



GEEREF IMPACT REPORT 2016

Catalysing billions of clean power

ABBREVIATIONS

AML	Anti-money laundering	GHG	Greenhouse gas
AREF	Africa Renewable Energy Fund	IFC	International Finance Corporation
BEE	Black Economic Empowerment	IPP	Independent power producer
CO2	Carbon dioxide	KYC	Know Your Customer
DFI	Development finance institution	MENA	Middle East and North Africa
EC	European Commission	MSEF	MGM Sustainable Energy Fund
EE	Energy Efficiency	MW	Megawatt
EELAF	Emerging Energy Latin America Fund	MWh	Megawatt hour
EIB	European Investment Bank	PPA	Power purchase agreement
EIF	European Investment Fund	RE	Renewable energy
EPC	Engineering, procurement and construction	REAF	Renewable Energy Asia Fund
E&S	Environmental and social	RFSF	Regional Fund Support Facility
ESG	Environmental, social and governance	SCAF	Seed Capital Assistance Facility
ESIA	Environmental and social impact assessment	SDG	Solar distributed generation
ESMS	Environmental and social management system		
GEEREF	Global Energy Efficiency and Renewable Energy Fund		

GEEREF PORTFOLIO IN NUMBERS

AS YEAR-END 2016



¹At year-end 2016, GEEREF had 12 funds in portfolio and an Investment Committee Approval for Frontier II. Frontier II was signed in Q1 2017. EELAF II was part of the portfolio in 2016 but was being liquidated. The only investment the fund executed is reflected in our impact reporting, using latest available figures (from 2014).

CONTENTS

The background image shows a large-scale construction project in a hilly, brownish terrain. A prominent yellow crane with a long boom is positioned on the left side. In the center, a circular concrete structure is under construction, surrounded by a complex network of metal scaffolding. The ground is uneven and rocky, with some construction materials and equipment scattered around. The sky is overcast and grey.

GEEREF IMPACT OVERVIEW

GEEREF IMPACT STANDARDS

GEEREF IMPACT METRICS

GEEREF DIFFERENTIATOR

GEEREF FUND PORTFOLIO

GEEREF IMPACT THEME

APPENDICES



GEEREF IMPACT OVERVIEW

Catalysing billions of clean power

GEEREF IMPACT OVERVIEW

INTRODUCTION BY CYRILLE ARNOULD, HEAD OF GEEREF

Dear investors,

Whenever I report to you, the first thought that occurs to me is: Thank you. Thank you for your trust. Thank you for sharing our commitment to the idea that market mechanisms can achieve tangible positive impacts on the lives of hundreds of thousands of people—and fight climate change—while generating a financial return that will convince more and more investors to allocate resources to protect our planet.

I write to you at a time when Mother Nature is reminding us with brutal force, from Texas to India, from the Caribbean to the Pacific islands of the human and financial costs of climate change. The truth—however inconvenient it might be—is that the planet is being invoiced for them right now.

Of course, none of us had been waiting for hurricane strength to reach historical records before we go into action. Action is required on multiple fronts and GEEREF plays its modest role. This fight can be won if we all, as individuals as well as in our work for the institutions we represent, do the right thing.

Doing the right thing, as we have often discussed in the past, also means to do it right. To serve not only our investors, but equally those who build our projects, the people around them or affected by them and, of course, the planet. We are not playing a zero-sum game whereby our community development programs are project costs, shaving off a bit of return that should belong to GEEREF investors. Our community development programs are investments. They improve our returns by improving the lives of those with whom we work and live. My team has always been fully dedicated to an investment philosophy which brings together best-in-class financial expertise and an acute understanding of social and environmental issues. Each one of us supports our local project teams as they set up funds or build and commission projects. Our investment philosophy is clear and constant: People – Planet – Profit.

To track and control our progress we report quarterly and annual financial results and annual social and environmental results. This Report encapsulates the monitoring data

collection done with our funds. It is built using precise guidelines and methodologies to provide good data integrity. We are also aware that numbers cannot tell the complete story. Therefore we also provide qualitative assessments for a more comprehensive report.

As of the end of 2016, GEEREF's portfolio consisted of 12 funds. The funds' investment activities have reached 308,165 beneficiary households in 10 countries. Once the funds' portfolios are built-up, we expect to reach at least 28 countries and 5 million households annually.

GEEREF has been contributing to the fulfillment of 5 SDGs, out of the existing 13. GEEREF's multiplier has decreased in 2016 because as a result of new funds being booked. We expect the multiplier to return to its previous range once these new funds deploy capital. It is through our consistent growth and knowledge of the market that we have been able to broaden our impact across so many countries and beneficiaries.

Most of you are already aware that the Green Climate Fund has approved an USD250m of subordinated capital and USD15m of TA capital for GEEREF NeXt, the upcoming successor of GEEREF. In 2018, we aim to start raising USD500m from private investors.

At a time when greenwashing has unfortunately become a new entry in dictionaries and when "Impact Investment" is becoming a must-have in asset managers' product lines, I want our investors, as well as those they represent, to draw comfort that our methodologies generate transparent results. We are—and aim to remain—at the forefront of making investment in renewable energy in developing countries a profitable thing to do, as well as the right thing to do!

As always, we welcome your comments and questions on GEEREF 2016 Impact's Report.

CYRILLE ARNOULD
HEAD OF GEEREF FRONT OFFICE



GEEREF IMPACT OVERVIEW

GEEREF TEAM

“Both GEEREF and the EIB have impact in their DNA. The two-fold approach of GEEREF – to combine enforcement of EIB’s rigorous environmental and social standards with measurement and monitoring of data on the ground - ensures value creation for all stakeholders. Striving for excellence in this fast-evolving field, GEEREF annually updates its impact reporting to capture both the quantitative and qualitative impact of the projects it supports using state of the art methods.”

Christopher Knowles, Head of the Climate Change & Environment Division, EIB



The GEEREF team from left to right: David Pin, Jenia Ganzen, Dunja Dolanjski, Mélanie Martin, Cyrille Arnould, Ioannis Tsakiris, Aglaé Touchard-Le Drian, Mervin Chaumiere, Gunter Fischer, Mónica Arévalo, Quirin Sluijs, Eleni Zioga, Nicolas Panayotopoulos, Eva Chrysanthou, Eugene Howard.

Not pictured: Lucie Bernatkova, Stephanie Descoubés, Valentin Olivry, Alvyda Usinskaite and Robin Vaudrey.

GEEREF IMPACT OVERVIEW

COMBINING QUALITATIVE AND QUANTITATIVE IMPACT ASSESSMENT

QUALITATIVE EIB IMPACT STANDARDS <i>Implement and Comply</i>	QUANTITATIVE GEEREF IMPACT METRICS <i>Quantify and Measure</i>
1. ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS	A. CLEAN ENERGY
2. POLLUTION PREVENTION AND ABATEMENT	B. ENVIRONMENT /CLIMATE MITIGATION
3. BIODIVERSITY AND ECOSYSTEMS	C. SUSTAINABLE DEVELOPMENT
4. CLIMATE-RELATED	D. FINANCIAL LEVERAGE
5. CULTURAL HERITAGE	
6. INVOLUNTARY RESETTLEMENT	
7. RIGHTS AND INTERESTS OF VULNERABLE GROUPS	
8. LABOUR STANDARDS	
9. OCCUPATIONAL AND PUBLIC HEALTH, SAFETY AND SECURITY	
10. STAKEHOLDER ENGAGEMENT	

GEEREF IMPACT OVERVIEW

EIB IMPACT STANDARDS: IMPLEMENT AND COMPLY

EIB STANDARDS
1. Assessment and Management of Environmental and Social Risks
2. Pollution Prevention and Abatement
3. EIB Standards on Biodiversity and Ecosystems
4. EIB Climate-related Standards
5. Cultural Heritage
6. Involuntary Resettlement
7. Rights and Interests of Vulnerable Groups
8. Labour Standards
9. Occupational and Public Health, Safety and Security
10. Stakeholder Engagement



EIB ENVIRONMENTAL AND SOCIAL HANDBOOK: <http://www.eib.org/infocentre/publications/all/environmental-and-social-practices-handbook.htm>

Release date: 03 December 2013 (208 pages)

The EIB Group's impact standards are set out in Volume I of its Environmental and Social Handbook, which complements the Bank's Statement of Environmental and Social Principles and Standards. These standards are widely judged to be among the most comprehensive and rigorous in the world. A comparison with the IFC Performance Standards is available upon request.

GEEREF IMPACT METRICS: QUANTIFY AND MEASURE

CATEGORY/INDICATOR	UNIT	DEFINITION
CLEAN ENERGY		
Installed Capacity	MW	Installed operating electricity generation capacity
Electricity Generated	MWh/yr	Annual electricity output across portfolios/funds
Energy efficiency savings	MWh/yr	Annual electricity savings across portfolios/funds
ENVIRONMENT/CLIMATE MITIGATION		
Net emissions reduced	Tonnes	Annual tonnes of CO2 reductions (net) across portfolios/funds
SUSTAINABLE DEVELOPMENT		
Beneficiary households	#	Implied equivalent number of households gaining new or improved access to clean energy
Beneficiary SMEs	#	Number of energy-related small and medium-sized enterprises involved in the investment projects
Jobs created	#	Number of permanent and temporary male and female jobs created by the projects
Training	Hours	Number of hours of training provided to temporary and permanent employees of the projects
FINANCIAL LEVERAGE		
Fund Multiplier	EUR m x	Total amount raised by Funds divided by GEEREF's total commitments to funds
Project Multiplier	EUR m x	Gross capital invested (including co-investment and debt) at project level divided by equity committed by fund manager

¹Further details on metrics and impact methodology are found in 'GEEREF Impact Metrics' section (slide 16) of this Report.

GEEREF IMPACT OVERVIEW

ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

GEEREF has mapped its portfolio investments against SDGs. It showed that GEEREF’s investment focus on building-up new clean energy capacity in developing countries and its two-fold impact approach - the combination of enforcement of EIB standards on the project-level and measurement of impact – contribute to the achievement of five of the seventeen goals.



GEEREF BUILDS UP NEW CLEAN ENERGY CAPACITY



GEEREF CONTRIBUTES TO DECREASING GHG EMISSIONS IN ENERGY AND OTHER INDUSTRIES



GEEREF CREATES EMPLOYMENT OPPORTUNITIES AND SKILLS TRAINING



GEEREF APPLIES ILO STANDARDS IN ALL ITS PROJECTS



GEEREF IS A PUBLIC-PRIVATE PARTNERSHIP



A photograph of a wind farm in Panama Satara, India. The scene shows several white wind turbines on a hillside covered with green and yellowish-brown vegetation. The sky is a clear, bright blue. A semi-transparent teal box is overlaid on the left side of the image, containing the text 'GEEREF IMPACT STANDARDS' and 'Catalysing billions of clean power'.

GEEREF IMPACT STANDARDS

Catalysing billions of clean power

GEEREF VALUE-ADDED

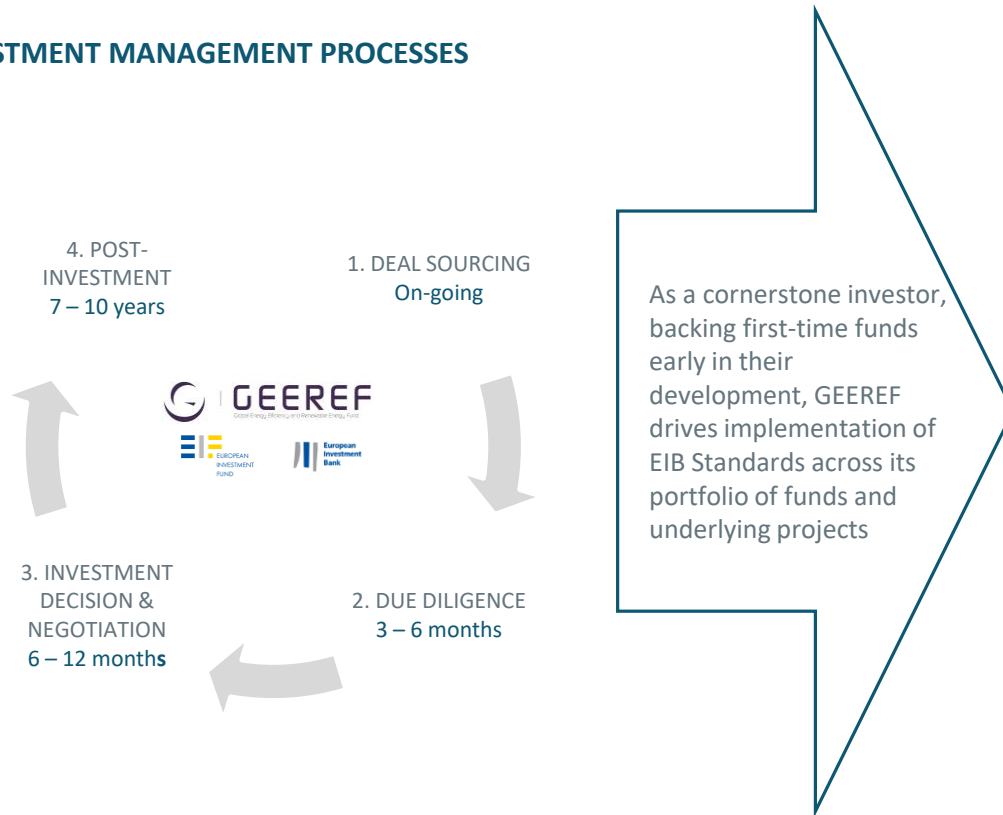
SUSTAINABLE VALUE FOCUS THROUGHOUT THE INVESTMENT LIFECYCLE

INITIAL FUND STRUCTURING	PROJECT IMPLEMENTATION	ONGOING MONITORING
<i>E&S Standards</i>	<ul style="list-style-type: none"> E&S best practice through the lifecycle of operations. E&S obligations, processes and procedures are listed and described in relevant contractual documents (Limited Partnership Agreement, Side Letter) Environmental and Social Management Systems (ESMS) are built within each fund’s management system to manage risks associated with projects and enhance positive outcomes 	
<i>Technical Assistance Facility</i>	<ul style="list-style-type: none"> GEEREF’s Regional Fund Support Facility (RFSF), funded by the European Commission, helps nascent fund managers address gaps with recruitment of qualified professionals and the development of investment and monitoring capabilities 	
<i>Advisory Board</i>	<ul style="list-style-type: none"> Regular formal and informal supervision to advise on best practice, conflicts of interest, deviations from stated policies, internal issues, strategy and market context 	
<i>Impact Reporting</i>	<ul style="list-style-type: none"> GEEREF’s annual Impact Reporting exercise helps funds maintain focus on Impact and E&S issues. “GEEREF Days”, an annual meeting for investors and fund managers, facilitates best practice and learnings across the global portfolio and strive for greater results GEEREF’s Impact Report supports greater transparency in Impact Investment and knowledge sharing 	

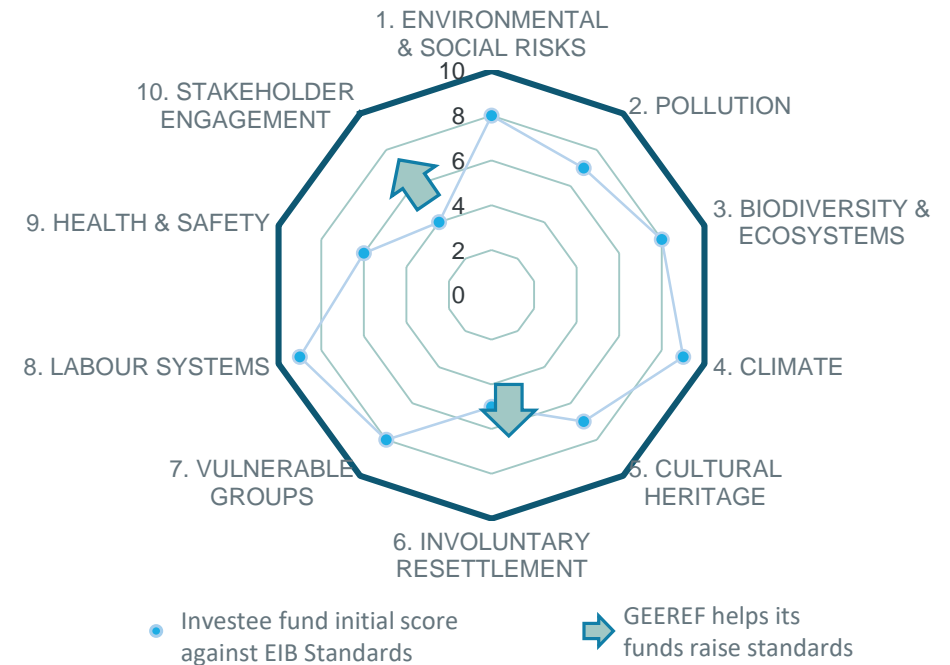
GEEREF IMPACT STANDARDS

INTEGRATING BEST PRACTICE: CREATING SUSTAINABLE VALUE

INVESTMENT MANAGEMENT PROCESSES



EXAMPLE OF FUND EVALUATION AGAINST EIB STANDARDS



GEEREF IMPACT STANDARDS

INTEGRATING BEST PRACTICE: CREATING SUSTAINABLE VALUE

EIB STANDARDS

SELECTED EXAMPLES

3. Biodiversity and Ecosystems

- REAF's Panama Mirkala project maintains a Wildlife Occurrence/Spotting record to document wildlife sighting at or near the Project site. The Black Buck is a species of antelope classified as "Near Threatened" by the International Union for Conservation of Nature (IUCN) which was identified near the area during ESIA and baseline monitoring. The Black Buck herds were regularly spotted in the vicinity of the project site, which shows that the project is not adversely impacting these species and similar species. The Indian Civet Cat and Indian Small Fox were observed once. Birds such as Peacock, Kingfisher and Rock Dove were also recorded from areas near to the project site.

6. Involuntary Resettlement & 7. Vulnerable Groups

- REAF I & II's PHESI project overlaps with land occupied by indigenous population (IP). IPs are minimally impacted due to traffic and other construction impacts. Several IP's shelters have been moved back for traffic safety reasons. New and improved shelters with proper sanitation facilities have been constructed to replace previous ones at the request of IPs.

10. Stakeholder Engagement

- REAF I & II's PHESI project has developed a Grievance Mechanism. Most grievances centers around silt runoff into the sea. As a response, the project has constructed a silt settling pond, drainage system and completed the water runoff plan. Silt barriers have also been placed on the coast where run off is most evident. With the completion of the access roads should also diminish the impact of run-offs.



GEEREF IMPACT METRICS

Catalysing billions of clean power

GEEREF IMPACT METHODOLOGY

All Impact data are **collected annually** from GEEREF's fund managers and are analysed by the GEEREF team. The report accounts for data and results for the entirety of each project, rather than a pro rata share of them, with the underlying assumption that the projects would not have been financed without GEEREF' support. The data is reported on an annual basis as a snapshot of the status at year end 2016.

The analysis comprises three layers of data:

1. **Actual reported values** from the relevant financial year from each of the investments in each portfolio in the reporting period. This may include assets that have been fully operational for the whole financial year, partially operational or still in development or construction. Please note that for the 2014 Report we tracked **deployed** capital whereas as of the 2015 we have tracked **committed** capital in order to reflect its expected mobilisation impact. The 'actual' figures present total realized figures as of the end of the year.
2. **Current portfolio** assumes that all projects in the existing portfolio (under development, construction and in operation) are fully operational for a full year. The figure provides a snapshot of the expected annual impact of the projects that are in the portfolio in 2016 once operational.
3. **Targeted portfolio** assumes that all projects in the current portfolio and in pipeline are fully operational for a full year. It provides a snapshot of the expected annual impact of all the projects that GEEREF's funds will end up supporting.

Both **current portfolio and targeted portfolio** metrics are modelled and use total capital commitments, project sizes and technologies, capex and capacity factors in order to derive a set of notional values for the portfolio. It is to be noted that these figures are very sensitive to the evolution of some of the assumptions, including the grid factor and the average consumption per household per country. We update these assumptions on an annual basis.

The data collection exercise is divided into four Pillars: **Energy, Environment, Sustainable Development** and **Financial Leverage**. While some metrics in Energy, Environment and Sustainable Development Pillars are reported as provided by the fund managers, others are calculated by the GFO based using inputs from fund managers and from external resources. The latter category includes these indicators: households impacted and emissions reduced. The number of households impacted is calculated by dividing total electricity generated (as reported by fund manager) by average household consumption in a country (as provided by the World Bank). The amount of emissions reduced is calculated by multiplying electricity generated (as reported by fund manager) by a country grid emission factor (as provided by the EIB). For the fourth Pillar, Financial Leverage, GEEREF reports on the amount of capital mobilized (both private and public) at three layers: project level, fund level and GEEREF level. The **project level** multiplier assesses the total project capex (including fund equity, co-investment and debt) relative to the equity invested by the fund manager. The **fund level** multiplier assesses the total commitments that a fund has raised from all of its investors relative to the initial commitment made by GEEREF. The **GEEREF level** multiplier is the project level multiplier times the fund level multiplier.

A final calculation (*ODA impact*) shows the impact achieved by ODA investors who catalysed the private sector limited partners. This calculates the ratio of public to total commitments and derives a final multiplier for all capital invested through GEEREF's portfolio projects relative to the initial ODA commitments to GEEREF.

Please note, GEEREF reports to the OECD on the amount of private finance mobilised by its investments on an annual basis. The OECD methodology can be found [here](#). The above described GEEREF methodology differs from the OECD methodology in few important aspects. The OECD methodology focuses on private capital mobilisation while GEEREF accounts both for public and private capital mobilisation. In addition, the OECD only accounts for capital mobilised on the fund level and ignores the mobilization effect on the project-level.

A more detailed explanation of the GEEREF Impact Methodology can be found on GEEREF's website [here](#).

GEEREF PORTFOLIO

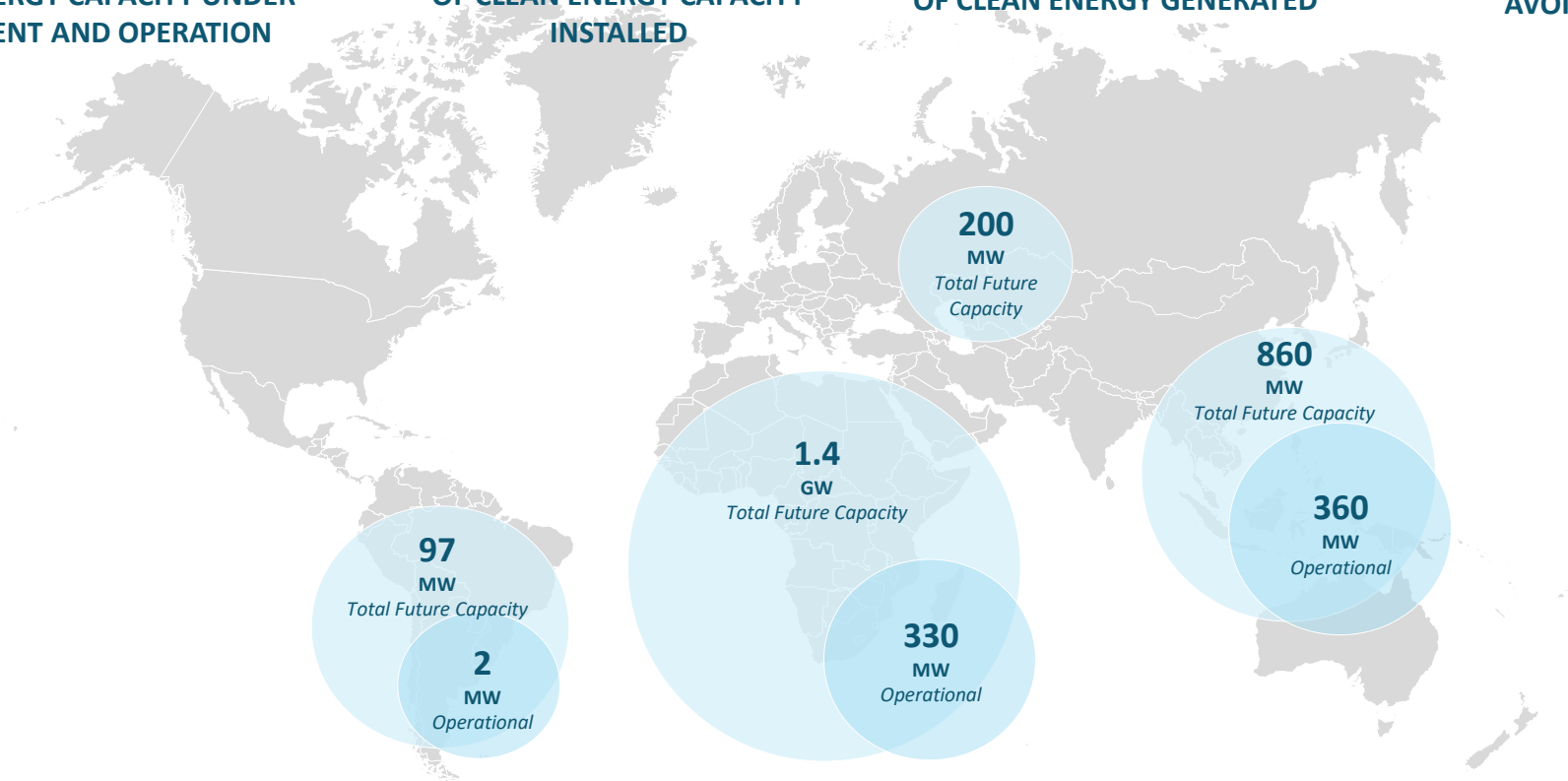
PORTFOLIO MAP & KEY RESULTS

2.7 GW
OF CLEAN ENERGY CAPACITY UNDER DEVELOPMENT AND OPERATION

700MW
OF CLEAN ENERGY CAPACITY INSTALLED

1,600 GWH
OF CLEAN ENERGY GENERATED

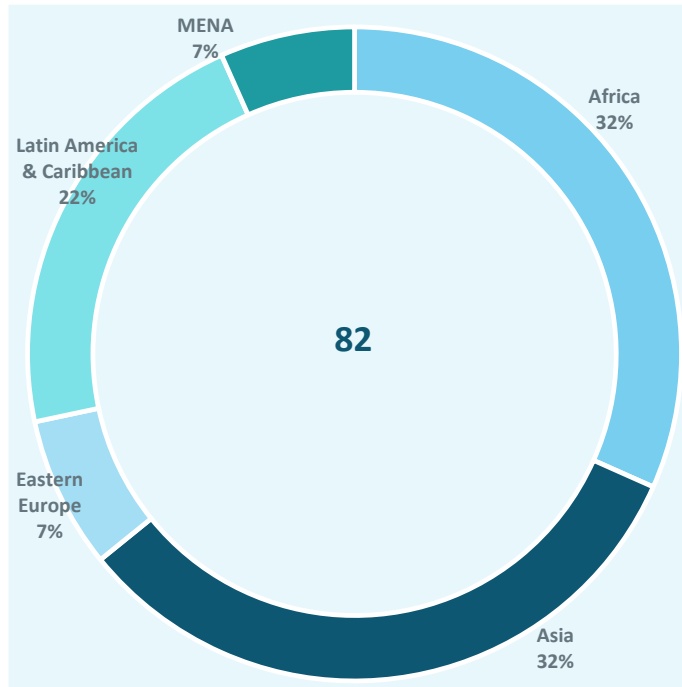
1.4 MILLION TCO2
AVOIDED



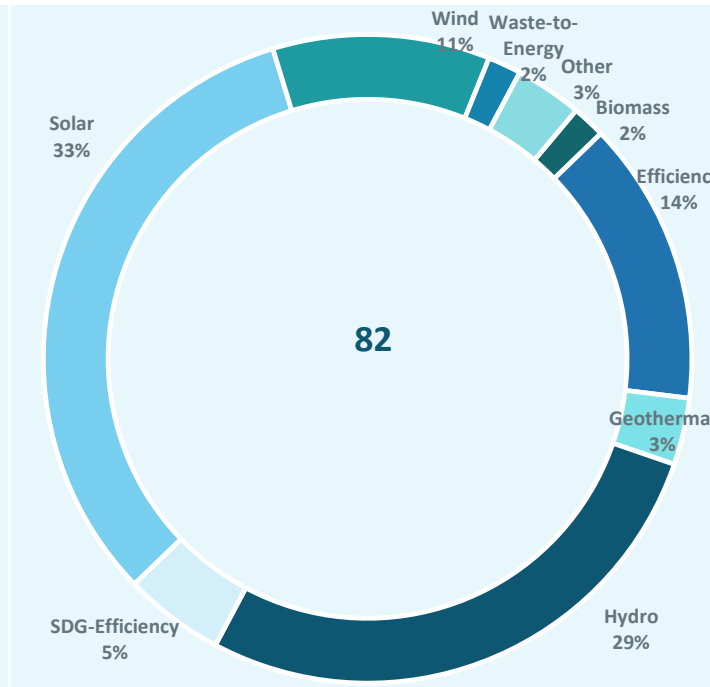
GEEREF PORTFOLIO

PORTFOLIO OVERVIEW

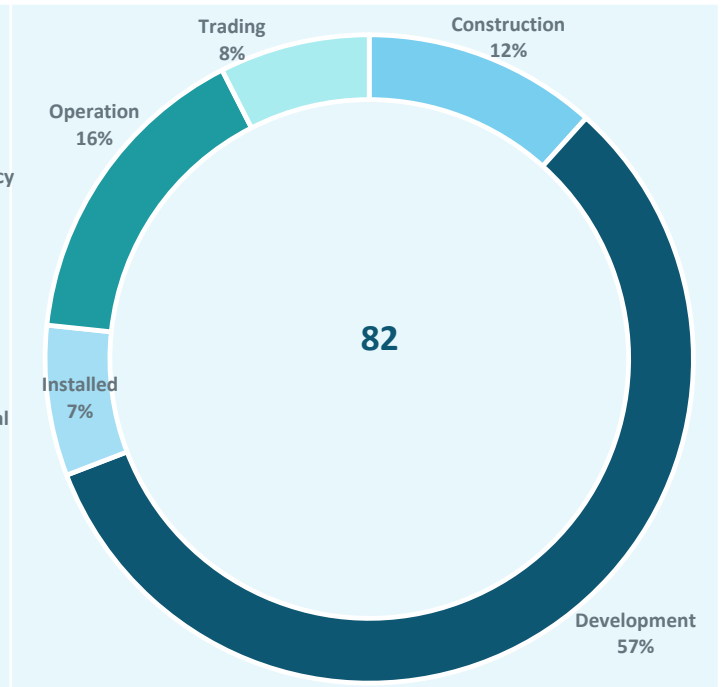
BY REGION



BY SECTOR



BY STATUS



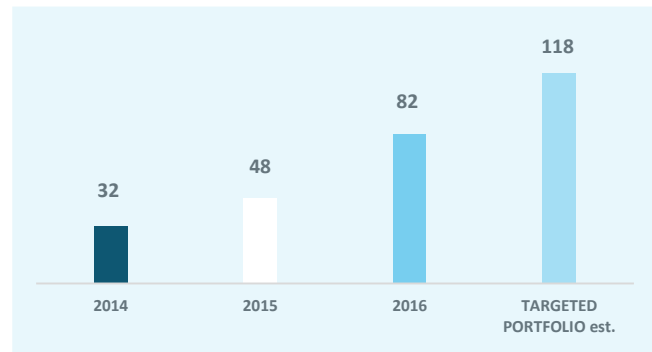
GEEREF IMPACT METRICS

PORTFOLIO SUMMARY: PILLAR 1 AND 2: CLEAN ENERGY & ENVIRONMENT/CLIMATE MITIGATION

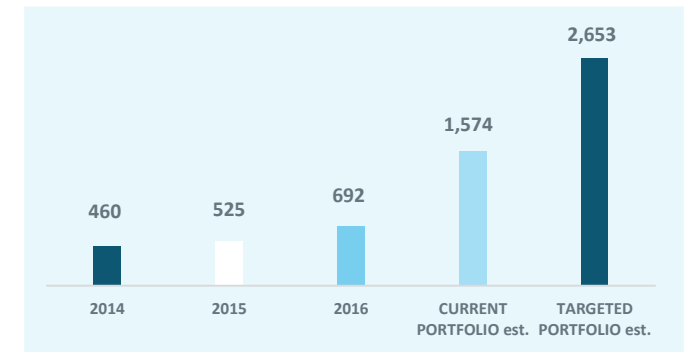
In 2016, GEEREF delivered 170 MW of new clean energy capacity in developing countries.

GEEREF's operational projects generated 1,600 GWhs of clean energy and electricity savings of 52 GWhs, equivalent to 1.4 million tonnes of CO2 saved.

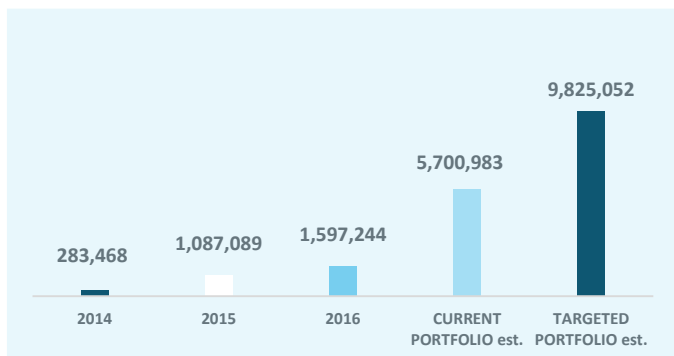
NUMBER OF PROJECTS



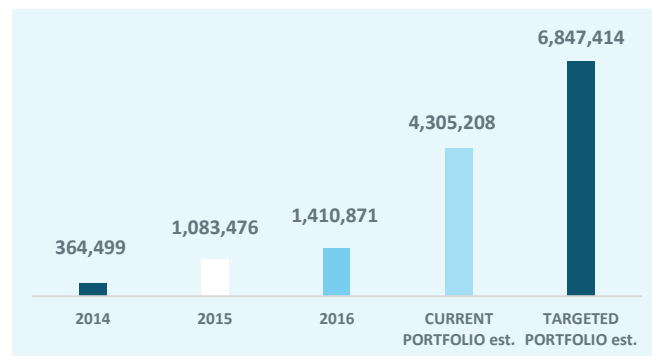
INSTALLED CAPACITY (MW)



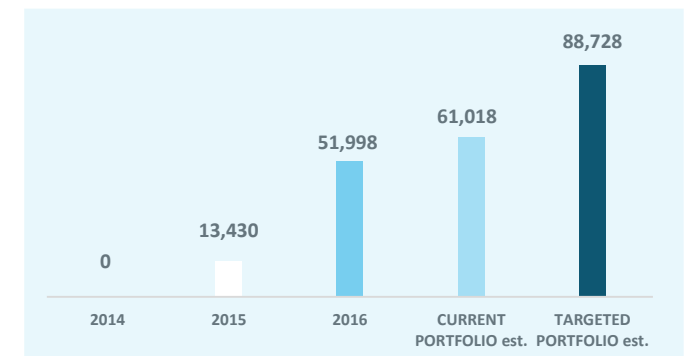
ELECTRICITY GENERATED (MWH, ANNUAL)



NET EMISSIONS REDUCED (TONNES OF CO2, ANNUAL)



ELECTRICITY SAVED (MWH, ANNUAL)



CURRENT PORTFOLIO: 12 months full operations assumed for each portfolio project. TARGETED PORTFOLIO: 12 months full operations assumed for each portfolio and pipeline projects.

GEEREF IMPACT METRICS

ANALYSIS: PILLAR 1 AND 2: CLEAN ENERGY & ENVIRONMENT/CLIMATE MITIGATION

700MW CLEAN ENERGY CAPACITY INSTALLED

In 2016 GEEREF's funds registered a 32 percent increase in the installed capacity, reaching a total of 700 MW. 170 MW were connected to the grid throughout the year, mostly in Asia. Majority of the installed projects were concentrated in three countries: South Africa (46%), India (22%) and the Philippines (10%) – and implemented by the three most advanced and 'oldest' funds in GEEREF's portfolio: Evolution I, REAF I and Armstrong.

With 1 GW currently under development and construction and additional 1 GW in the pipeline, a total of 2.7 GW of capacity is the current notional capacity of GEEREF's investments. This figure will keep increasing with each new GEEREF commitment until it is fully invested and its portfolio funds have all reached final close.

1,600 GWH CLEAN ENERGY GENERATED

In 2016 GEEREF's 19 grid-connected projects generated 1,600 GWhs of clean energy, up by 32%, or 500 GWhs, from 2015. Most of the electricity generated was in South Africa (50%), Vietnam (16%) and India (19%). While the Philippines has more installed capacity than Vietnam, the capacity factor of these projects (solar) is relatively lower than of the ones in Vietnam (hydro), leading to higher electricity generation by Vietnamese projects.

Once all projects, currently under development and construction, are operational, 5,700 GWhs of clean energy will be generated annually, with the major country beneficiaries being South Africa (22%), Uganda (14%), the Philippines (13%), India (13%) and Kenya (10%). When pipeline projects are included, the generation goes up to 9,800 GWhs annually. Assuming a renewable energy asset life of 20 years, the total electricity generated over the life of all projects in the future portfolio will be 197,000 GWhs.

52 GWH ELECTRICITY SAVED

GEEREF had two active funds – MSEF and Evolution I – and one fund in liquidation (EELAF II) that target energy efficiency, with a total of 11 operational projects, in its portfolio. Combined, these projects generated savings of 52 GWhs in 2016, with majority of the savings located in Mexico (74%) and South Africa (25%). When additional projects, currently under development or being installed, are commissioned, GEEREF's funds will save the equivalent of 61 GWhs annually. When pipeline projects are included, the figure reaches 89 GWhs annually. The main beneficiary countries will be Mexico (46%), Colombia (34%) and South Africa (15%). Assuming an energy efficiency asset life of 10 years, the total electricity saved over the life of all projects in the future portfolio will be 900 GWhs.

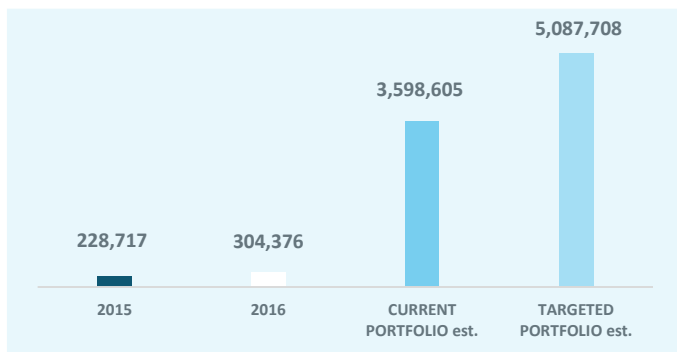
1.4 MILLION TCO2 AVOIDED

In 2016, the electricity production and savings contributed to the savings of an equivalent of 1.4 million tones of CO2 annually. Once all projects that are currently under development or construction are installed, the figure increases to 4.3 million tones of CO2 annually. This is an equivalent to taking 1.3 million cars off the road, or half of the passenger cars of Norway. Once all pipeline projects are operational, 6.8 million tones of CO2 annually will be avoided. Over the full life of the assets this translates into 136 million tones of CO2 avoided.

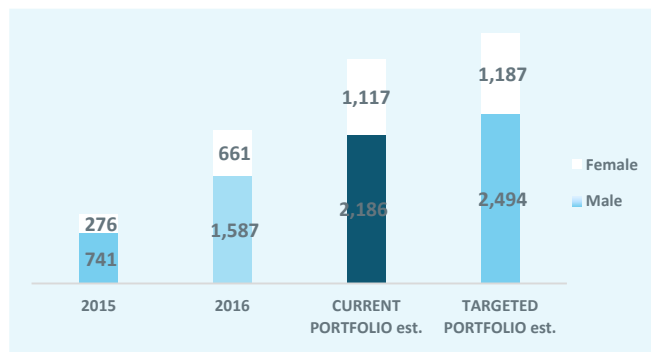
GEEREF IMPACT METRICS

PORTFOLIO SUMMARY: PILLAR 3: SUSTAINABLE DEVELOPMENT

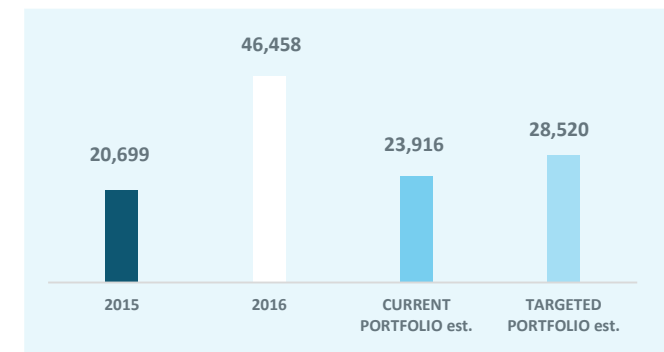
IMPLIED BENEFICIARY HOUSEHOLDS
BENEFITTING FROM NEW/IMPROVED ENERGY ACCESS (ANNUAL)



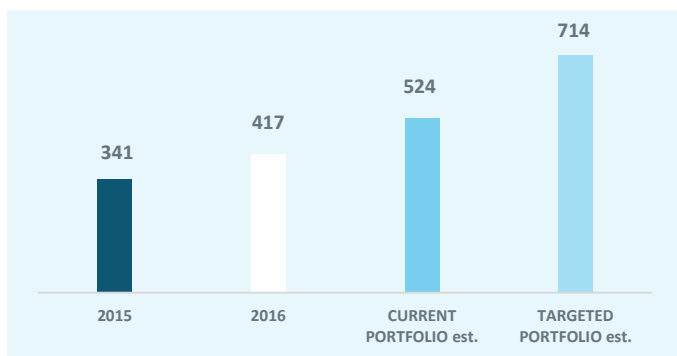
PERMANENT JOBS CREATED



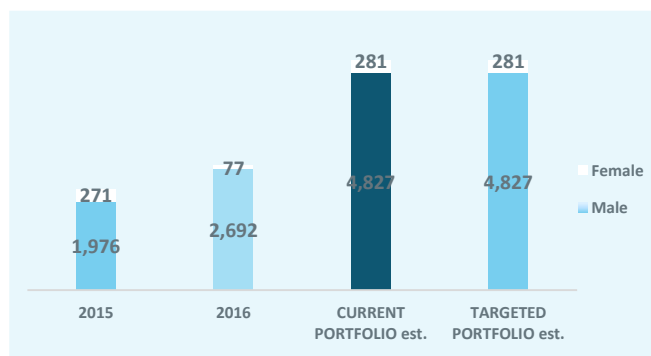
TRAINING PROVIDED (HOURS, ANNUAL)



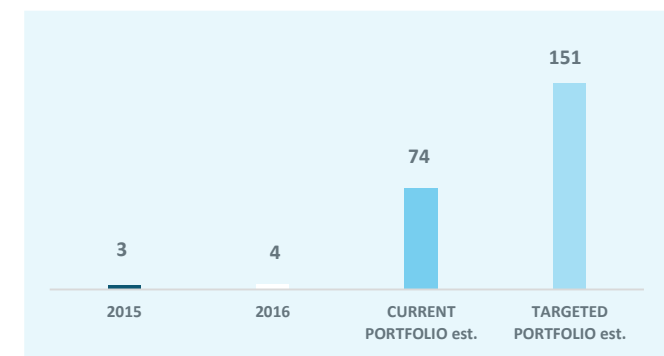
BENEFICIARY SMES



TEMPORARY JOBS CREATED



TAXES PAID (EUR M, ANNUAL)



GEEREF IMPACT METRICS

ANALYSIS: PILLAR 3: SUSTAINABLE DEVELOPMENT

308,000
HOUSEHOLDS BENEFITTING
FROM NEW/IMPROVED ENERGY
ACCESS

In 2016, GEEREF's funds reached an equivalent of 308,165 beneficiary households in 12 countries. This is up by 26%, or 80,000 households, and from 9 countries in 2015. Once the funds' projects are fully built up (including pipeline), GEEREF should provide new or improved access to 5.1 million households annually in 28 countries, with the largest portion of households located in Africa, with just two countries representing half of the beneficiary households - in Uganda (29%) and Kenya (19%). This stems from low household consumption in these countries, where every new MWh generated impacts a high number households beneficiaries.

5,000
EMPLOYEES

In 2016, GEEREF-supported projects employed around 5,000 people, almost equally divided between permanent and temporary contracts. Majority of the employees were located in India (46%), the Philippines (28%) and Uganda (14%). The largest portion of labour (44%) was employed during construction, followed by operation (28%) and development (16%). 75% of temporary labour was hired during construction and 22% for operation phase. Permanent labour was employed in development (34%) and operation (35%) stages. The vast majority of all employees were male (85%). Majority of female employees were in permanent positions and engaged in the development (51%) and operation stage (22%) of projects. Only 9% of women were engaged in the stage of project development which includes construction. Importantly, a large number of the funds' projects are located in often overlooked rural areas, where employment has a significant catalytic effect that trickles into and benefits the wider rural economy.

46,500
TRAINING HOURS

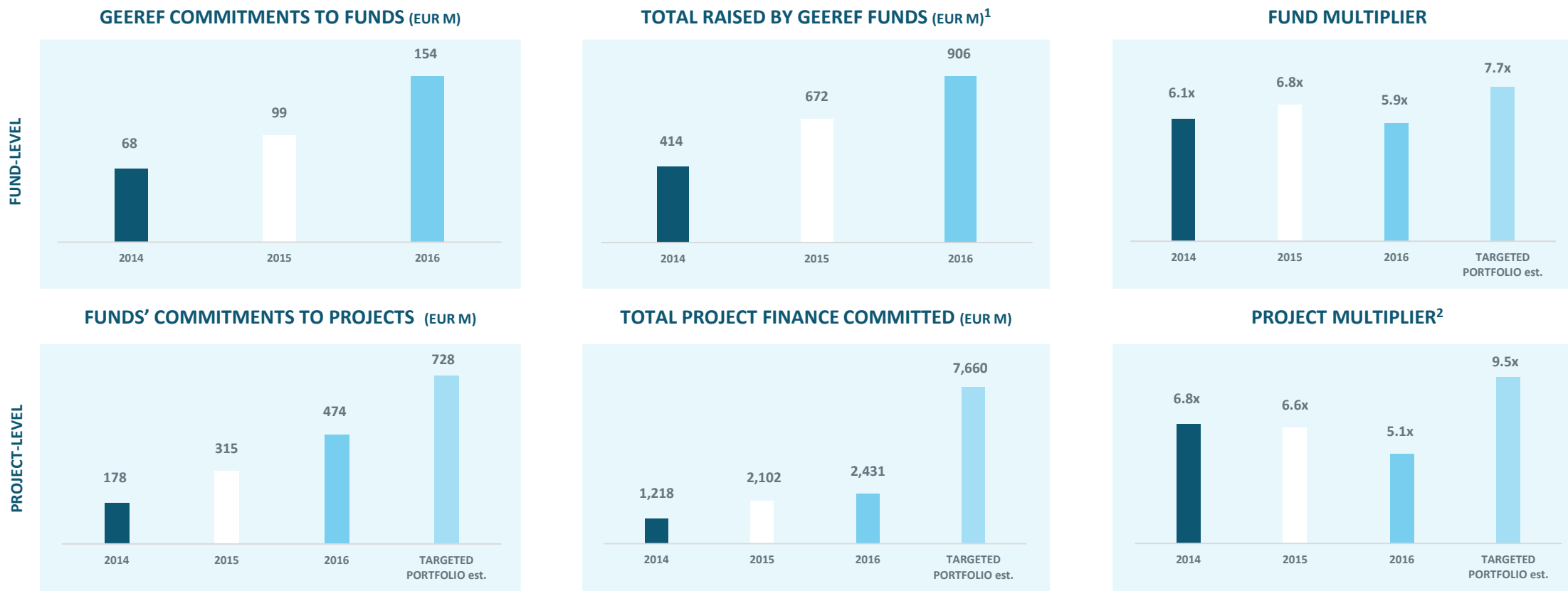
Between 2015 and 2016, the number of hours of training provided at project-level more than doubled, reaching 46,500 hours. Most of the training provided included health & safety training, technical training and environmental and social compliance training. For further details on training, please refer to the last section of the impact report. It is expected that, once all the projects that are currently under development and construction reach their operational phase, 28,500 hours of training will have been provided annually. The run-rate figure is lower than the actual 2016 figure as less training is required during operation of projects than during construction.

4 MILLION
TAXES PAID

In 2016, GEEREF-supported projects contributed EUR 4m in taxes to local governments. Clean energy infrastructure receives beneficial tax treatment in countries of our investments to incentivise investors' participation in and expansion of the sector. The relatively low level of taxes paid in 2016 is reflective of the fact that majority of GEEREF's projects are either in development and construction. In these two periods, projects typically receive tax credits.

GEEREF IMPACT METRICS

PORTFOLIO SUMMARY: PILLAR 4: FINANCIAL LEVERAGE



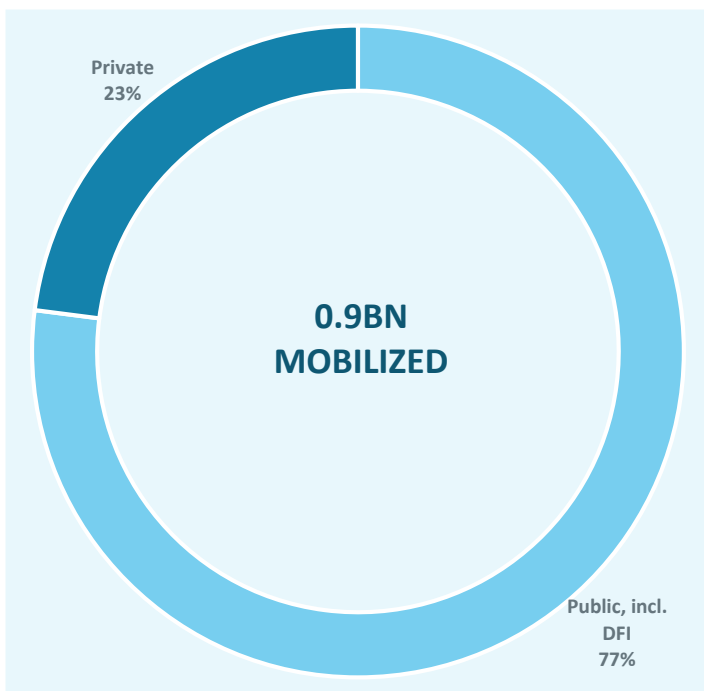
¹ Including GEEREF commitments

² The lifetime project multiplier is currently lower than the 2015 run-rate multiplier as a number of funds are resorting to 100% equity financing (36% gearing compared with 14% for 2015). However, when projects are refinanced after commissioning with debt, the lifetime multiplier will return to actual and historic levels.

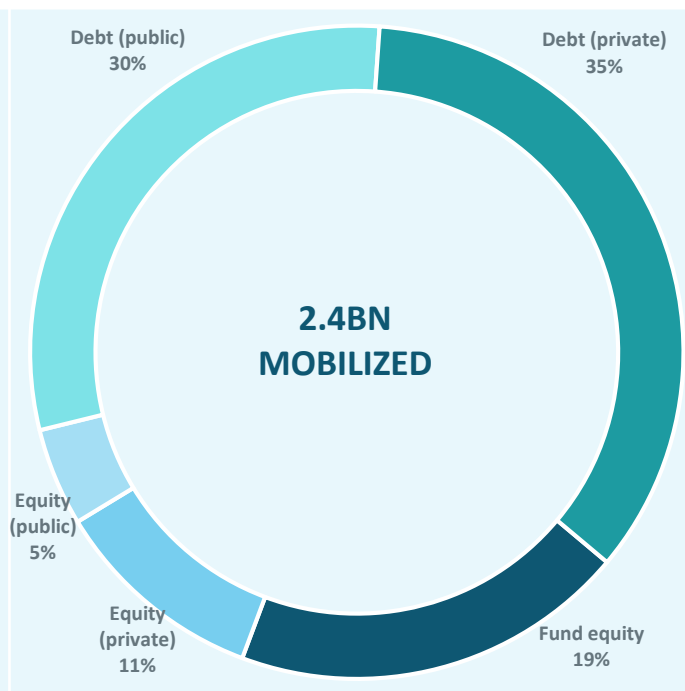
GEEREF IMPACT METRICS

PORTFOLIO SUMMARY: PILLAR 4: FINANCIAL LEVERAGE

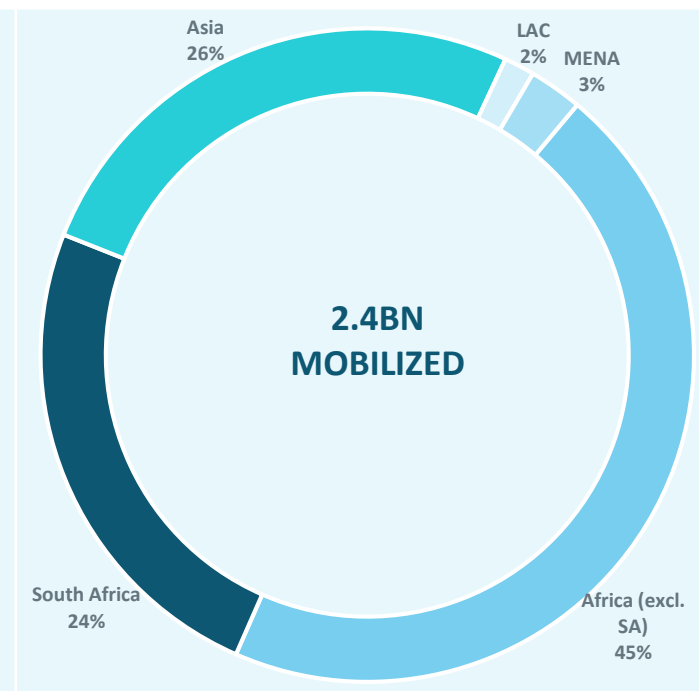
CAPITAL MOBILIZATION AT FUND-LEVEL, BY SOURCE OF FINANCING



CAPITAL MOBILIZATION AT PROJECT-LEVEL, BY FINANCIAL INSTRUMENT & SOURCE



CAPITAL MOBILIZATION AT PROJECT-LEVEL, BY REGION



GEEREF IMPACT METRICS

ANALYSIS: PILLAR 4: FINANCIAL LEVERAGE

GEEREF-LEVEL

Public investors committed EUR 112m into GEEREF, which mobilised further EUR 110m of private investors' commitments.

EUR 222 M SIZE OF GEEREF

As of the end of 2016, GEEREF's portfolio consisted of EUR 154m of commitments into 12 funds, a 64% increase from EUR 99m committed at the end of 2015.

FUND-LEVEL

EUR 906 M TOTAL RAISED BY FUND MANAGERS AS A RESULT OF GEEREF'S COMMITMENT

Based on GEEREF's commitment of EUR 154m, fund managers have raised a total of EUR 906m. This translates into a fund-level multiplier of 6.2x, a decrease compared to last year's multiplier of 6.8x. The slight decrease in the overall fund multiplier is driven by the addition of four new funds that only held their first closing in 2016: CCEF, EVO II, Catalyst and REAF II. Given that GEEREF participates as an anchor investor in the first closing and, as such, initially holds large share of the fund, the multiplier at the fund-level for the four funds is low. The multiplier will increase when the funds reach final closing and GEEREF's shares are diluted by other investors. A multiplier based on targeted fund sizes would be 7.7x. A vast majority of the capital raised by fund managers – 77% – comes from Development Finance Institutions (DFIs), and 23 percent from a diversified pool of private investors (asset managers, impact investors, and other).

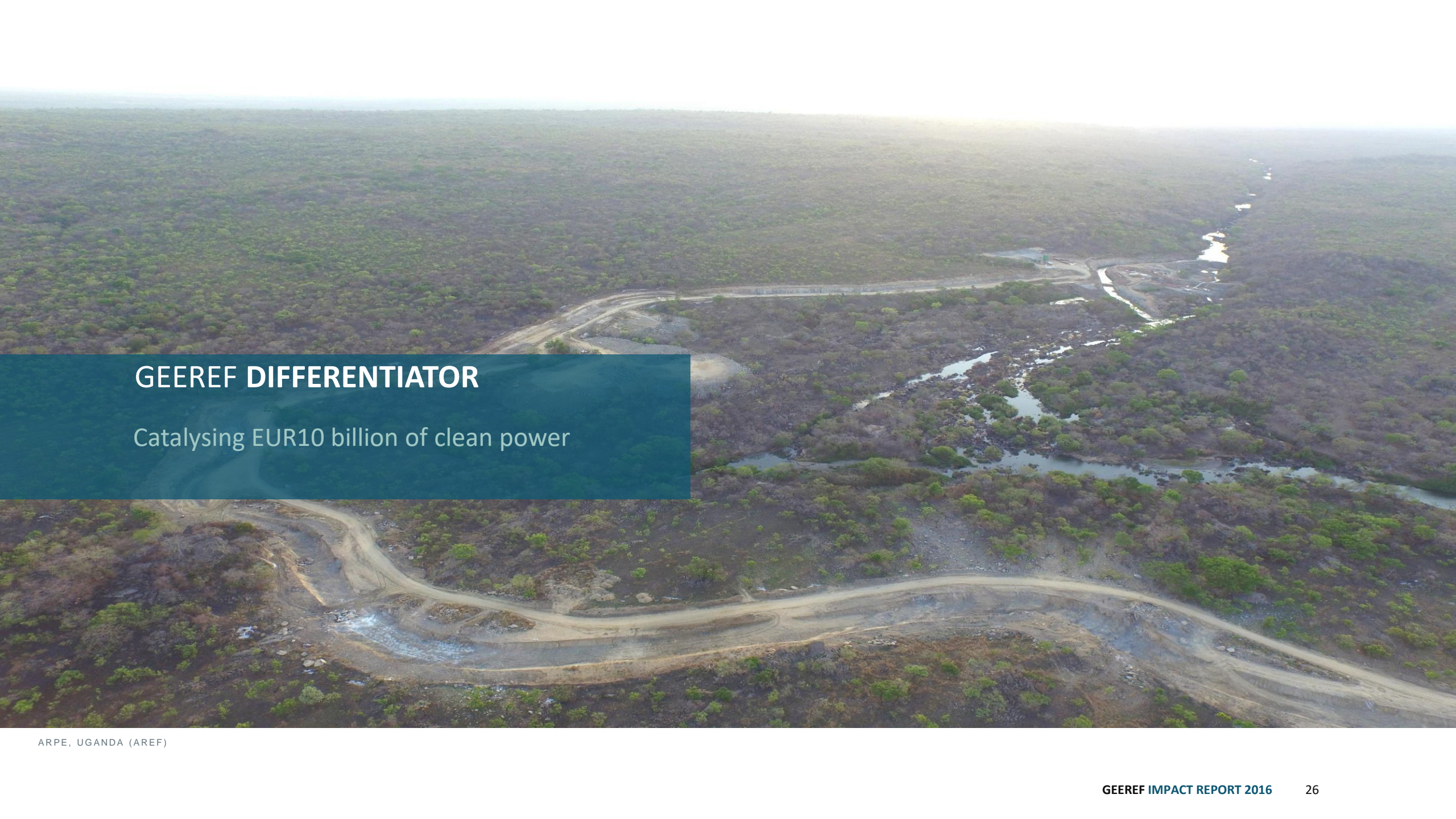
International organizations have been working on a harmonization of approach to calculate financial mobilization. GEEREF has been reviewing the approaches that the OECD and a set of Multilateral Development Banks devised. However, we find that the approaches agreed upon do not fully capture the full scope of capital mobilization of a vehicle like GEEREF. For example, the OECD approach focuses only on the amount of private capital mobilised and only at the fund level. It also attributes the private capital mobilised each of the DFIs investing in a fund based on their share in a fund. Using the OECD methodology, GEEREF mobilised a total of 30 million of private capital on the investee fund level between 2012 and 2015. In 2016, GEEREF mobilised additional 20 million of private capital.

PROJECT-LEVEL

EUR 2.4 BN OF PROJECT FINANCING RAISED

By year-end 2016, the final cost of projects developed by GEEREF fund managers reached EUR 2.4bn, 19% of which represents their equity contribution and 16% represents equity contribution of other, mostly private, investors. The remaining 70% of project financing comes from lenders, almost evenly split between DFIs, national development banks or equivalent and private local banks.

The total capital mobilized increased by EUR 0.2bn compared to 2015 but the multiplier decreased from 6.7x to 5.1x. This is driven by the immaturity of the project portfolios of recent funds (e.g. REAF II and Catalyst). The average multiplier for the earlier vintage is 6.8x (higher than in 2015). The multiplier of the new funds in GEEREF's portfolio is 3.7x.

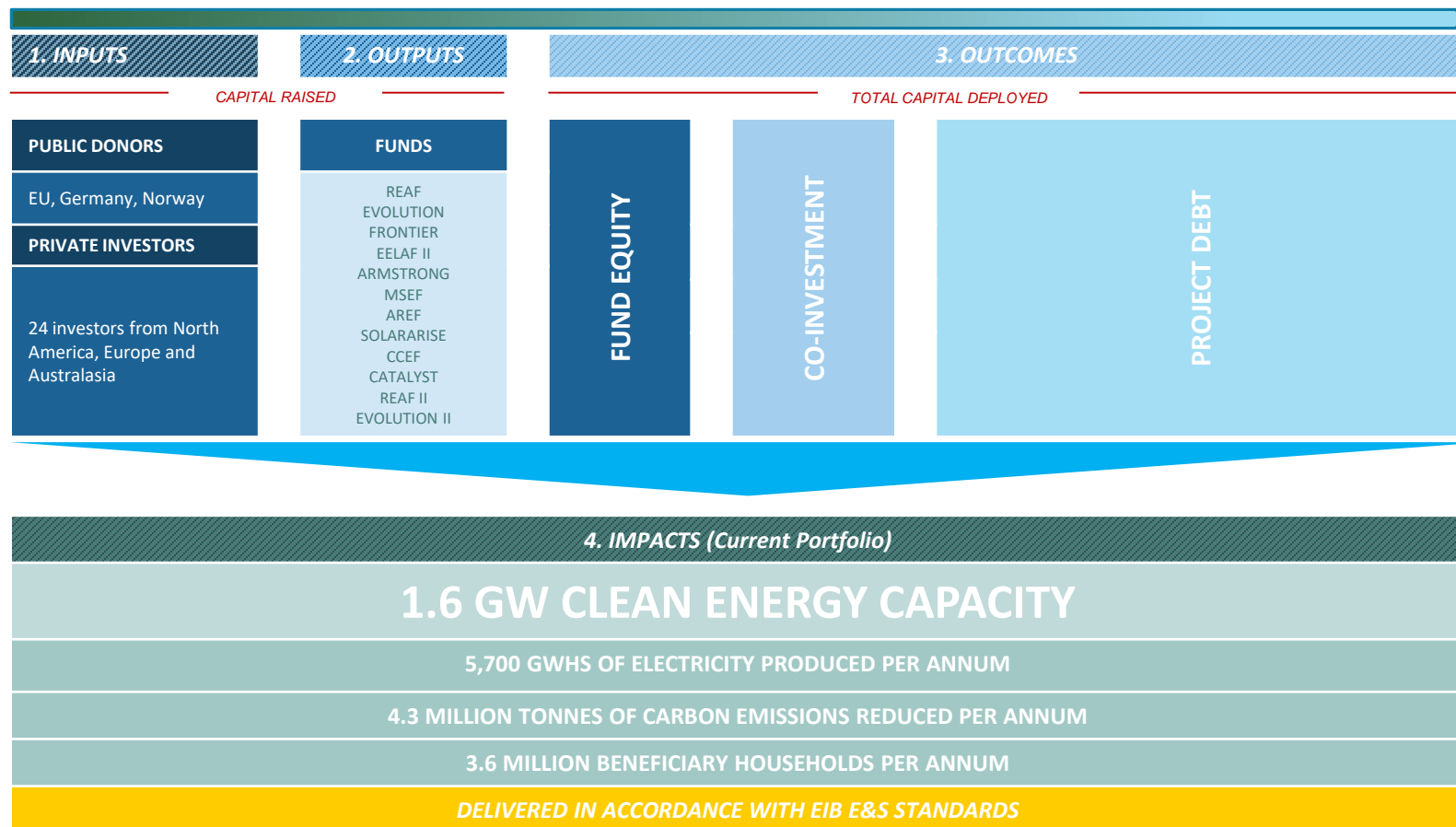


GEEREF DIFFERENTIATOR

Catalysing EUR10 billion of clean power

GEEREF DIFFERENTIATOR

THEORY OF CHANGE MODEL: GEEREF'S MULTIPLIER



GEEREF MULTIPLIER

1. GEEREF COMMITMENTS

- EUR 112m of public commitments (A Shares) attract a further EUR 110m of private investor commitments (B Units)

2. 6X FUND MULTIPLIER

- GEEREF is the cornerstone investor for funds that then raise a multiple of its initial commitment
- GEEREF's initial investment may range from EUR 10m to EUR 20m and has catalysed EUR 906m from EUR 154m of commitments to funds (6.2x)

3. 5X PROJECT MULTIPLIER

- GEEREF's funds construct 10-15 projects each, using their own fund equity, co-investor equity and debt finance.
- In 2016, EUR 2.4bn was catalysed from EUR 474m (5.1x)



GEEREF IMPACT THEME

Catalysing billions of clean power

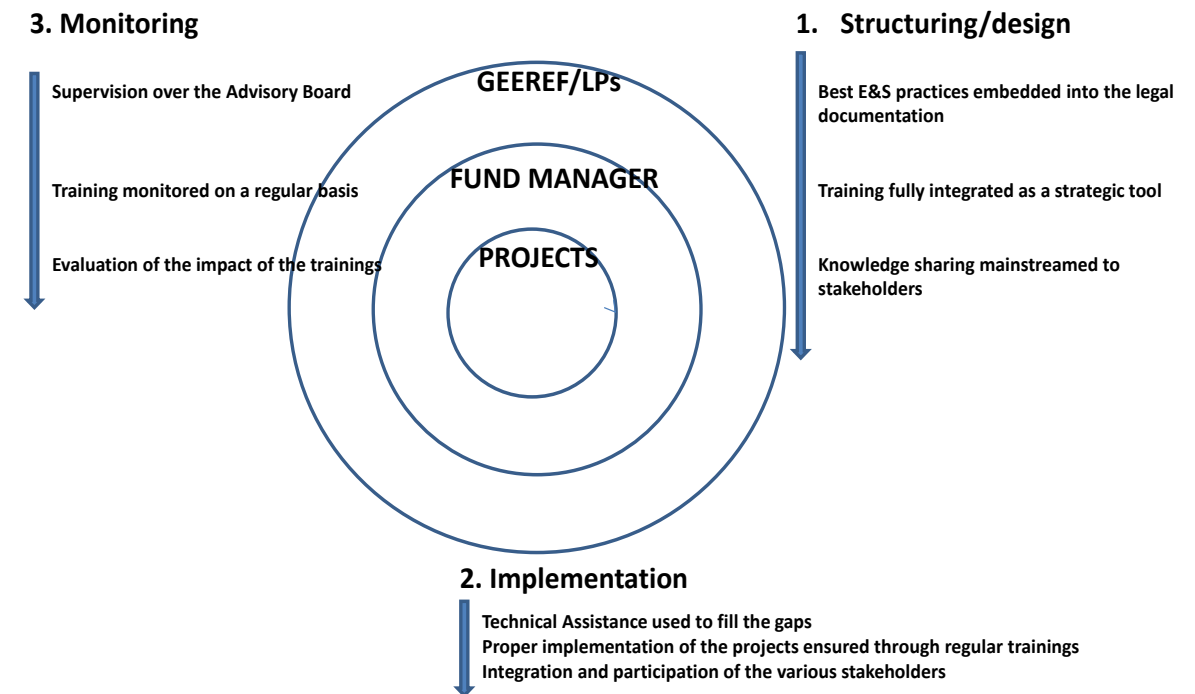
TRAINING AND CAPACITY BUILDING: HOW TO MAKE THE DIFFERENCE!

INTRODUCTION

WHAT IS AT STAKE?

- Beyond the provision of capital, one of the strength and value added of the equity model is the transfer of knowledge throughout the investment cycle.
- In the « fund of fund » model, capacity building through training can be achieved at the different layers of the investment:
 - At GEEREF level
 - At the fund managers level, with an impact on the projects
 - At the project level, with an impact on the communities and other stakeholders
- Whilst the purpose of training is to optimise the implementation of the projects, it also add long term value to the teams and projects and become a key differentiator when part of the strategy of the fund manager. Investing in human resources creates the most value in the long-run!

MAINSTREAMING TRAINING THROUGH THE INVESTMENT LIFECYCLE



TRAINING AND CAPACITY BUILDING COMMON CHALLENGES AND ACTIONS – EXAMPLES FROM FUNDS

ORGANISATION OF THE SAFETY WEEK AT THE PANAMA WIND PLANTS (BERKELEY)

- Workers' health, safety and well-being is key for the proper implementation of projects.
- Ensuring that trainings are effective, understood, implemented and replicated is a real challenge for project teams.
- The active partnerships developed at the Panama sites between employees, contractors and subcontractors around health and safety ease the communication and trust within the workplace.
- Training provided include: first-aid, ESMS, HOS management systems, turbine and electrical safety, wildlife awareness, waste management, construction safety, fire and safety training, emergency mock drilling.
- The Panama group organises an health and safety week on a yearly basis, it was recently attended by GEEREF as part of a monitoring mission.



TRAINING AND CAPACITY BUILDING COMMON CHALLENGES AND ACTIONS – EXAMPLES FROM FUNDS

TRAINING WITH COMMUNITIES AT THE SITI HYDRO SITE (FRONTIER) – BIRTH/DELIVERY TRAINING

- In response to requests from women from the communities within the Siti I & II project areas, training courses for traditional birth attendants (TBAs) were organised.
- 35 women completed the course. The trainees had a chance to get first-hand experience in relation to maternal and child health activities as handled in a large hospital.
- Whilst one mid-wife was previously covering the entire project area, the district health services are now able to call on these trained TBAs to support them with child deliveries in less accessible locations in the district.



TRAINING WITH COMMUNITIES AT THE SITI HYDRO SITE (FRONTIER) – MOTORCYCLE REPAIR TRAINING

- As part of the community action plan, a motorcycle (boda boda) repair training is organised at the sites of the Siti hydro plants.
- The aim of the training was to impart sustainable skills (practical and theoretical) to local youths. A total of 35 youth completed the training.
- 8 out of the 35 trainees have now set up small shared workshops in main trading centres of Kamet, Tulel, Nyalit and Bukwo, and these are now self-sustaining businesses requiring minimal support from the project.



TRAINING AND CAPACITY BUILDING CONCLUSION

1) MAINSTREAMING TRAINING

- Beyond mandatory trainings on health and safety and its related costs, mainstreaming knowledge sharing on a proactive manner may convert into long term value added for fund managers.
- Fund managers, project employees, contractors, subcontractors and also communities can all benefit from well organised trainings.

2) TRACKING TRAINING AND ITS IMPACT

- GEEREF's fund managers have started to collect quantitative as well as qualitative information to track the impact of training on an annual basis.
- Through the annual impact reporting cycle, GEEREF continues to develop specific training metrics with its fund managers. Indicators are tracked across the full project cycle (project design/development, construction and operations) and include data on hours trained per man/woman hour and qualitative information on the type of training received as well as key lessons learned.



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PANAMA SATARA, INDIA (REAF): VISIT OF THE PROJECT-SUPPORTED ORPHANAGE IN BEED, INDIA DURING GEEREF MONITORING MISSION