

## “Finance Day – Financing of Bio-energy projects”

6 June 2018



# StartGreen Capital

funds and financing instruments for sustainable innovations

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Crowdfunding		<ul style="list-style-type: none"> <li>• Pre-seed financing</li> <li>• Proof of concept</li> </ul>
Venture capital		<ul style="list-style-type: none"> <li>• Seed funds</li> <li>• Technostarters in energy, materials &amp; ICT</li> </ul>
Regional energy funds	 	<ul style="list-style-type: none"> <li>• Later-stage growth capital</li> <li>• Project financing</li> <li>• Solving market imperfections</li> <li>• Focus on regional impact</li> </ul>

# Regional Energy Funds

## Currently in NL:

- 10 Province funds
- 3 City funds



[www.publiekeenergiefondsen.nl](http://www.publiekeenergiefondsen.nl)

# Regional Energy Funds

focus on renewable energy & energy savings



Participatiefonds  
Duurzame Economie  
Noord-Holland



Duurzame Energie- en  
ontwikkelingsmaatschappij  
Flevoland



<b>Size</b>	€ 35-85m	€ 200m	€ 6.5m	€ 18m	€ 60m
<b>Type</b>	Equity	Equity/Debt	Equity/Debt	Equity/Debt	Equity/Debt
<b>Manager</b>	StartGreen Capital KplusV	StartGreen Capital	Econnetic	Finquiddity Vermogens- beheer	BOM

*Investments by regional energy funds require 'matching' by independent private investors*

# Highlights EFO

20% renewable energy in 2023

## Debt (€ 160m)

- Min. €1.000.000
- 40-80% LTV
- Interest discount max. 2% (Fixed rate)
- Min. DSCR, DSRA/MRA etc.

## Equity (€ 40m)

- Min. €100.000
- Co-investor (50%)
- IRR required
  - ✓ projects: 7-20%
  - ✓ VC deals > 30%

# Criteria energy projects

Proven  
technology

Solid financial  
returns

Direct contribution to  
energy transition

Low default  
risk  
(strong debtors)

Long-term  
arrangements

Solid feedstock and  
take-off contracts

# Project financing

Lessons learned from managing a regional energy fund

## Project contracts

- LT feedstock contracts are key, but often challenging to secure. Management vision and capability to renegotiate are also very important.

## 'Immature' projects

- Often not all subsidies (e.g. SDE), permits and/or project contracts (EPC/O&M) are in place or co-financing is not secured. Business plans of poor quality => substantial BD required

## Project Structure

- Investment in SPV (preferably not in holding)
- Milestone-based funding

## Project Team

- Lack of entrepreneurs with track record => need for 'serial developers'
- Different stages require different people

## Financing (instruments)

- Coordination between *debt* and *equity* providers *early* in the process is crucial
- Mismatch: e.g. strong demand for subordinated debt ('achtergestelde leningen')

# Thank you.

Questions:  
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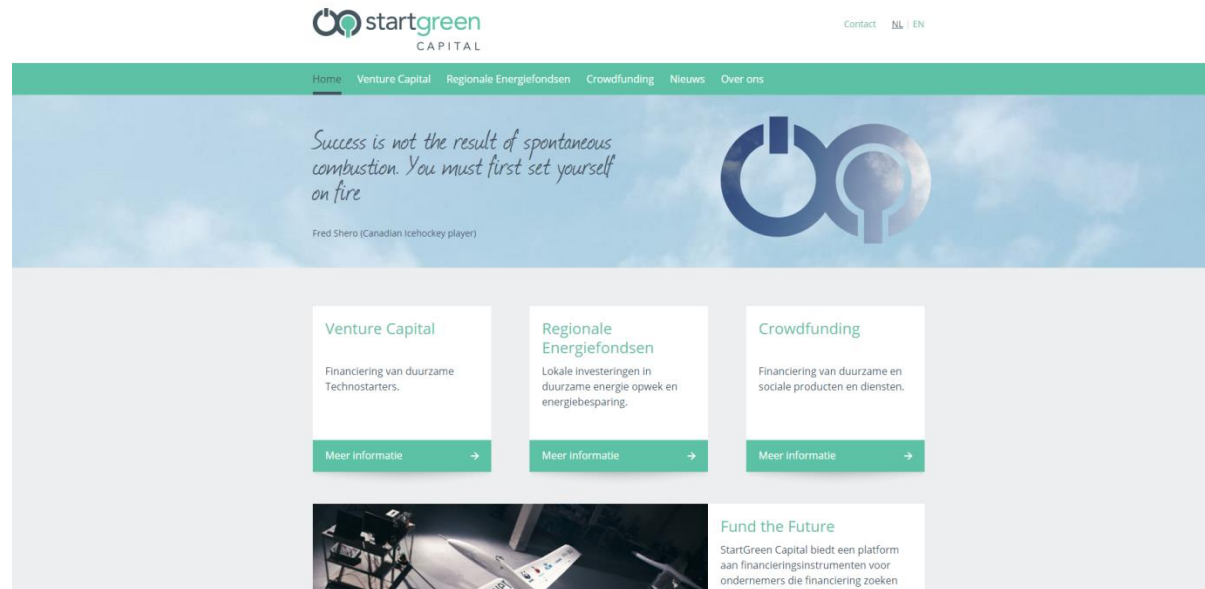
## StartGreen Capital

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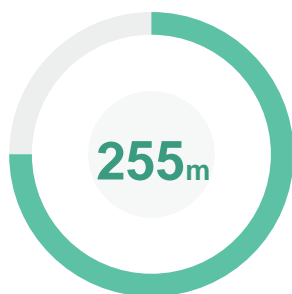




# Appendices

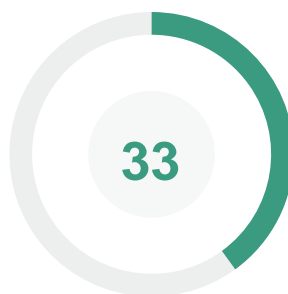
# StartGreen Capital

Key figures since 2006



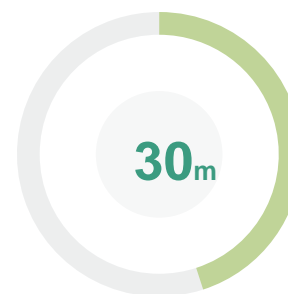
**Euro**

AuM  
4 funds



**Portfolio**

Sustainable  
companies

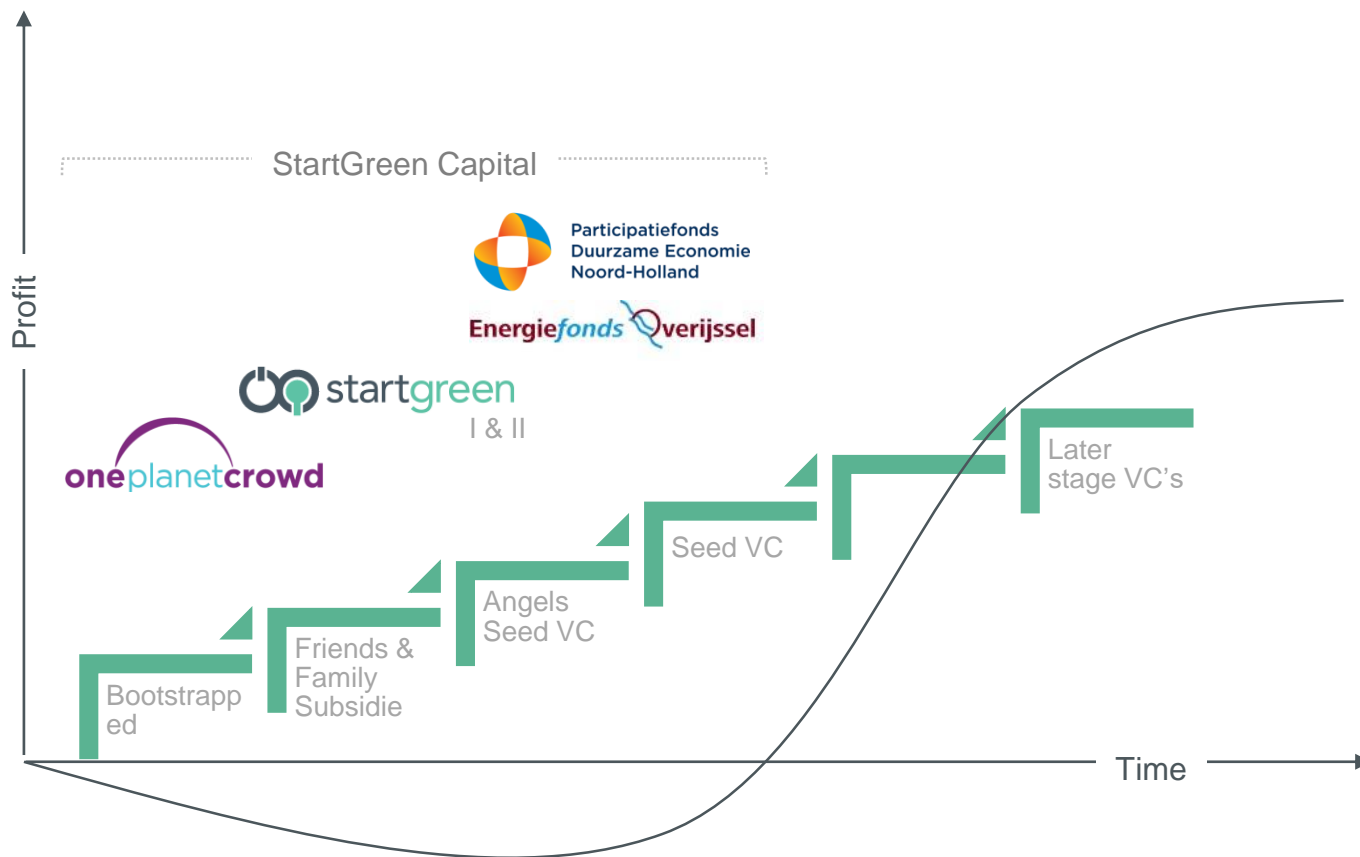


**Crowdfunding**

1<sup>st</sup> sustainable CF platform  
130 successful projects

# StartGreen Capital

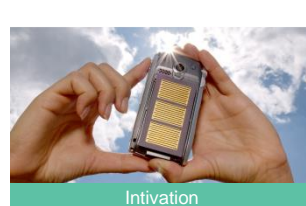
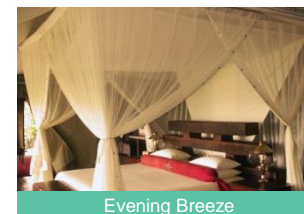
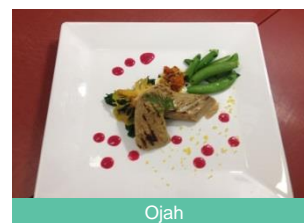
“Valley of death” in financing sustainable companies/projects



- **Valley of death** => limited capital available for stage between ‘development’ and ‘commercial roll-out’
- **Specific knowledge & expertise**
- Investments are ‘**capital intensive**’
- Focus on **bankability**
- **Excessive availability** of later stage funding:
  - **Pressure** on returns/margins
  - **Mismatch** in ticket size

# StartGreen Capital

portfolio



■ Venture capital  
■ Projectfinanciering

# Examples



Development, installation, management and financing of residential solar PV systems (operational lease).

**Closing: december 2015**  
**EFO-I: € 300k**

**IRR = 8,1%**  
**EFO-II: € 1,95m**



Development, installation, management and financing of solar PV systems for agricultural companies

**Closing: 25 november 2015**  
**EFO-I: € 150k**

**IRR = 8,52%**  
**EFO-II: € 1,1m**



Development and operation of woodfired installations for f.i. district heating networks

**Closing: TBD**  
**EFO-I: € 500k**

**IRR = c. 13%**  
**EFO-II: n.a.**



Development, installation and management of 12 solar-PV projects (9,7 MWp) => 85 SDE subsidies / €70m

**Closing: januari 2016**  
**EFO-I: c. € 800k**

**IRR = 10,1%**  
**EFO-II: € 9,9m**

# Case Study EFO

## Combined VC and project equity investment from EFO to master the “valley of death”

High efficiency commercial scale pyrolysis plants



Unique patented technology



- BTG-BTL possesses **unique pyrolysis technology**: most types of (non-food) biomass converted into pyrolysis oil within two seconds
- Commercially scalable production => **demonstration plant** (Empyro)
- Empyro: located on site of **Akzo** / 20 million litres of pyrolysis oil per year purchased by FrieslandCampina (long term off-take agreement) / replacing 10 million m3 of natural gas annually
- ‘**Funding mix**’ Empyro (EUR 19m) was challenging => combination of **subsidies** from The Hague (**Tki**) and Brussels (**FP 7**), **loans** from the Province, a commercial bank and EFO as well as **equity investments** from private investor and EFO
- Project equity investment combined with **subsidies** (SDE) to arrive at financially viable business case
- VC investment should deliver returns from realising/selling **new installations** based on **licensing model** in global (EPC) partnership with **Technip**