



# The importance of sustainability in infrastructure investments

**YIELCO Investments AG („YIELCO“)**

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## 1. SUSTAINABILITY IN THE CONTEXT OF THE INFRASTRUCTURE ASSET CLASS

Infrastructure assets include investments that have an economic and social benefit. The social relevance varies depending on the asset. There are both indispensable and substitutable assets. The common definition distinguishes between the following infrastructure sectors:

**Diagramm 1: Infrastructure includes economic and social facilities**



### Energy

- » Upstream/ Generation
- » Midstream/ Pipelines
- » Electricity generation and transmission
- » Renewable energies



### Utilities

- » Waste management (recycling)
- » Water/ waste water
- » Distribution Networks (Energy & Electricity)
- » Services



### Communication

- » Cable networks
- » Mobile networks
- » Radio/TV broadcast facilities
- » Satellite networks
- » Telecommunications networks
- » Mobile phone antennas



### Transportation

- » Rail networks
- » Bridges/Tunnels
- » Ferries
- » Ports (air, sea)
- » Toll roads
- » Parking garages
- » Trams



### Social

- » Education
- » Leisure/Culture
- » Health
- » Corrections/ Security
- » Management
- » Residential/retirement homes

### Risks

- » Raw material and energy prices / contract
- » Regulatory change
- » Competition (unregulated)
- » Input/output (traffic volume)
- » Public/political

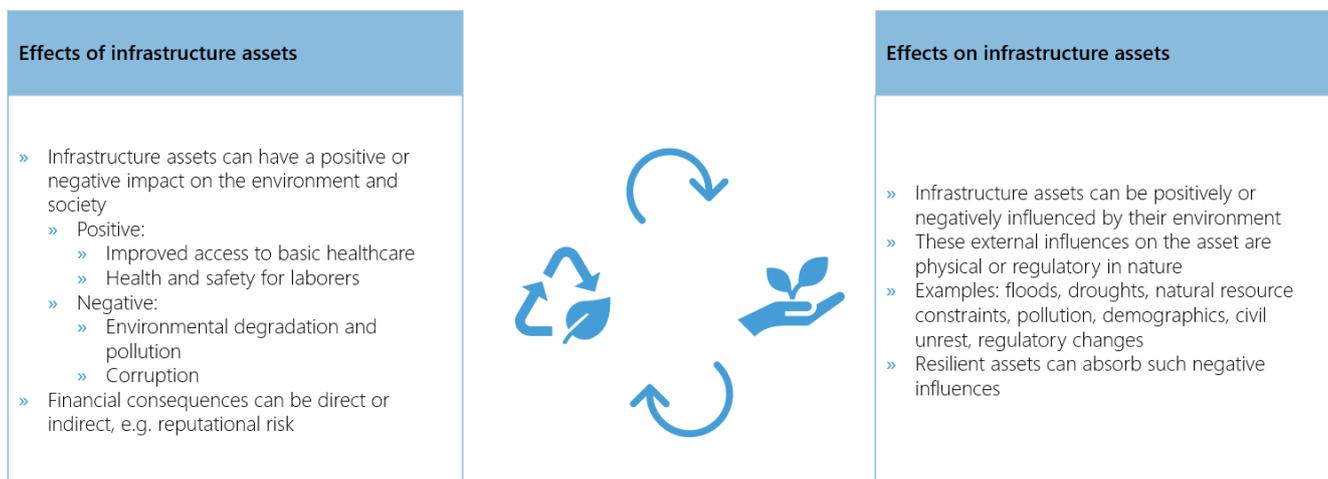
Source: YIELCO, July 2021

Inefficient or even non-functioning infrastructure assets result in massive restrictions in various aspects of life. The long-term and sustainable safeguarding of assets is therefore of central importance and significance.

What characterizes and unites infrastructure assets is their longevity, the high capital costs for construction as well as the required ongoing maintenance measures. This makes sustainability a very inherent issue and has been an integral part of the asset class even before the popularization of ESG and impact investing approaches.

While infrastructure assets generate impacts on the environment and society, they are just as impacted themselves by these forces in return.

## Diagramm 2: Effects of and on infrastructure assets



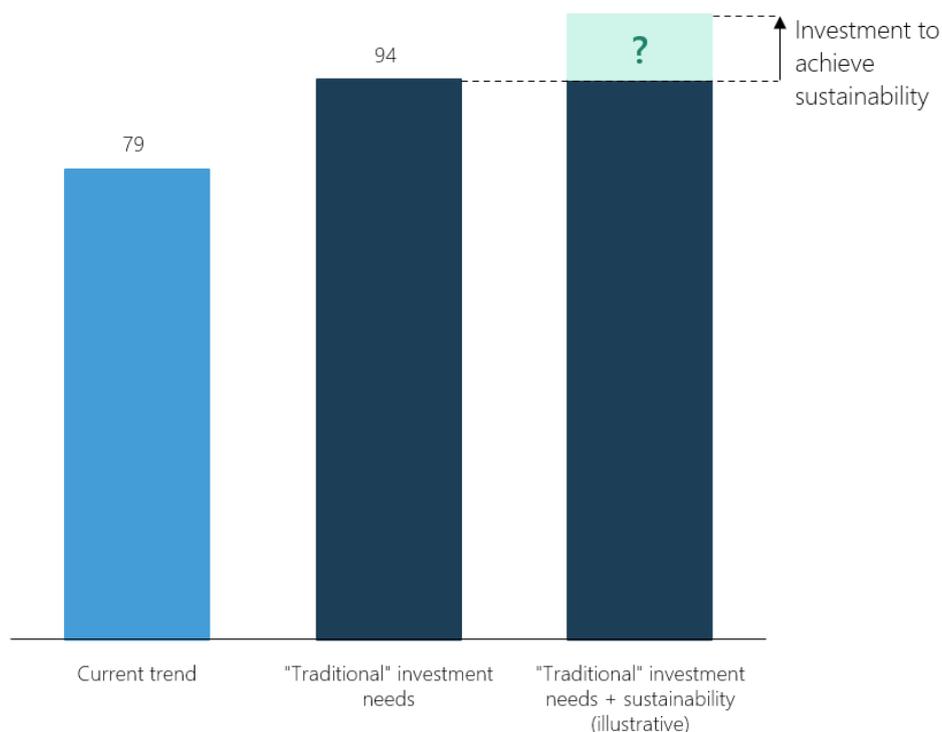
Source: YIELCO, July 2021; B Capital Partners

As seen, infrastructure investments cover a broad spectrum of opportunities. But, of all the infrastructure sectors, energy is the leader for sustainable investments. For example, potential investments arise through sustainable energy development strategies and the decarbonization of the global economy. Specifically, the renewable energy sub-sector is making a major contribution towards sustainability through solar, wind and other renewable energy technologies and is ensuring the transition from fossil fuels to sustainable forms of energy. Sustainable energy generation has been around for quite some time and has been mostly financed by the public sector. In the 1990s, however, the broader public became more aware of the issue and began attracting the interest of investors.

The currently heightened sentiment towards sustainability reinforces the need for clean energy. It has become apparent that decarbonization must be carried out globally in order to have a positive impact. This must be considered from the perspective of strong economic regions that are in the midst of increasing urbanization and experiencing a demand for energy. For this reason, the proposed solutions must also be suitable and made accessible to these regions. The UBS study ("Future of Earth - Investing in solutions for a more sustainable earth") states that when it comes to energy, the balance between energy security, production, use and environmental impact plays a significant role. Cleaner and more sustainable energy resources are the key to meeting the demand in sustainable growth but may not be sufficient to replace fossil fuel sources due to the associated costs, logistical challenges and questionable reliability.

In order to address these issues, there is a need to invest not only in energy production (e.g., power plants) and its related infrastructure (distribution networks, storage), but also more in efficient energy usage and management. This requires the use of new technologies. However, the full benefits of such an expansion can only be realized if the solutions are globally accessible and independent of a region's economic development. In light of the investment gaps in the infrastructure sector it is clear that this holistic, sustainable view has not been fully considered. In fact, the following investment gap has been identified:

**Diagramm 3: Global infrastructure investment gap**



Source: YIELCO, July 2021; Oxford Economics, Global Infrastructure Outlook (2017); cumulative values in the periods 2016-2040; values current trend and investment needs in USD trillion were calculated based on 2015 prices and exchange rates. Investment needs "traditional" + sustainability for illustrative purposes only.

If we take this forecast of investment requirements up to the year 2040 as a basic assumption, supplement it with the sustainability-driven issues and consider the fact that technology has an exponential and not a linear impact, we assume that the real investment gap is significantly larger than reflected in the current forecasts.

The debate about technology affects all infrastructure sectors and is not just limited to the energy sector. In the future, it must serve as an integral solution in our resource-limited world in order to address the broad range of sustainability-related issues efficiently. "Infra Tech" has emerged as a relatively new topic and will broaden the investment spectrum in the infrastructure sector. This change will lead to additional opportunities for the portfolios of investors by including infrastructure investments with varying risk/return profiles, making investor portfolios more efficient.

## 2. SUSTAINABILITY AND ITS ASSESSMENT

### 2.1. Overview of Environment, Social and Governance (ESG) as core variables

The term ESG describes a group of non-financial performance indicators that includes environmental, social and corporate governance factors. An overview of the characteristics of each category is shown in the following chart.

**Diagramm 4: ESG overview**

Environment (E)	Social (S)	Governance (G)
<ul style="list-style-type: none"> <li>» Pollution and waste</li> <li>» Climate change</li> <li>» Water resource management</li> <li>» Biodiversity</li> <li>» Land use</li> </ul>	<ul style="list-style-type: none"> <li>» Privacy and data protection</li> <li>» Human capital</li> <li>» Demographic risks</li> <li>» Health and safety risks</li> <li>» Working conditions</li> <li>» Access to goods and services</li> <li>» Stakeholder management</li> <li>» Privacy and data protection</li> </ul>	<ul style="list-style-type: none"> <li>» Ownership</li> <li>» Diversity in the Board of Management</li> <li>» Executive compensation</li> <li>» Bribery and corruption</li> <li>» Competition</li> <li>» Tax transparency</li> </ul>

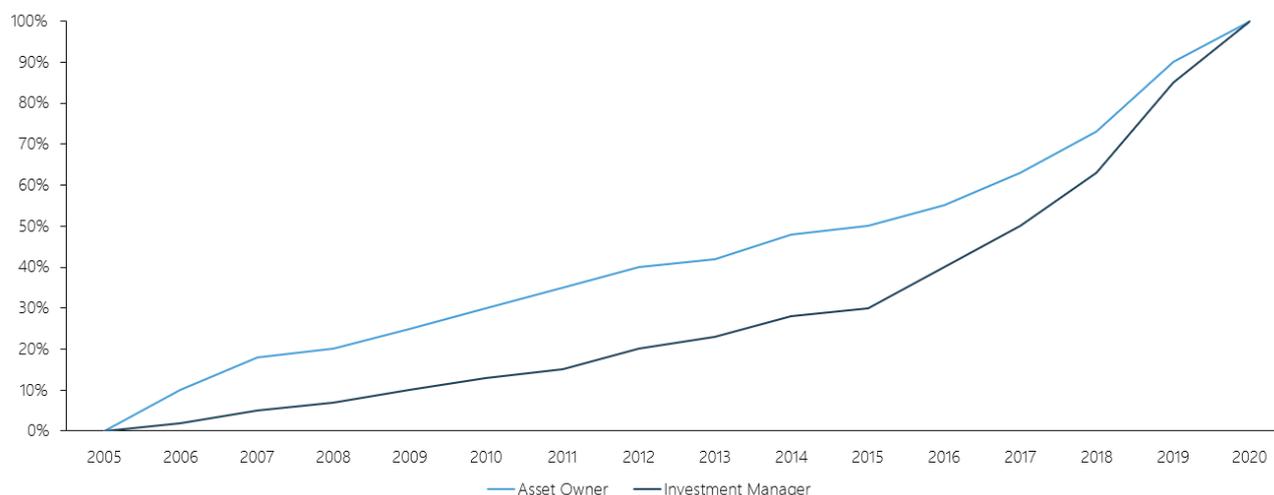
Source: YIELCO, July 2021

ESG aspects are increasingly used by investors within the investment process to evaluate companies and determine their future development potential based on relevant ESG factors.

### 2.2. Significance in the market

In addition to the increasing importance of ESG in society, its implementation is steadily gaining importance among investors. This can be seen in the increasing number of UNPRI (UN Principles for Responsible Investment) memberships. A membership requires the implementation of the six principles for responsible investment. Among other things, the principles describe the integration of ESG aspects into the analysis and decision-making processes within an investment process as well as the promotion of the disclosure of companies regarding ESG issues.

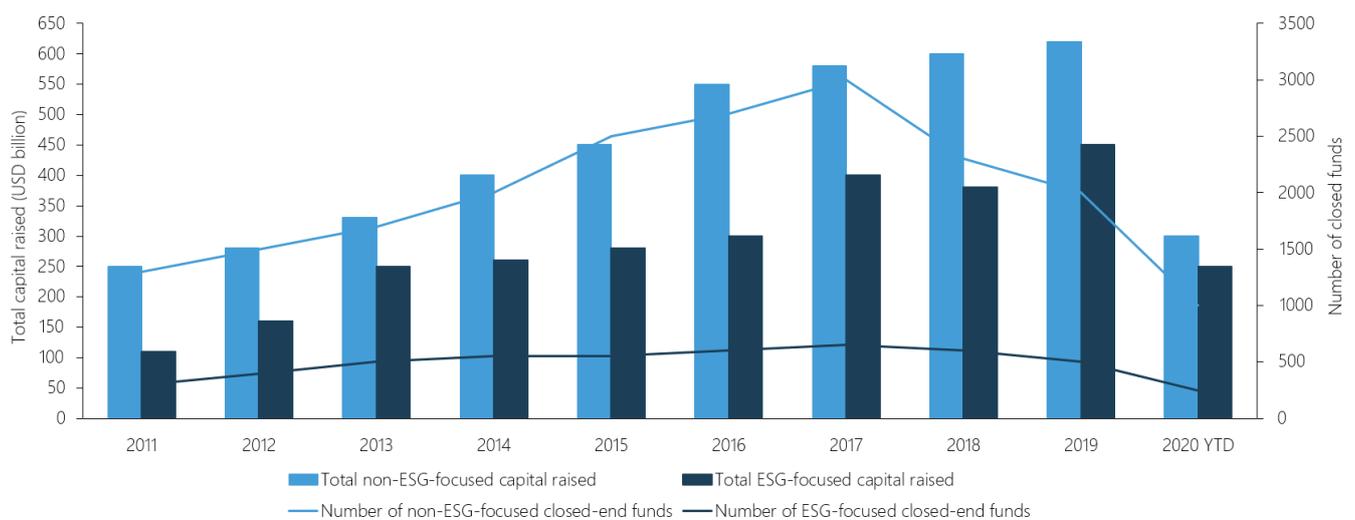
**Diagramm 5: UNPRI signatories**



Source: YIELCO, July 2021; Preqin Impact Report, November 2020

The increase in the number of signatories underscores investors' recognition that ESG aspects are a financially relevant attribute and indicate the importance of a long-term and sustainable orientation among investors. In the private market investment sector, the increasing prominence and relevance of integrating ESG issues into investment and business processes can be analyzed through the fundraising momentum. The raised capital of ESG-committed fund managers grew an average of 12% per year from 2011 to 2020. In contrast, non-ESG committed fund managers showed an average growth of only 6% per year.

**Diagramm 6: Proportion of total private capital raised under ESG commitment**

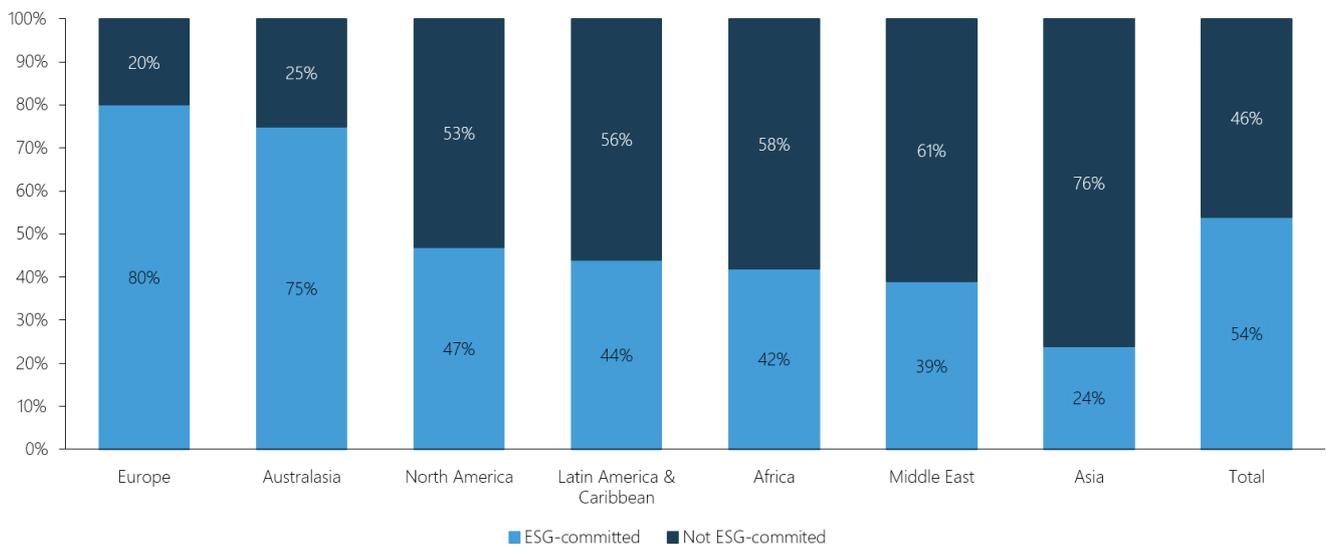


Source: YIELCO, July 2021. Preqin Impact Report, November 2020

The number of closed funds indicates that more funds are being closed with an ESG commitment than those without a focus on ESG, illustrating the increasing momentum of ESG funds. By putting the number of closed funds in relation to privately raised capital, it is clear, that on average the fund size of ESG investment programs is smaller than those without an ESG focus. Developments in financial markets following the recovery from the COVID-19 pandemic will reveal the new influence and importance ESG will receive and how financial market players will position themselves in relation to it.

Looking at the geographical differences of privately raised capital in favor of ESG, it shows that the share of ESG capital commitments is highest in Europe, with a share of around 80%, and Australasia, at around 75%.

**Diagramm 7: Proportion of regional private capital managed under ESG commitment**

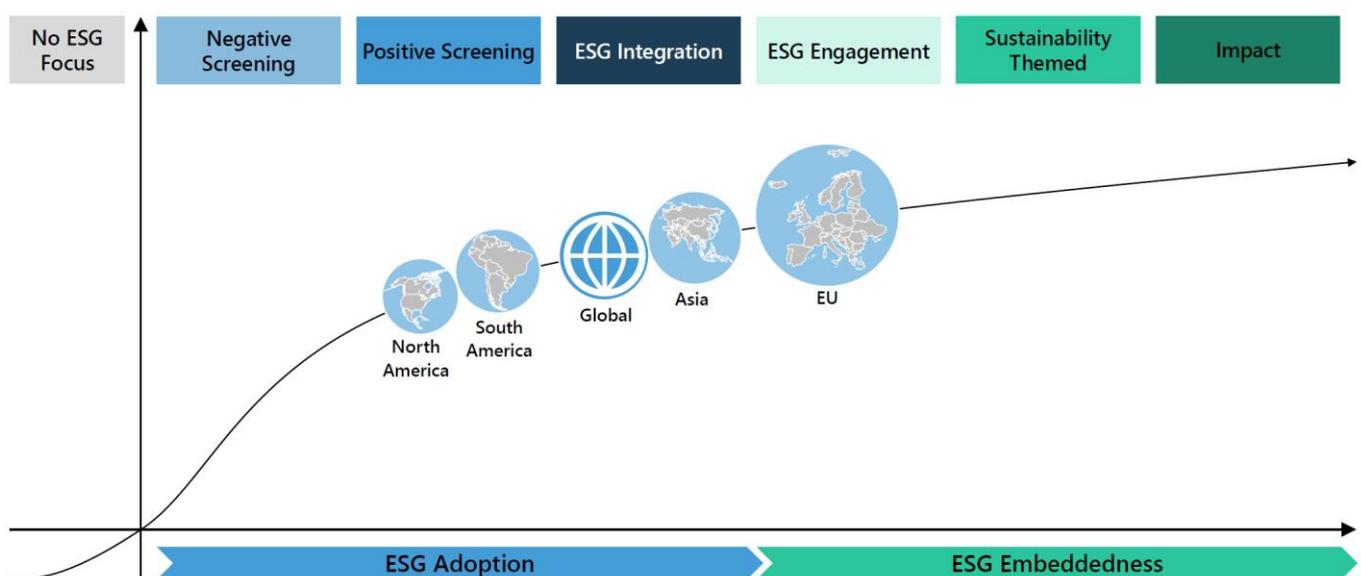


Source: YIELCO, July 2021; Preqin Impact Report, November 2020

Since Europe, Asia and North America form the three largest private markets, the development in the last two regions mentioned will be of particular importance in the coming years.

The relevance of ESG as an investment criterion is also being experienced on the demand side. Large European institutional capital raising institutions have included ESG as a part of their investment activities. This is related to regulatory and legislative support from the EU, which set the legal framework early on through various legislative activities. A study led by CoreData Research from 2019 showed that Europe was leading the way among institutional investors in embedding ESG criteria. North America, for example, was still very early in the process of discovering ESG as a driving success factor in investments.

**Diagramm 8: Embedding of ESG criteria among institutional investors by region (illustrative)**

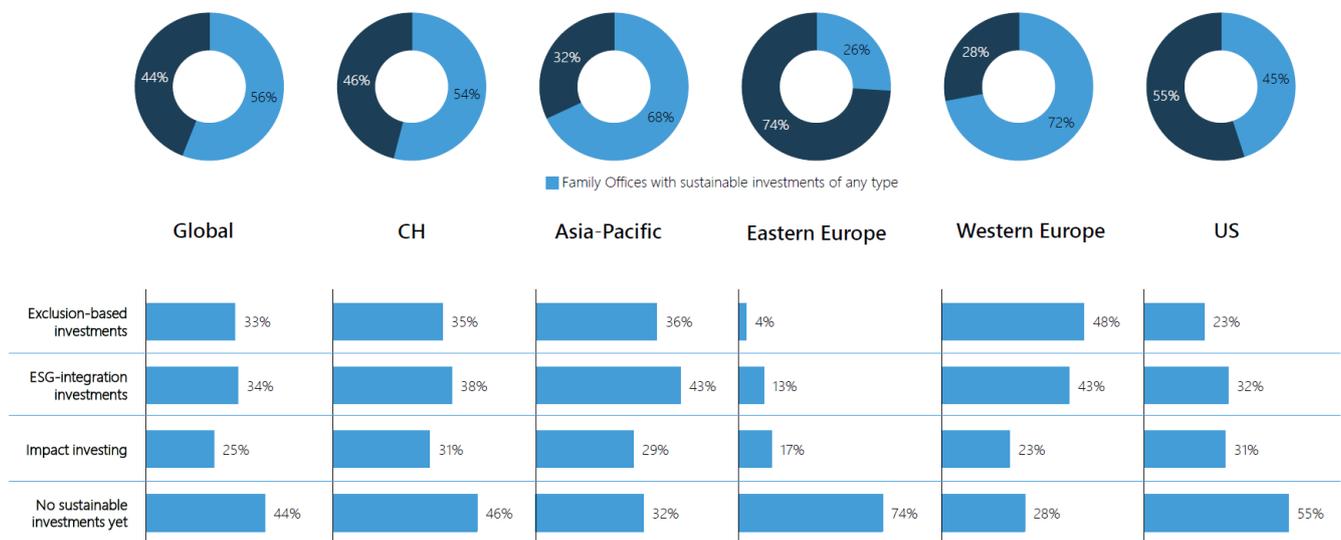


Source: YIELCO, July 2021; CoreData Research, 2019; for illustrative purposes only

The surprisingly low implementation rate in North America in 2019, however, is currently contrasted by positive signals. A recent study (Callan Institute "2020 ESG Report") suggests that the topic is gaining importance. Similarly as in Europe, large capital raising institutions (> USD 20 billion) are leading the way in an expanded implementation of investment criteria. About half of the institutions surveyed have already embedded ESG criteria in their investment decisions, and about one-third of those that are not yet ready will start implementing criteria in the near future.

Outside the institutional world, family offices have discovered the topic for themselves. While certain family offices have been leaders, especially in terms of philanthropic engagements, ESG is now also flowing in as a value driver for investments. A recent UBS study ("UBS Global Family Office Report 2021") states that almost 60% of the family offices surveyed invest in sustainable opportunities, with Western European family offices leading the way.

**Diagramm 9: Embedding of ESG criteria among institutional investors by region**



Source: YIELCO, July 2021. UBS Evidence Lab, 2021; for illustrative purposes only

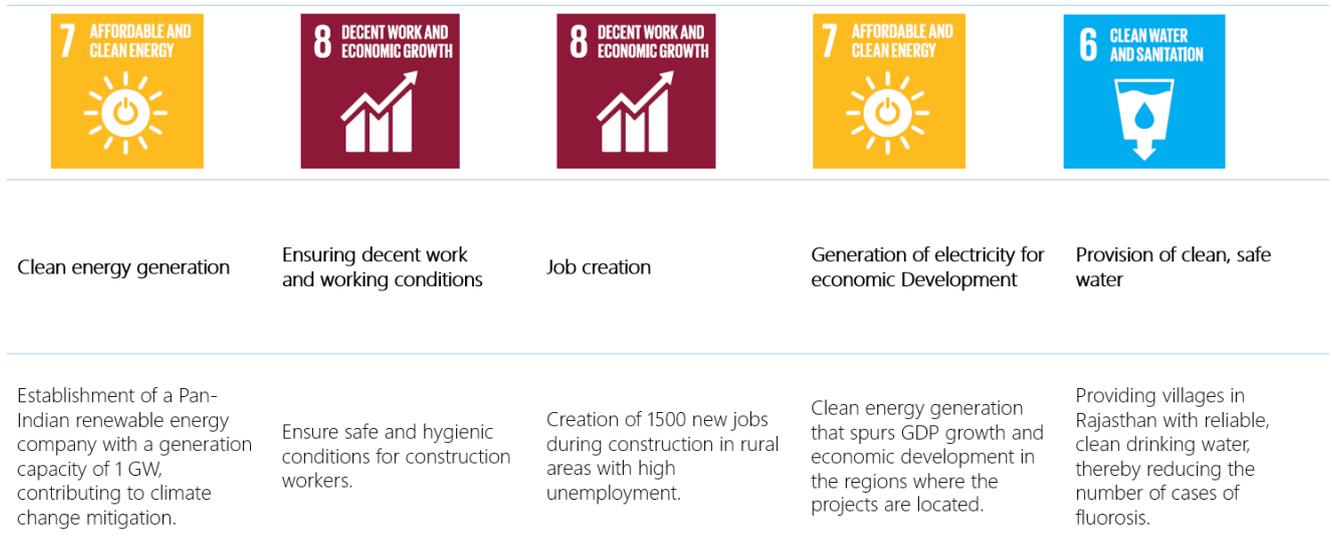
### 2.3. ESG Case Study

The following case study portrays an example of how an Actis, an infrastructure fund manager, was able to generate added value in an underlying infrastructure transaction by consistently implementing ESG requirements. Actis was founded in 2004 and has a geographic focus on growth markets.

Ostro Energy („Ostro“) is a “greenfield“ asset within the energy sector, located in India and founded by Actis in 2014. As the fifth largest market and third largest emitter of CO2 in the world, India has set targets of generating 100 gigawatts (“GW“) from solar and 60 GW from wind by 2022. In 2012, Actis already positioned itself to build a scalable renewable energy company. Its goal was to meet India's increasing energy demand, which was growing at 5-7% annually.

From its operational launch in 2014 to the time of sale in 2018, Ostro created over 1,500 jobs for Indian workers while promoting their well-being under a newly created, internationally recognized Work Accommodation Policy, which was embedded in all contracts with construction companies. With Actis' support, Ostro has also implemented numerous programs to improve the living conditions in local communities. Some examples that align with the UN Sustainable Development Goals (SDGs), are depicted in the graphic below:

## Diagramm 10: Ostro



Source: YIELCO, July 2021; Actis 2021; for illustrative purposes only

In less than four years, Actis transformed Ostro into a company with a wide geographic reach. Ostro completed its business plan ahead of schedule and signed long-term power purchase agreements for wind and solar projects with a capacity of 1.1 gigawatts – the equivalent of powering one million Indian households in Andhra Pradesh, Karnataka, Rajasthan, Madhya Pradesh and Gujarat. These are states where 54% of electricity was originally generated from coal and now avoids over 1.4 million tons of CO<sub>2</sub> emissions. Actis sold the platform in 2018 to Renew Power, an Indian independent clean energy power producer.

### 3. CONCLUSION

At the moment sustainability issues are not only on the agenda of many institutional investors, but also of regulators, a trend strongly driven by current developments in climate change. The worldwide increasing pressure for social change is currently influencing companies and processes. ESG has consequently gained a higher degree of relevance and increasing demand in institutional investments. The Sustainability Development Goals (SDGs) established by the UN provide a good overview of ESG targets as well as a certain framework for measuring their impact. In parallel, technology will increasingly play a stronger role in the infrastructure sector in the coming years and will be a means to implement sustainability globally and efficiently.

The consideration of ESG criteria has thus become significantly more important in the private markets in recent years. In this context, the infrastructure asset class is certainly the most advanced within the private markets, as by nature it already makes a decisive contribution to the well-being of mankind. In doing so it increasingly relies on sustainability concepts. Therefore, infrastructure investments often create measurable positive contributions to societal, social, and environmental challenges in addition to just financial returns.

#### 4. CONTACT INFORMATION



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