



Federal Ministry
for Economic Affairs
and Energy



MITTELSTAND
GLOBAL
ENERGY SOLUTIONS
MADE IN GERMANY

Project Development Programme (PDP)

Name: Hendrik Hundhausen

Webinar on Business models for PV systems in Jordan and Lebanon

11.03.2021

Facilitator

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

1

As part of the German Energy Solutions Initiative (BMW i) PDP supports German small and medium-sized enterprises (SME) of the renewable energy sector to access emerging markets.

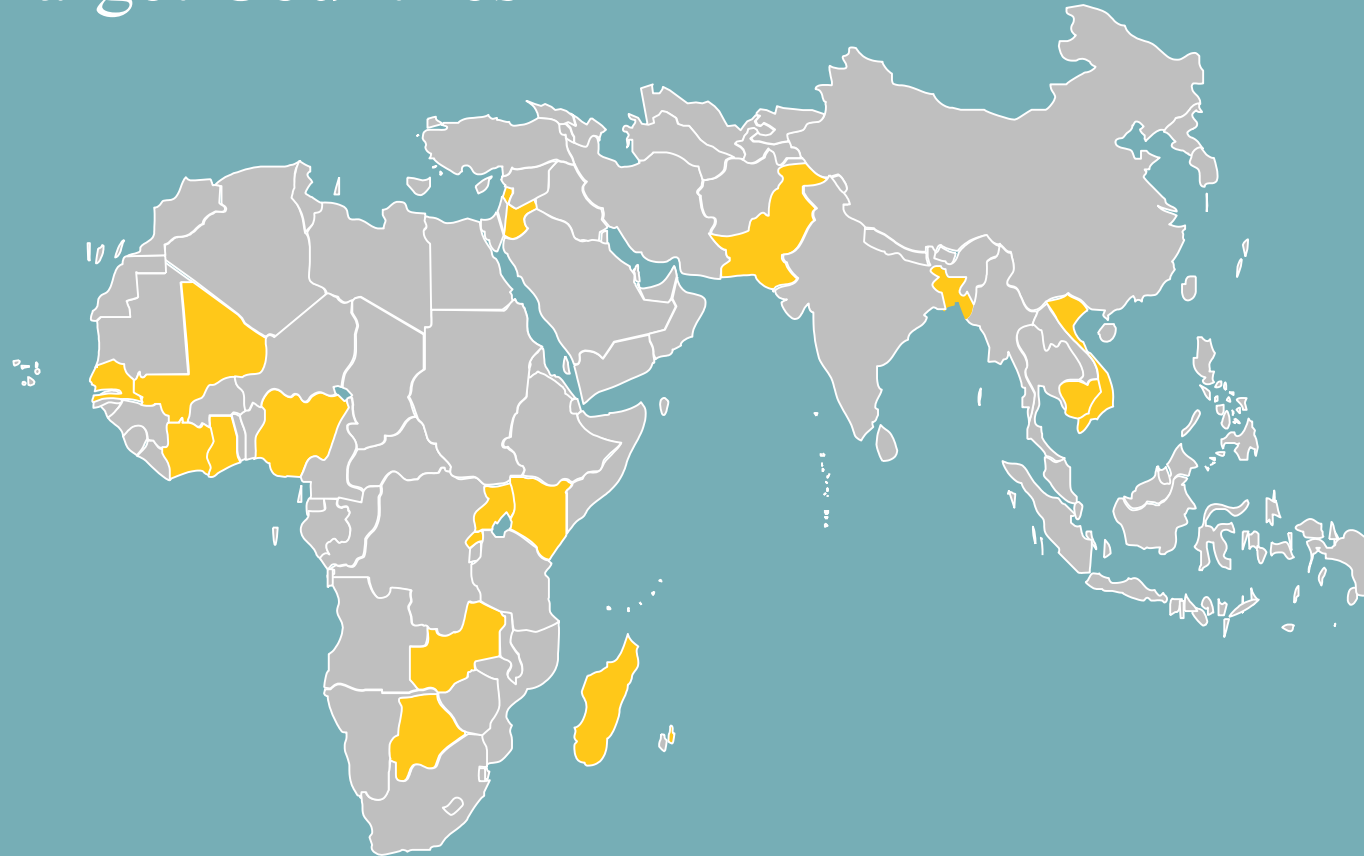
Sponsor
Federal Ministry for Economic Affairs and Energy (BMWi)

PDP Team Berlin

PDP-colleagues in GIZ-country offices



2 PDP's Target Countries



- **Sub-Saharan Africa**
 - Kenya
 - Ghana
 - Nigeria
 - Mali
 - Senegal
 - Cote d'Ivoire
 - Botswana
 - Zambia
 - Mauritius
 - Madagascar
 - Uganda
 - Rwanda
- **Middle East**
 - Lebanon
 - Jordan
- **Asia**
 - Pakistan
 - Bangladesh
 - Vietnam
 - Cambodia

3 PDP's Services



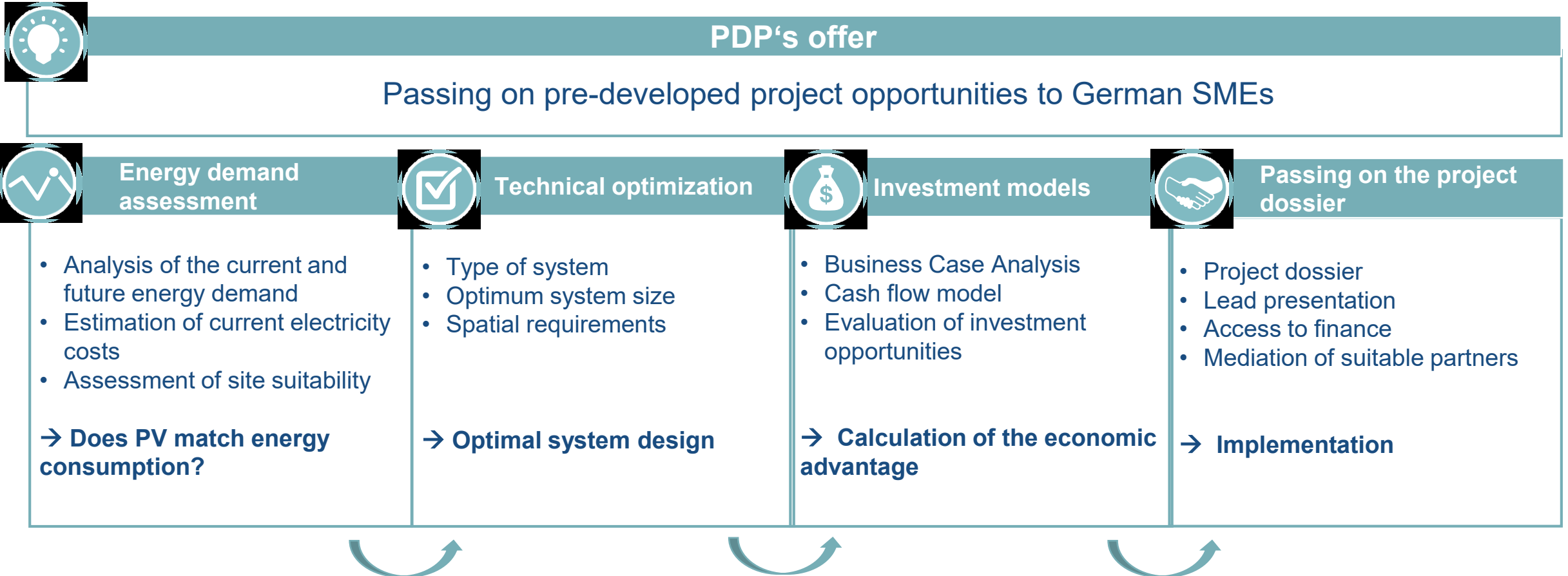
Project Development

Project
Development

- Identification of commercially viable and scalable projects
- Evaluation of economic, political and technical risks
- Lead of project opportunities forwarded to German SME

Focus PDP Phase IV: Power supply for C&I segment

PDP accompanies successful project implementation



4 Examples of successful project development



Copperbelt Energy Corporation, Zambia
1 MWp



Swissport Kenya Limited, Kenya
110 kWp



Emergent cold, Vietnam
308 kWp



Star Aire, Thailand
1 MWp

Business Development



Business
Development

- Market information on target countries (incl. public tenders)
- Professional accompaniment of AHK business trips
- Delegation trips to Germany
- Marketing support "made in Germany"


Market Development

Market
Development

- Skill development on site by German Training Week → SME as trainer
- Political advice on framework conditions
- Cooperation with associations
- Conference formats and trade fair participations

Benefits for Local Costumer

- Reduction of energy costs
- Access to German components and system engineering
- Access to reliable energy
- Independency from local electricity supplier
- Contribution to climate protection
- Compliance with CSR obligations



Increasing
Competitiveness

Benefits for German Supplier

- Reduction of project development costs
- Scalable reference projects
- Free and impartial assessment of project opportunities
- Networking in public and private sector
- Simplified access to project financing and risk insurance
- Increased market visibility



Successful
market entry

PDP Portfolio Jordan / Lebanon

Jordan

- PDP Active since: July 2018
- Currently more than 30 PV Solar projects in the pipeline.
- Market potential for PV Solar Application high
- PDP funded sector analysis on process heat to start in April
 - Goal: Substantiate potential for projects in the heat sector and develop business models.

Lebanon

- PDP active since: Beginning of 2019
- Currently more than 10 projects in the pipeline
- High market potential for solar PV, currently disrupted by economic and political crisis.

Thank you for your attention

Hendrik Hundhausen– Project Officer

hendrik.hundhausen@giz.de

Project Development Programme

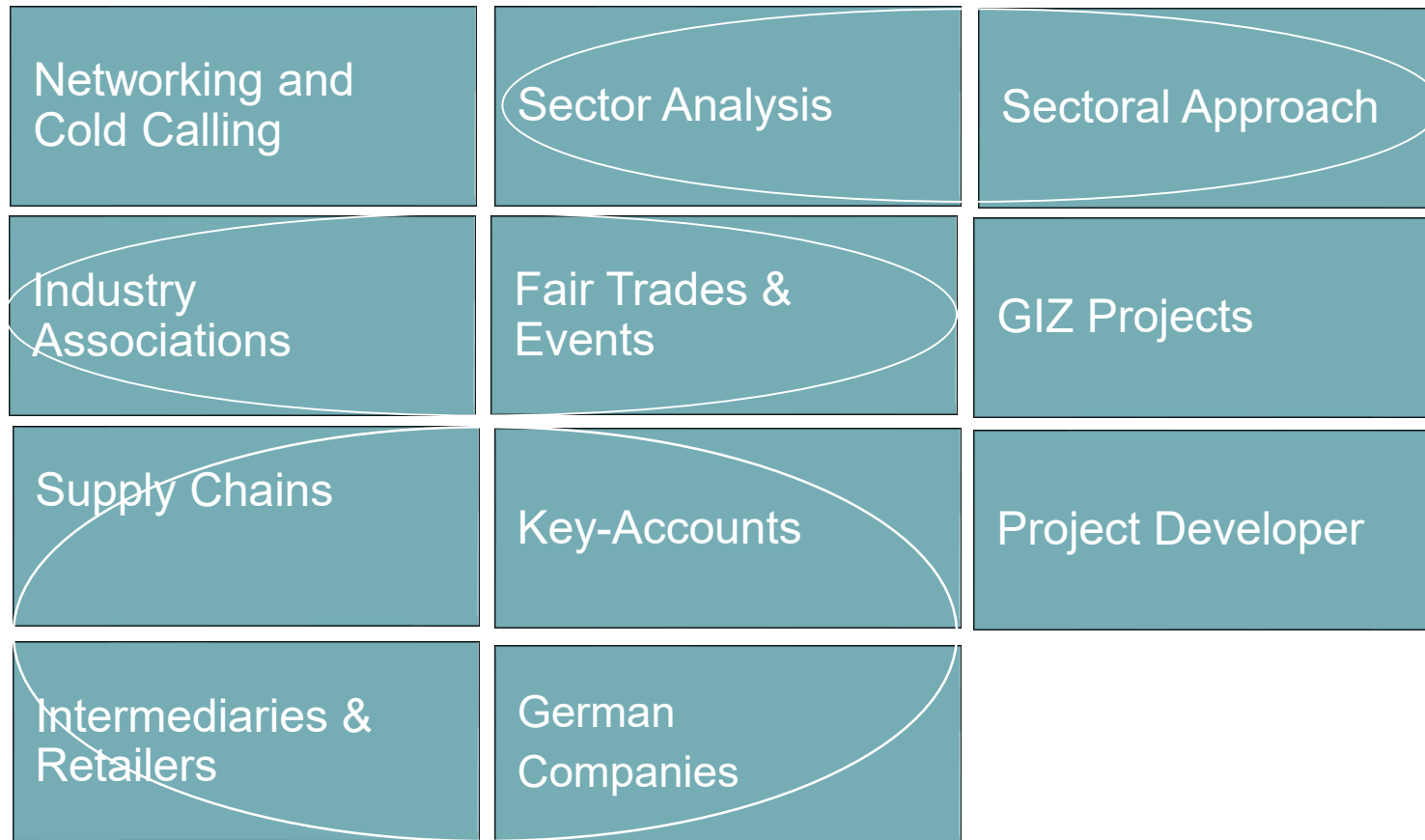
pep@giz.de

www.giz.de/projektentwicklungprogramm

www.german-energy-solutions.de

Backup

Leads are mainly generated by PDP activities



Project development processes

**Project
identification**
1

Questionnaire
Site Audit
Project **Security**

**Project
planning**
2

Load modelling
Load measurements
System layout
Cash flow model

**Lead
transfer**
3

Project dossier
Lead Presentation
Contact to banks

**Project
implementation**
4

Business **transaction**
Further support for
customers and
SMEs

**Project
Tracking/ Follow
up**
5

Marketing and
Communication

Fair and transparent approach to lead transfer

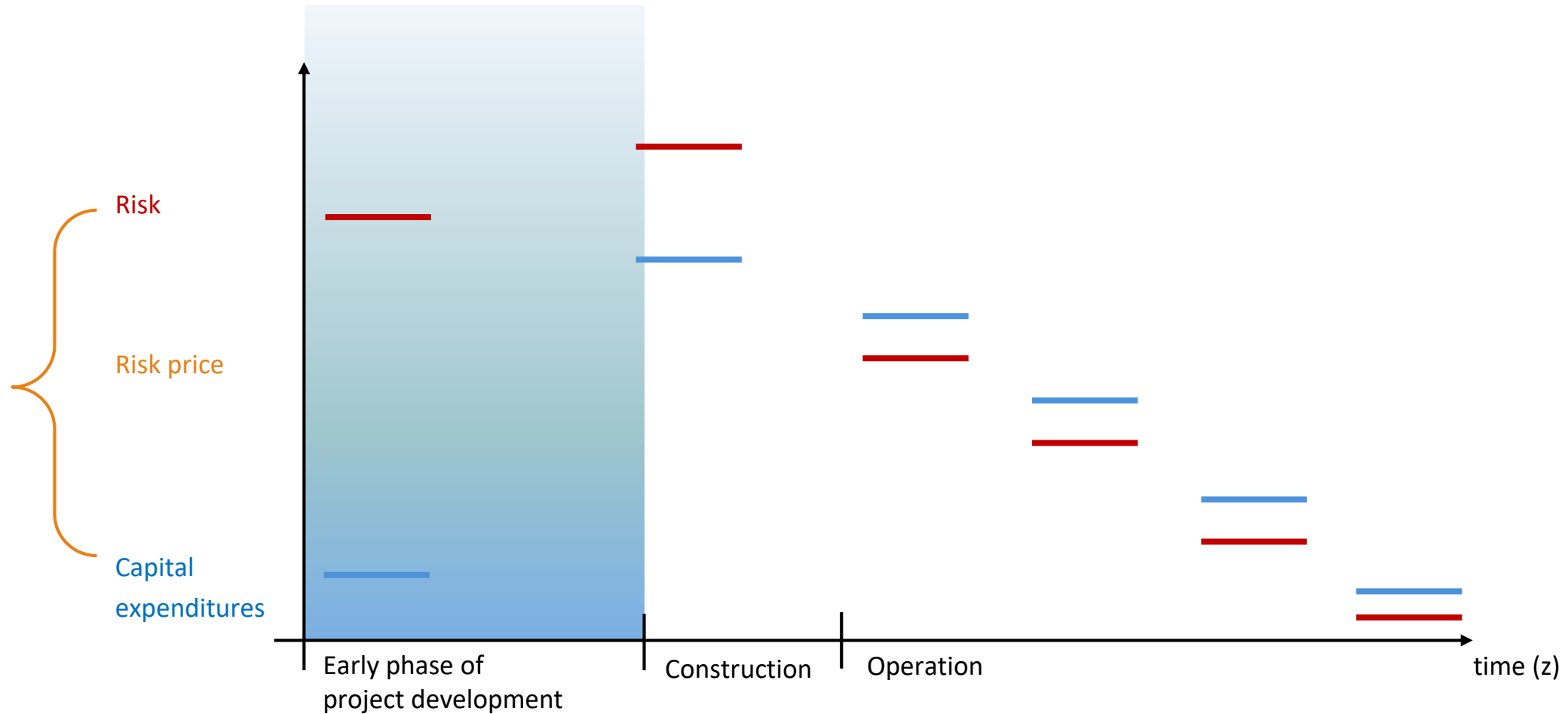


Specified criteria by customer

Selection of German companies from the BMWi database

Passing on the project dossier and matchmaking

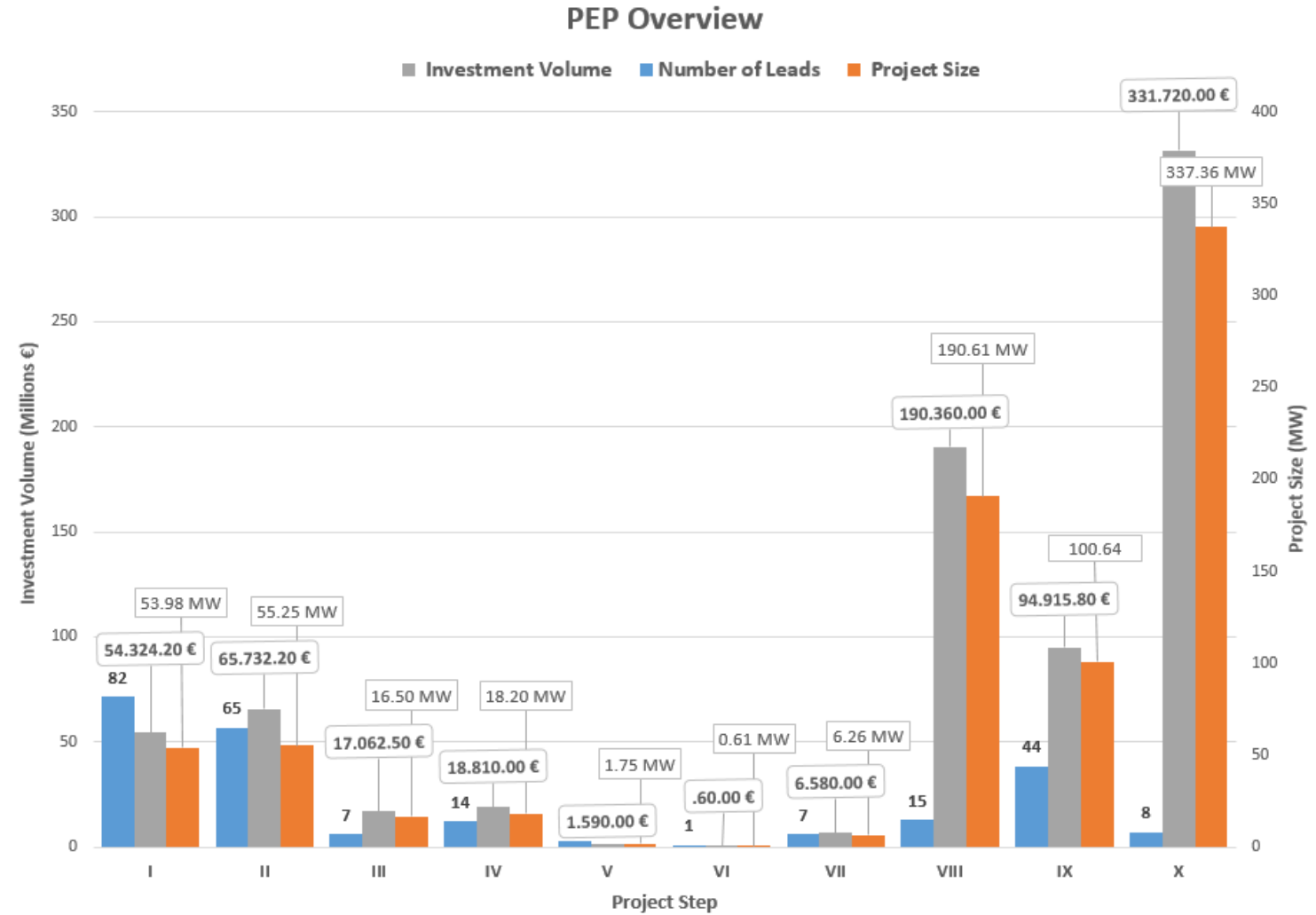
Risk and capital expenditure in the course of project development



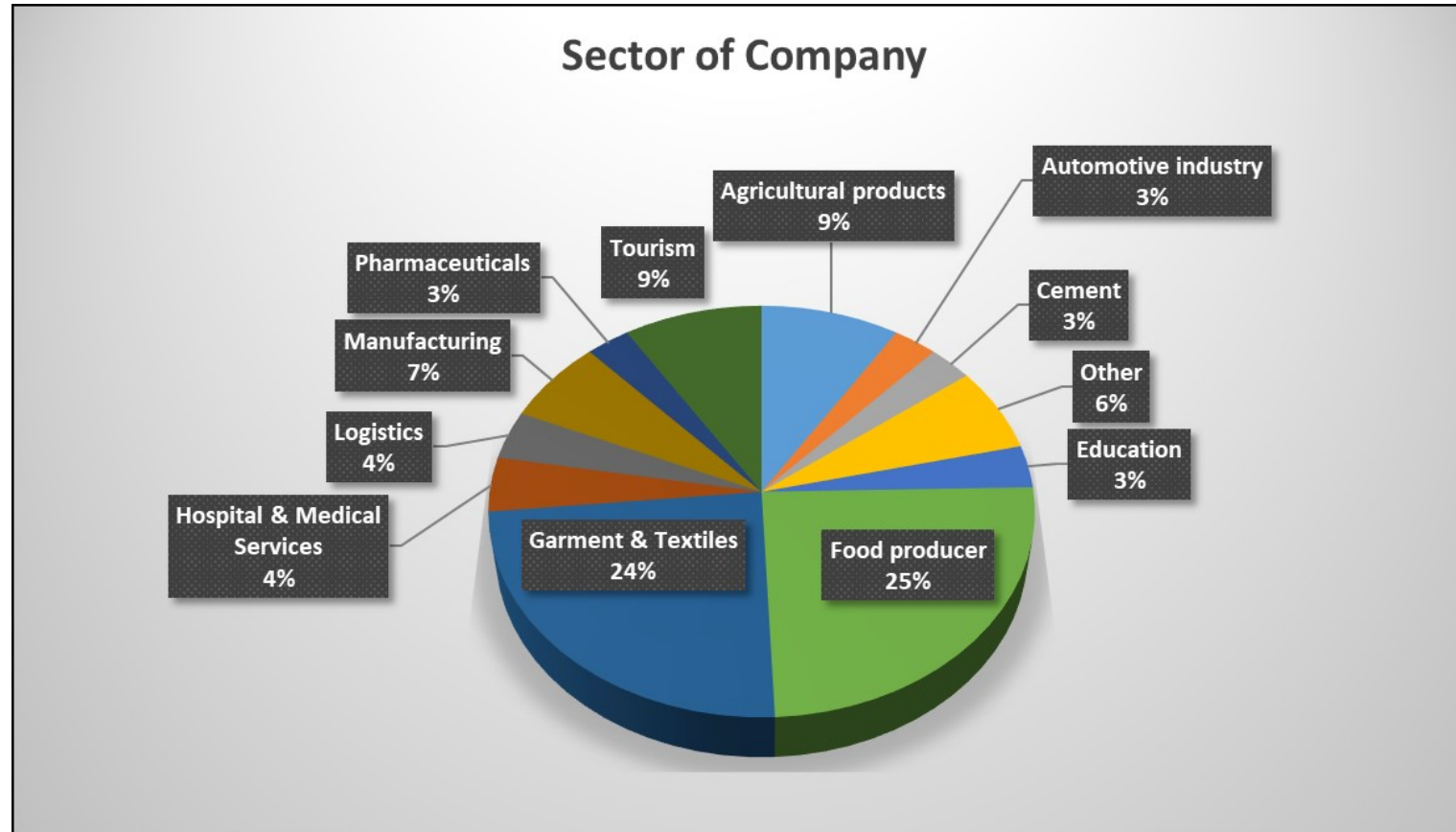
Overview of the project pipeline

Filter

Country Botswana Cambodia Cote D'Ivoire Ghana Jordan Kenya	Status active not supported
Sector of Compa... Agricultural products Aquaculture Automotive industry Cement Chemicals Cold Storage	Business Model Component EPC EPC/PPA Leasing PPA tbd
Lead Generation PDP Event Personal Network Sector Network Supply chain networ... Trade Fair & Events (Leer)	Technology Biogas Biomass EnEff Hydro PV PV+Battery
On-Grid/Off-Grid off-grid on-grid	



Overview of the project pipeline



5 Examples of successful project development



Background

- 24/7 operation with low power stability & bridging outages with diesel generators
- As commercial customer: highest national electricity tariff
- High potential for Solar PV
- Large & unexploited roof surfaces
- Feed-in tariff and net metering for solar PV (since 2017)