk is that the evaluation of natural resources in monetary terms excessively emphasises the financial perspective at the expense of the ecological and the social.

Pricing does not solve all problems. Still, it is the best steering mechanism available. Its power must not be underestimated, since in many cases it gives rise to changes that take us in the right direction.

There are several examples of inclusion of natural resources as part of the economy both in Finland and around the world. Such steps include major increases in fossil fuel prices, climate legislation, promotion of business activity protecting the environment by means of tax relief, for example, and different environmental taxes.

The prevailing economic system exploits natural resources in an unsustainable manner. In this system, the growth of prosperity is used to increase material consumption, higher taxes are levied on services than on goods, and subsidies are targeted at the export of goods. A society operating in accordance with the old logic thinking favours material consumption at the expense of services.

A new kind of economic thinking regards natural resources as capital that is lost if one does not know how to invest it right or spends it recklessly.

It takes natural resources and environmental viewpoints into account when drafting indicators, budgets and balance sheet analyses describing economic development.

The new economic thinking does not accept the fact that the wasting of natural resources brings short-term financial benefits to just a few actors while impoverishing everyone else in the long run. It imposes heavy taxes on fossil fuels and unnecessary junk and grants tax reliefs to immaterial matters, such as services. The new economic thinking makes every act that destroys nature so costly to people that, little by little, every one of us will change our way of life in a more sustainable direction.

An economy respecting the capacity of nature is something new, a future image that still remains indefinable and may even appear daunting, but is ultimately the only possible option. To make that come true, we have to make major leaps towards new ways of life, develop new business activities, and take bold political decisions both in Finland and on an international scale. We do not have any time to waste, since a society whose well-being is heavily reliant on the consumption of natural resources and energy adapts to change slowly – and in the worst-case scenario, only through a crisis.

The question is whether we have enough courage to harness the market mechanism and human creativity to more effectively mitigate climate change and reduce other ecological problems.

Proposal for solution

The cluster of sustainable exploitation of natural capital

Sustainable Economy Forum

The Finnish water system, forests and other ecosystems are wealth that provides us with essential commodities and services. For us, the importance of nature as a source of individual and societal well-being is undeniable.

The nature know-how possessed by Finns is among the best in the world. The sustainable use of natural capital and the development of ecosystem services using this know-how, technology and international networks opens up opportunities for new innovations. We in Finland should establish a business cluster based on nature know-how that would transform the deep understanding of the well-being effects of nature that we Finns have into an export product.

This cluster, based on ecosystem services, would make business out of client-oriented sustainable development solutions and invest in different projects exploiting natural capital in a sustainable manner, such as the transformation of energy companies into companies providing ecosystem services.

7. *Individuals and Joint Decisions* – All Are Needed

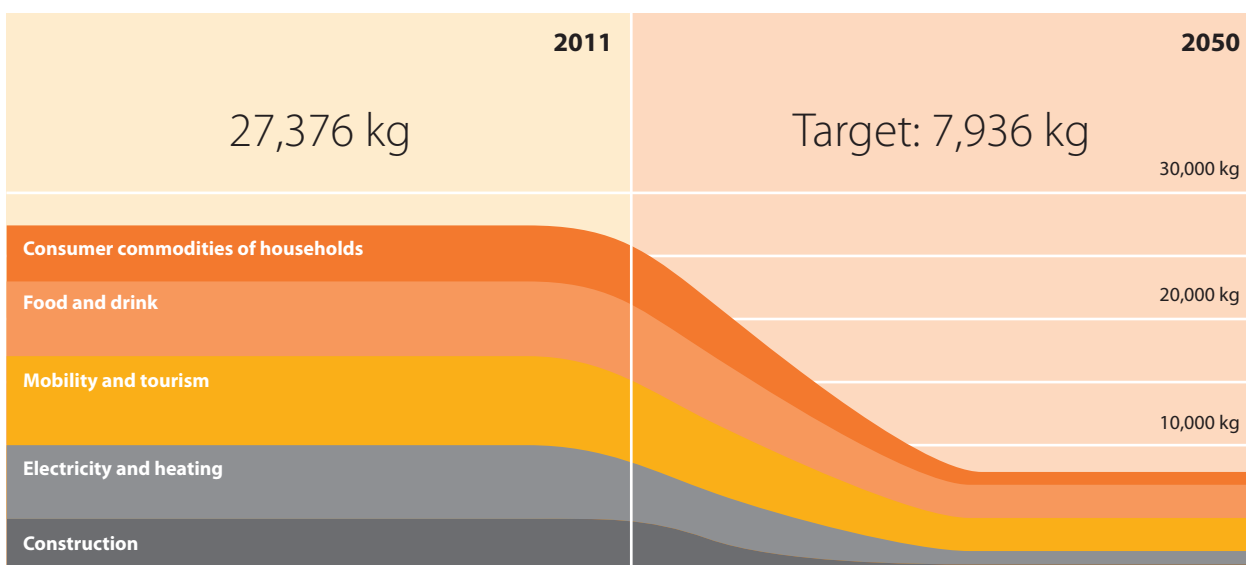
Transition into a sustainable economy society is systemic, complicated and takes place on multiple levels. It means that individual people, communities, companies and public administration have their own important roles to play in bringing about this change.

Ultimately, everything boils down to individual people. In a sustainable economy, the way people live, move around and eat is of crucial importance. We all need to change our ways of life in a controlled but radical manner. Finnish people use natural resources almost four times more than the capacity of the Earth can bear. Western consumer society has also generated a lot of well-being and health problems. In addition to reducing our consumption, we should also adopt more intelligent consumer habits.

The meaning of the actions of a single person may seem negligible in a huge world, but even individual choices have impacts on the surrounding environment. Political decisions are not made in a vacuum, but politicians decide to move on

Average European material footprint 2011–2050

Source: Spread Baseline Research 2011 & Demos Helsinki



To be in balance with the ecological capacity, the material footprint of an average European citizen should diminish from the current 27,000+ kg to less than 8,000 kg per year. Our current eating, living and transport habits, among others, need to change radically to make that happen.

when they believe that the voters are ready for a change. Consumers can affect corporate operations by voting with their wallet. In communities, lifestyles easily spread between members. A change in consumer habits is necessary, since the rebound effect easily wears away the benefits of technological development: when refrigerators use less energy, people buy another to put in their basement.

Sustainability does not mean compromising on comfort

As has been proven by behaviour change research, people cannot be forced to change their lifestyles. Therefore, healthy and resource-intelligent lifestyle alternatives must be appealing and easily available to people.

People live in different situations and in different ways, for which reason a single solution aimed at the masses is unlikely to motivate an individual to change his or her behaviour. People are seeking solutions that suit their identity and function best in their personal lives.

The essential step in promoting sustainable lifestyles is to identify the different needs and life situations people have. One person buys organic products primarily because he or she believes that this causes a lesser burden on the environment. For another person it is a status issue, a way of communicating good taste, healthy living and a high educational level.

Political decision-makers and companies wield central influence on the alternatives available to people on how to live, move around and eat. Do schools offer tasty vegetarian food? Is it easy to get to work by bicycle? Does legislation provide incentives for the local production of renewable energy?

Sustainable ways of life, health and well-being, as well as increasingly resource-intelligent consumption, are rising trends. They offer companies a lucrative business opportunity.

The transition towards a sustainable world seems slow and difficult. One would like to blame the system for it, but ultimately it all boils down to us, individual people.

Peers create a new economy

If mass production was the great revolution of the 20th century economy, the peer-to-peer economy could be the big bang of the 21st century.

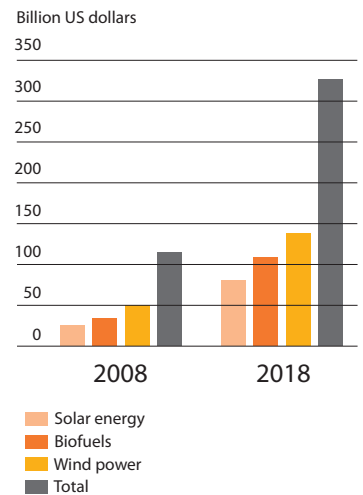
In a peer-to-peer economy, people produce and consume goods, services and ideas together, on a voluntary basis. Those participating are different and their motives vary: desire to do things with others, develop oneself or lead a better everyday life.

A peer-to-peer economy develops and uses open-source software together. In food cooperatives, everyone receives a share of the crops grown on a common field. A time bank member gives a guitar lesson to another and is paid in "a currency" that can be used for buying dog walking from a third member. More important than buying goods is having an opportunity to use it when necessary: when you need a power drill once a year, it is more sensible to borrow it from the housing company's common tool storage than to buy it. This way you will save money and resources, and get to know your neighbours as well. In economic terms, the peer-to-peer economy creates value even though, at first sight, it does not accumulate in the form of euros in the national economy's treasure chest. However, a lot of tax money is saved when people live as healthy members of communities and place a lesser burden on the environment.

In a peer-to-peer economy, money is thus not the most important instrument of exchange, but a clever businessman knows his business. For example, Airbnb is a service through which people around the world can lease out their apartments, for example, for the duration of a holiday of a week or two. Airbnb charges a small commission for this.

Markets for renewable energy technologies

Source: Clean Edge 2009



Proposal for solution

Urban Co-operative Farm

Winner of Sitra's idea competition

The food cooperative in Herttoniemi rented field of slightly over one hectare from the City of Vantaa and hired a gardener to farm it. The members of the cooperative committed themselves to buying the crops and sharing the financial risks with the farmer. The households involved invest an annual crops fee in advance and participate in communal work as far as is possible for them. The crops from the field are divided between everyone once a week.

www.ruokaosuuskunta.fi

From Corporate Social Responsibility to Creating Shared Value

Source: Kramer & Porter

| <i>Traditional Corporate Social Responsibility (CSR)</i> | <i>Creating Shared Value CSV</i> |
|---|--|
| Value: Doing good | Value: Economic and societal benefits relative to cost |
| Citizenship, philanthropy, sustainability | Joint company and community value creation |
| Discretionary or in response to external pressure | Integral to competing |
| Separate from profit maximisation | Integral to profit maximisation |
| Agenda is determined by external reporting and personal preferences | Agenda is company-specific and internally generated |
| Impact limited by corporate footprint CSR budget | Realigns the entire company budget |
| Example: Fair trade purchasing | Transforming procurement to increase quality and yield |

Shared value companies do not compromise their goal to bring profits to shareholders, but, at the same time, they benefit the rest of society by meeting its needs and challenges

When forms of peer-to-peer economy, like lending an apartment, become more common, intermediaries are needed to coordinate the operations. That will create important business in the future, as already shown by Airbnb, eBay and ZipCar.

But how could the public sector, suffering from lack of finances, take advantage of communities to secure well-being?

The peer-to-peer economy is not a new phenomenon. For example, your grandmother probably participated in communal village work in her youth. However, new communications technologies have enabled scalability of operations. It means that the peer-to-peer economy can work in large cities or from one side of the globe to the other.

Where there is a problem, there is demand for a profitable solution

In the 1950s, Finland was facing a major challenge. It had gigantic reparations to pay, demanding 2.5 times the value of Finnish GDP at the time. However, that push set in motion the triumphal march of the Finnish metals industry, followed by the success of the electronics industry.

Now the challenges Finland and the rest of the world have to beat are way bigger. If not restrained, the repercussions of climate change, diminishing natural resources and increasing social inequality will be unpredictable, and probably catastrophic. At the same time, wealthy countries are plagued by lifestyle diseases and ageing populations.

The threat scenarios, on the other hand, open up endless amounts of opportunities. The successful companies of the 21st century regard the solving of ecological and social challenges as unconquered markets. Companies hold the central role in the development of sustainable economic solutions, since they are the most efficient innovators in society. The top companies of the future sustainable economy have even longer-term vision. They will change their business logic.

The Finnish company ZenRobotics manufactures robotic waste sorting systems. Rautakesko's Energy Master service offers customers advice on and products for energy-efficient construction. The mobile phone company Vodafone's M-Pesa mobile banking service already serves millions of people in developing countries. They have a mobile phone but no access to banking services. Through M-Pesa they can send money and pay invoices with their mobile phone. The formerly infamous Nestlé currently provides guidance to small coffee farmers on cultivation matters

The right to challenge system

The right to challenge system would give business life, organisations, citizens and city employees an opportunity to make a proposal on how the person or party filing the challenge could organise one of the city's functions in a better and more cost-efficient manner than is currently done. Should the challenge lead to results, the normal procurement procedure would ensue. The right to challenge system would bring new ideas to city service provision, bring increased involvement opportunities for city dwellers, and give alternative choices regarding services.

In Sweden, the right to challenge system is in use in 29 municipalities.

Saving the world is tomorrow's big business. Finland's strongest card could be exporting education and literacy to those parts of the world where they are missing.

and supports them in the acquisition of necessities, such as fertilisers. Furthermore, it provides guarantees for bank loans taken by farmers. The farmers get better crops and earnings, and Nestlé, on the other hand, ensures itself a secure raw material flow of consistent quality.

In other words, examples of new types of entrepreneurial activity already exist, but most of the markets created by social problems still remain undiscovered.

Public sector from securer to facilitator

The public sector has several means to promote a sustainable economy. Legislation, taxation and the provision of welfare services and infrastructure may be the best known among them, but they are not the only ones.

The public sector is a key promoter of Finnish competitiveness. Investment in research and development in Finland is already among the highest in the EU. The money has not been wasted, since the number of innovative companies is also among the highest in Europe.

In the same manner, the public sector can "push" individuals towards sustainable lifestyles and support forms of peer-to-peer economy arising within communities.

The state, state-owned enterprises and municipal federations spend EUR 23 billion each year to buy goods and services, which represents 15 per cent of gross domestic product. In other words, it makes a difference from whom the public sector procures these goods and services. By favouring ecologically and socially sustainable products and services, it can significantly contribute to the promotion of a sustainable economy.

The public sector can also promote the sustainable economy in its own management operations. It could borrow management tools from the private sector: profit-based fees – the opportunity to see the concrete results of one's work and, on the other hand, feel the pressure that the work results have a genuine impact on advancing in one's career – could bring healthy stimulation and motivation into the public sector.

Both public health care and the education system should put new technologies to much more efficient use than they do today. That would open up opportunities for Finland to also export these services.

The size of public sector projects is often gigantic. A good plan for project implementation may not be sufficient. The introduction of experiments and quick solutions in the public sector would guarantee that the problem areas of the plan could be detected along the way, so that the final outcome would meet the real-life needs in the best possible way.

It would save tax euros if detected shortcomings do not need to be fixed afterwards

Giving bioeconomy and cleantech a central position in Finnish economic policy, municipalities aiming for carbon neutrality (HINKU municipalities), or the right to challenge system for municipalities are good examples of active public sector endeavours towards a sustainable economy.

When a big ship changes its course, movement around it is inevitable. Therefore, at their best, public finances can be an important signpost for a sustainable economy and a provoker of public debate.

Carbon-neutral municipalities (HINKU)

In 2008, five municipalities committed themselves to reducing carbon emissions from traffic, housing and food more than required by the EU: 15 per cent by 2016 and 80 per cent by 2030 (from 2007 levels).

Currently the municipalities involved in the trial are Ii, Hanko, Kuhmoinen, Lohja, Mynämäki, Padasjoki, Parikkala, Siuntio, Raasepori and Uusikaupunki.

Three municipalities achieved their 2016 target as early as 2011. For example, in Padasjoki the emissions created by fossil fuels were reduced by 49 per cent after the municipality introduced a wood-based district heating plant.

8. Alternatives for *Dependency on Growth*

*Teppo Turkki,
Leading Specialist on
East Asia at Sitra*

The future economy is competition for raw materials, resources and energy.

Economic growth – a multi-edged sword

Views related to the content, quality and necessity of economic growth divide opinions.

Seeing economic growth as an end in itself or as instrumental value

Few people consider economic growth an end in itself for society, but what kind of material value does economic growth have in relation to the creation of sustainable development?

Economic growth now or in the future?

Western societies are built in such a manner that dwindling growth causes social, financial and ecological problems. If we were able to detach ourselves from the structures of an industrial economy, would economic growth still be necessary in the long run?

National or global growth?

Which one is the primary objective: that the Western economy keeps on growing or that, along with economic growth, other countries can raise their standard of living to similar heights?

Good or bad growth?

Are we seeking growth at any price or do we favour non-material and qualitative growth and companies engaged in solving problems related to well-being?

Decoupling – is it possible or not?

Can growth continue if it is decoupled from the consumption of natural resources and adverse environmental effects? Even if it is possible, could it be achieved as quickly as necessary?

Several studies indicate that economic growth based on consumption of natural resources cannot – and will not – continue unchanged. At the moment, the global economy's use of ecological resources exceeds the sustainable level by 40 per cent.

Still, the mere thought of economic growth stalling terrifies many people. The Western social structure is built upon economic growth. If it fades away or is non-existent, states will be in trouble. The financing of a welfare society is dependent on tax revenues. If they do not grow, the services provided by a welfare society will not grow either. Therefore, many people are of the opinion that decoupling economic growth from welfare would mean impoverishing citizens.

The international scientific community has begun to give more serious thought to whether there are alternatives to economic growth based on the consumption of natural resources. Can economic growth be decoupled from the consumption of natural resources? Does it mean giving up growth? How can it be achieved while maintaining a sufficient standard of living?

People often assume that the economy can keep on growing while technological development progresses and production becomes non-material. It is hoped that technological development will lead to 'decoupling', where economic growth no longer increases resource use. Decoupling is typically measured on the basis of how much energy and materials are used per each euro produced.

In the decoupling debate, it is important to differentiate between relative and absolute decoupling. In relative decoupling, the resource use or environmental impacts per unit produced decrease, but in overall production they still increase. In absolute decoupling, on the other hand, the resource use or environmental impacts decrease regardless of growth in production.

In highly developed countries, it is thought that ecologically sustainable development requires absolute decoupling. The reason for this is that, even when substantial, relative decoupling does not lead to an ecologically sustainable economy. It can simply slow down the impacts of an escalating environmental crisis.

In recent decades, financial eco-efficiency, i.e. relative decoupling, has clearly improved. Western Europe has been a forerunner in this.

However, there is a flipside: relative decoupling often ignores the environmental impacts caused by the import of goods. Many commodities or their parts have been produced abroad, using large amounts of energy, water and minerals. In other words, to what extent is this simply a measurement error?

In Finland, eco-efficiency has increased steadily over the last few decades. In spite of this, quantitative or absolute consumption of natural resources has increased. In other words, growth of production and consumption has cancelled out the achievements of eco-efficiency.

The 'rebound effect' makes absolute decoupling more difficult: eco-efficiency makes consumption more affordable, which tempts people to consume more.

This, on the other hand, cancels out any effects achieved by means of eco-efficiency.

What if decoupling fails?

Many researchers specialising in environmental problems are of the opinion that we can no longer lull ourselves into the kind of thinking according to which environmental problems are solved by making economic growth greener. Since we cannot trust absolute decoupling to be successful, another alternative has been proposed: defining well-being and wealth in more comprehensive terms so that, in addition to financial capital, they would observe ecological, social, physical and human capital.

This means decoupling wealth and well-being from economic growth, at least partially. In the international debate on sustainable economy, the view that the most developed countries must seriously begin to consider the adoption of this alternative has become stronger.

How could this be achieved? There is no simple answer to this question. It would probably require at least the adoption of new indicators for measuring development (see Thesis 2). In addition, it would require decisions that change people's behaviour, forms of organisation and their earning systems, and these, on the other hand, would require radical social, political and institutional innovations.

New ecologically and socially sustainable methods for employing people, producing and exchanging commodities and financing economic activity thus generated are being tested and developed in various parts of the world.

The fact that there are seven oil companies among the ten largest companies of the world makes the situation challenging. Measured by net sales, the two largest are Exxon Mobile and Royal Dutch Shell. They are responsible for a large share of global economic growth, since more oil, gas and coal is being discovered all the time. As long as fossil fuels are discovered and their consumption continues, carbon emissions will keep on growing.

Partially for this reason, in practice, environmental scientists focusing on decoupling consider the decoupling of growth of production and consumption from environmental damage unrealistic. Even if decoupling was possible in theory, in practice, it does not seem to take place as quickly as responding to climate change would require.

In the international debate on sustainable economy, however, research on decoupling is still considered an important means of promoting the global green economy. The research is still in its early phases, but efforts are being made to produce new information rapidly. This information is being compiled by the scientific International Resource Panel (IRP), operating under the United Nations Environment Programme (UNEP), which published its first publication on decoupling in 2011.

What if the economy does not grow?

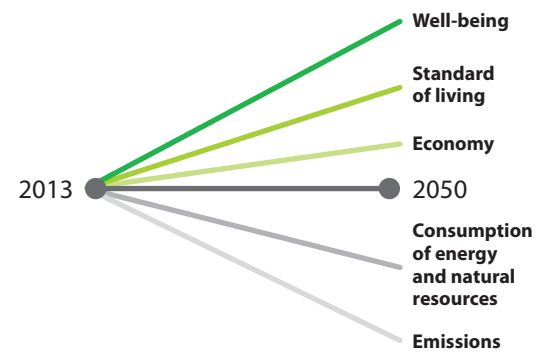
It is quite possible that rich Western countries will have to learn to adapt to a long period of slow growth, or even zero growth. At the same time, developing countries are increasingly seeking to achieve a Western standard of living. They are entitled to this, but the international community must find ways by which the desired standard of living can be achieved in a more sustainable manner than before.

Regardless of how important economic growth is considered, Western countries must prepare themselves for the situation in which the economy does not grow in spite of any efforts made.

We should find ways to make national economies more flexible and stronger, less exposed to disturbances. We should be able to create well-being without economic growth. If we could reduce the dependence of well-being on continuous growth, waning economic growth would not need to mean a waning economy.

This does not mean that growth should be demonised, since growth is a natural result of development. However, we must be able to expose the quality of growth to critical assessment. We need a deeper and more unprejudiced understanding of the content, quality, and opportunities of growth to support the objectives of a sustainable economy. It requires an open and constructive social debate that respects various perspectives. At the same time, a healthy and developing society attends meticulously to the fact that good things, such as employment, health, education and viability of nature, grow as well.

Decoupling objectives



Proposal for solution

Changing taxation of consumption and work

Sustainable Economy Forum

One of the key drivers of change for a sustainable economy could be changing the taxation of consumption and work. Plastic disposable junk should be made to be more expensive and, at the same time, the prices of sustainably produced quality products and services should be lowered. For example, MP Osmo Soininvaara has proposed (Helsingin Sanomat, 9 July 2012) decoupling taxation from work. Soininvaara suggests that the tax revenues lost by not levying taxes on work would be replaced by imposing much higher taxes on the use of raw materials and energy than is currently the case.

9. Openness Leads to *Best Results*

Open Government Initiative in the US

<http://www.whitehouse.gov/open>

Since 2009, the United States has been applying the Open Government Directive, aimed to increase transparency in administration and collaboration with citizens.

Various administrative departments have published their own websites and detailed plans on how they intend to promote these goals. For example, the US Government has opened up almost 400,000 datasets in machine-readable form for citizens to access. It offers tools by which data can be employed in an innovative manner for the solution of common challenges. It has created a website on which citizens can propose solutions for administrative problems. The best proposals are given cash awards.

The administration also has a website of its own which shows in visual format how public money is spent. Each administrative sector has a representative in the working group who further develops open government and shares best practices.

The economy is a polemical subject, which is often discussed in conflicting terms and from opposite information and value bases. Differing opinions are the core of politics, but factions based on economic thinking make it hard to agree on the objectives and methods with which to build a sustainable economy.

For the purposes of stirring economic debate, the opposing parties can be called the dreamers and the mules. The dreamers are idealists who believe in the effectiveness of individual acts, people's unselfishness, and disapprove of the free market economy and its side effects. The mules are old-world realists who believe in steering from the top down, the wisdom of the markets, and the fact that the real power in the world is in the hands of great powers like China and the United States. The former consider the latter immoral, and the latter consider the former stupid.

A bolder and more open economic dialogue is needed, even between quite surprising parties. The dreamers and the mules should be encouraged to sit at the same table. Enhanced exploitation of multidisciplinary, scientific research information could help to build up a common basis of information between the various factions in economic debate.

Similarly, harnessing the knowledge of individual citizens supports a sustainable economy and, on the other hand, strengthens the trust of people in the economy. Cherishing the relatively transparent and open Finnish economic system also increases trust and intelligibility of the economy. Nowhere near all people have an opportunity to participate in the economic debate, even though its outcome has an impact on everyone's life. From the viewpoint of an ordinary person with a mortgage, the economy easily appears as a complicated system that is steered in secrecy, behind closed doors.

To make it possible for people to participate in economic debate and assess it critically, the convolutions of the economy must be opened up to ordinary citizens in an understandable and relevant manner. The media has an important role to play in this.

There is knowledge – why is it not used?

In spring 2013, an exceptionally heated debate rolled on about the use of expert knowledge in support of policy-making. Accusations were made that expert knowledge had been ignored in the preparation of social welfare and health care reform. The dividend tax decision taken by the government raised a stormy debate, during which it was asked whether the figures used in the decision had come to the government from outside the normal process at civil servant level.

In places, the accusations were quite harsh. However, it is true that we lack methods to ensure the use of research information and systematic retrospective assessment when public decisions are made.

Public decision-making must rest on the best knowledge available, not on any assumptions or the seeking of self-interest. The ministries do hear individual researchers when doing preparatory work, but they leave vast amounts of expertise that a single human being cannot master untapped.

Even the OECD paid attention to this when making its public governance review of Finland in 2010. Senior Adviser **Sixten Korkman** from Sitra also criticises the way matters are handled in the key economic decision-making situations, such as the government discussion on spending limits:

Sixten Korkman,
Senior Adviser, Sitra

The amount of long-term preparatory work where expertise is used is limited, while quick reports from administrators representing interest groups and trade and industry abound.

Sometimes systematic preparatory work is performed, but the results are not used: the work of the SATA Committee (which was preparing the social protection reform) was trampled on by interest groups, and Hetemäki's tax reform committee report was not fully exploited.

For decades, there were numerous committees and advisory boards supporting policy-making in Finland. In these, experts comprehensively representing various sectors of society prepared proposals for reforming legislation and organisations.

The committees may have been slow in their operations, but at least we had an established channel for the utilisation of expert knowledge in decision-making. How could we involve the scientific community and policy-makers in a regular and fruitful dialogue in the 2000s? The Climate Panel is a good example of an interdisciplinary advisory group. In this panel, a group of climate experts has been complemented with, for example, a professor of law, a director of teacher training and an adaptation researcher.

In the same manner, economic policy decision-making needs to be supported by more comprehensive expert knowledge. Economic policy affects all sectors of society, so policy-makers it must take advantage of other areas of ecological and social competence as well. Similarly, alternatives proposed by economic theories outside the mainstream should be taken under advisement when decisions are being made.

In addition to academics, economic policy needs reinforcement from ordinary people. So far, the problems of an unsustainable economy have not been solved by any existing means, so new blood and ideas are needed. In the modern world, engagement in common affairs is beginning to be a popular requirement.

A citizen is not a client but a member of society

Steering, regulation and incentives implemented through public decision-making still play a pivotal role in sustainable development. However, the possibilities of top-down steering to influence matters are limited.

The Finnish way of doing politics needs a breath of fresh air. It must be possible to discuss even unfinished business. Educated citizens, used to an active life on the Internet, want to participate in decision-making even between elections. From the politician's point of view, debate slows down efficient decision-making on specific matters, but in reality, it makes the decisions better. The direct participation of citizens in decision-making does not threaten representative democracy – it strengthens it.

In the age of individualism, public solutions targeted at the masses leave many people unsatisfied. If people were included in the process in the preparatory phase of decisions, the final outcome would better meet the actual needs. The decisions would be genuinely legitimate. Engagement and openness enhance citizens' trust in the democratic system, and satisfied citizens reward decision-makers in the next elections.

Exploiting the wisdom of the crowds also allows for the creation of innovations that machinery stuck in a rut cannot do. It would be advisable for political decision-makers and the public sector to consider how they could facilitate and encourage the endeavours of individuals, communities and companies for a sustainable economy. Peer groups within communities give rise to a culture of change, companies are efficient in driving change, and common goals and incentives for making change happen can be created through politics.

Proposal for solution

Tax Tree

Winner of Sitra's idea competition

Tax Tree is a tool for the visualisation of data, created for public administration needs, that visualises, for example, the financial figures of a municipality or a city in an easy to understand manner. The economy is often regarded as a power greater than humans that can be understood only by those initiated in the matter. However, by correct means of communication it is possible to substantially enhance the understanding of ordinary people on finance and money flows, whether dealing with the public economy, the national economy, or the finances of a private individual. For municipal councillors, Tax Tree also offers an easier way to get an overall picture of a municipality's finances than a budget book with hundreds of pages.

www.hahmota.fi

Transparent economic system – a top Finnish brand

In Finland, the financial crisis has remained much more moderate than in other countries, partly because of the transparency of the Finnish economy. Transparency is the basic prerequisite for a sustainable economy. The markets function most effectively when the economic activity is transparent. At the same time, it is easier for society to assess the sustainability of its operations.

Until recently, Finland has been a forerunner in the transparency of economic activity. Income and tax information and ownership of listed companies are public information. Finland would have great opportunities to turn its transparent and engaging economic system into an international brand product.

10. *Major Changes Are Possible*

Political decision-making and public administration have a central role to play in the promotion of sustainable development.

However, the state should dare to make bolder and more open-minded initiatives for the sustainable economy, instead of settling for its current role as a fixer of market failures or a passive platform for public infrastructure and services.

The government decision to make Finland a leading country in both cleantech and corporate responsibility are steps in the right direction. But what if we make a comprehensive ecological tax reform? Or we take a major leap towards sustainable energy policy in the same manner as Denmark and Germany? What is the new model by which public services can be secured at the time of a weakening dependency ratio? What kind of labour market reform would encourage people to work and allow also those people to work who are not currently considered employees with full working capacity?

The historical German energy reform, *Energiewende*, means that Germany will totally give up nuclear power in the same manner as Denmark and, in 2050, use almost exclusively renewable energy. *Energiewende* has not been implemented without objections and it is still a subject of critical debate. Still it enjoys the support of the majority of citizens, trade and industry representatives, and political decision-makers. *Energiewende* is a giant leap towards sustainability. The German example shows that major decisions are possible.

How do you make a major change?

1.

*Placing the point
of reference far
into the future*

German people have had the courage to look far ahead. They have understood that even though *Energiewende* will be costly in the beginning, it will pay for itself with dividends when non-renewable energy becomes more expensive and the

demand for renewable energy technologies increases. The bold Danish climate policy has also started to yield results: the country is the leading exporter of cleantech within the EU. On the OECD list, Copenhagen is ranked as one of the most efficient economic areas of the world in the creation of green jobs. The future realities that touch all of us have been acknowledged in Germany and Denmark, and the people have started to pull together.

Similar far-sightedness and courage should be introduced into Finnish political life. One has to be able to commit oneself to decisions for a longer period than one electoral term.

The courage to make bold decisions is usually lowered by the fact that they seldom bring quick victories, and in political life the next elections are often the most important fixed point on the horizon. In economic and social policy, the delays are long and the fruits of good decisions are reaped later. Due to path-dependence, the decisions made today tie our actions far into the future. For example, the construction of a nuclear power plant now defines our energy policy for a long time to come.

Only by looking far ahead can we see how interlinked and interdependent economic, ecological and social well-being really are.

2.

Discarding sector-specific thinking and putting all information to use

To gain visionary and comprehensive understanding of the connections of the economy, the environment and well-being, political decision-makers and public administration must cross strict sectoral boundaries and keep competition between various sectors of administration in check.

In Sweden, these walls have become lower due to a uniform government structure. The country no longer has preassigned ministries, but the areas of responsibility are defined according to need for each electoral

term. This kind of model could also make Finnish administration more agile and better able to respond to topical challenges.

Better use must be made of scientific research information in decision-making than is currently the case. The environmental and social sciences must also be utilised in support of economic policy. One must not resort to black-and-white thinking in the application of economic theory – policy-making initiatives worth trying might well be found outside mainstream economics.

3.

Wisdom does not reside in ivory towers

Energiewende shows that major changes can only be achieved if everyone is committed to them. If decisions are dictated without providing citizens and trade and industry a genuine opportunity to participate in the definition of objectives and methods, these will probably never come true.

A limited amount of decision-makers and experts can never have the most comprehensive information about all the facts. The most radical innovations are usually created by accident, without planning.

Therefore, the most important task of political decision-makers and the public administration is to facilitate change; to eliminate obstacles to sustainable ways of life and business operations; to create an environment where it is safe to try out new and crazy things; to support forerunners.

4.

“Learn by doing, do by learning”

In a constantly changing world, it is difficult to plan things in advance. Traditionally, whenever one wants to implement an idea, one devises a carefully honed plan. The plan is then implemented once it is complete.

During the planning stage, the world has moved forward and the information used for planning has become outdated. It would be wiser to test the functionality of the idea with the help of small experiments during the planning stages.

Everything can be experimented, since giving even a small portion of an idea a concrete form is useful. One learns a lot from experiments, and the plan can be revised in the right direction and then tested again. This way the final outcome best meets our real needs.

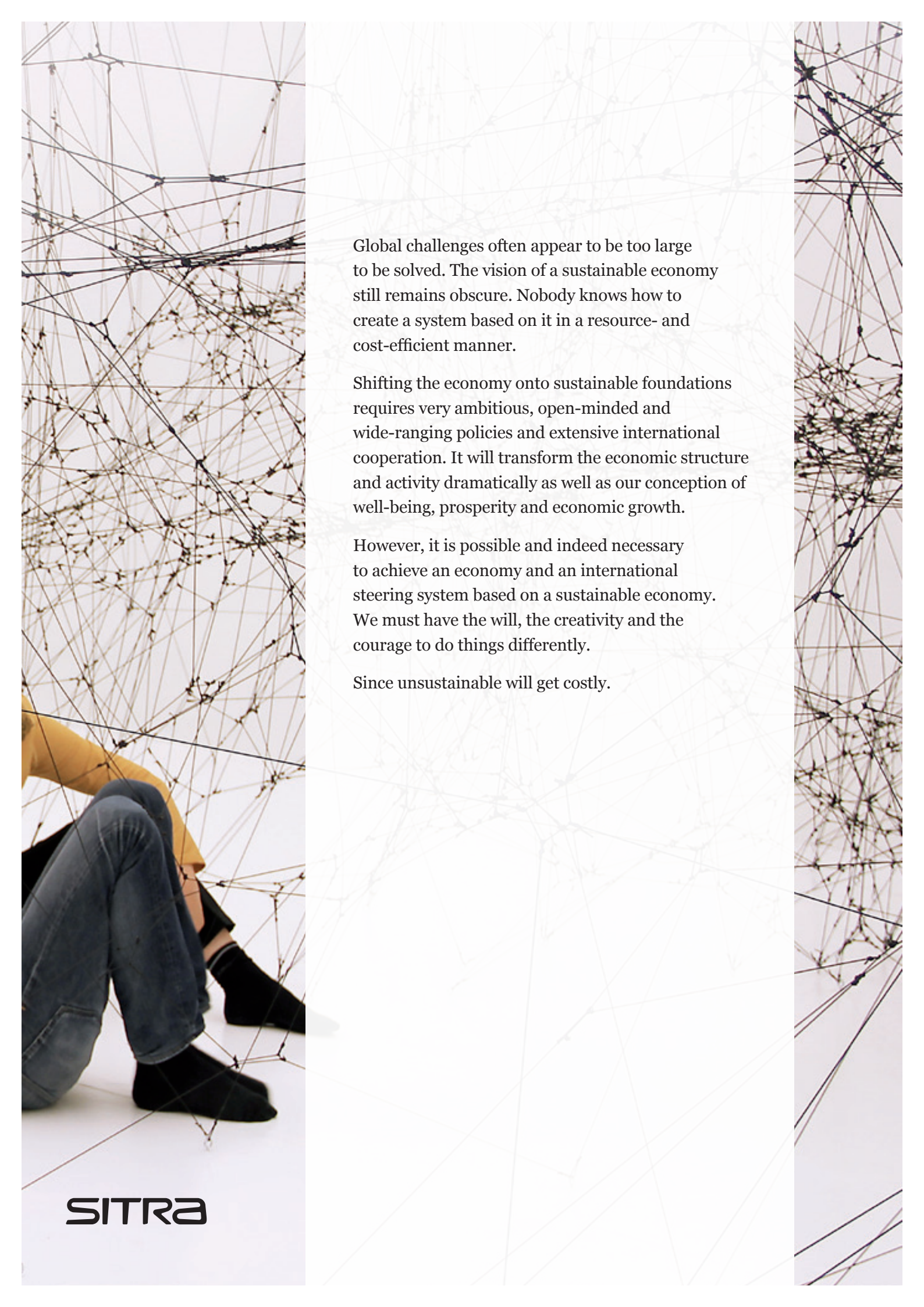
When the lessons learned from experiments are communicated efficiently in networks, good practices spread. Then a major change becomes possible.

The participants and facilitators of Sitra's Sustainable Economy Forum

We thank all the participants of Sitra's Sustainable Economy Forum:

Antti Aarnio, Finnish Confederation of Professionals (STTK)
Mikko Forss, Think Tank Tänk
Elina Gerdt, Stora Enso
Teresa Haukkala, Oxford Research
Maria Joutsenvirta, Aalto University
Päivi Kannisto, Ministry for Foreign Affairs
Kati Korhonen-Yrjänheikki, Academic Engineers and Architects in Finland - TEK
Kristiina Mickelsson, City of Tampere
Outi Myllymaa, National Well-being Network of Finland/Häme Development Centre Ltd
Pekka Myllymäki, Municipality of Mynämäki
Lasse Männistö, Finnish Parliament
Jussi Nikula, WWF
Osku Pajamäki, City of Helsinki, Filmiteollisuus
Seija Parviainen, Bank of Finland
Tuomo Pietiläinen, University of Tampere
Aape Pohjavirta, Aalto Venture Garage
Piritta Poikonen, Federation of Finnish Financial Services
Maria Ritola, Demos Helsinki
Sauli Rouhinen, Ministry of the Environment, Finnish National Commission on Sustainable Development
Mikko Routti, Finnish Business & Society, FiBS ry
Juho Saari, University of Eastern Finland
Rauno Sairinen, University of Eastern Finland
Pekka Salmi, Sitra
Miia Savaspuro, Kauppalehti
Kirsi Sormunen, Nokia
Osmo Soininvaara, Finnish Parliament
Jon Sundell, Made in Kallio
Marko Synkkänen, Ministry of Finance
Ruby van der Wekken, Helsinki Timebank

Within Sitra, the persons who steered the work of the Forum and facilitated it included **Eeva Hellström, Sixten Korkman, Hannele Sirkkanen, Julia Jousilahti, Kalle Nieminen** and **Hanna Häppölä**.



Global challenges often appear to be too large to be solved. The vision of a sustainable economy still remains obscure. Nobody knows how to create a system based on it in a resource- and cost-efficient manner.

Shifting the economy onto sustainable foundations requires very ambitious, open-minded and wide-ranging policies and extensive international cooperation. It will transform the economic structure and activity dramatically as well as our conception of well-being, prosperity and economic growth.

However, it is possible and indeed necessary to achieve an economy and an international steering system based on a sustainable economy. We must have the will, the creativity and the courage to do things differently.

Since unsustainable will get costly.