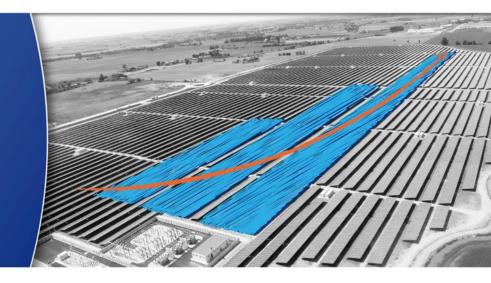


Introducing PV Financing



Brussels, 18th October 2016 - Luz Aguilar



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646554

The scale of the project



Coordinator: BSW- Solar

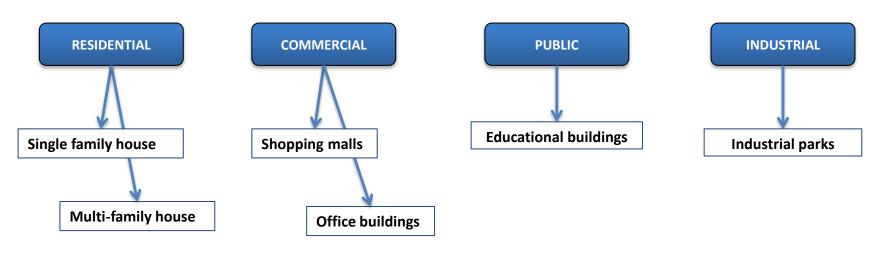
13 Partners:

Eclareon, CREARA, Observ'ER, Solar Power Europe, Allianz climate solutions, Ambiente Italia, FS-UNEP, CECODHAS, Gunder, Housing Europe, PV Austria, Rescoop, Solar Trade Association

7 Countries:

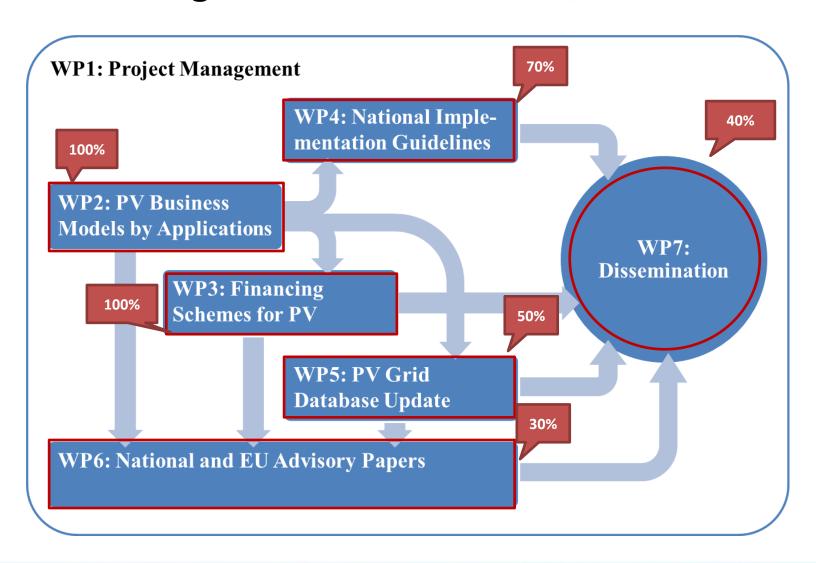
AT, DE, FR, IT, ES, TK, UK

- 30 months
- Application segments:



PV Financing: month 22





Focus



Business Models

Self-consumption

The electricity consumer and the plant operator are the same legal entity

Power Purchase Agreement (PPA)

Direct sales of electricity between two different legal entities

Financing schemes

Equity and Debt Financing for PV Systems



Leasing Energy Cooperative Shared Ownership Crowdfunding Bonds Mezzanine Capital

External Equity

Financing



On Balance Sheet Project Finance Promotional Loan



RESULTS

Business Models



Nr.	Country	Business Model
1	Austria	Self-consumption
		PPA
2	France	Self-consumption
3	Germany	Self-consumption
		Self-consumption (Leasing)
		PPA / supply
4	I+alv	Self-consumption
	Italy	PPA
5		Self-consumption
	Spain	Self-consumption 2 (self-
		consuming and selling)
6	Turkey	Self-consumption
		Net-Metering
7	UK	Self-consumption
		Third Party PPA

Business models identified in the 7 NIP:

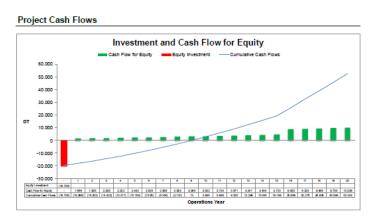
- Self- consumption: <u>in all the countries</u>
- PPA: in 4 countries (in France, Spain and Turkey is not allowed)
- Net-meetering: used only in Turkey

http://www.pv-financing.eu/project-results /

Business Models Reports



7 national Business Models Reports



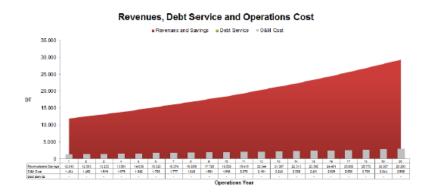


Figure 15 Project Cash Flow: Investment and Cash Flow for Equity

Results:

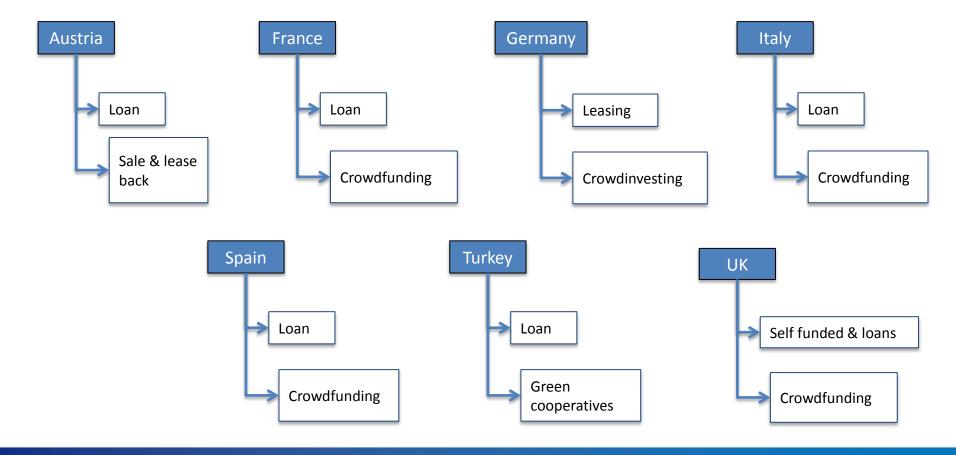
- → Several business models are profitable, but not allowed in the countries
- → For each segment, at least one business model can be profitable

http://www.pv-financing.eu/project-results /

Financing guidelines



- Description of the economic & legal framework
- A step-by-step guide to access finance



Fact-sheets on financial schemes & good practices



Fact-sheets with the main characteristics of suitable financing schemes for PV





Equity models:

- Equity
- Leasing
- Crowdfunding
- Energy cooperatives

Debt-Financing:

- Project Finance
- Loan
- On-balance sheet

All PV Financing fact-sheets include:

- One table with each financing schemes major points
- One balance between advantages and challenges
- One key point about the practical application of the financing scheme.



http://www.pv-financing.eu/project-results /

A cash-flow modelling tool



A tool to help investors in their final decision:

→ How much money do I save with PV?

LCOE (€/kWh)	0,19
Payback Period (Years)	18,31
Equity IRR (% p.a.)	2,78
Project IRR (% p.a.) ²	2,78
Net Present Value (€) ^②	542
System Size (kWp) ^❷	4,50
On-site Consumption Rate (%)	0,30
Electricity Price Escalation (% p.a.)	0,03



It compares the regular electricity price with the PV price per kWh

- Practical answers for each type of investors
- Easy to use
- Country based results

http://www.pv-financing.eu/tools/

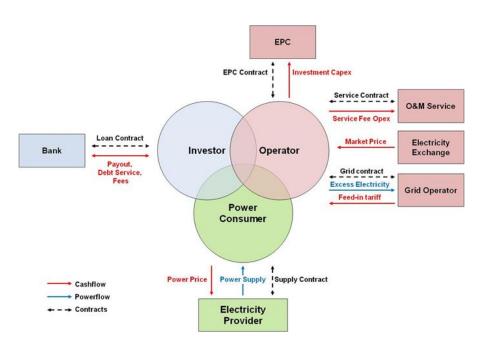
Implementation Guidelines







Financial Schemes











Leasing
Energy Cooperative
Shared Ownership
Crowdfunding
Bonds
Mezzanine Capital



On Balance Sheet Project Finance Promotional Loan



Next steps

Next steps



- National and European Project Implementation Guidelines
- Update of PV Grid Database integration in the PV Financing website
- National and EU Advisory Papers
- Dissemination of results: newsletter, webinar, conferences

Interested in our results?



Website: http://www.pv-financing.eu/

Twitter: @PVFinancing



Thank you for your attention