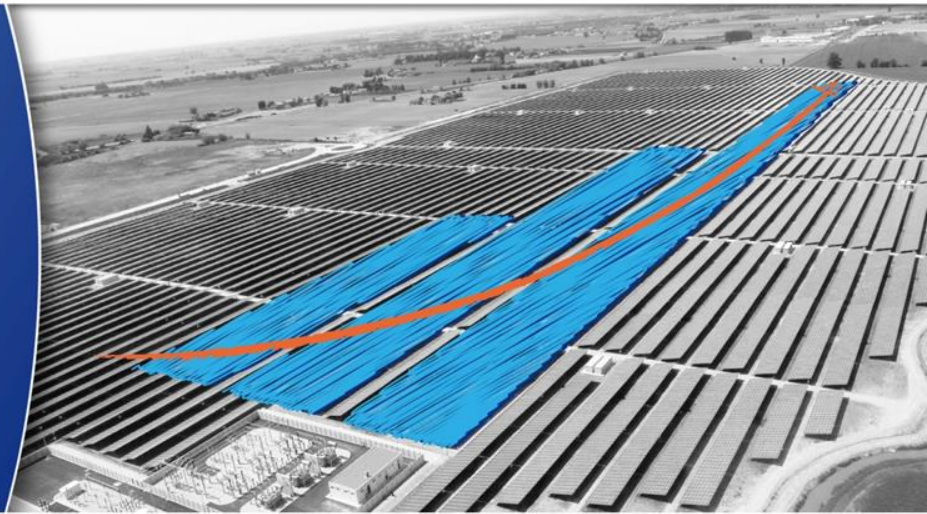


Introducing PV Financing



Cologne, May, 10. 2016 - Luz Aguilar



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

Agenda

- Introducing PV Financing
- Key findings
- Next tasks

PV Financing

➔ Why?

In post-FIT times, **business models** and **financing schemes** are needed to support the widespread implementation of PV projects

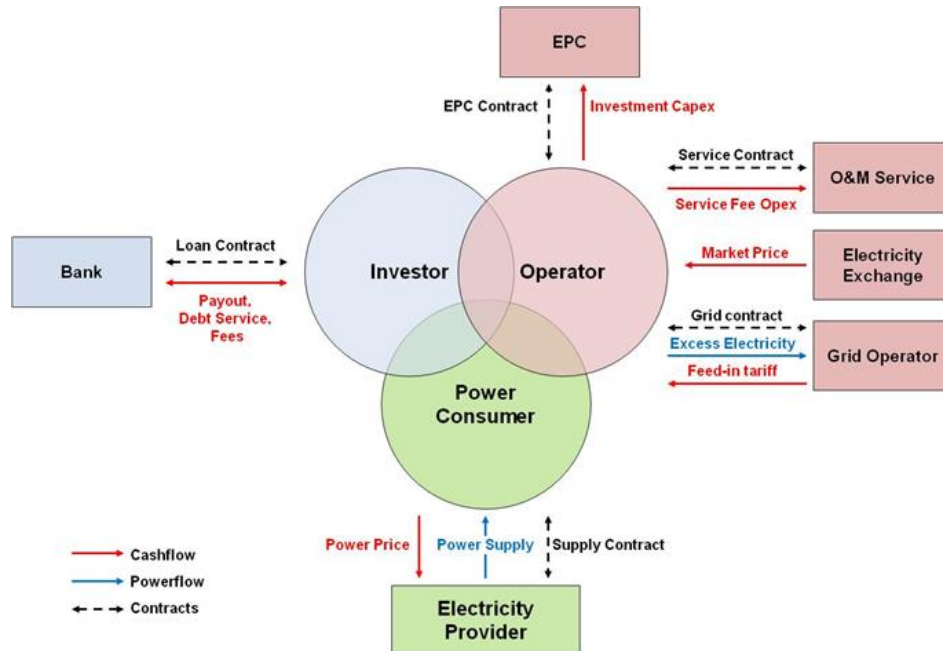
➔ How?

- **Identification of PV business and financing models**
- **Dissemination** among stakeholders
- Shaping the necessary **policy framework**
- **Removing barriers** that prevent those models from realization

The scale of the project

- **Coordinator:** BSW- Solar
- **13 Partners:**
Eclareon, CREAMA, 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
- **Application segments:**
 - Residential (**single** and **multi-family** houses, rented or owned)
 - Commercial (shopping **malls**, large **office** buildings)
 - Public (**educational** buildings)
 - Industrial (**industrial parks**)
- **30 months**

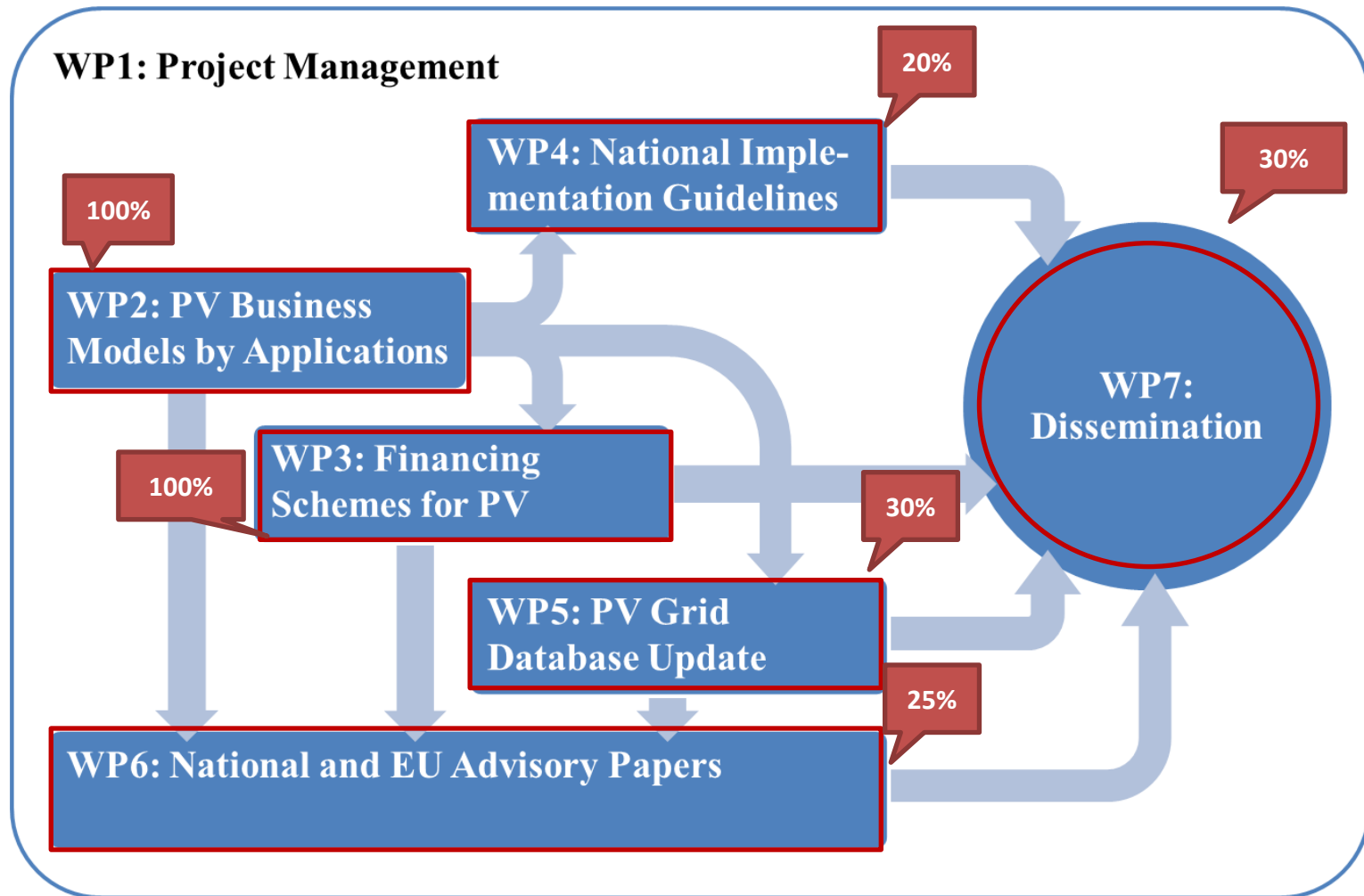
What is a PV business model in our context?



Variety of **involved stakeholders** that could be arranged differently according to the design of the actual business model.

All the technical, regulatory, legal and economic characteristics require specific knowledge when obtaining financing for PV projects

PV Financing: month 14



Results

Fact-sheets on business models & financial schemes

Equity models:

- Equity
- Leasing
- Crowdfunding
- Energy cooperatives



Debt-Financing:

- Project Finance
- Loan
- On-balance sheet

- **Risk distribution**, which strongly relates to business model design, is **key for structuring the equity and debt components** in any financial deal
- Feed in Tarif (FiT) **influence** the structure and the use of the financial schemes



Fact-sheets online: <http://www.pv-financing.eu/project-results/>

Business Models – WP2

Nr.	Country	Business Model
1	Austria	Self-consumption
		PPA
2	France	Self-consumption
3	Germany	Self-consumption
		Self-consumption (Leasing)
		PPA / supply
4	Italy	Self-consumption
		PPA
5	Spain	Self-consumption
		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: in all the countries
- PPA: in 4 countries (in France, Spain and Turkey is not allowed)
- Net-meetering: used only in Turkey

Business Models – WP2

→ Several business models are profitable, but not allowed in the countries due that the legislation doesn't allow to sell electricity to multiple users:

Project Cash Flows

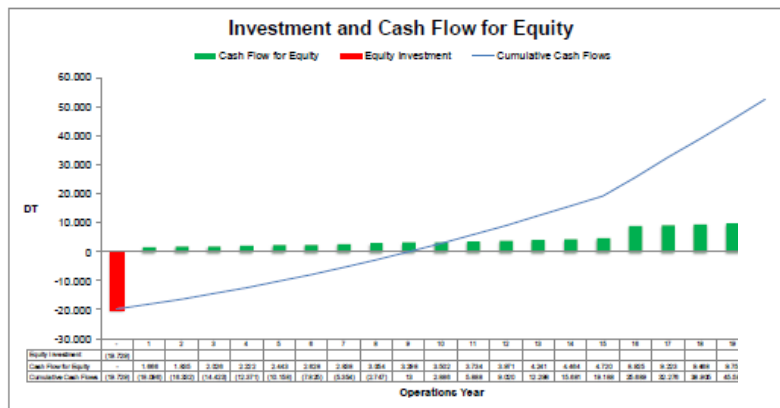
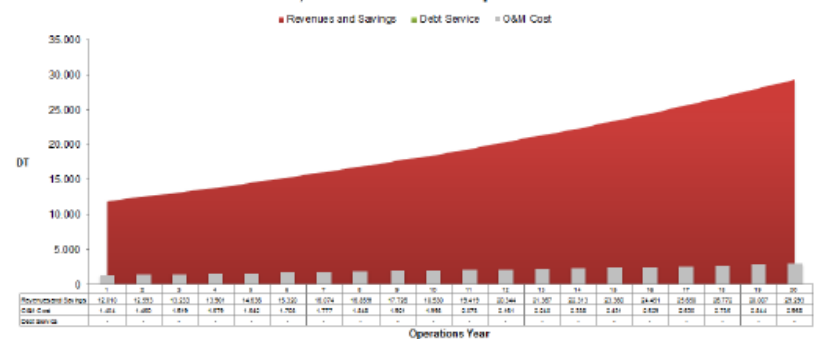


Figure 15 Project Cash Flow: Investment and Cash Flow for Equity

Revenues, Debt Service and Operations Cost

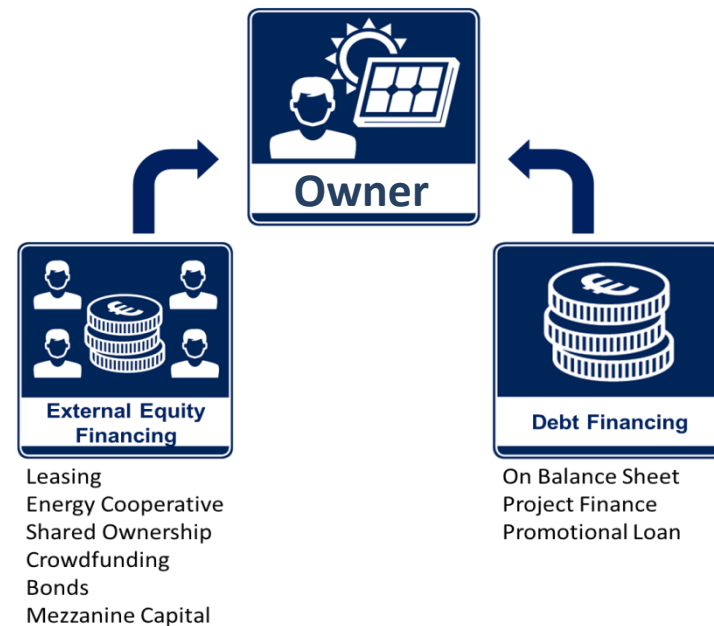


Business Model Report available: <http://www.pv-financing.eu/project-results/>

Financial Schemes – WP3

- Interview Report on PV Financing Schemes
- Financing Guidelines

Equity and Debt Financing for PV Systems



Available: <http://www.pv-financing.eu/project-results/>

Next steps

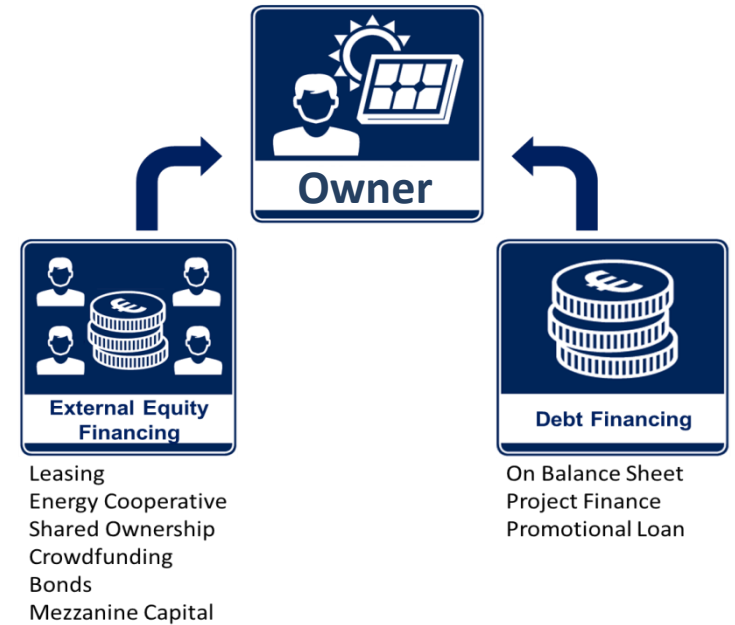
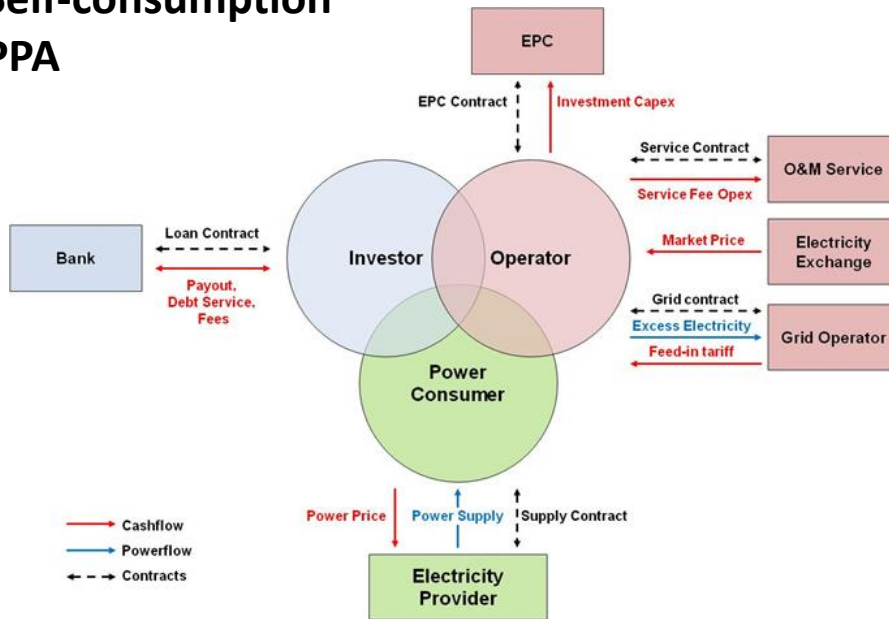
Next steps

Business Models

- Self-consumption
- PPA

Bring together 

Financial Schemes



Next steps

- National and European Project Implementation Guidelines
(incl. cash flow modelling tools)
- 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?



Please visit our website: <http://www.pv-financing.eu/>

and contact us!

Thank you for your attention