DEEP
KNOWLEDGE
PHILANTHROPY

Global Impact Investing Overview Q2 2022

May 2022

www.deep-knowledge.org

Global Impact Investing Overview Q2 2022

Table of Contents

Introduction

Developed by Deep Knowledge Philanthropy, the '**Global Impact Investing Overview Q2 2022**' report contains a comprehensive overview of the Global Impact Investing Industry by subsector and the industry as a whole. The report focuses on participants in the industry, the main trends and obstacles, and the development of the industry during the COVID-19 era.

The report covers the industry landscape, defining key focus areas and solutions that actively contribute to improving people's lives and the health of the environment.

Advanced technologies (Artificial Intelligence, Robotics, Advanced Materials, FinTech, and others) **help to drive the emergence of tech in the social sector** and open up new market opportunities. Thus, start-ups play a crucial role in solving complex questions of the modern world.

The report provides a detailed, systematic description of the **leading companies, ambitious start-ups, and impactful investors and charities** associated with the Impact Investing Industry.

Methodology and Approach

Methodology

The report analyzes 220 start-ups, 445 companies, 834 investors, and 100 of the most influential nonprofit organisations.

Start-ups were categorised into 15 specific industry subsectors optimised from the UN Sustainable Goals. All the start-ups are fully focused on impact activity. Sector companies consist of the corporations that intentionally invest to generate social and environmental impact alongside profits.

The data on the main trends in the 'Global Impact Investing Overview Q2 2022' report has been aggregated from a variety of reputable and public data sources, including general and industry-specific databases, media and news reports, and conferences and government websites. While the information presented here is believed to be reliable, the authors make no representation as to the accuracy or completeness of its constituent materials, information, and data.

Approach

Relying on various research methods and analytics techniques, the analytical report provides a comprehensive overview of the Global Impact Investing Industry. This approach has certain limitations, especially when using publicly available data sources and conducting secondary research. Deep Knowledge Philanthropy is not responsible for the quality of the secondary data presented herein; however, we do our best to eliminate risks by using different analytics techniques and cross-checking data.

Data Sources

Media Overview	Industry Specialised Databases	Publicly Available Sources	Industry Reports and Reviews

Applied Research and Analytics Methods

Descriptive Analysis	Mixed Data Research	SWOT Analysis
Comparative Analysis	Qualitative Data Collection	Data Filtering

Global Impact Investment Factsheet

$299.9B

Impact investing market size in 2021

17.6%

CAGR expected over the years 2021-2027

~30%

Of the global market is Impact Investing market in the USA

42.4%

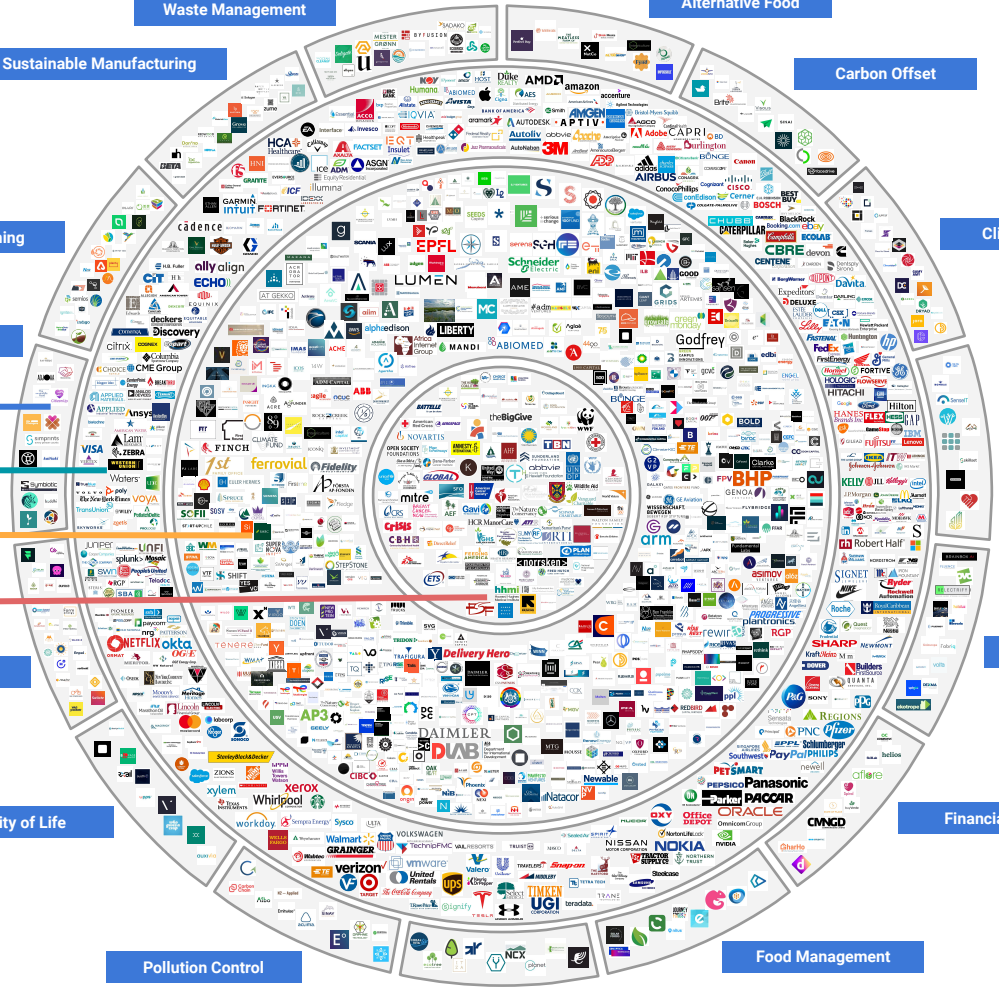
Growth of the impact investing market size during the pandemic

Global Impact Investing Overview Q2 2022: Main Parameters

Sources: Global Impact Investing Network (GIIN), Impact Investing – Global Market Trajectory & Analytics, Deep Knowledge Philanthropy

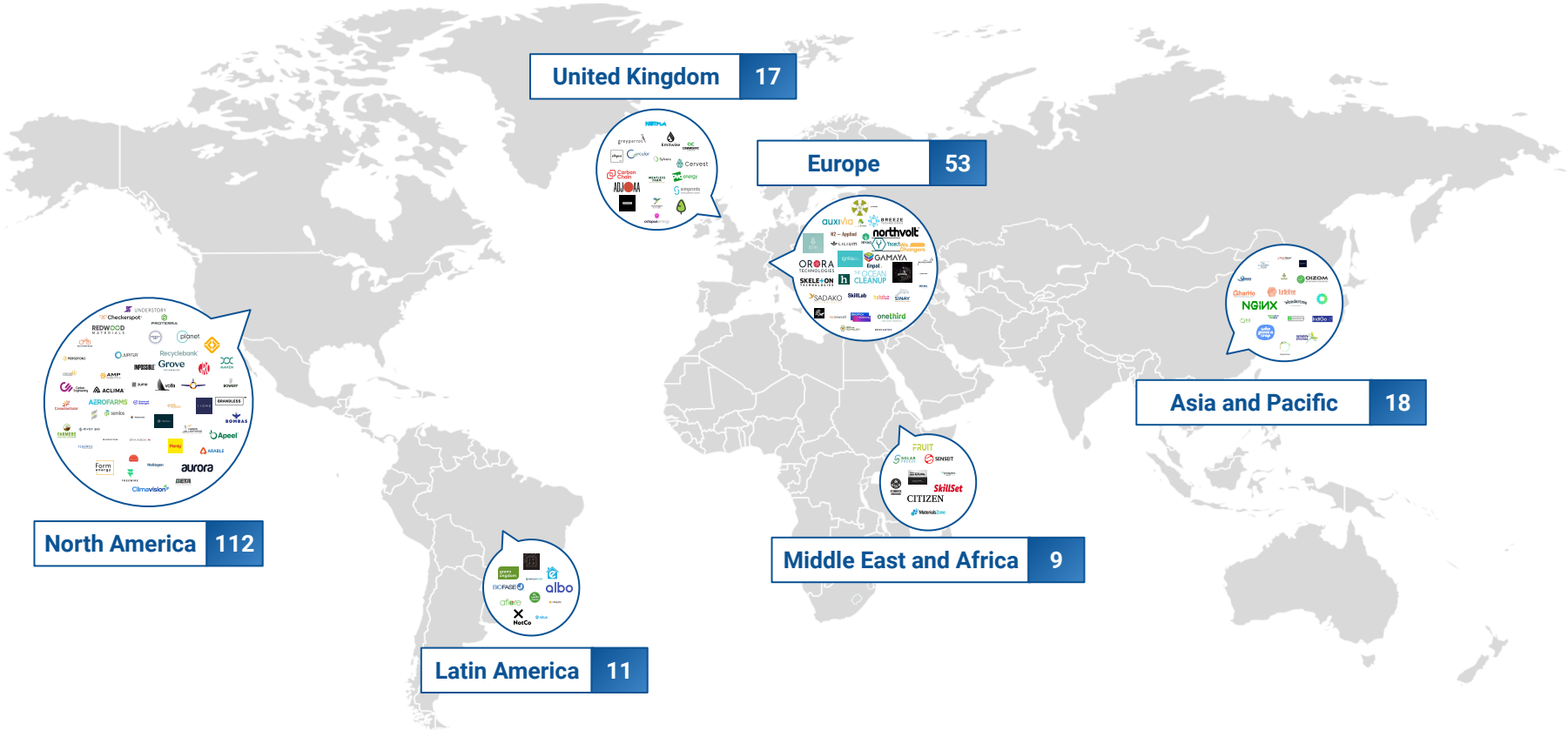
Global Impact Investing Overview Q2 2022

Companies – 445
Start-Ups – 220
Investors – 834
Nonprofit Organisations – 100



DEEP KNOWLEDGE PHILANTHROPY

Impact Investment Start-Up Regional Distribution*



*Not all companies logo are presented, the companies presented have the highest funding amounts per region

Global Impact Investment Landscape and Regional Overview

DEEP
KNOWLEDGE
PHILANTHROPY

Global Impact Investing Market Overview (1/2)

Distribution of Start-Ups by Type of Social Impact

Society

- Social Development
- Alternative Food
- Food Management
- Financial Inclusion
- Disability Support
- Quality of Life

Natural Resources

- Renewable Energy
- Sustainable Manufacturing
- Energy Efficiency

Environment

- Sustainable Farming
- Carbon Offset
- Waste Management
- Climate Intelligence
- Pollution Control
- Nature Protection

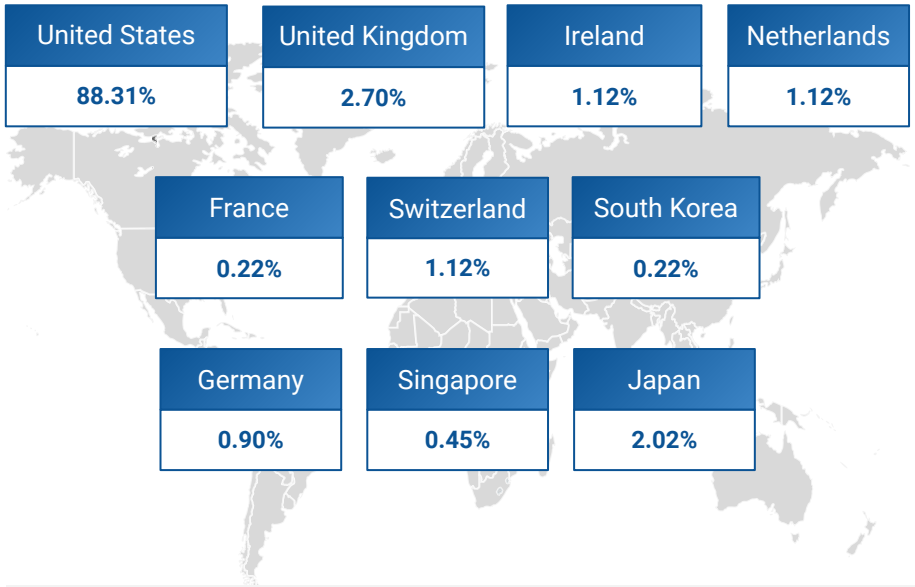
Technologies and Solutions Used in Impact Investing

- AgTech
- BioTech
- DeepTech
- Digital Platform
- Engineering
- Financial Services
- FoodTech
- High-Tech Vehicles
- Manufacturing
- Marketplace
- Software
- Others

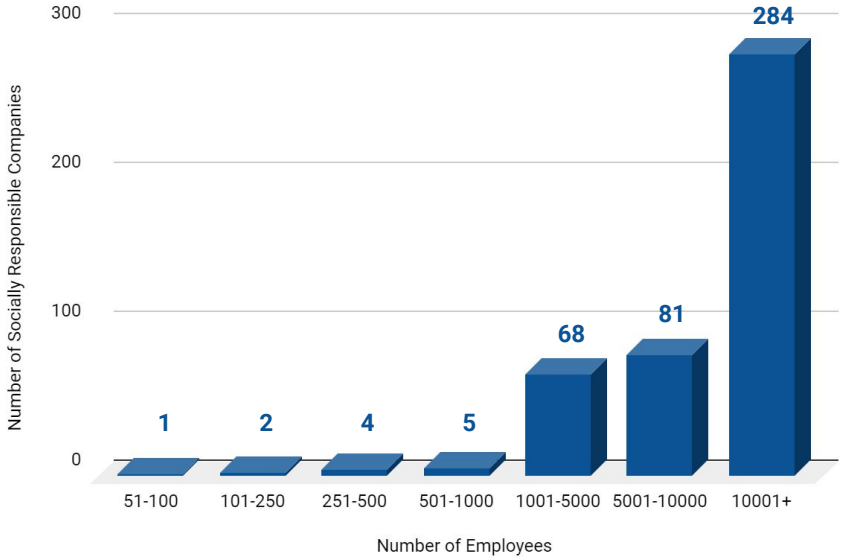
Sources: Deep Knowledge Philanthropy

Global Impact Investing Market Overview (2/2)

Regional Distribution by Number of Socially Responsible Companies



Socially Responsible Companies by Number of Employees



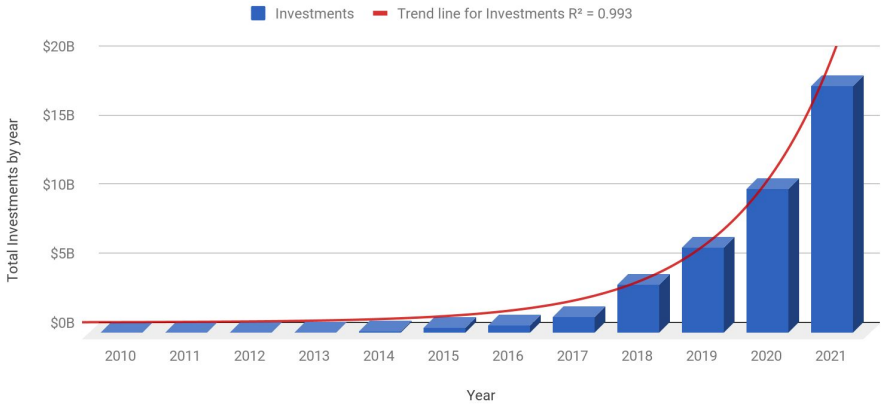
The United States holds the largest number of socially responsible companies that seek to support beneficial social or environmental outcomes in addition to generating financial returns. The United Kingdom follows the United States, accounting for 2.7% of analysed companies. In terms of the number of employees, big corporations are driving social change by taking advantage of their power and reach to communicate their positions on corporate social responsibility to their massive consumer bases as well as to society at large.

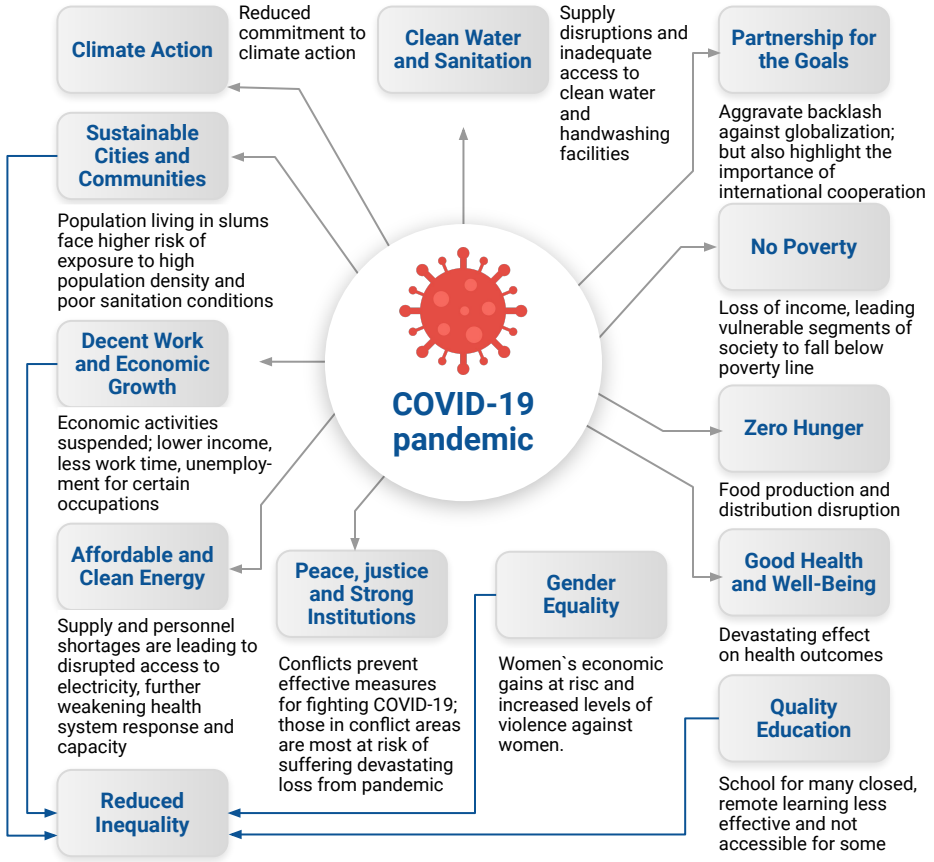
Sources: Deep Knowledge Philanthropy

Impact of COVID-19 on Investment Flow

Impact investing has seen a boost in popularity during the COVID-19 pandemic due to increased awareness of climate change and social challenges such as unequal access to healthcare and racial and gender inequality. In 2021, its market size was $299.9 billion, and it is projected to reach a size of $793.5 billion by 2027, growing at a CAGR of 17.6% over the period of 2021-2027.

Annual Investment Flow Growth

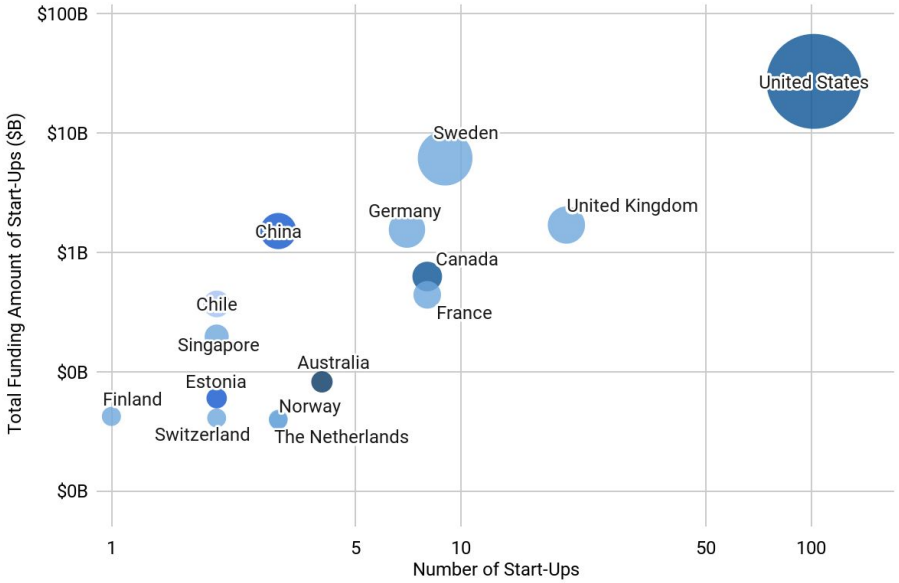




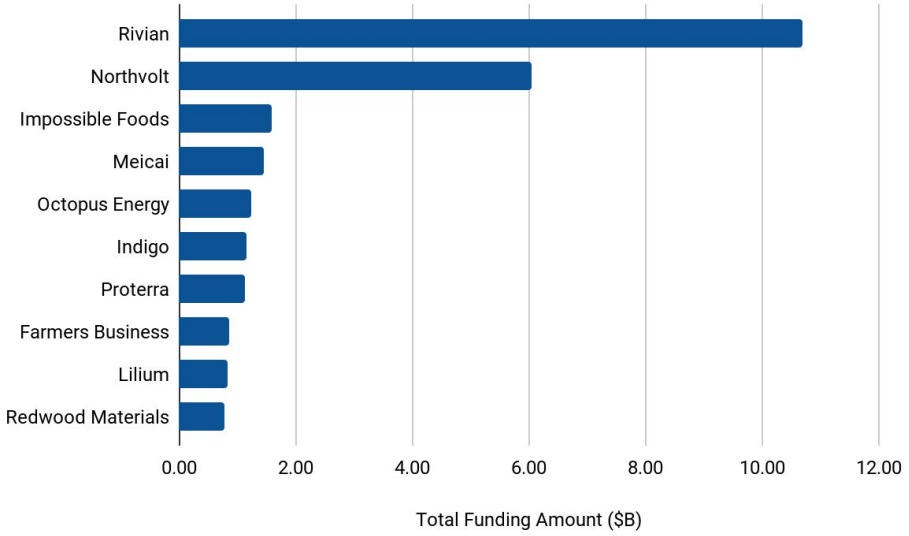
Sources: Global Impact Investing Network (GIIN), Deep Knowledge Philanthropy, United Nations

Impact Start-Ups by Volume of Funding

Country Comparison Matrix



Top 10 Impact Start-Ups by Total Funding



The United States is a clear leader in both the number of social impact start-ups (102) and in the volume of funding received ($27 billion). As shown by the graph on the right, the most heavily funded companies are Rivian ($10.70 billion) and Northvolt ($6.04 billion) while the average amount of funding among those companies that received it is $0.25 billion.

Sources: Deep Knowledge Philanthropy

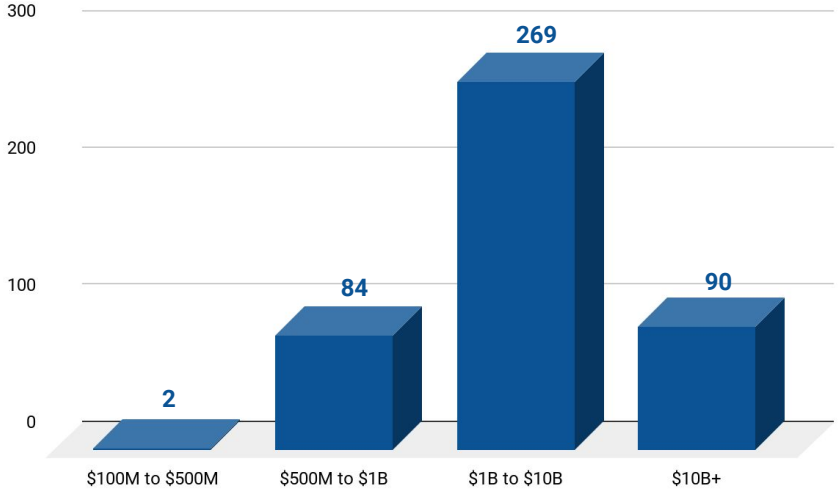
Leading Impact Investment Start-ups by Funding

1	Rivian	$10.7B
2	Northvolt	$6B
3	Impossible Foods	$1.6B
4	Meicai	$1.5B
5	Impossible Foods	$2.1B
6	Octopus Energy	$1.2B
7	Indigo	$1.2B
8	Proterra	$1.1B
9	Farmers Business Network	$870M
10	Lilium	$826M

11	Redwood Materials	$792M
12	Perfect Day	$712M
13	Enpal	$709M
14	Apeel Sciences	$640M
15	Pivot Bio	$617M
16	Volta Charging	$575M
17	Plenty	$541M
18	Beta Technologies	$511M
19	Nature's Fynd	$508M
20	Bowery Farming	$488M

Socially Responsible Companies by Age, Revenue, Type

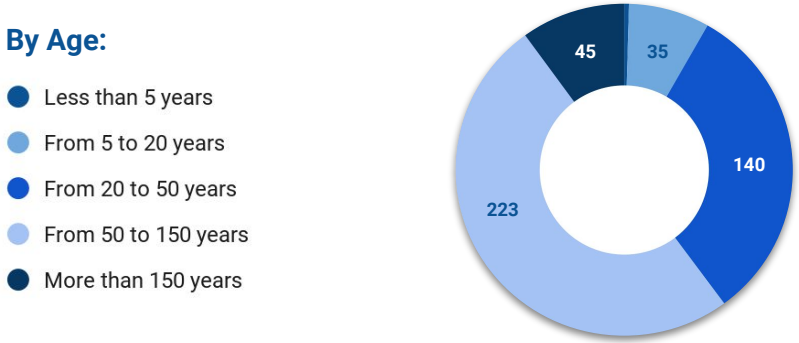
Number of Companies by Revenue



The majority of socially responsible companies (60%) earn between $1 billion and $10 billion. There are roughly the same number of companies with revenues in the range from $500 million to $1 billion (19%) and over $10 billion (20%). Half of the companies are between 50 and 150 years old, and a third of the companies were founded between 20 and 50 years ago. More than 90% of the companies are public while only 8% are private equity.

Share of Companies by Age and IPO Status

By Age:

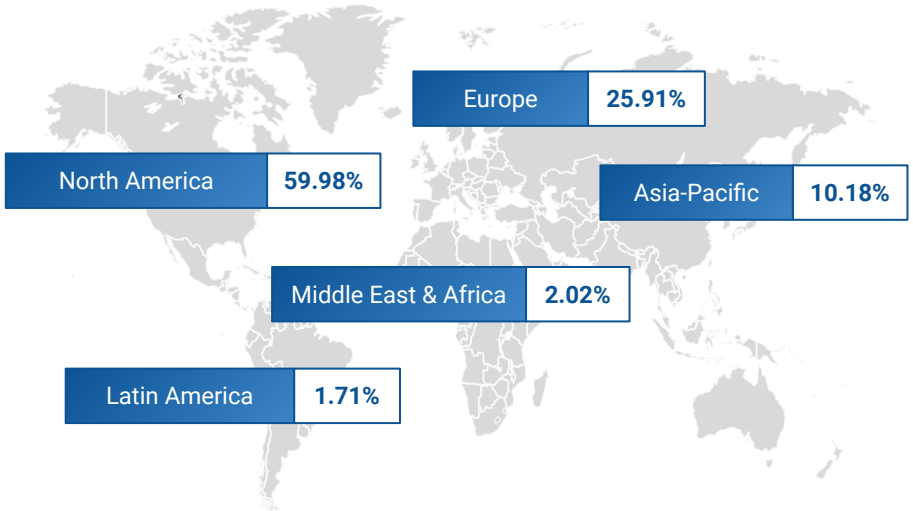


By IPO Status:

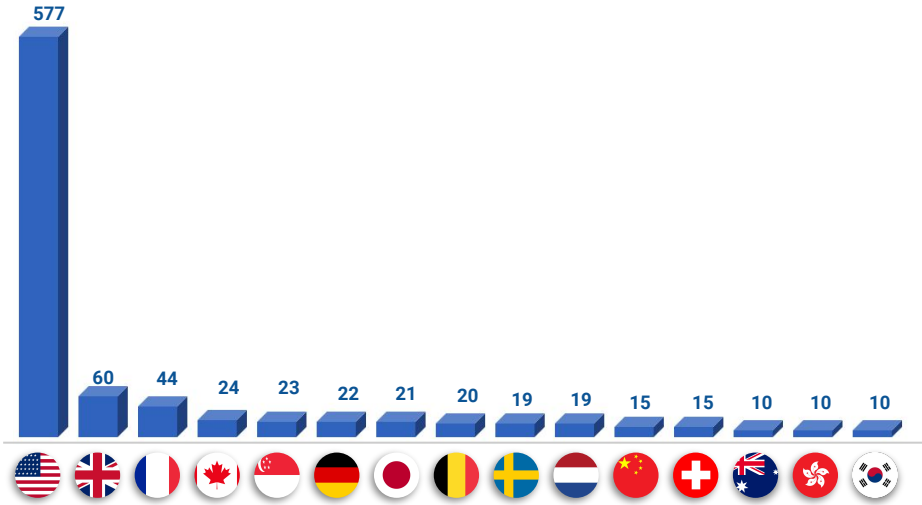
Sources: Deep Knowledge Philanthropy

Regional Distribution of Investors

Proportion of Investors in Each Region



Top 15 Countries by Number of Investors



Almost 60% of investors are located in North America. The second biggest region is Europe, with more than a 25% share of the global number of investors. The Top 3 countries by the number of investors are the United States (39.5%), the United Kingdom (9.9%), and France (6.2%).

Sources: Deep Knowledge Philanthropy

Top 25 Nonprofit Organisations

United States

Bill & Melinda Gates Foundation
New York, United States

AbbVie Patient Assistance Foundation
Chicago, United States

American Red Cross
Washington, D.C., United States

Catholic Relief Services
Baltimore, United States

Chan Zuckerberg Foundation
Palo Alto, United States

Direct Relief
Santa Barbara, United States

Nature Conservancy
Arlington, United States

Feeding America
Chicago, United States

Open Society Foundations
New York, United States

World Wildlife Fund
Washington, D.C., United States

Save the Children Federation
New York, United States

Switzerland

Gavi the Vaccine Alliance
Geneva, Switzerland

International Committee of the Red Cross
Geneva, Switzerland

The Global Fund
Geneva, Switzerland

Swiss National Science Foundation
Zürich, Switzerland

Germany

Founderland
Berlin, Germany

Spain

Tree-Nation
Barcelona, Spain

Canada

Queen's University at Kingston
Kingston, Canada

Sweden

Norrsken Foundation
Stockholm, Sweden

United Kingdom

Breast Cancer Now
London, United Kingdom

Crisis
London, United Kingdom

The Big Give
London, United Kingdom

The Woodland Trust
Grantham, United Kingdom

United Bible Societies
Swindon, United Kingdom

Wildlife Aid
Leatherhead, United Kingdom

Sources: Deep Knowledge Philanthropy

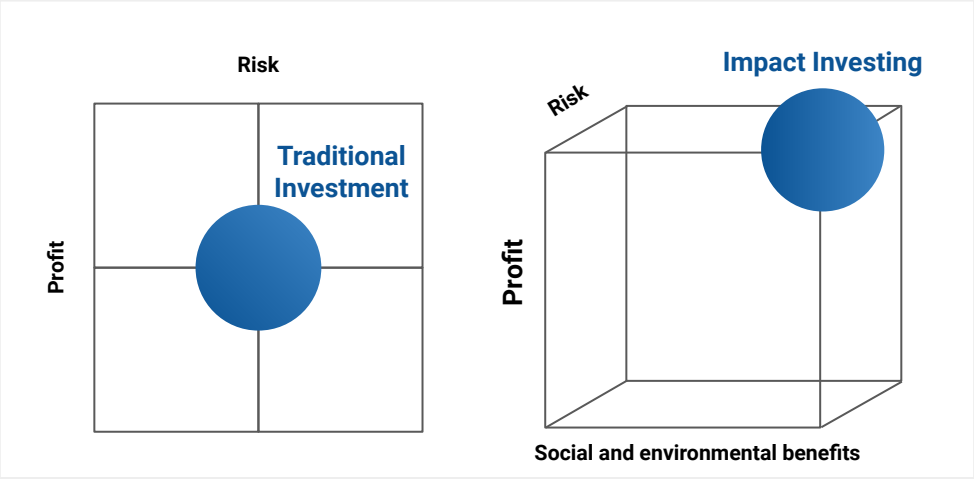
Impact Investment and Sustainable Development Goals

DEEP
KNOWLEDGE
PHILANTHROPY

Impact Investing Industry

For many years, there has been a conviction that the ideal of delivering a financial return while doing good is hard to reach, and, therefore, philanthropy cannot be integrated with investing. The growing danger of the inevitability of global problems at the same time as the growing awareness of corporations of responsibility for both financial and nonfinancial indicators has formed the direction of investment of social impact.

Investors are now increasingly moving towards an investment criteria model that adds social and environmental impacts to traditional risk and return parameters.



Market Forces ⟷ **Deliberate Impact**

	Traditional Investment	Impact Investing	Traditional Philanthropy
Approach:	Investing into well-known and most promising assets	Sustainable influence Focus on social benefit	Selfless devotion to improving recipients' well-being
Intention:	Striving to generate financial returns	Investigating solutions with the highest social impact	The fastest and most targeted social impact that does not imply a return of the costs incurred

Sources: Global Impact Investing Network (GIIN), Rockefeller Philanthropy Advisors

Impact Investment and Sustainable Development Goals (1/3)

Impact investments are 'made with the intention to generate positive, measurable social and environmental impact, alongside a financial return.'[1] The intentions of impact investing are explicit and target outcomes in underserved areas.

The 17 Sustainable Development Goals

The 17 SDGs (and the 169 key performance indicators that underlie those goals) provide a useful benchmark for underserved areas. They also highlight the steps needed to achieve the organisation's stated goals of **'people, planet and prosperity' by 2030**. The SDGs address the many interconnected global challenges facing humanity, including those related to poverty, inequality, climate change, and environmental degradation.

Sources: UN SDGs, Mercer – Raising your impact ambition
Notes: [1] GIIN, 2021

Impact Investment and Sustainable Development Goals (2/3)

Key Topics Impact Investors Should Pay Attention to

Environmental

Climate Change

- 7 Affordable and clean energy
- 9 Industry, innovation, and infrastructure
- 13 Climate action

Healthy Planet

- 14 Life below water
- 15 Life on land

Resource Stewardship

- 6 Clean water and sanitation
- 12 Responsible consumption and production

Social

Climate Change

- 1 No poverty
- 2 Zero hunger
- 10 Reduced inequalities
- 11 Sustainable cities and communities

Healthy Planet

- 3 Good health and well-being
- 4 Quality education
- 5 Gender equality
- 8 Decent work and economic growth

Resource Pressure and Opportunities

40%

Global freshwater demand-supply gap by 2030

50%

Projected energy demand growth to 2050

Social Pressures and Opportunities

100M

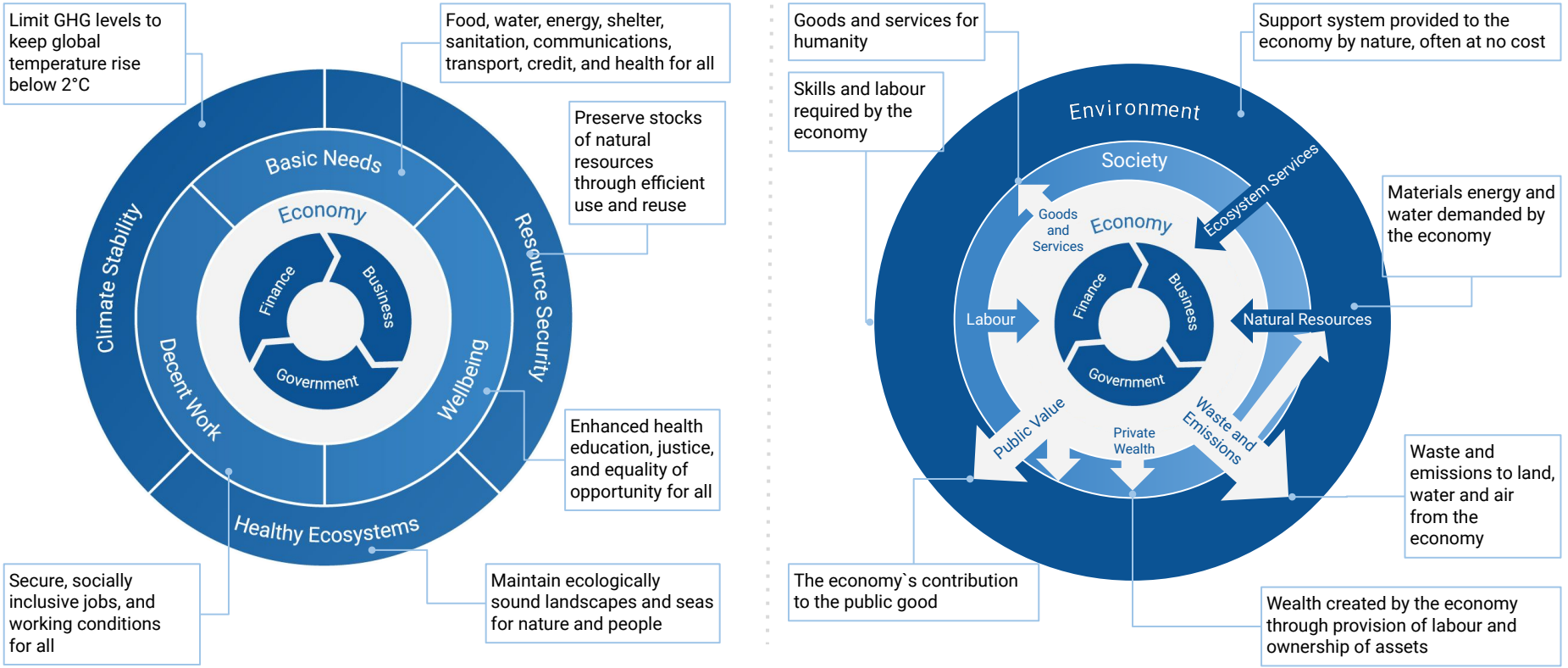
People at risk of falling back into poverty by 2030 if climate change not halted

2B

People without access to basic sanitation

Sources: Mercer – Raising your impact ambition

Impact Investment and Sustainable Development Goals (3/3)



Figures show how the economy is dependent on inputs of labour, natural resources and ecosystems to function, in turn producing goods and services, wealth, waste and emissions as outputs.

Impact Investment Elements and Viewpoints

Impact Investment Elements

Investing in sustainable development is a well-established response to environmental challenges. This includes identifying opportunities for return in those companies that create solutions to sustainability challenges. This allocation of investments can be made across different asset classes. Impact investing has similarities to sustainability investing, with ESG integration and active ownership underlying the implementation of both.

However, while both strategies share some commonalities, impact investing goes further and includes additional considerations that may have more significant results than other investment strategies. Investing in sustainable development is a well-established response to environmental challenges. This includes identifying opportunities for return in those companies that create solutions to sustainability challenges.

Key Elements of Impact Investment

Intentionality

Intentionally contributes to positive social or environmental outcomes.

Measurability

Intended social or environmental impacts need to be accurately and reliably measured and reported.

Additionality

Provides social and environmental benefits that would not otherwise be available without investment.

Sources: Mercer – Raising your impact ambition

Sustainable and Impact Investing Themes and Viewpoints in 2022

Climate Change | **The Future of Work** | **Collision of ESG Interests**

Climate Change

- Industries that produce heavy carbon emissions may face issues such as orphan assets, carbon pricing, and divestment of investments.
- More and more sophisticated conservation strategies are emerging, with a focus on innovation across all asset classes.

The Future of Work

- Companies must provide their workers with strong social security and DEI[1] programmes as well as increasing evidence of financial materiality.
- More data allows investors to lean towards companies offering a living wage, access to healthcare, and effective DEI programmes and policies.

Collision of ESG Interests

- Issuing 'sustainability standards' promotes transparency and prevents greenwashing.
- Re-evaluating how ERISA[2] accounts participate in the ESG is driving wider adoption by pension fund members.

Deepening data channels on climate change and the future of work can enable the creation of new thematic investment strategies, providing improved tools for investors who seek to drive climate innovation and more sustainable, innovative, and inclusive companies. Meanwhile, new regulatory guidance on sustainable and efficient investing standards could help undermine investor perceptions of green laundering and fiduciary inadequacy, leading to wider adoption of ESG.

Sources: Glenmede – 2022 Sustainable & Impact Investing Outlook: Reimagining the Future
Notes: [1]Diversity, Equity and Inclusion, [2]Employee Retirement Income Security Act

The Return to Impact Investing in Developing Countries

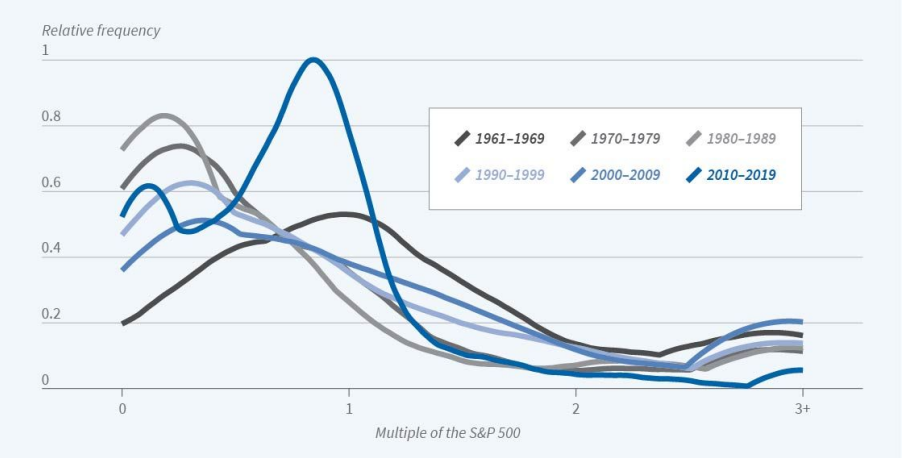
The oldest and most diversified international impact investor has earned superior returns by deploying its funds in emerging-market and developing nations, according to findings reported in Long-Run Returns to Impact Investing in Emerging Markets and Developing Economies.

Over six decades, the International Finance Corporation (IFC) has invested in private equity and venture capital in 130 such countries. The portfolio has outperformed the US stock market over this period. At the end of 2019, an investor who had earned returns on the IFC's portfolio since 1961 would have 15% more wealth than one who invested the same initial amount in the S&P 500.

The IFC was founded in 1956 with a World Bank mandate to encourage growth in productive private enterprise, especially in less-developed areas. It made its first loan in 1957 and its first equity investment in 1961. Its portfolio includes investments in more countries than are included in the MSCI Emerging Markets index, which is heavily concentrated in large economies like China and Brazil.

The IFC also has a higher share of investment in very poor nations. An investor holding the IFC's equity portfolio since 1988 would have 30% more wealth at the end of 2019 than an investor who started with an equal-sized investment in 1988 but who held the MSCI Index instead. The researchers measure the performance of the IFC portfolio and each individual investment by computing its public market equivalent (PME).

Financial Return to the International Finance Corporation's Investment



Sources: National Bureau of Economic Research

Social/Development Impact Bonds

One innovative instrument in impact investment is the so-called **social impact bond (SIB)** or, in the case of development cooperation, **development impact bond (DIB)**, through which private investors prefinance the intervention, and governments or donors provide funding solely when the intended outcome goes beyond what would have occurred otherwise.

Advocates of impact investing see SIBs and DIBs as useful instruments for the financing of the 2030 agenda. However, they are still largely unproven; even though some promising interim evaluations exist, this innovative financing approach faces a number of challenges. Besides questionable or outstanding evaluations, the most important challenges are: limited transferability, the nascent development of the market, high transaction costs, and the hurdles for investors.

Nevertheless, given the urgency to mobilise finance for sustainable development in developed and developing countries, it is worth considering and prudently developing impact bonds further, and more generally impact investing. Supporting them would entail the following:

1 Data- and information-sharing have to be furthered by the impact investing community in order to critically evaluate first experiences of pilot SIBs and DIBs, provide recommendations, and enable basic education for entrepreneurs and investors.

2 Further research should be encouraged to get a better understanding of how to create additional impact and to deploy different instruments in the development context as well as to offer exit opportunities for private investors.

3 Policy-makers should support the development of clearer definitions and a common impact-measurement system as well as standardised and mandatory reporting requirements to ensure effectiveness and quality.

4 Development finance institutions should become more active in the market by providing resources to encourage the implementation of SIBs and DIBs. Governments and/or donors need experienced partners who provide catalytic capital for first initiatives and serve as intermediaries.

Sources: German Development Institute

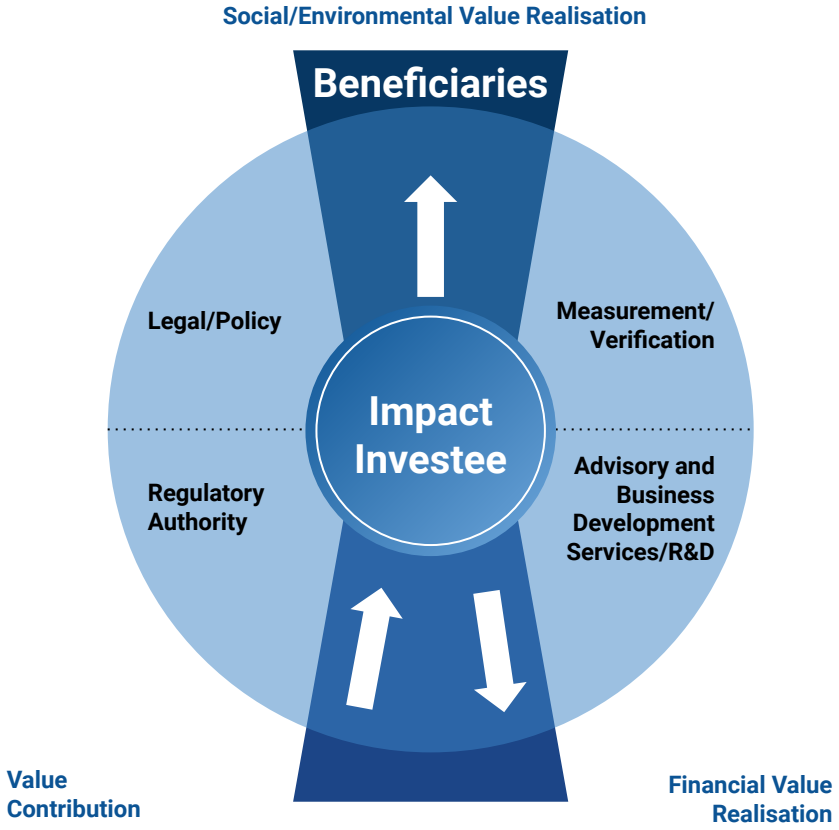
Current Challenges With Impact Investing

Despite the progress made thus far in impact investing, it is yet to maximise its full potential as a development financing instrument. Currently, most impact investing comes from DFIs and major social foundations. The full power of the private capital market is waiting to be harnessed.

Another key challenge is the issue of measuring and quantifying impact. As impact investing ventures vary, so do their measurement techniques, making it difficult to attain universal standardisation. Lack of standardised metrics makes it harder to quantify and compare nonfinancial impact, thereby reducing consistency across sectors.

The lack of an efficient impact investing 'ecosystem' results in significant time and resources being consumed before investors can successfully venture into the market.

Finally, because the impact investing market is still in its intermediary stages, there is a lack of widespread awareness on investing options. According to a recent study by *the Financial Times,* the biggest concern for investors is finding suitable impact investing opportunities and obtaining tailored mentorship for the process.

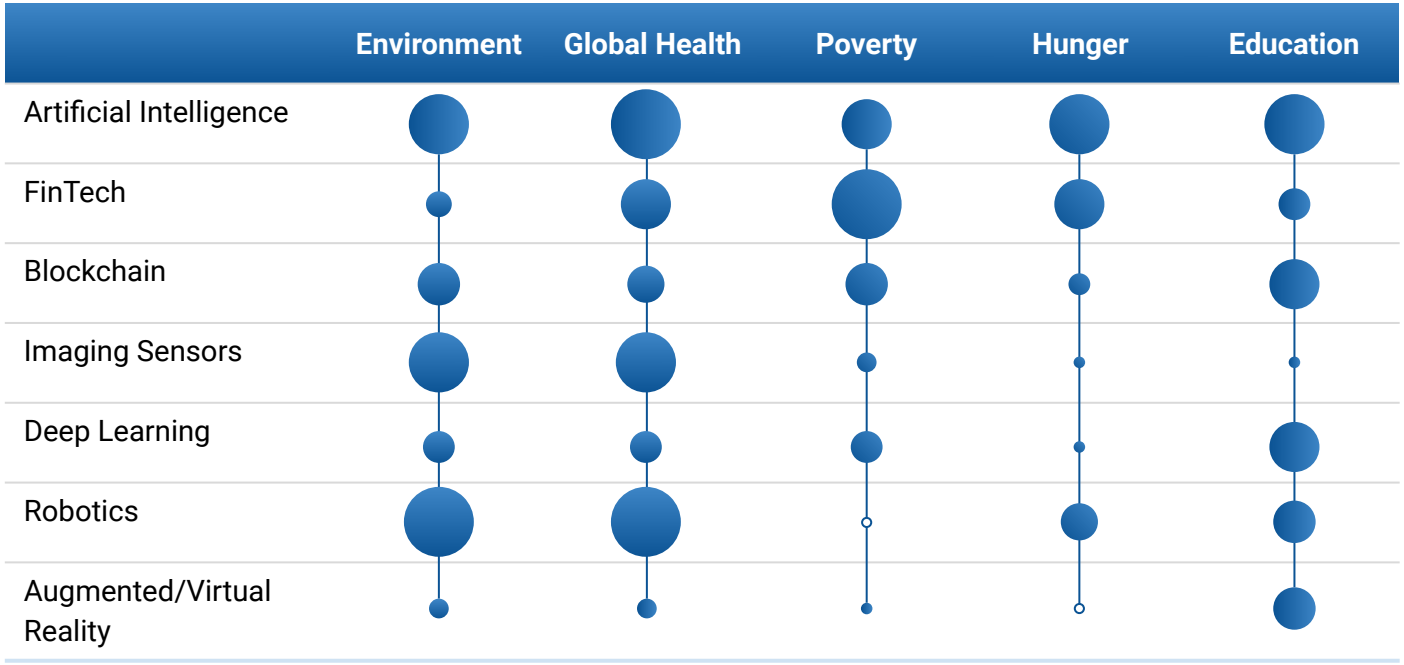


DeepTech as an Innovative Driver in the Social Sector

DeepTech as an Innovative Driver in the Social Sector

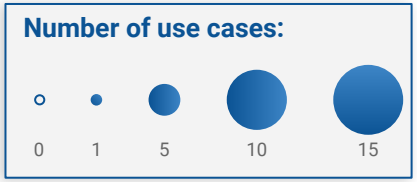
DeepTech's 'profound enabling power' has the potential to bring about real change. It harnesses cutting-edge technologies to create tangible societal shifts, and never has it been more relevant. The COVID-19 pandemic, the urgency of the climate crisis, and the rapid expansion of global populations have placed added strain on already fragile systems, and it is these fundamental issues that DeepTech is designed to address.

Frequency of Use of Deep Technologies to Solve Global Problems



This chart is constructed from a database of 220 use cases of advanced technologies aimed at solving global societal and environmental issues.

Frequency of use is an estimate of the number of applications of a given technology to one of the major global challenges. The estimation is approximate and should not be considered definitive.

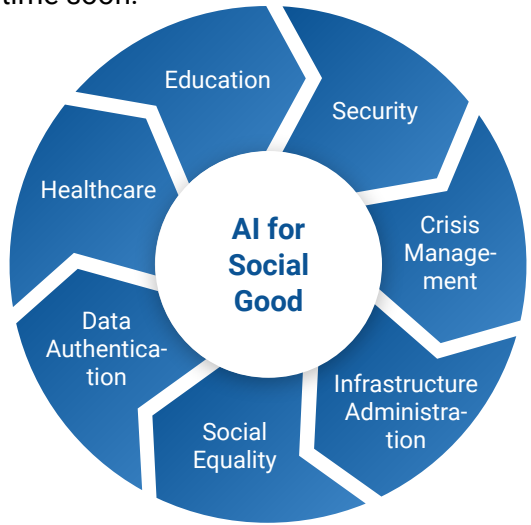


Sources: McKinsey & Company, Deep Knowledge Philanthropy

Deep Technologies for Social Sector (1/3)

Artificial Intelligence (AI)

At the crossroads of technology, innovation, and sustainability, Artificial Intelligence can have a significant impact on investing in ESG, i.e., considering environmental, social, and governance risks and opportunities when investing. While AI can find key data for investors looking to make sustainable investments, recognising unreliable information will be a key issue and humans will not be replaced anytime soon.



Blockchain: Helping in Humanitarian Efforts

A Unified View of the Truth

Blockchain technology creates a distributed, shared record system among network participants that eliminates the need for and contention between different ledgers.

Immutable, Tamper-Proof Records

Consensus of all members of the blockchain network is required to confirm each transaction, and all verified transactions are permanently recorded on the blockchain. No one can delete them.

Permitted Participation

Each member of the network must have access rights to participate while keeping intruders out. In addition, information is shared with other network members only when necessary.

Creation of New Models for Change

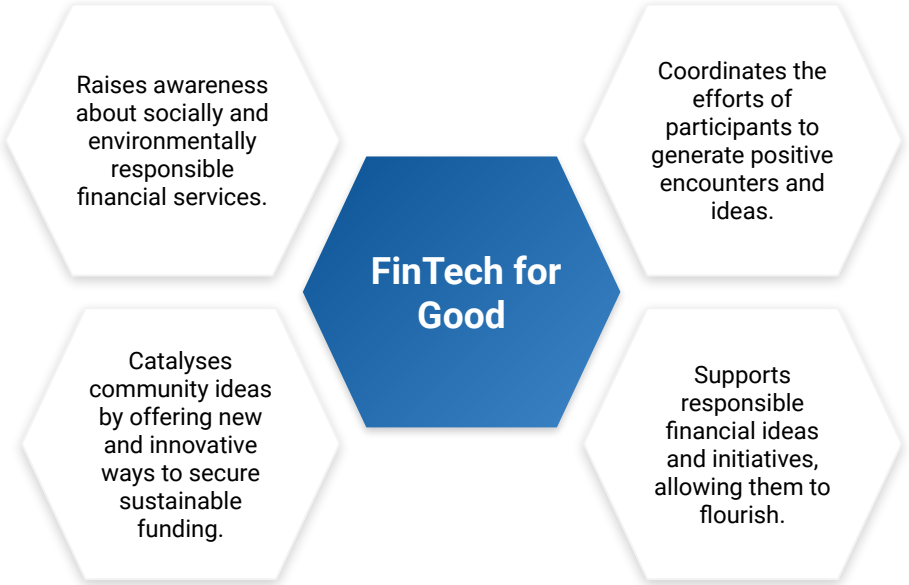
Every day, blockchain innovators are discovering how to use the unique advantages of the technology to decentralise power, redefine value, forge new alliances, and change the status quo.

Sources: AI World School, IBM, S&P Global, Deep Knowledge Philanthropy

Deep Technologies for Social Sector (2/3)

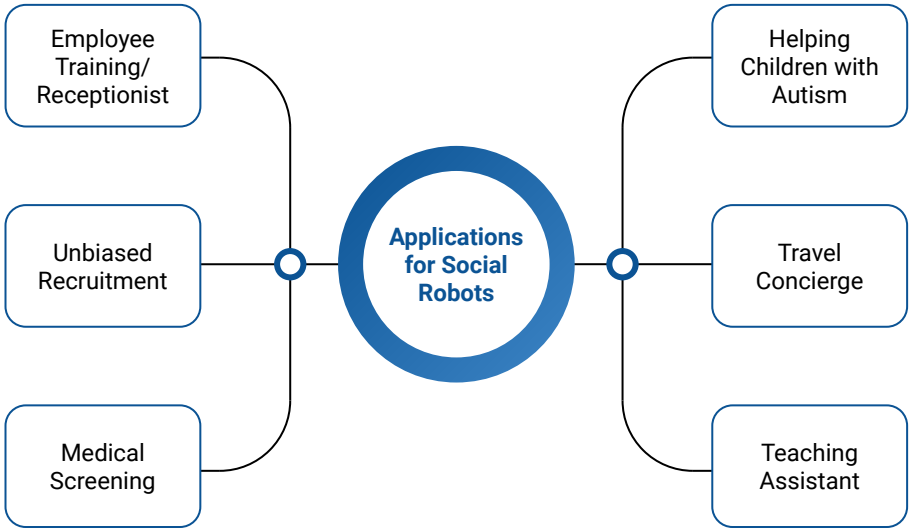
FinTech

Traditional players in the financial services industry may consider FinTech to be revolutionary, but those who invest in technology are transforming the industry from within and succeeding where traditional players have failed.



Robotics

Social robots is a breakthrough innovation with the potential to have a huge impact on society, especially at home. Robots are increasingly evolving as social actors, penetrating public and private spaces such as airports, malls, care centers, and even homes. They are using human or animal social methods to work with humans.



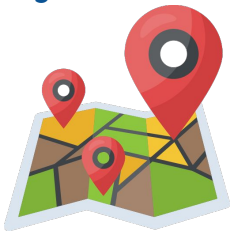
Sources: Advanced, Fintech for Good, Furhat, BBC, Deep Knowledge Philanthropy

Deep Technologies for Social Sector (3/3)

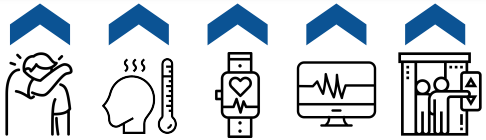
Imaging Sensors

Social sensing is rapidly evolving as a pervasive perceptual paradigm in which humans are used as sensors to achieve situational awareness of the physical world. With the advent of the COVID-19 outbreak, several lines of research have introduced methods to monitor the spread of COVID-19.

Crowdsensing-Based Disease Tracking



Analytics Framework



Deep Learning / Machine Learning

Machine Learning is particularly well suited to solving two kinds of problems. First, there are problems of prevention. If a nongovernmental health organisation can predict where a disease is most likely to spread, it can prioritise public healthcare. Secondly, problems with lack of data. The data that governments and nonprofits use to target social programmes are rarely detailed, recent, or accurate enough to pinpoint the specific regions or communities that will benefit the most. Collecting better data is often prohibitively expensive.

Practical Requirements for Using Machine Learning

Good Predictors	**High-Quality Outcomes Data**
The Capacity to Act on Predictions	**The Ability to Maintain the Machine**

Augmented / Virtual Reality

Both virtual reality and augmented reality have the potential to be used for the 'public good'. They can be used to solve problems that have an impact not only at the individual level but also at the societal and global levels.

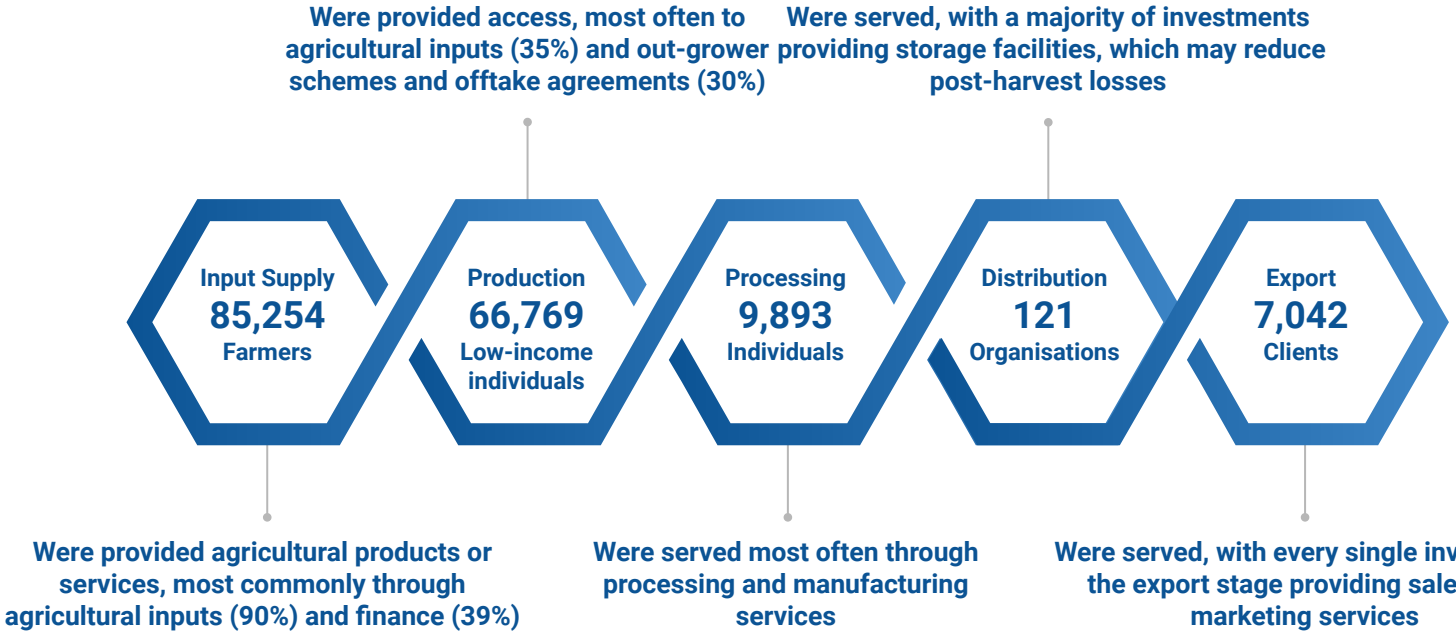
Selected Areas of Usage

Physical Inactivity	Mental Health	Dementia
Autism	Poverty	Education
Environmental Issues		

Sources: Springer, SSIR, Social-Change, Deep Knowledge Philanthropy

Impact Investments in Subsectors

Impact Investment on Sustainable Farming



GIIN's *Understanding Impact Performance* study shows a tremendous impact on average of one single investment (out of 661 annualised investments). One average investment could supply 85,254 farmers with agricultural inputs such as seeds, fertiliser, and machinery needed for production and at the end of value chain deliver products to 7,042 clients in other countries.

Sources: Understanding Impact Performance: Agriculture Investments

Impact Investment on Sustainable Manufacturing

In response to these concerns, many manufacturers have begun to consider the viability of circular economies. Beyond its potential to promote sustainable production and consumption, a circular economy model can drive both environmental and financial benefits. The Ellen MacArthur Foundation estimates that circular economy activities could contribute as much as $700 million in annual material cost savings to consumer goods production, along with a 48% reduction in carbon dioxide emissions by 2030.

Loosely defined, a circular economy is a closed-loop system designed to replace end-of-life waste disposal with material reduction, reuse, recycling, and recovery. By this definition, it is clear that the circular economy model extends well beyond recycling. Its broader focus actually aims to keep resources within the product lifecycle for as long as possible by:

- Closing the loop: reintegrating waste or production by-products back into the manufacture of new products;
- Slowing the loop: extending product life and slowing the resource transition to waste or resource recapture;
- Narrowing the loop: reducing resources and material intensity requirements during production, use, or disposal.

Sources: Deloitte: Sustainable manufacturing

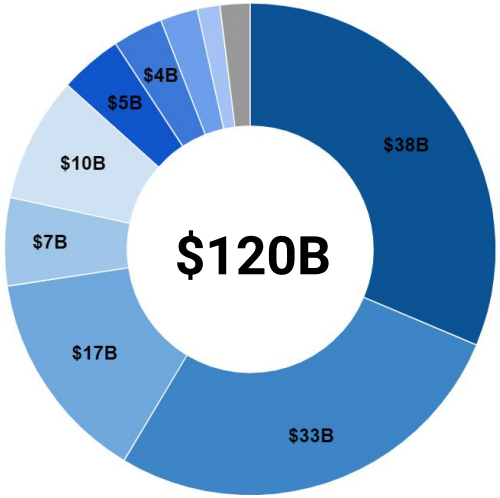
Impact Investment on Nature Protection

Distribution of Investments in Natural Protection in G20 Countries, in USD billions

Domestic Government
- Protection of biodiversity
- Agro, forestry & fishing
- Natural resources budget
- Environmental policy
- Environmental protection

Private Capital
- Sustainable supply chains
- Biodiversity offsets
- Impact investments **$3B**
- Conservation NGOs

- Public ODA



Additional Annual Investment Need (2021-2050)

$165B	$235B
G20	non-G20

According to G20-specific data, current G20 investment in Nature Protection sector is estimated to total $120 billion annually. The private sector contributes only $14 billion of this amount annually, with direct impact investment being mere 21% of it.

Sources: Deep Knowledge Philanthropy, The State of Finance for Nature in the G20 report

Impact Investment on Financial Inclusion

Both regions, Asia and Africa, have similar challenges in the financial inclusion process. Modern companies, which are operating on the ground and want to succeed, need to find a proper solution.

The challenges to financial inclusion include:

- Banks are often too far away from the place where the person lives
- Bank services are too expensive
- Lack of documentation – inability to pass KYC to open a bank account
- Lack of trust towards financial institutions and banks
- Highly illiterate population
- Lack of money makes it unnecessary to be engaged in financial life
- Cultural and religious reasons
- Institutional regulations and adoption is important for crypto start-ups

The weaker sections of the society are generally ignored by the formal financial institutions in the race to make huge profits. Financially educated customers tend to make better financial choices. Access to financial services at an affordable cost will improve life of the poor.

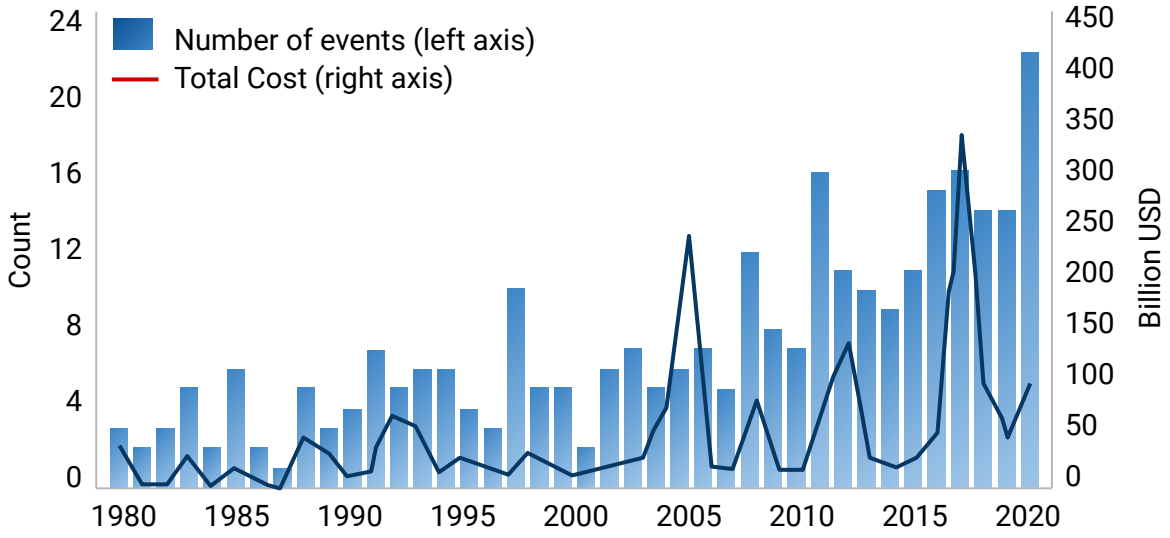
Most of the issues mentioned above can be resolved by using modern technologies. Some companies are successfully addressing these issues. Recent development has shown that technology plays an important role in improving financial inclusion because:

1. It helps to reduce cost of the product.
2. Reduces transaction cost.
3. Improves quality of the product.
4. Helps in increasing choices and flexibility to customer.

Sources: Deep Knowledge Philanthropy

Impact Investment on Climate Intelligence

Billion-dollar climate disaster events in the United States



Over **13,000 companies** worth over 64% of global market capitalisation, disclosed data through CDP[1] on climate change, water security, and deforestation in 2021, an increase of 37% since 2020.

Over **1,100 cities**, states, and regions disclosed data through CDP on climate change, water security, and deforestation issues in 2021, an increase of 20% since 2020.

The overall number of disclosures grew by **35%** in 2020 and over **141%** since 2015 when the Paris Agreement was signed.

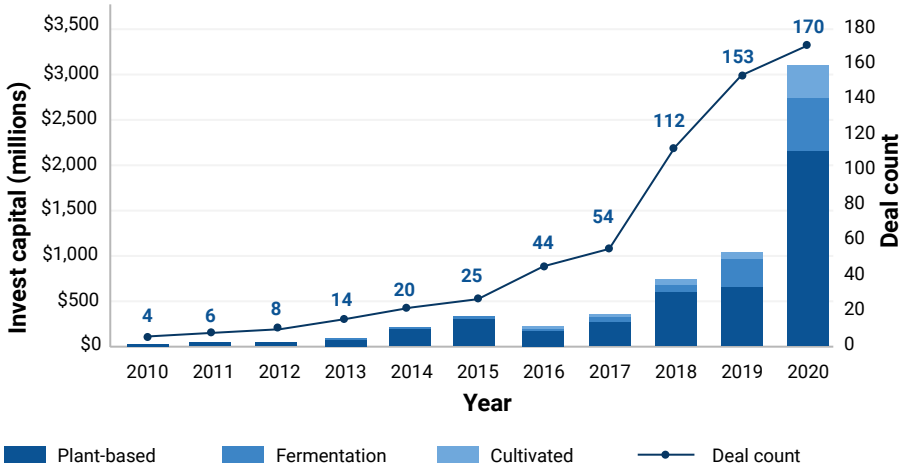
In 2020, the USA recorded 22 climate and weather disaster events that resulted in over $100 billion in damages. Due to the increasing amount of disaster events over the last 30 years and the trend for the next decades, companies and governments invest in climate intelligence and technology to prevent damages. Early detection of the weather disturbance significantly decreases the potential damage of the event's consequences. Therefore, $87.5 billion was invested in climate tech in H2 2020 and H1 2021.

Sources: Deep Knowledge Philanthropy
Notes: [1]CDP is a not-for-profit charity that runs the global disclosure system to manage environmental impacts

Impact Investment on Alternative Food

Annual alternative protein invested capital and deal count

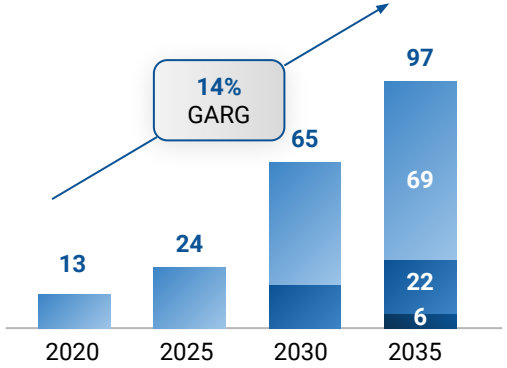
Total 2020 invested capital: $3.1 billion



Alternative Protein Consumption Will Grow in Three Waves

Consumption of alternative proteins by protein source (million metric tons, base-case scenario)

	CARG 2020-2025	CARG 2025-2030	CARG 2030-2035
	13%	22%	8%
Plant-based	12%	16%	7%
Microorganism-based	45%	111%	8%
Animal-cell-based	52%	66%	120%

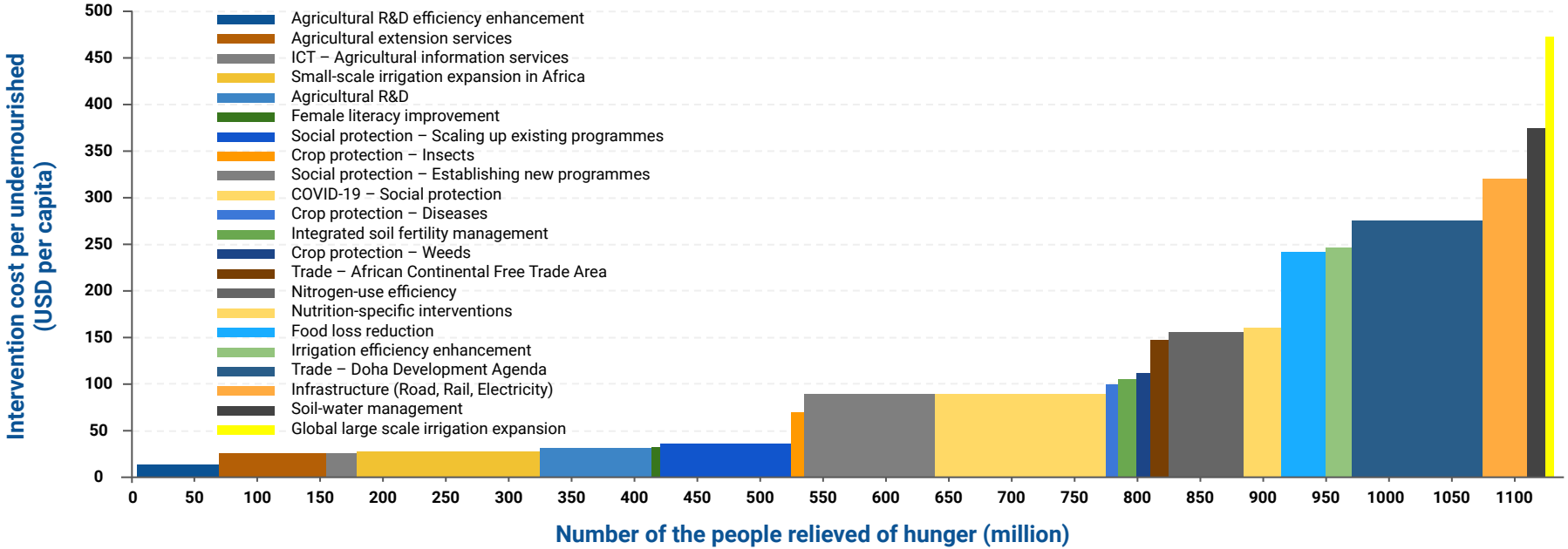


Sources: US Department of Agriculture; UBS; ING; Good Food Institute; expert interviews

The consumption of animal-based protein in 2020 was 574 million metric tons. The amount consumed is growing, especially in developing economies, along with concerns about the environmental costs. Alternative proteins are expected to cover the growing demand for food by market expanding from the current 13 million metric tons a year to 97 million metric tons by 2035 when it will make up 11% of the overall protein market. Assuming average revenues of $3 per kilogramme, this amounts to a market of approximately $290 billion.

Sources: Deep Knowledge Philanthropy, World Economic Forum

Impact Investment on Food Management

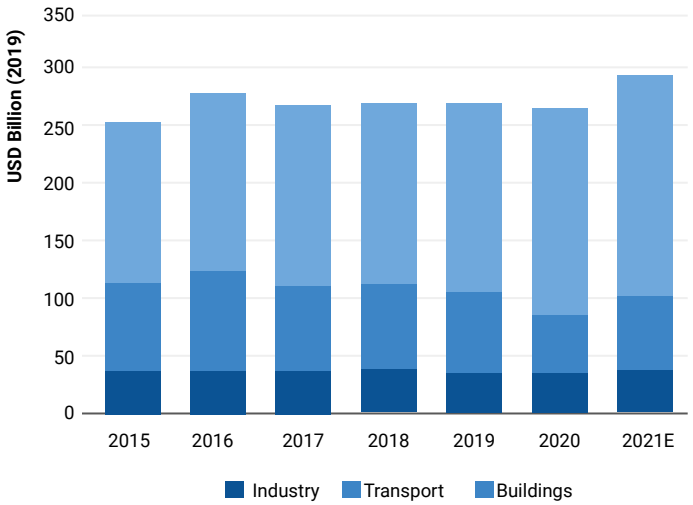


The study shows a marginal cost curve of the suggested interventions to **eradicate hunger**. The chart shows the cost of each hunger reduction measure so that each bar represents a single intervention where the width shows the number of individuals relieved of hunger, the height – its annual per-capita cost, and the area – its associated total annual cost. **Agricultural interventions, along with small-scale irrigation, are the most cost-effectiveness ways to lift out of hunger hundreds of millions people**. Social programmes have direct influence on hunger management in the suffered regions.
Lifting 500 million people out of hunger by 2030 will require an average annual investment of about **$11-14 billion**.

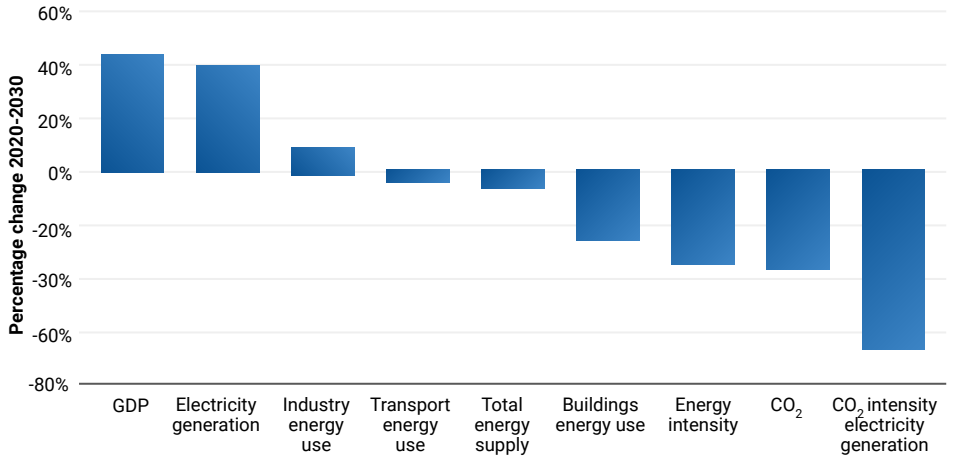
Sources: The global cost of reaching a world without hunger: Investment costs and policy action opportunities

Impact Investment on Energy Efficiency

Global investment in energy efficiency sector, 2015-2021



Macroeconomic and energy indicators in the IEA Net Zero Emissions by 2050 Scenario 2020-2030

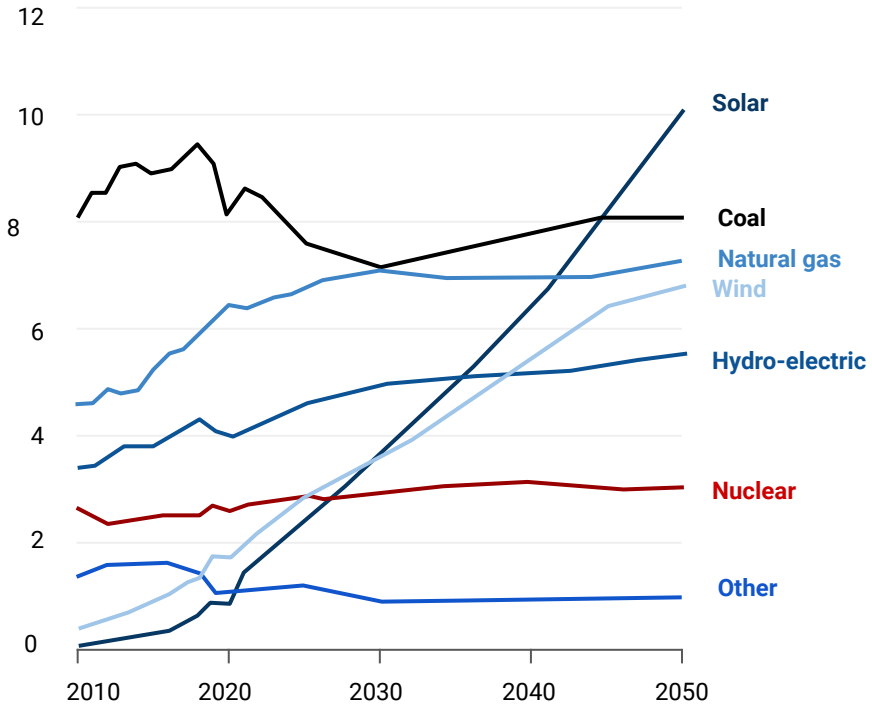


Despite the COVID-19 crisis, an overall energy efficiency investment was stable in 2020 at nearly $270 billion. While global building activity contracted over 2020, buildings energy efficiency investments in Europe increased strongly enough to boost global investments in this area by 11% to nearly $180 billion, and energy efficiency investment overall reached $300 billions in 2021. To achieve Net Zero Emissions goal by 2050, global investment in energy efficiency would need to triple by 2030. This scenario will generate impact on the global economy, which is expected to grow by 40% by 2030. Transport and buildings energy usage will decrease. Only industrial energy consumption will increase.

Sources: Deep Knowledge Philanthropy, International Energy Agency

Impact Investment on Renewable Energy

World net electricity generation by source (trillion kilowatthours)



Trends

- If current policy and technology trends continue, global energy consumption and energy-related carbon dioxide emissions will increase through 2050 as a result of population and economic growth.
- Renewables will be the primary source for new electricity generation, but natural gas, coal, and increasingly batteries will be used to help meet load and support grid reliability.
- Oil and natural gas production will continue to grow, mainly to support an increasing energy consumption in developing Asian economies.

The main impact of investing in renewable energy will be slowing down air pollution and climate change as a result of compensation of highly growing energy consumption. Cities with developed renewable energy system will benefit from energy costs and keeping revenues local.

Sources: Deep Knowledge Philanthropy, U.S. Energy Information Administration

Upcoming Conferences, Summits, and Events in 2022

IMPACTPHL

Total Impact Summit 2022

16-17 May 2022

Offline
Philadelphia, the USA

Social Enterprise UK

Social Value Leaders Summit 2022

18 May 2022

Offline
Birmingham, the UK

Private Equity International

Impact Investor Global Summit

18-19 May 2022

Offline
London, UK

changeNOW

ChangeNow Summit

19-21 May 2022

Hybrid
Paris, France

US|SIF
The Forum for Sustainable and Responsible Investment

US SIF Forum

6-8 June 2022

Offline
New Mexico, the USA

SEWF

SEWF Policy Forum

28-29 September 2022

Hybrid
Brisbane, Australia

GIIN
GLOBAL IMPACT INVESTING NETWORK

GIIN Investor Forum

12-13 October 2022

Hybrid
The Hague, Netherlands

SOCAP22

SOCAP

17-20 October 2022

Hybrid
San Francisco, the USA

Key Takeaways

Key Takeaways

Impact investing has become popular during the COVID-19 pandemic due to increased awareness of climate change and social issues such as unequal access to healthcare and racial and gender inequality. In 2021, its market size was $299.9 billion, and it is projected to reach a size of $793.5 billion by 2027, growing at a CAGR of 17.6% over the period of 2021-2027.

The United States holds the largest number of socially responsible companies that seek to support beneficial social or environmental outcomes in addition to generating financial returns. Apart from this, the United States is a leader in both the number of social impact start-ups and in the volume of funding received. Among the most heavily funded companies are Rivian and Northvolt while the average amount of funding among the the companies is $0.25 billion.

Investing in sustainable development is a well-established response to environmental challenges. This includes identifying opportunities for return in those companies that create solutions to sustainability challenges. Impact investing has similarities to sustainability investing, with ESG integration and active ownership underlying the implementation of both. Key elements of impact investing are intentionality, measurability, and additionality.

The COVID-19 pandemic, the urgency of the climate crisis, and the rapid expansion of global populations have placed added strain on already fragile systems, and it is these fundamental issues that DeepTech is designed to address. Among the frequently used Deep Technologies to solve global problems are Artificial Intelligence, FinTech, Blockchain, Imaging Sensors, Deep Learning, Robotics, Augmented and Virtual Reality.

One innovative instrument in impact investment is the so-called social impact bond (SIB) or, in the case of development cooperation, development impact bond (DIB), through which private investors prefinance the intervention, and governments or donors provide funding solely when the intended outcome goes beyond what would have occurred otherwise. Advocates of impact investing see SIBs and DIBs as useful instruments for the financing of the 2030 agenda.

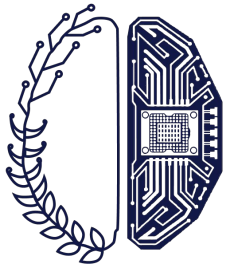
African Charities Analytical Dashboard

This unified platform aims to map, categorise, and rank market participants of their respective sectors by filtering them through geographical maps and mindmaps with visualised analytics of associated global challenges. The platform also features profiles of organisations, donors/investors, and tools for matchmaking impact start-ups with investors and charity organisations – donors and charities – with impact start-ups as well as with financial institutions, volunteers, and other partners.

Source: dkv.global

About Deep Knowledge Philanthropy

Deep Knowledge Philanthropy is a data-driven nonprofit project by Deep Knowledge Group committed to the support, development, and advancement of DeepTech for the social good. It was founded on the belief that DeepTech innovation is the most efficient driver of 'social profit', technological humanitarianism, and societal development and that venture philanthropy is the profitable long-term investment for individuals, national economies, and humanity itself.



DEEP
KNOWLEDGE
PHILANTHROPY

Deep Knowledge Philanthropy employs the most sophisticated approaches to analytics used by its founder, who is also the Deep Knowledge Group leader of proprietary analytical research in the Longevity and advanced science fields. We aim to use pioneering scientific discoveries to efficiently prolong human lifespan and bring socially-inclusive humanitarian benefit by supporting innovations, science, charitable, and sponsorship projects.

The organisation was founded in 2021 to house the sum of philanthropic, nonprofit, and influence investment activities, projects, and initiatives conducted over the past 5 years under the Deep Knowledge Group umbrella. Its activities are backed by the quantitative analytics produced by Deep Knowledge Group's 10+ analytical subsidiaries, implementing the most advanced approaches to analytics, benchmarking, predictive forecasting, and data-driven strategy formulation and execution in order to deliver 10x-50x the social impact and ethical ROI per dollar than the nonprofit and philanthropy sector average.

Deep Knowledge Group's analytical and nonprofit activities are powerful tools for extremely efficient and productive engagement with governments, progressive top-tier corporations, industry influencers, journalists, and a wide range of other strategically relevant personalities and organisations. All Deep Knowledge Group's activities (both for-profit and nonprofit) are structured in order to support, develop, and leverage the power of DeepTech for socially-inclusive humanitarian benefit, based on the foundational principle that technological innovation is the key driver and most efficient tool for improving quality of life, safety, stability, and growth potential for global society and the belief that the highest return on investment is not just profit but ethical returns and the delivery of added quality of life and developmental opportunities for humanity.

Activities

Funding research to develop interventions which remediate the molecular damage underlying the diseases of ageing

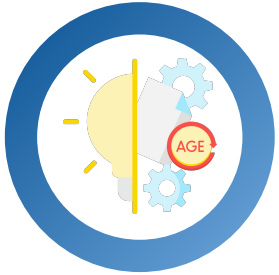
Public outreach and advocacy for ageing research

Evaluating the impact of biomedical discoveries on the the economy

Hosting seminars and conferences

Encouraging young scientist to specialize in the area of biogerontology

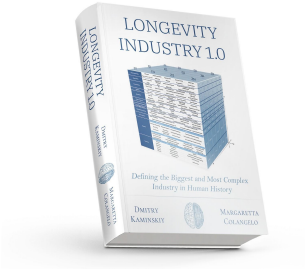
Establishing strategic partnerships to galvanize progress in biomedical gerontology



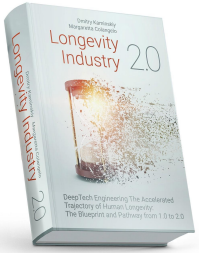
Acting as a think tank for ageing research policy

Gathering analytical databases on socially meaningful subjects

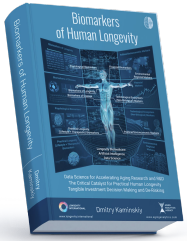
Deep Knowledge Group: Books



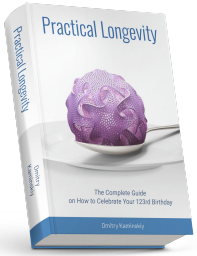
Longevity Industry 1.0
2010-2020: Evolution of the Longevity Industry from Zero to 1.0



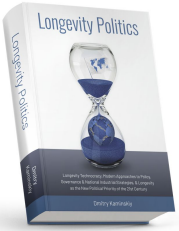
Longevity Industry 2.0
2020-2025: DeepTech Engineering The Accelerated Trajectory of Human Longevity — The Blueprint and Pathway from 1.0 to 2.0



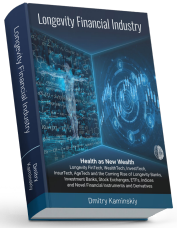
Biomarkers of Human Longevity
The Critical Catalyst for Practical Human Longevity, Tangible Investment De-Risking, and Accelerated Ageing Research and Longevity R&D



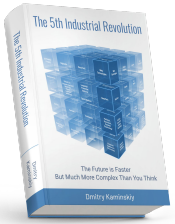
Practical Longevity
Practical, Market-Ready Tools, Approaches and Frameworks for Optimizing Personal, Practical, Healthy Human Longevity



Longevity Politics
2021-2030: The Rise of Longevity Politics, and the Solidification of Longevity as the New Political Priority of the 21st Century



Longevity Financial Industry
Health as New Wealth, Engineered Solutions to Bridge the Longevity Liquidity Gap, and the Rise of Longevity Investment Banks, Stock Exchanges and Financial Instruments

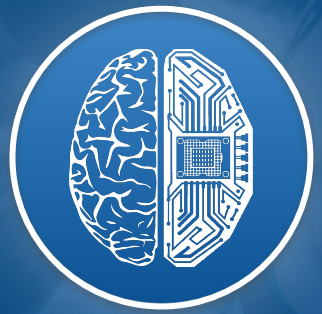


The 5th Industrial Revolution
2030-2035: Defining, Forecasting, Optimizing and De-Risking the Accelerated Trajectory of Progress Toward the 5th Industrial Revolution

Source: Longevity Books

Our proposal is **more than a charity offer** – it is an **investment opportunity**.

Million-Euro Investment



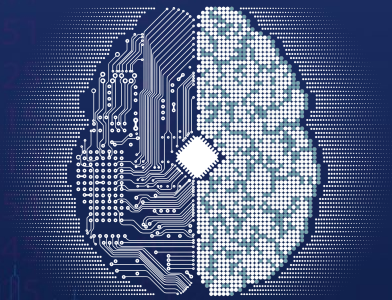
Billion-Euro Impact

Billion-Euro Brand

Join us and your million-euro contribution will result in a billion-euro return in **global social impact** and **international personal brand** development.

Venture Philanthropy Is the Most Profitable Long-Term Investment.

DEEP
KNOWLEDGE
PHILANTHROPY



Link to the Report: www.deep-knowledge.org/global-impact-investing-q2-2022	
E-mail: info@deep-knowledge.org	Website: www.deep-knowledge.org

Deep Knowledge Philanthropy Disclaimer