Impact investing through listed equities and bonds

Investable transition themes for a sustainable future

Triodos Investment Management

Contents

About this paper

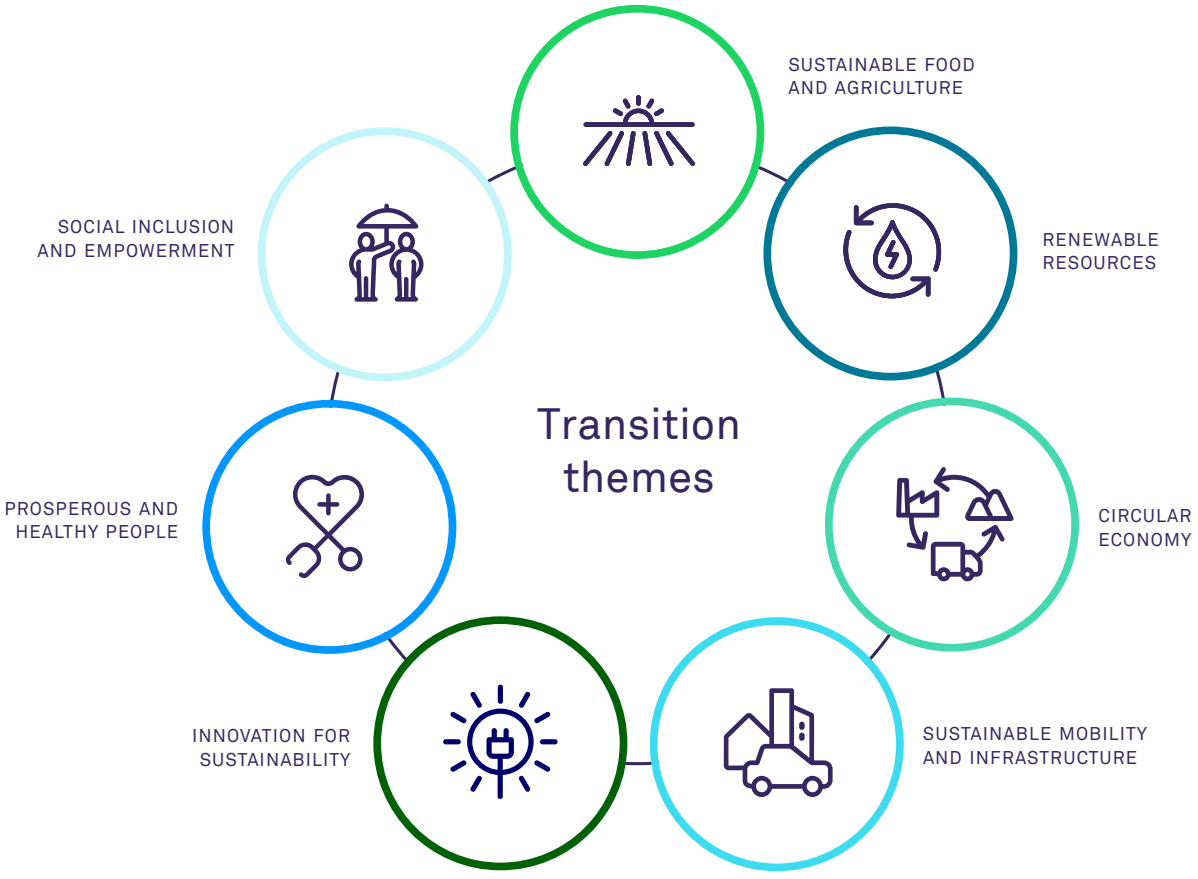
Triodos Investment Management serves as a catalyst in the transition to a balanced economy where natural and human capital are truly valued. To that end we invest only in companies that contribute to a sustainable society through their products, services, and business practices.

In this paper we explain how we do this through our investments in listed equities and bonds. We begin by examining the global trends that we believe pose significant challenges to mankind and that will shape the future of our planet and its ecosystems. Seven sustainable investment themes, which are instrumental in the transition to sustainable systems, emerge. We explore and assess how these themes provide opportunities for positive change. We investigate their origins, implications and suitability for investment.

In doing so, we draw on a range of research around the most material activities for each transition theme: services, products and business processes. Finally, we explain the phenomenon of impact investing through equities and bonds, and its role as a catalyst in achieving a paradigm shift. That is, how it helps investors move from seeking short-term financial gains to creating long-term value.

Our message to investors is clear: we are moving in the right direction, but we need to quicken our pace. It is not enough to invest in best-in-class companies which, within their sector, perhaps belong to the least polluting. For a truly sustainable future, we must invest in those companies that actively contribute to a healthy planet and sustainable societies.

Triodos Investment Management, Autumn 2018



Executive summary

Translating global challenges into investable transition themes

Our planet and society face interconnected challenges. Great pressures on our environment and social infrastructure have stemmed from an economic system measured solely by output and growth. Countering these challenges requires a radical transformation. Our system can no longer exclusively pursue economic expansion and financial return. We must transition toward a sustainable system that respects ecological balance and works for the benefit of all.

Based on the challenges presented by global mega-trends we have distilled seven key transition themes. These themes derive from demographic, technological, environmental, geopolitical, social and economic trends that we believe will shape our world in the coming years.

Our answer to the challenges

An effective transition requires four key overhauls: redesign, redistribute, redefine and revalue. We must redesign our economy so that it fits within our planet's ecological boundaries. Additionally, we must redistribute our material wealth and create equal opportunities.
To overcome the global challenges, it is essential that we redefine the way we interpret value and progress, and revalue the way we live, cooperate and communicate.

Investable solutions

Our Impact Equities and Bond strategy invests in listed equities and bonds of companies and organisations that materially contribute to the transition toward a sustainable society.
We invest in companies that develop solutions to the world's most critical sustainability challenges, while delivering a healthy financial return.
We go beyond conventional environmental, social and governance (ESG) and norms-based exclusions to ensure our portfolio is rooted in solutions.

Transition Themes

SUSTAINABLE FOOD AND AGRICULTURE
Focuses on production and distribution of food using techniques that protect environment and human communities, and minimise food waste.

RENEWABLE RESOURCES
Focuses on clean energy, alternative bio-based materials, and efficient water infrastructure.

CIRCULAR ECONOMY
Focuses on circular economic solutions that slow, close and narrow energy and material loops.

SUSTAINABLE MOBILITY AND INFRASTRUCTURE
Focuses on sustainable transportation modes, greener and healthier building and infrastructure solutions.

INNOVATION FOR SUSTAINABILITY
Focuses on front-runners in sustainable innovation and technology without compromising quality of life, safety and dignity.

PROSPEROUS AND HEALTHY PEOPLE
Focuses on improving accessibility, availability and affordability of healthcare, including prevention, diagnosis and treatment, as well as on promotion of healthy lifestyles and leisure.

SOCIAL INCLUSION AND EMPOWERMENT
Focuses on equality of opportunities and outcomes for all human beings, whether through products and services or policies and practices.

Transforming our world: the 2030 Agenda for Sustainable Development

Officially known as 'transforming our world: the 2030 agenda for sustainable development', the SDGs were established in September 2015 and signed by 193 countries to define worldwide sustainable development priorities, set to be achieved by 2030. The 17 goals and 169 sub-goals are interlinked and equally important and call for close and active cooperation between all stakeholders. The SDGs offer a framework that allows companies and governments to demonstrate how they help to advance sustainable development, by minimising negative impact and by maximising positive impact on planet and society. There are visible links between the SDGs and our seven transition themes. Our methodology strongly correlates with the topics addressed by the SDGs.

However, the SDGs are a policy agenda. Our seven transition themes reflect an investment agenda. Our seven transition themes also look beyond 2030 and represent a holistic view of sustainable development. We are always critical of proposed solutions. For example, if food security is an issue in a country, this challenge can be combatted by increasing food production using genetically modified organisms. However, when this solution is measured against the criteria of biodiversity protection, it does not support our vision for sustainable agriculture.

We are seeking to invest in solutions devised from an alternative angle, like, in this example, how reducing food waste could meet a substantial part of the demand.

^ The seventeen Sustainable Development Goals (SDGs), launched as the 'strategy of the world', in 2015, by the UN.

1.
Global trends and challenges

1. Introduction

Global trends and challenges

For many people the world has never been a better place than it is today[1]. The world population is, on average, healthier and richer than ever, living longer, and is better educated. Overall, the number of people dying from wars and violence is decreasing. On the other hand, the world is also confronted with an increasing number of challenges, such as natural resource scarcity, climate change, biodiversity loss, unstable social systems and inequality[2].

The global trends and their environmental and social effects cannot be separated. For example, climate change influences food scarcity. Food scarcity might induce migration flows.

Migration flows may lead to political tensions and populist upswings in receiving countries. This, in turn, may lead to changing policies, such as more protectionism. Protectionism hampers economic progress, which is likely to lead to lower tax income for governments, which puts pressure on the financing of social services. The question is how to deal with this interconnected, complex set of global trends.

We have categorised six global trends that we believe define the world we will live in. These global trends pose several challenges. On the following pages we dive deeper into these six global trends and the challenges they pose.

Six global trends

DEMOGRAPHY
population growth, ageing, urbanisation and migration

ECOLOGICAL BOUNDARIES
global warming and ecosystems at risk

TECHNOLOGY
further digitalisation and lack of skilled labour

INTERCONNECTEDNESS
globalisation in a multipolar world

NATURAL RESOURCES
scarcity and the need for transition

POLITICS AND ECONOMY
socio-economic systems challenged

Demography: population growth, ageing, urbanisation and migration

Global demographic trends

- GROWING WORLD POPULATION
  8.6 billion people in 2030
- AGEING SOCIETIES
  median age will increase by 3.4 years to 33.0 years from 2015 to 2030
- ONGOING URBANISATION
  60% of the world population will live in cities by 2030
- ONGOING MIGRATION
  in 2030 around 300 million people will migrate from their country of origin

Growing world population

The world population will continue to grow to almost 8.6 billion in 2030[3]. The highest population growth will be concentrated in the least developed (African) countries. In several developed countries, on the other hand, the population will shrink.

Continued population growth leads to increasing pressure on the planet's finite resources and contributes to climate change. It also challenges social sustainability.

Ageing societies

Societies will age, initially in high-income countries and subsequently in the rest of the world, starting with middle-income countries. The median age will increase by 3.4 years to 33.0 years by 2030[4].

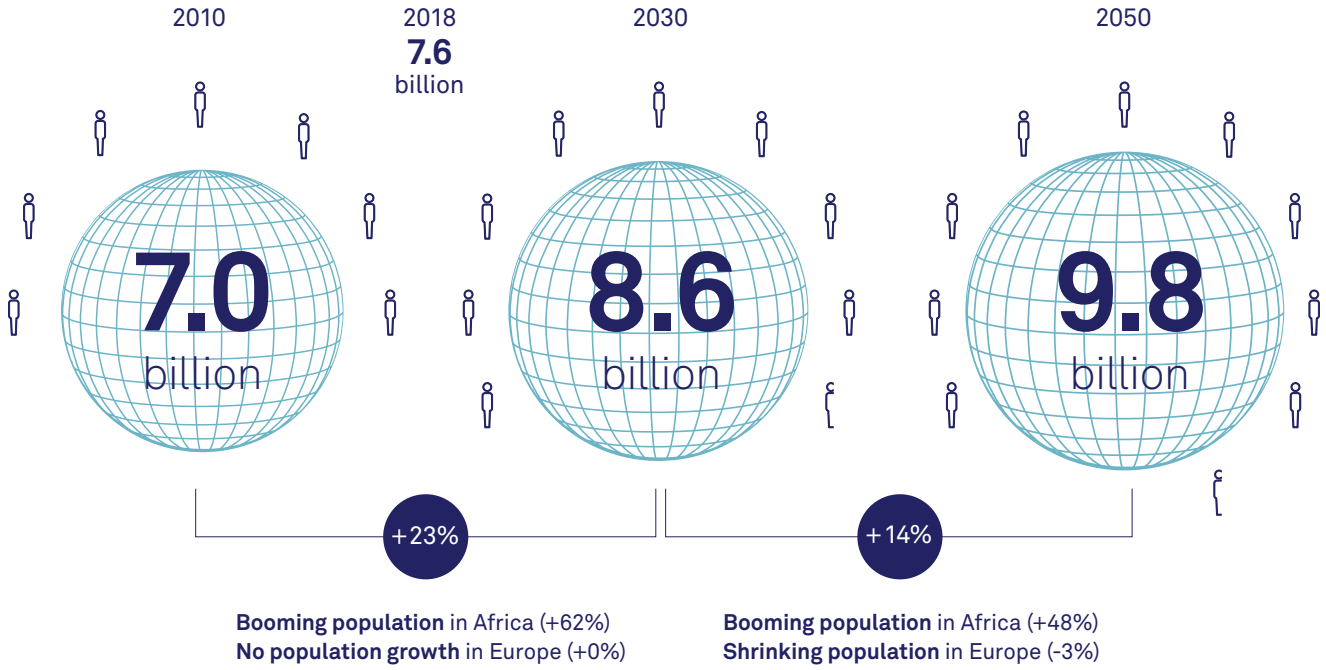
The ageing of societies has important implications for (potential) economic growth. It will also fuel demand for changes in public spending. The number of working people will stagnate or even decline, leading to erosion of the income tax base. At the same time, healthcare and pension spending will increase.

Ongoing urbanisation

By 2030, 60.4% of the world population will live in urban areas[5]. The most significant urban growth will be in the less and least developed economies. Developed economies will nevertheless continue to have a far larger share of the urban population.

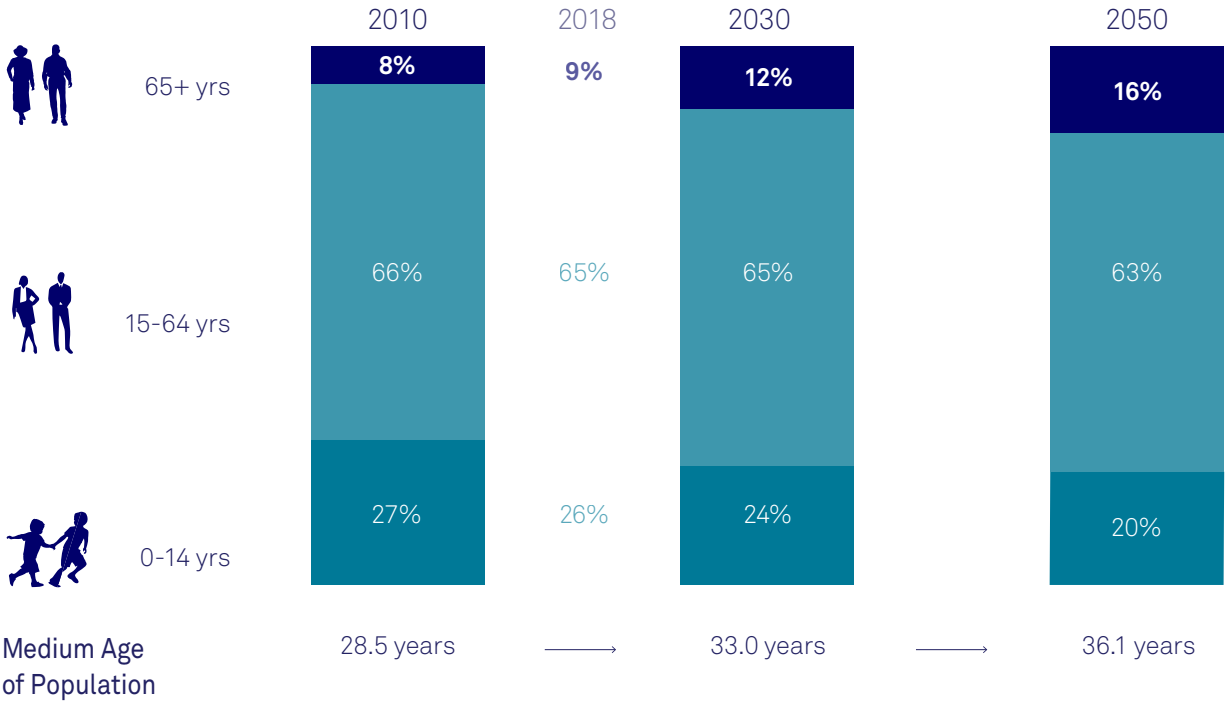
Rapid urbanisation brings risks of profound social instability, risks to critical infrastructure (transport, electricity, sanitation, waste disposal), potential water and food crises and the potential for the spreading of diseases.

World population increases



Source: UN (2017)

World population gets older



Source: UN (2017)[11]

Ongoing migration

International migration will continue and is expected to reach 300 million people by 2030[6]. The total number of international migrants will rise but is likely to remain relatively steady as a share of the globe's growing population. Migration flows can only to a limited extent be predicted, because often they are the result of political or military conflicts and extreme weather events such as droughts or floods. However, technological development and uneven distribution of prosperity and opportunity remain strong drivers of structural migration.

Poorly managed migration can be detrimental and lead to tensions in society, enhance populist sentiments and limit the possibilities for governments to use redistribution policies.

From demographic dividend to demographic burden

In many developed countries the so-called demographic dividend is fading. From the 1960s onwards, the number of children declined relative to the working population due to lower birth rates and the baby boom cohort that entered the labour market. This resulted in less public finance needed to support the youngest age groups.

These resources could therefore be invested in other areas to accelerate economic development. The advanced world has long indulged this 'economic gift'. Currently, this window of economic opportunity is closing. The number of retirees is growing larger relative to the working population due to the retirement of baby boomers and a higher life expectancy. The demographic dividend is turning in a demographic burden. More and more public finance is needed to support the oldest age groups while the tax base shrinks.

For many less and least developed countries population dynamics still provide important opportunities for more sustainable development. They can still reap the demographic bonus and jumpstart economic progress. However, they must create the right institutional environment to benefit from this.

Technology: further digitalisation and lack of skilled labour

Global technological trends

- **FURTHER DIGITALISATION**
  the Internet of Things, Big Data and Artificial Intelligence will shape our societies
- **LACK OF SKILLED LABOUR**
  in 2030, 46% of the world population will have secondary education, but may lack the required technology skills

Further digitalisation

Technological progress will continue to shape our societies going forward. Even though it is difficult to predict which concrete innovations will occur over the next 15 years, certain trends, such as digitalisation[7], are likely to continue. The Internet of Things (IoT), Big Data and artificial intelligence (AI) will likely change our lives and shape the business models of tomorrow.

Digitalisation could play an important role in the transformation into a sustainable society[8]. It can reduce the ecological intensity per unit of economic output. Technologies like blockchain make it easier to track materials during their lifetime. Blockchain can make clear who the end-users of materials are, and this makes the re-use of these materials easier. Recycling these materials can lead to a lower material footprint.

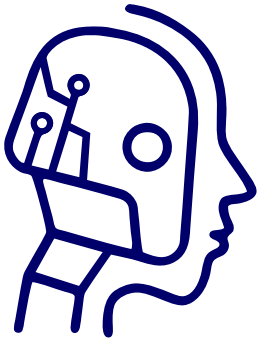
Furthermore, with the help of digitalisation, the least developed countries have enormous potential to overcome existing barriers to progress by diminishing inequality of opportunities. Through digitalisation access to education, healthcare and financial services can be increased.

However, digitalisation also has drawbacks. It will increasingly separate those who can derive the benefits from the new information society and those who cannot. Countering the digital divide is a challenge in itself. Moreover, digitalisation will lead to destruction of certain jobs[9]. The challenge is to avoid that people become long-term unemployed. Other challenges about ongoing digitalisation have to do with online privacy and data security. Whether we know it or not, we leave a digital footprint with almost every (online) action and transaction we make. This presents significant challenges for consumers and companies alike[10].

Lack of appropriatly skilled labour

Ongoing digitalisation increases the demand for skilled staff. With rising levels of educational attainment, with 46% of the global population having secondary education by 2030, the worldwide supply of high-skilled labourers will increase[11]. Still, it is estimated that by 2030 there will be a shortage of qualified employees on a global scale[12]. Too many young people and adults are currently unable to develop the skills, the knowledge and the attitudes they need for the rapidly changing labour market requirements. This may trigger a ‘war for talent’.

Jobs at risk

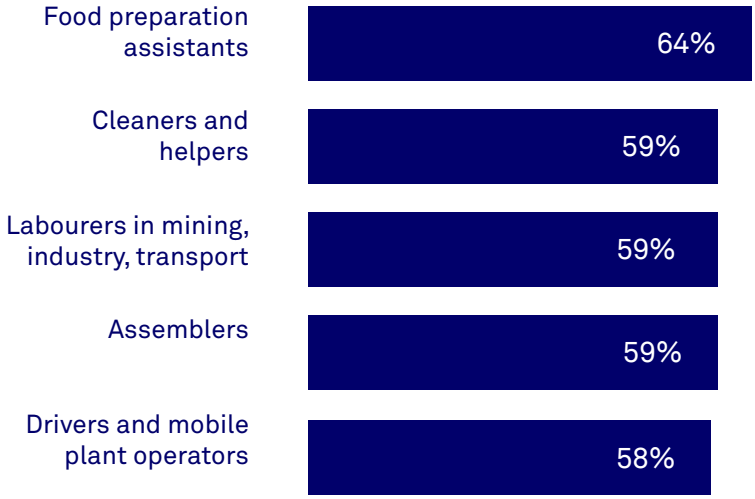


14%
of the jobs are highly automatable

32%
of the jobs could face substantial change in how they are carried out

54%
jobs without substantial change

Jobs most at risk



- Routine jobs with low skill and training requirements
- These jobs are concentrated mostly in the manufacturing industry and agriculture, but also some service jobs

Jobs least at risk

- Jobs that require a high level of education and training and involve a high degree of social interaction, creativity, problemsolving and caring for others
- Broad range of jobs from professionals to social workers

Source: Nedelkoska and Quintini (2018)

Technological progress: Standstill or radical change

Throughout history, technological progress increased overall productivity, thereby boosting per capita income and consumption. It is the most important driver of prosperity. Currently, we are still in the innovation age of ICT, which started decades ago. The effects of ICT-technology on productivity and economic growth are heavily debated. On the one hand, techno-pessimists argue that technological innovation is nothing like what it used to be[13]. They do not believe that ICT will lead to great productivity changes and economic growth. Techno-optimists, on the other hand, think that we are at the forefront of a new radical change[14]. They argue that it takes time for newly created technologies, like ICT, to mature and develop commercial applications. Scope and character of the innovations in the next decades are difficult to predict. They may fail to materialise, or they do so at a different time. Digitalisation, in whatever form or shape, is certain to continue, however.

Natural resources: scarcity and the need for transition

Changing patterns in food demand

The average food consumption per person will increase. Consequently, the prevalence of undernourishment will slightly decrease, but still approximately 8% of the world population will be undernourished in 2030[15].

At the same time, many people will consume far more food than necessary. As a result, a growing number of people will suffer from obesity, with on average a rise of 25% in advanced economies by 2030[16]. In general, feeding the world will not be a problem. The real challenge is the distribution on a global scale of nutritious food across all socio-economic strata.

More water scarcity

The global fresh water deficit will increase to 40% by 2030[17]. Research suggests that up to 70% of the world's aquifers have reached 'peak water'[18], the point where humans use stored water faster than nature can replenish it. The consequences are disastrous: half of the world will face severe water stress by 2030 if water is not used more efficiently[19]. The increased demand for food will aggravate this situation, especially if an increasing number of people shift their diet towards meat, the production of which is very water-intensive.

Global natural resource trends

- **CHANGING PATTERNS IN FOOD DEMAND:** 8% of the world's population will be undernourished, whereas 25% of the population of the advanced economies will be overnourished in 2030
- **MORE WATER SCARCITY:** the global fresh water deficit will increase to 40% in 2030
- **ONGOING ENERGY TRANSITION:** at least 30% of the energy production must come from renewable resources by 2030 to meet the climate goals

Ongoing energy transition

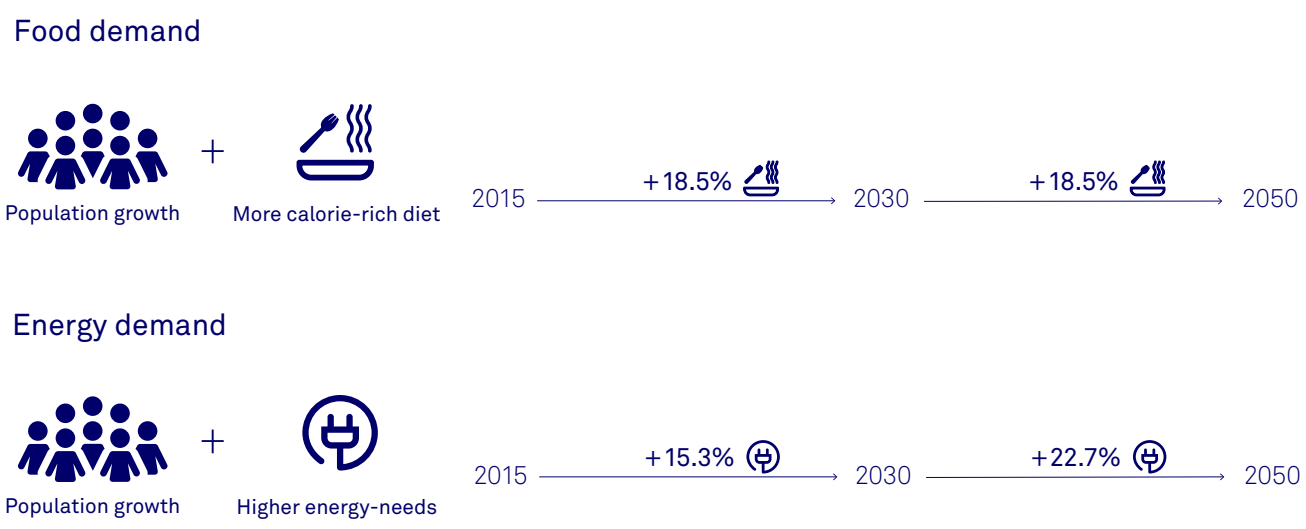
World energy consumption is expected to grow by 15% between 2015 and 2030[20], most of which will happen in emerging economies. The rising demand will be met by increasing supply from all energy sources other than coal[21]. Although renewables are the fastest growing source, fossil fuels will continue to meet most of the world's energy demand.

The biggest challenge is to meet the increasing demand for energy through clean and inclusive generation methods. Energy production contributes for more than 90% to global greenhouse gas emissions. A rapid reduction in the use of fossil fuels is urgently needed. If the world community wants to meet the goals set in the Paris Climate Agreement and keep global warming limited to below 2°C, the share of renewable energy must rise to at least 65% of the world's total primary energy production in 2050[22].

Closing the water gap

The future gap between supply and demand of water will in some way have to be closed. The question is whether this will be done in a sustainable way. The gap could be filled by increasing supply, for example via desalination of salt water. However, these supply-side solutions are often energy-intensive and/or expensive compared to measures targeted at increasing efficiency. We can also partially close the gap by using water more efficiently. Past efficiency improvements in agricultural and industrial water use have been extremely slow, however. When agriculture and industry sustain the efficiency improvement rates of the last couple of decades to 2030, efficiency improvements would close only 20% of the gap[23]. If we do not improve water efficiency more rapidly, we will continue to unsustainably 'borrow' water from the environment and future generations.

Drivers of increase in food and energy demand



Source : EIA (https://www.eia.gov/outlooks/ieo/)

Ecological boundaries: global warming and ecosystems at risk

Global environmental trends

- CONTINUED GLOBAL WARMING: 10% increase in GHGs by 2030 will increase temperatures in the coming decades
- ECOSYSTEMS AT RISK: by 2030, the world's biodiversity will be reduced to 63% of its original potential

Continued global warming

Without robust changes in regulations greenhouse gas (GHG) emissions will continue to rise. Between now and 2030 GHGs are expected to increase 10% to 25% worldwide if no severe policy measures are taken[24]. Many developed countries will probably reduce their CO^2 emissions going forward, but in emerging economies they are likely to increase further.

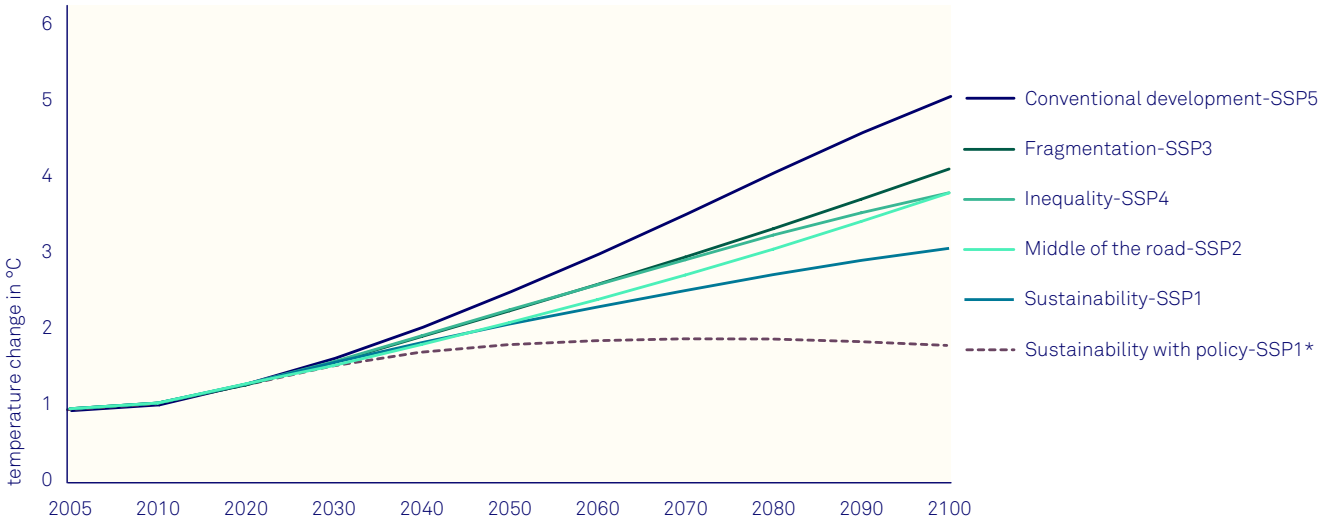
Increased concentrations of CO^2 and other GHGs will lead to a continuation of global warming. The expected temperature increase varies across different scenarios, depending on the underlying assumptions for future demographic, economic and technological developments. However, it is certain that the average temperature will rise and without proper policy measures, a rise in temperature greater than 2°C seems inevitable. Global warming will result in severe climate change, which in turn will lead to an imbalance in water, food and energy security. The challenge for the coming years is to accelerate the changes needed in our system to keep global warming at such levels that we do not destroy the earth's ecosystems.

Ecosystems at risk

By 2030, the world's biodiversity will be further reduced to 63% of its original potential, compared to 68% now[25]. Land use for agricultural and infrastructural purposes is the greatest cause of the loss of biodiversity. On top of that, climate change puts pressure on our ecosystems.

Our ecosystem and its biodiversity are crucial to ensure food security, clean water, protection against extreme weather and provision of medicines. However, four out of nine 'planetary boundaries' have already been crossed due to human activity, meaning there is an increasing risk of large-scale abrupt environmental changes and irreversible environmental damage[26].

The challenge of climate change



* The future evolution of the energy system will be shaped by socio-economic conditions and drivers, available energy resources, technologies of energy supply and transformation, and end-use energy demand. All these uncertainties have implications for the projected temperature rise. In each Shared Socioeconomic Pathway (SSP) framework a different narrative is used[27].

Source: SSP Public Database

Paris Climate Agreement

To reduce the risks and the impact of climate change 195 countries signed the Paris Climate Agreement in 2015. By signing they agreed, amongst other things, to keep the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature rise to 1.5°C above pre-industrial levels. To meet the 2°C target the world must stop further growth in GHG emissions by 2020 and reduce them by 60% by 2050 compared with 2010. Although the Paris Climate Agreement is a great accomplishment from a policy perspective, it depends on intentions and is largely voluntarily. Three years later we can observe that (1) current CO^2 emission reductions are by no means high enough, (2) the plans that have been submitted (national pledges) remain far removed from the overall goal and (3) the political landscape has changed to such an extent that international consensus, and what is more, international transfers of funds as agreed upon, seems to be further away than in 2015. For example, the biggest polluter, the Unites States, has withdrawn from the accord.

Interconnectedness: globalisation in a multipolar world

Ongoing globalisation

Globalisation will continue, albeit at a slower pace. World trade patterns will change. More and more countries will seek to secure selected trade markets via preferential and regional trade agreements, rather than trading with the entire world. Moreover, foreign direct investments (FDI) will become less concentrated. An increasing part of the FDI outflows will originate from emerging economies. Globalisation has brought the world wealth, but not all people have benefited. The negative effects, ranging from inequality, tax evasion by multinational companies and uncontrolled sourcing worry more and more people. Political pressure for greater trade protectionism and re-shoring of production activities is therefore likely to intensify.

Shift towards a multipolar world

The political and economic hegemony of the United States is slowly waning. The importance of emerging economies, such as China and Russia, is increasing. With a rebalancing of global power, international institutions, such as the International Monetary Fund (IMF) and World Bank, will need greater focus on maintaining their inclusiveness. Voting shares within these institutions must change. Otherwise, emerging economies will increasingly take matters into their own hands. A fragmentation of multilateral forums will not help the dialogue on pressing global sustainability challenges, such as world trade, environmental degradation and world peace, and make it even harder to reach consensus.

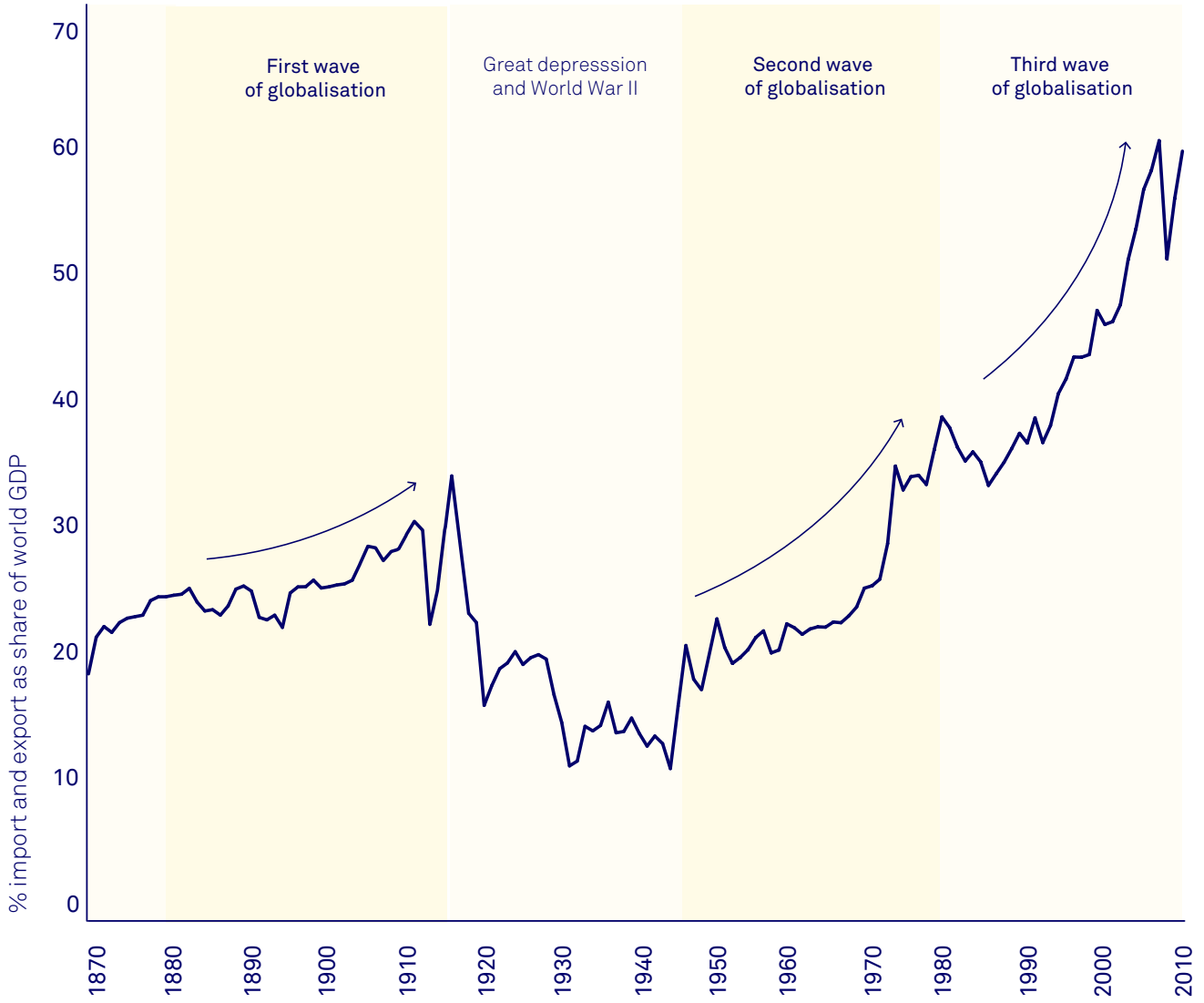
Globalisation trends:

- GLOBALISATION:
  ongoing, albeit at a slower pace
- SHIFT TOWARDS A MULTIPOLAR WORLD:
  emerging powerhouses

Outdated representation in international organisations

International institutions such as the IMF, the United Nations and the World Bank were created just after World War II. Voting rights in these organisations reflect the economic and political power relations of that period. Europe and the United States rule the roost. However, these voting rights no longer reflect the current economic and political power anymore. Asian countries and emerging economies are underrepresented. If the balance of power within these organisations is not adapted to the changed reality, they ultimately will lose their relevance.

Increasing world trade



First wave (1880-1914)

- Falling transport and communication costs
- Increasing international trade, especially within Europe
- Inter-industry trade: countries specialise in making certain products
- Total free flow of capital and people

Second wave (1945-1979)

- Cheaper transportation costs due to airplanes and shipping containers
- Trade liberalisation between rich countries due to installation of international organisations
- Flow of capital restricted

Third wave (1980-present)

- Trade liberalisation by emerging and developing economies
- Trade becomes more intra-industry: countries specialise in performing certain tasks
- International flow of services increases
- Freeing up of capital flows, but flow of labour is highly restricted

Source: Triodos IM

Politics and economy: socio-economic systems challenged

Global social trends:

- INDIVIDUAL EMPOWERMENT: on the rise, but obstacles remain
- 'POLITICS OF RAGE' HERE TO STAY: social and political unrest
- EMERGING MIDDLE CLASS: middle class expansion will continue at an average rate of 150 million per year
- DEBT-DRIVEN GROWTH: global debt is USD 247 trillion (318% GDP), a mortgage on the future
- PUBLIC POLICY: squeezed by global trends

Individual empowerment on the rise

Individual empowerment allows people to freely choose their path in life, in line with their talents and abilities. Human development, grassroots movements and increased access to internet and social media increase the empowerment of individual citizens. However, several obstacles remain. The primary obstacle to individual empowerment is income disparity[28]. Income inequality will decrease between countries yet increase within countries. Inequality in opportunities also limits empowerment. Continued lack of access to education, health care and financial services restricts people in realising their full potential and in fully participating in social, economic, political and cultural life.

Politics of rage here to stay

Obstacles to individual empowerment may result in a feeling of neglect and curtail hopes for a better life. Anti-establishment parties will capitalise on this by proposing policies that will put their country's interest first. Political pressures for trade protectionism and re-shoring of production activities are likely to intensify, creating social and geopolitical unrest. This will hamper sustainable development.

Emerging middle class

The global middle classes will continue to grow, at an average rate approaching 150 million per year[29]. This growth will be strongest in emerging economies. A larger middle class means greater spending power, which may enhance economic growth. It also may imply happier people, at least for new entrants in the middle class. However, it will also have negative environmental and social implications. A larger middle class likely implies a larger carbon and material footprint per person as a result of increased consumption. Pressure on already constrained natural resources will increase.

In addition, expectations and ambitions may rise, leading to a demand for more democratic governance and better public services. If these expectations and ambitions remain unfulfilled, tensions may rise.

Debt-driven growth

Global debt currently amounts to USD 247 trillion (318% of world GDP)[30] and continues to grow. Debt as such is not bad: if used responsibly and productively it can be a catalyst for change. Debt without productive investments, however, increases the vulnerability of debtors and will aggravate economic boom-bust cycles.

This, in turn, will lead to increased volatility and uncertainty, dampening prosperity. A vicious circle may emerge in which economic insecurity causes people to postpone or skip altogether investing in skills, education and health, making them more vulnerable in an economic downturn. Moreover, deep and prolonged economic downturns will lead to high levels of long-term unemployment. Unemployed people may not be able to retain their skills and thus miss the boat when the economy starts to recover.

Public policy: squeezed by global trends

Public policies are squeezed by global trends, especially in aging economies. Globalisation has led to the erosion of the corporate tax base. Large companies are aiming to optimise their tax structure. This puts pressure on governments to lower corporate tax rates. There is a race to the bottom. The impact on government revenues can only partly be mitigated by increasing the tax on labour. At the same time, government expenditure is rising, foremost as a result of ageing and health expenditure. Financial sustainability of government finances can only be guaranteed if social security systems are reformed. However, this often leads to increased financial uncertainty for citizens and, consequently, to lower wellbeing.

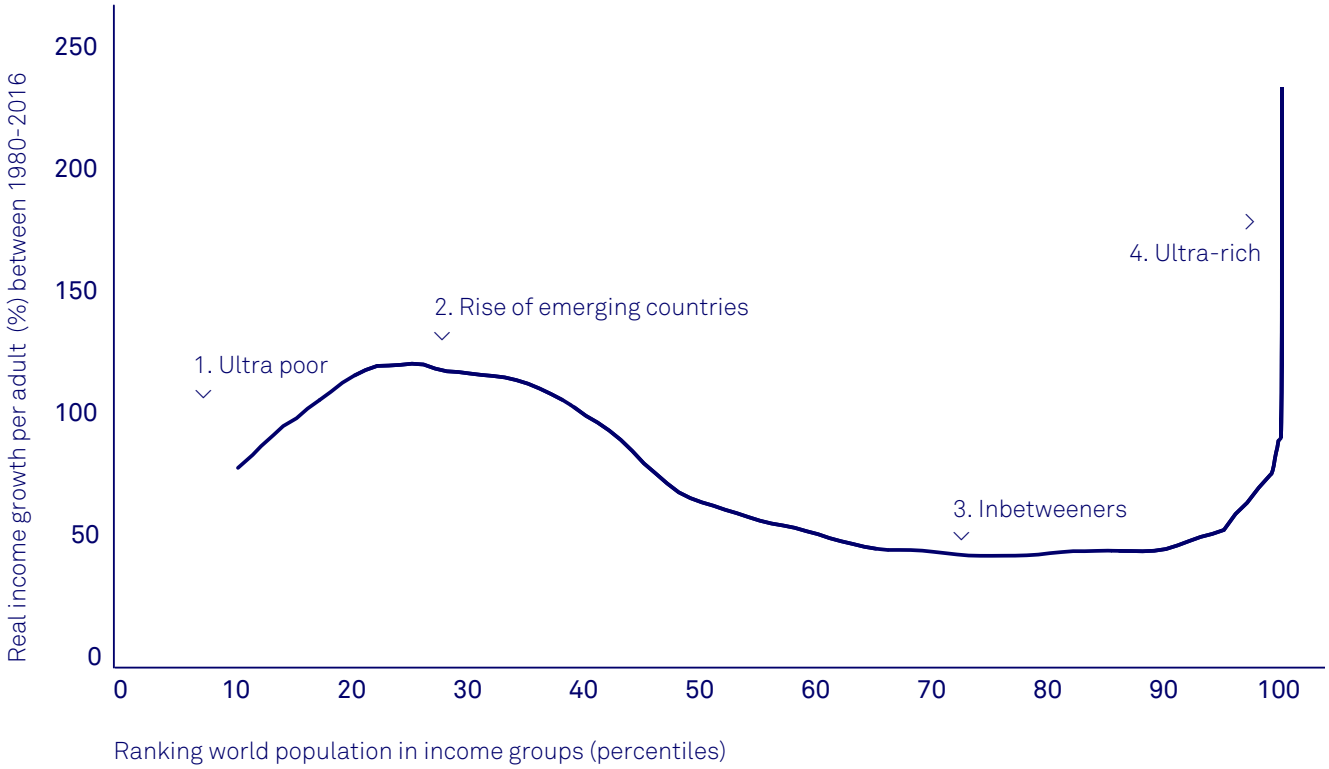
The trilemma of geopolitics

Global economic integration poses important questions about national politics. According to the economist Dani Rodrik, this is an "impossibility theorem" [31].

It says that democracy, national sovereignty and global economic integration are mutually incompatible: we can combine any two of the three, but never have all three simultaneously and in full.

If countries want to have more economic integration, they must either give up some democracy or some national sovereignty. The example of the eurozone shows how difficult that is.

The 'Elephant' of world inequality 1980-2016



1. Income growth rates are low at the very bottom due to low growth in the poorest countries (mostly in sub-Saharan Africa)
2. Income growth rates are quite high due to fast growth in Asia (especially in China and India)
3. Low growth of the incomes of the poor and middle classes in rich countries in Europe and Northern America
4. Very high income growth rates among top earners due to the explosion of top incomes in many countries.

Source: Alvaredo et al, World Inequality Report 2018

2.
Translating global challenges into transition themes

2. Introduction

Translating global challenges into transition themes

Our environment and our social infrastructure are under pressure from an economic system focused foremost on profit and growth. At Triodos Investment Management we strongly believe that our current economic system requires a radical transformation. The challenge is not to pursue more economic growth, but to work towards a system that is fair and inclusive and that respects the planetary boundaries. The financial sector plays a key role in driving this transformation.

Redesign our economic systems to fit our planet's ecological boundaries

Our current economic system is based on maximising profit. Products are designed to become quickly obsolete, and waste – in terms of materials and pollution – is largely neglected. Resources are extracted without any consideration for natural planetary boundaries. This cannot continue indefinitely. We need an innovative, circular economic system; an economic system in which material input and waste are minimised and all products and parts produced are used for as long as possible.

Redistribute prosperity for the benefit of all

The world is more prosperous than ever, but not everyone benefits. Our current economic system is not socially inclusive. People are confronted with all kinds of barriers that prevent them from fully participating in their societies' political, economic and social life. Shared prosperity can be boosted by the redistribution of material wealth. In addition, creating equal opportunities for all is equally important. Access to education and health care are the first steps on this trajectory. Living wages and fair labour practices are important follow-up steps.

Redefine the way we think about value and progress

Prosperity is usually expressed in terms of Gross Domestic Product (GDP), profit and income. This constitutes a very narrow definition of value and progress. Sustainable development and progress are not simply byproducts of economic growth. Health, social relations, balanced ecosystems, safety and work all contribute to prosperity.
Redefining how we think about progress in a market economy is essential to broaden the policy agenda and the corporate agenda so that it encompasses these vital aspects of wellbeing.

Revalue the way we live, cooperate and communicate

Humans are social creatures. We communicate and cooperate to achieve our personal goals, as well as the goals of society. Social interactions and relationships are thus essential for our wellbeing, though our current socio-economic system does not necessarily value social relations and the circumstances that enhance them. Trust, for example, is considered worthless; as it cannot be bought in the market place it has no market price and therefore does not have value. To us trust is essential for economic and sustainable development, however, as it determines the accumulation and the efficient use of physical and human capital, the ability to invent and adopt new technologies, the efficiency of institutions and governmental performance and size and specialisation of markets.

Transition themes

Triodos' Impact Equities and Bond strategy allocates capital to organisations thatsupport the transformation to a sustainablesociety. The transition themes provide a comprehensive overview of the transitions the world needs to make to solve our most urgent sustainability challenges.

- Sustainable food and agriculture
- Renewable resources
- Circular economy
- Sustainable mobility and infrastructure
- Innovation for sustainability
- Prosperous and healthy people
- Social inclusion and empowerment

Sustainable food and agriculture

Sustainable food and agriculture refers to an agricultural system that can meet societies food and other agricultural product needs in the present without comprising the ability of future generations to meet their own needs. As with conventional farming soil management, crop management, water management, disease/pest management and waste management are the key components. However, the methods used are radically different; they must be ecologically and socially sustainable.

How to feed the world sustainably?

- Use farming methods that promote soil health, minimize water use and lower pollution levels
- Consume values-based agricultural products
- Reduce agricultural waste

The Triodos perspective

We believe that the current amounts of agricultural land and production are sufficient to feed the world. The challenge is to produce, distribute and consume food in a more sustainable way. In a sustainable agricultural system food, fiber and animal products are produced using farming techniques that protect animal welfare, the environment and human communities, and waste is minimised. Everyone in the value chain, from producers and processors to distributors and retailers can contribute to such a system.

Farmers should, for example, use farming methods that promote soil health, minimise water use and lower pollution levels. To minimise the use of synthetic pesticides, synthetic fertilisers and livestock antibiotics, for example, we encourage farmers to use plant and animal species adapted to local conditions. We do not believe that genetic modification of plants and seeds is necessary, nor do we think it is harmless.

Consumers and retailers can steer for change through their purchases. By buying agricultural or agriculturally-based products

that are grown using environmentally and socially friendly techniques, people and businesses can contribute to a sustainable agricultural system. Examples of such products are natural and organic foods or paper-based products. Consumers and businesses can also alter their food consumption patterns or offerings, away from animal proteins to vegetarian and vegan food products.

Investing in sustainable food and agriculture

SUSTAINABLE FOOD PRODUCTION AND FOOD CONSUMPTION

Our impact equities and bond funds invest in companies that lead the transition towards a sustainable agricultural system. For example, by reducing their greenhouse gas emissions, restoring land, making efforts to improve soil health, preventing deforestation, and fostering biodiversity. When selecting companies, we also look at social issues, such as land grabbing and violation of workers' rights.

SUSTAINABLE TECHNOLOGY

Companies that make efforts to improve agricultural efficiency sustainably through technologies, ranging from smart water irrigation to smart transportation and technologies that reduce food waste, qualify for investment.

FOOD WASTE REDUCTION

We also invest in sustainable solutions to the reduction of food waste and in companies that are aiming to significantly reduce food waste.

Dilemma: Genetically modified chocolate

Scientific research[32] warns us that in a 'business as usual' scenario predicting an unabated global temperature rise of 2.1°C by 2050, two of the world's leading cocoa producers – the Côte d'Ivoire and Ghana region in Africa, and Indonesia – will lose significant amounts of suitable cultivation area.

Over 89% of the current cultivation areas will no longer be suitable for growing cocoa beans due to decreasing humidity around the equator. Cocoa plants can only grow within approximately 20 degrees north and south of the equator – and they thrive under specific conditions such as high humidity and abundant rain. A global manufacturer of chocolate has teamed up with researchers to modify the cocoa plant's DNA, to develop a tougher species that does not wilt or rot in warmer temperatures.

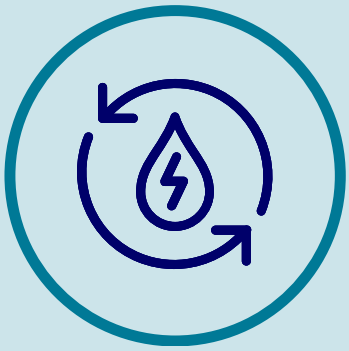
Despite the risk of a severe decrease in cocoa production in the future, should we fail to keep global warming limited to below 2°C, we would not invest in this chocolate producer as GMOs may have negative effects on human health and on the environment[33].

Renewable resources

Renewable resources are natural resources that can be replenished naturally in the course of time. Some renewable resources, such as solar and wind energy, have essentially an endless supply. Other resources take time and effort to renew, such as water, wood and oxygen. Although it will take a very long time to replenish them, many precious metals are also considered renewable. They are often not destroyed during extraction and use and can therefore be re-used.

How to limit the use of finite resources?

- Strive for a 100% renewable energy system
- Find renewable (bio-based) raw materials as feedstock for industrial processes
- Integrate water systems and increase water and energy efficiency



The Triodos perspective

For a transition from a resource-intensive economy to a sustainable economy, it's essential to reduce demand for non-renewable natural resources. They should be used as efficiently as possible and, when possible, renewable natural resources should be used.

The energy sector will need to undergo a deep transformation, including full decarbonisation of the power sector. We strive for a 100% renewable energy system that enables sustainable economic development and limits the rise in global temperature to well below 2°C. Renewable energy can take different forms: solar, wind, hydro, geothermal. We exclude nuclear energy, because it is inherently unsafe and the issue of nuclear waste as yet unresolved.

We also need to find more renewable (bio-based) raw materials as feedstock for industrial processes. Demand for raw materials, such as oil, metals and minerals, will continue to increase. Instead of tackling the projected production shortfall by stepping up the exploration, we should optimise the use and recycling of these raw materials (although low concentrations can

make this technologically highly challenging). We should also develop alternative materials that will provide the functionality needed in the application. This is the only natural way to reduce dependence on raw materials that are in limited supply.

When new water facilities are designed, or existing water structures modernised, attention must be paid to sustainability. We favour the integration of water systems to better align supply and demand, delivering the 'right water for the right need', reducing treatment costs and the length of pipe needed to fulfil specific water needs.

We also need water systems that use, treat, store and reuse water and energy more efficiently. Furthermore, we must start extracting the significant resources (nutrients and energy) found in wastewater rather than discarding them as waste.

100% renewable energy system

Investing in renewable resources

RENEWABLE ENERGY

Our impact equities and bond funds invest in companies that offer solutions towards a zero-carbon energy system. Companies that generate green sources of energy would qualify. Manufacturers across the clean energy value chain, such as solar panel producers, windmill producers, companies providing energy storage solutions, such as battery storage developers, and developers of smart grid technologies, are also investable.

BIO-BASED MATERIALS

We invest in suppliers of bio-based raw materials. Companies active in the field research of new bio-based materials may also be interesting. In our assessment we are always careful, however, that the production of bio-based materials does not compete with agricultural resources to produce food.

WATER

Our impact equities and bond funds seek to finance the transition to more integrated water systems. Solutions that improve water and energy efficiency along the water value chain are also interesting.

Circular economy

This encompasses a regenerative system in which resource input and waste, emission, and energy leakage are minimised by slowing, closing, and narrowing energy and material loops. Re-use of materials and products, reduction of the use of (finite) resources and the recycling of materials are key in contributing to a circular economy.

How to make use of resources as efficiently and as long as possible?

- Waste value: recycling
- Circular input: maximising recycled and renewable input
- Enabling and facilitating the circular economy

The Triodos perspective

Our current economic model is linear; economic growth is usually considered as an objective per se. This ethic of 'more, more, more' is not sustainable, as our natural resources are not unlimited, and the waste produced by the linear model seriously harms our ecosystem.

We therefore need to transform our current economic system into a circular system that is regenerative by design. Instead of maximising growth and profit and making products obsolete by design, the goal is to capture all the value we create for as long as possible. Economic growth must be reconnected to our actual needs in smart, innovative and resource-conscious ways.

'We can't solve problems by using the same kind of thinking we used when we created them'

Albert Einstein

Investing in the circular economy

Our role as an investor is to support the supply-side of this transition. Circular principles, often expressed in terms of business models, can be created for almost every industry, where resource dependent industries are the most prominent in terms of material gains.
We identified the main characteristics of several business models aligned with the circular economy principles that we want to support through our impact equities and bond investments:

The waste value model is based on the use of end-of-life products as input. Recoverable value is extracted from waste and recycled into commodities or energy.

The reverse loop model focuses on the extraction of recoverable value, but its inputs are goods whose residual value is still significant, if properly extracted.

In the circular input model, circular thinking starts with product designers. The portion of total input which is circular (reused, recycled or renewable) is maximised or the absolute amount of input used is minimised.

Platform models go one step further. Companies take direct responsibility over the entire life-cycle by requesting customers to return their products after use. They thus have a direct economic interest in ensuring that their products can be used through the greatest number of subsequent loops, with the minimum possible value loss.

Finally, we also invest in circular economy enablers and facilitators. These include, for example, developers of IoT applications for product and resource tracking, or service providers related to the management of a reverse marketplace – where buyers place ads for products they wish to buy, and sellers then make offers to sell.

Opportunity: the world is only 9% circular

Most materials we take from nature are used only for a very short time. And after use, only 9% of all materials is recycled or re-used[34]. That is what the circularity gap report shows. Increasing circularity does not only help to prolong the availability of materials, but also reduces carbon emissions. 67% of all carbon emissions are related to material management. The circular economy is on the agenda of many policy makers and consumers in many countries are more and more willing to buy circular products. But in the end, it's up to businesses to make products that can close loops and thus be the catalysts towards a circular world.

Sustainable mobility and infrastructure

Mobility and infrastructure cover a broad range of facilities, structures, systems and services that support the day-to-day operations of human society. The infrastructure sectors of transport, energy and water, telecommunication, waste and sanitation are among the most important elements of infrastructure. Sustainable infrastructure is designed, constructed and operated to optimise the environmental, social and economic impact.

How to be mobile, live and work in a sustainable way?

- Promote green transport modes
- Design, build, operate and maintain real estate using environmentally responsible and resource-efficient processes
- Promote sustainable infrastructure, especially in the field of transport, sanitation and waste

The Triodos perspective

Transportation systems are the backbone of our cities and rural communities. To keep societies and economies running smoothly an extensive network with different modes of transportation is needed. CO^2 emissions from transport account for 20% of total fuel combustion worldwide[35]. Sustainable mobility is therefore paramount if we want to achieve climate stability. We need to shift from traditional models of mobility (transport in private petrol cars and trucking) to sustainable alternatives (e.g. modes of transport with a lower or no CO^2 footprint, such as public transport solutions and electric vehicles).

As the built environment accounts for 8% of total fuel combustion worldwide[36], a change in the way we build our houses and offices is also essential. We should work towards energy neutral buildings and the use of circular materials. Real estate should be designed, built, operated, and maintained using environmentally responsible and resourc-efficient processes.

In a planet stressed by climate change and diminishing natural

resources, infrastructure needs to be sustainable. That is, it should be climate resilient, socially inclusive, and should contribute to a reduction of absolute carbon emissions.

Currently, combustion engine transportation contributes to 20% of global GHG emissions.

Investing in sustainable mobility and infrastructure

SUSTAINABLE TRANSPORTATION MODES

We invest in companies that provide green mobility solutions and services, such as electric vehicles, ride-sharing initiatives or mobility services that integrate several modes of transportation into one multimodal offering that could replace private petrol car ownership.

Public transportation modes also make an interesting investment proposition as they are key in reducing CO^2 emissions, noise pollution and traffic congestion. Cycling related goods and services also qualify, as more and more governments promote cycling for health and environmental reasons.

SUSTAINABLE BUILDINGS

We invest in companies supplying products and services that facilitate the decarbonisation of the existing building stock. We are also interested in products and services that facilitate the move towards the construction of energy- and material efficient new buildings.

SUSTAINABLE INFRASTRUCTURE

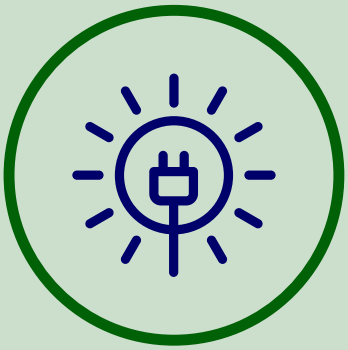
We seek companies that offer sustainable infrastructural solutions. Especially in the field of transport, sanitation and waste. Companies active in the field of clean energy and water infrastructure are investable solutions in our renewable resource theme.

Innovation for sustainability

Sustainable innovation is a process where sustainability considerations are integrated into company systems from idea generation through to research and development (R&D) and commercialisation. This applies to products, services and technologies, as well as new business and organisation models. Different innovation levels exist. From small improvements and complete redesigns of existing products to the design of new products, services and complete systems.

How to innovate for a sustainable future?

- Make use of ICT-enabled innovations
- Make use of other new technologies
- Make sure that innovation does not compromise human safety and dignity, and quality of life



The Triodos perspective

Throughout history, innovation has been instrumental in how mankind increased prosperity and found answers to challenges. It is a key element in creating a sustainable society. ICT-enabled innovations may help reduce GHG-emissions and waste by increasing production efficiency. And in addition, ICT also has the potential to enhance social inclusion.

Other innovations may also help to move towards a more sustainable direction. We have discussed several innovations in our investment themes, but this list is not exhaustive. Moreover, it's hard to predict the technology of the future. One thing is certain: we need technology to overcome the challenges in sustainability.

This does not mean innovation is always a positive. While intentions may be good, the outcomes can be questionable. This is the case, for example, with protection of digital data and privacy. Innovation always requires a balanced approach. When investing two questions always need a positive answer for us: does the innovation help the transition towards a sustainable world and are human quality of life, safety and dignity not compromised.

Investing in innovation for sustainability

ICT ENABLED SUSTAINABLE INNOVATIONS

We are in the middle of an ongoing digital revolution. Information Communication Technologies are crucial to bring about this change in the coming years. ICT-enabled, sustainable innovations can bring, for example, better health and transportation systems, improve livability, ensure there is clean water and clean air. Investable solutions range from companies active in the smart supply chain space to companies active in Robotics and data-driven innovation. For the latter, we watch closely how they handle data privacy and data security[37].

CYBER SECURITY

ICT is still becoming more important every day in our society, from production and consumption to politics. So is the need for cyber security. We invest in companies offering cyber security solutions to protect consumers and companies against the threats of an increasingly digital society.

NEW TECHNOLOGIES

We also invest in companies that have new technologies not covered by other transition themes. That is, in companies with new products, services or business models.

Escaping the innovation dilemma in sustainable development

"Embedded within the definition of sustainable development formalised by the Brundtland Commission in Our Common Future, there are important nuances that should inform the role of innovation. Under that definition, development is sustainable when it "meets the needs of the present without compromising the ability of future generations to meet their own needs.

This means that as we innovate within business, government and civil society, we should remember to; recognise the needs of a wide variety of people, including those unable to attend the major sustainable development and climate change meetings; understand the relevance and diversity of abilities, in terms of the capacity of individuals and communities to provide for these needs as well as hard limits that stem from ecosystems and the environment; embrace a time-frame that goes beyond the short-term interests of today's leaders and citizens, spanning multiple generations and thereby changing our ideas about what constitutes resilience and efficiency; accept our inter-dependency in a global commons, and acknowledge that the goal of collective prosperity can be undermined by the misuse of resources by competing groups."

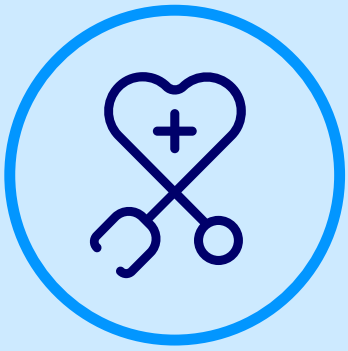
Nicholas Davis, Head of Society and Innovation, Member of the Executive Committee at the World Economic Forum (WEF)[38].

Prosperous and healthy people

Prosperous and healthy people are in a state of physical, mental and social well-being, going beyond the mere absence of disease or infirmity. Essential to reaching a state of well-being is a well-functioning health system that improves the well-being status of individuals, protects people against the financial consequences of ill-health and provides equitable access for all.

How to become and stay healthy and happy?

- Improve accessibility, availability and affordability of healthcare
- Promote an active lifestyle and a healthy diet
- Enhance personal and household hygiene



The Triodos perspective

We believe that we should redefine the way we think about progress. Progress is usually measured in GDP (Gross Domestic Product); more economic growth = more prosperity = greater wellbeing. However, GDP is a poor measure of progress[39]. True progress is determined by more than the material well-being of people in a society. Fulfilment of basic needs, including food and water, shelter and clothing and sanitation, education, and healthcare is fundamental to human prosperity. But higher needs, such as belonging, esteem and self-actualisation are also important. These secondary preconditions add to the quality of life. In this transition theme, we focus on healthy and prosperous people. We look at many of the other preconditions in our other transition themes.

Geographical accessibility, availability and affordability of healthcare remains a problem in many countries. This must be improved. Prevention, diagnosis and treatment of diseases are primary contributors to a healthy life. With increased demand for healthcare services (because people are getting older) and fewer

people on staff (because of baby boomers who leave the labour market), healthcare facilities must use technology to bridge the gap. What we must keep in mind is that medical technological progress often results in costlier treatment options.

Lifestyle is the outcome of choices that individuals make and influences their health and wellbeing. More affluency for a bigger part of the population leads to unhealthy dietary changes and sedentary lifestyles, increasing the risk of non-communicable diseases. We think that active lifestyles and a shift from calorie-dense and nutrient-poor diets to nutrient-dense diets are important. Moreover, in a society that seems to continuously be speeding up, a meaningful fulfillment of leisure time contributes to wellbeing.

Worldwide healthy life expectancy is 63.3 years, 8.7 years lower than the total life expectancy at birth.[40]

Investing in prosperous and healthy people

HEALTHCARE

Companies offering products and services that support prevention, diagnosis and treatment of diseases are primary contributors to this sustainable transition theme. We primarily focus on the treatment and prevention of wide-spread diseases and the production of generic medicines. Companies that help reduce healthcare costs or improve access to healthcare also qualify.

LIFESTYLE AND LEISURE

We invest in companies that promote an active lifestyle, leisure activities that fit our views on sustainability, or promote a healthy diet. Investable companies range from music instrument makers and publishers to producers of sports apparel.

HOUSEHOLD AND PERSONAL PRODUCTS

Companies in the household and personal products sector can also be an investable solution. As sound hygiene enhances overall health, companies that provide products to enhance personal and household hygiene also qualify.

Social inclusion and empowerment

Social inclusion is the creation of facilities or the provision of improved access to facilities to enable people to actively participate in society. Social inclusion is a vital component in building a sustainable society. Individuals and groups need to be and feel able to develop themselves and prosper.

How to create a society in which all people can fully participate?

- Stimulate and increase empowerment
- Decrease inequality in opportunities
- Be a social frontrunner

The Triodos perspective

It is important that people are empowered. Education is key in fighting inequality and promoting active engagement. It is fundamental in achieving robust and well-functioning democracies, social emancipation, decent wages, and in harnessing people against the downsides of technology. Empowering girls and women is essential, as this may generate positive ripple effects[41]. Access to media and information contributes to achieving a well-balanced opinion on societal developments and helps discern between 'real news' and 'fake news'. Access to media also improves the level of social inclusion through the use of social media and digital networks. Access to financial services can be catalyst for change, especially in underbanked countries where access to finance can directly facilitate sustainable growth. It offers the ability to start a business, employ people and expand.

Empowerment is not enough. Our economy and society can only be truly sustainable if they are inclusive. This requires equal distribution of prosperity and opportunity. In our current

economic system, people are confronted with all kinds of barriers that prevent them from fully participating in their societies' political, economic and social life. A redistribution of material and non-material wealth is necessary.

We also believe that communication and cooperation are important foundations of every society. In the current economic system, these foundations aren't valued enough (or not at all). As a result, the world tensions between different groups in society and different countries increase and the world becomes more and more polarised. We must revalue the way we live, cooperate and communicate by rebuilding trust.

Empowering girls and women is essential, as this may generate a positive ripple effect.

Investing in social inclusion and empowerment

EMPOWERMENT

Our impact equities and bond funds focus on companies that make products or provide services to empower people.This can be achieved through access to a wide range of products and services. Companies that may qualify have, for example, activities in education and financial services for the underprivileged. ICT-enabled innovations often play an important role by increasing accessibility of these services.

INCLUSION

ICT can serve as critical channel for inclusion by connecting people with information sources and opportunities that may otherwise be poorly accessible. ICT can also foster social connection and enable people to organise. Therefore, we invest in companies that improve ICT access, ICT use and ICT skills of the underprivileged. Companies that advance social inclusion via their products and services, such as affordable housing, are also interesting.

SOCIAL FRONTRUNNERS

In addition to investing in companies that advance social inclusion through their products and services, we also invest in companies that stimulate social inclusiveness via their policies and practices. We think that frontrunners in social inclusion stimulate gender equality, equal pay, board diversity and providing job opportunities to the disadvantaged or disabled.

3.
Every investment has an impact

3. Every investment has an impact

Every investment creates an impact on society, whether it be positive or negative. As investors, we have the unique power and responsibility to manage that impact toward outcomes we find valuable for both our portfolios and society.

So, then we ask: why does capital continue to flow into companies that yield negative impact on our planet and people? And, most importantly, why does the financial sector reject its accountability for the impact it facilitates?

We observe that financial markets fail to serve the real economy. Today, markets put substantial pressure on companies to maximise short-term results, instead of allowing them the flexibility needed to create long-term holistic value. Our belief is that this needs to change.

Triodos Investment Management acts in response to this belief, and we are proud to be one of the very first fund managers making positive impact viable through equity and bond investments.

ESG is no longer good enough

Our impact equity and bond funds go beyond conventional environmental, social and governance (ESG) and norms-based exclusions to invest for positive change.

Company sustainability ratings and normative screens have been instrumental in facilitating swift market adoption of 'do no harm' and ESG optimisation strategies. However, few realise that these approaches are plainly ineffective at actually steering capital toward companies that intentionally use their resources and influence to catalyse transition towards sustainable, economically viable, solutions.

ESG and exclusion focused funds, which make up the overwhelming majority of the market's 'sustainable investment' options, eliminate companies from a broader index using quantitative ESG thresholds, sector-wide screens, or norm-based exclusions to be left with 'no harm done' or 'best-in-class' portfolios. This means that at no point during the investment process, is positive contribution to society considered. We take a more holistic approach, focusing first and foremost on including the good guys and, in addition, on eliminating the bad guys.

Investing for positive change

Our Impact Equities and Bond team follows an inclusionary, bottom-up, investment process that puts positive impact at the center of stock and bond selection. Triodos Investment Management's in-house qualitative research guides this process by developing comprehensive opinions of each individual company's long-term commitment to sustainability and material contribution to the transition themes. We confirm mission alignment with prospective investment companies by assessing corporate vision, mission, organisational culture, and management support for sustainability.

Every investment in our portfolio must materially contribute to at least one transition theme through its products, services, and/or business operating models. Additionally, to be eligible for investment, companies must meet our industry-leading process, product and precautionary minimum standards[42].

Once companies are deemed eligible for investment, integrated financial and sustainability analysis is conducted to determine whether companies qualify as portfolio candidates.

We evaluate the company's financial value drivers and assess the potential impact of internal and external sustainability factors on future financial value, making our approach both solutions-focused and forward-looking.

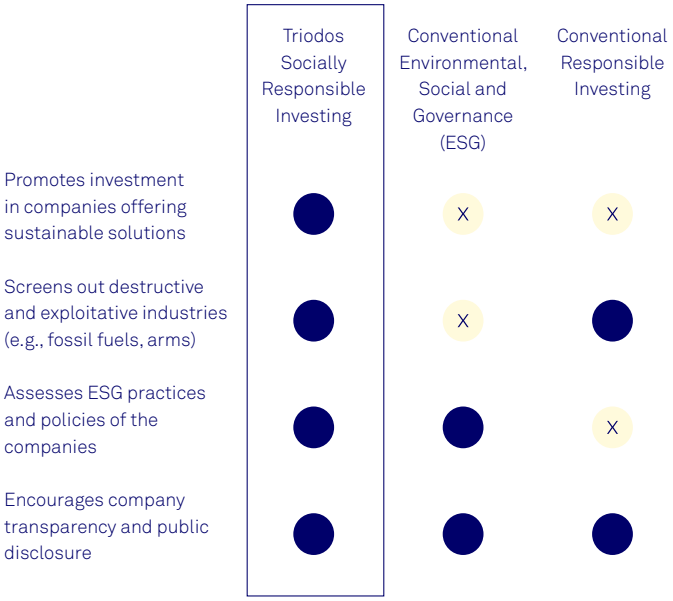
Stewardship and engagement

We believe that active stewardship starts with proper impact investment decisions. A vital part of our stewardship approach[43] is investing

Every investment has an impact

in companies that support the transition to a sustainable society. We actively engage in dialogue and various other feedback loops with companies to positively influence their business. Where appropriate, we discuss substantial and relevant issues regarding company sustainability performance. We also regularly collaborate with other institutional investors to further steer sustainability-related best practices. Additionally, we believe that by exercising our shareholder voting rights, we can exert a positive influence on a company's long-term strategy. Our policy is to vote at the shareholder meetings of all companies in which we are invested.

How we are different



Triodos Impact Equities and Bond Funds

Portfolio construction is based on a comprehensive risk/return analysis performed by our Impact Equities and Bond team. Potential for price appreciationand fund manager conviction are key elementsconsidered when determining the appropriatenessof a company into the fund portfolio. The impact-aligned equities and bonds with the best risk/return perspectives will be included in one or more of our Triodos Impact Equities and Bond funds.

Triodos Euro Bond Impact Fund

Aims to generate positive impact and stable income from a concentrated portfolio of investment-grade, euro-denominated bonds and green bonds issued by listed companies, and semi-public institutions and EU member state governments.

Triodos Global Equities Impact Fund

Aims to generate positive impact and competitive returns from a concentrated portfolio of equities issued by predominantly large-cap companies offering sustainable solutions.

Triodos Impact Mixed Funds (defensive, neutral, offensive)

Aim to generate positive impact and competitive returns from a concentrated portfolio of global equity positions and investment-grade corporate, sovereign, sub-sovereign, and green bonds.

Triodos Pioneer Impact Fund

Aims to generate positive impact and competitive financial returns from a concentrated portfolio of predominantly small- and mid-cap companies pioneering the transition to a sustainable society.

Glossary

Artificial Intelligence (AI) - Systems that employ machine learning and can sense, think and interact

Big data - The process that is used when traditional data mining and handling techniques cannot uncover the insights and meaning of the underlying data, because the data are to voluminous or unstructured.

Biodiversity - The number and types of plants and animals that exist in a particular area or in the world generally.

Blockchain - A public register in which transactions between two users belonging to the same network are stored in a secure, verifiable and permanent way.

Circular economy - A regenerative system where natural resources are used as efficiently as possible, waste is reduced and recycled, and all products and product parts are designed to make them last as long as possible.

Demographic dividend - The growth in an economy that is the resultant effect of a change in the age structure of a country's population.

Digitalisation - The process of converting information into a computer-readable format.

Economic growth or GDP growth - An increase in the amount of goods and services produced in a specific region over a certain period of time.

Empowerment - The process of gaining freedom and power to do what you want or control what happens to you.

ESG-integration - Embedding environmental, social and governance (ESG) considerations into business strategy, operations and product and service offerings. Within the investment industry ESG factors are used to better understand a company's risk profile, performance outlook and value-creation potential.

Globalisation - The process of integration of regional and national economies, societies and cultures through a global network of trade, communication and immigration.

Global trends or megatrends - Powerful social, demographic, environmental and technological change drivers that are impacting our societies, cultures and markets.

Greenhouse gases (GHG) - Gases that trap heat in the atmosphere: water vapor (H2O), carbon dioxide (CO^2), methane (CH4), nitrous oxide (N2O), ozone (O3) and fluorinated gases (CFCs and HFCs).

Internet of Things (IoT) - A network of appliances and devices digitally connecting and integrating the physical world in computer systems.

Potential growth - Increase in the capacity of an economy to produce goods and services compared from one period of time to another.

Planetary boundaries - The planetary boundaries concept presents a set of nine planetary boundaries within which humanity can continue to develop and thrive for generations to come.

Renewable energy - Energy that is collected from renewable resources, which are naturally replenished on a human timescale.

True Value - The True Value of a product is the value basedon an all-round product analysis, that takes into account
all positive and negative impacts of its production.

Undernourishment - Caloric (dietary energy) intake which is insufficient to meet the minimum energy requirements.

Value-based agriculture - Agricultural products that are grown using environmentally and socially friendly techniques.

Endnotes

1 See, for example, Pinker, S. (2018). Enlightenment now. The case for reason, science, humanism and progress. New York: Penguin.

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7 Another trend that will continue in the future is the miniaturisation of products. Due to nanotechnology product components can become smaller and more powerful. This development will impact many industries. Lifesciences will probably also generate some great innovations which will improve our life conditions.

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T +31 (0)30 694 2400
E TriodosIM@triodos.com
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