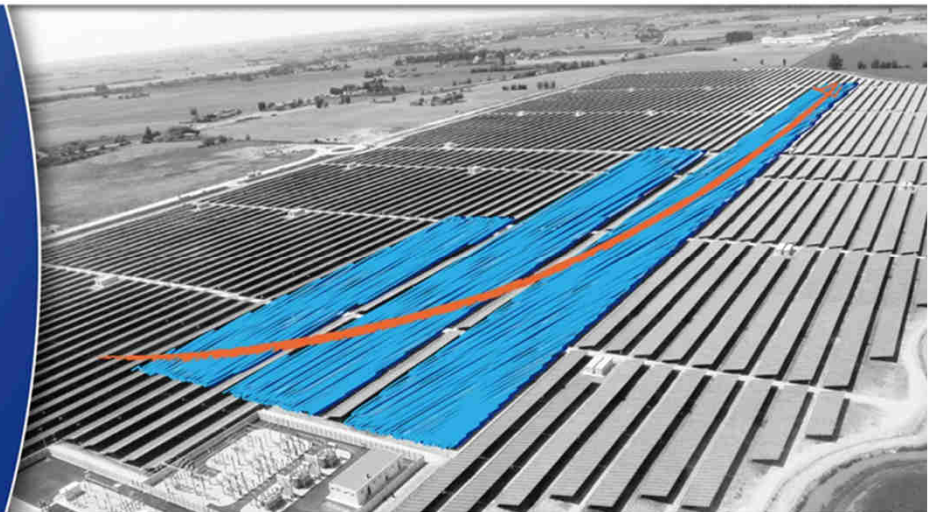


Introducing PV Financing



Brussel, February 19. 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?

The goal of PV FINANCING is to **help stakeholders** from specific PV segments **to implement** projects based on these **business models**, while applying **innovative equity and debt financing** schemes.

- **Define** and **evolve PV business** and financing models
- To **disseminate** them among stakeholders
- To shape the necessary **policy framework** and
- To **remove barriers** that prevent those models from realization

The scale of the project



➔ **Coordinator:** BSW- Solar

➔ **12 Partners:**

Eclareon, CREARA, Observ'ER, Solar Power Europe, Allianz climate solutions, Ambiente Italia, FS-UNEP collaborating centre for climate and sustainable energy finance, Gunder, Housing Europe, PV Austria, Rescoop, Solar Trade Association.

➔ **7 Countries:**

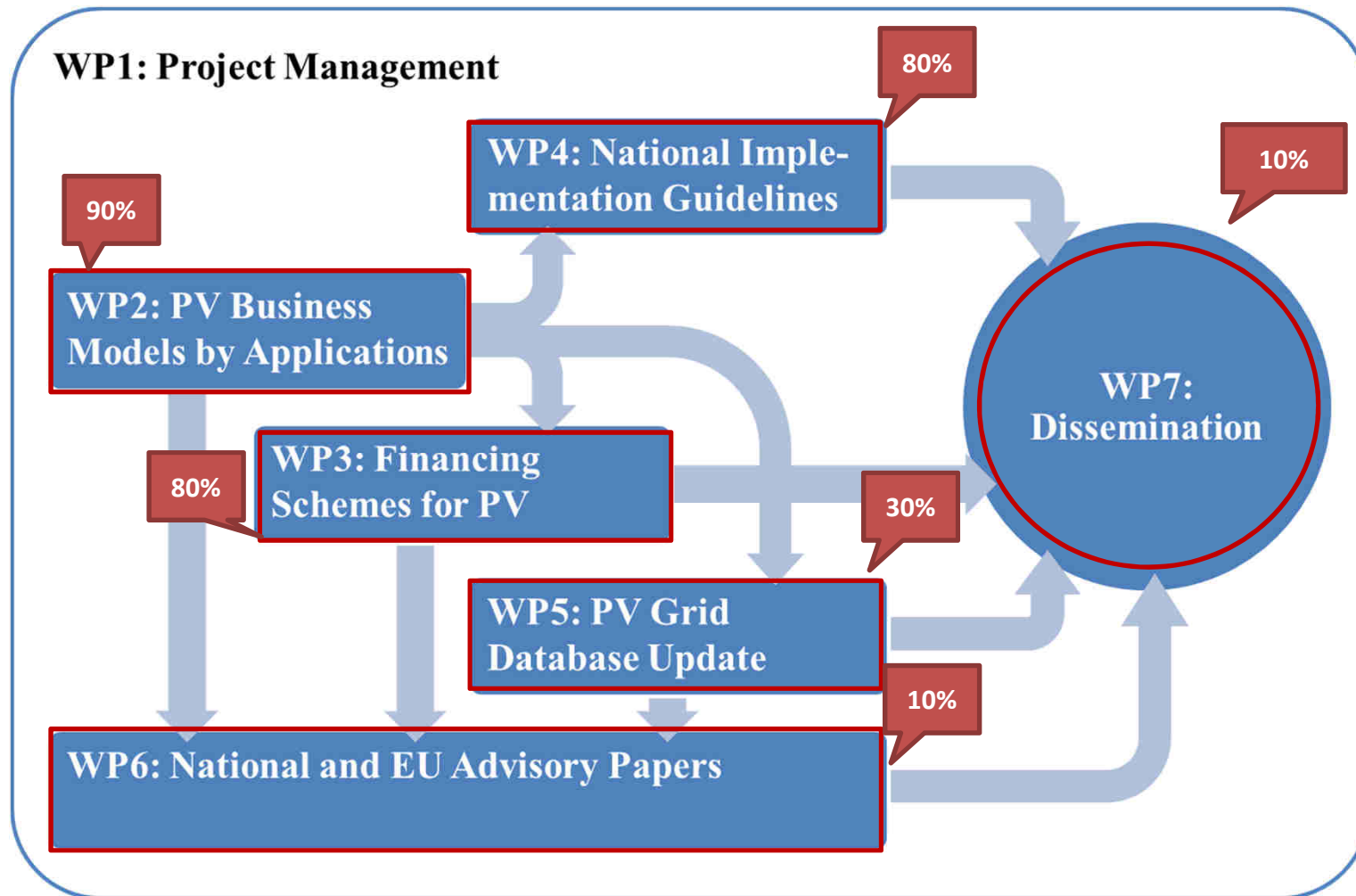
AT, DE, FR, IT, ES, TK, UK

➔ **Application segments:**

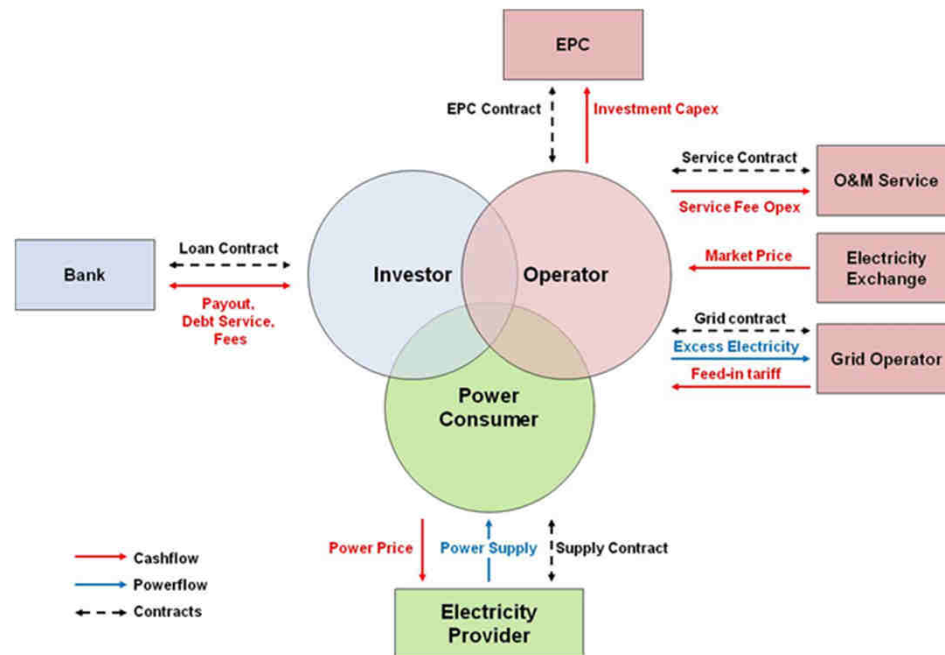
- Residential (**single** and **multi-family** houses, rented or owned)
- Commercial (shopping **malls**, large **office** buildings)
- Public (**educational** buildings)
- Industrial (**industrial parks**)

➔ **30 months**

PV Financing: month 14



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

Results

Fact-sheets on business models & financial schemes



- Equity models:**
- Equity
 - Leasing
 - Crowdfunding
 - Energy cooperatives



- Debs-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

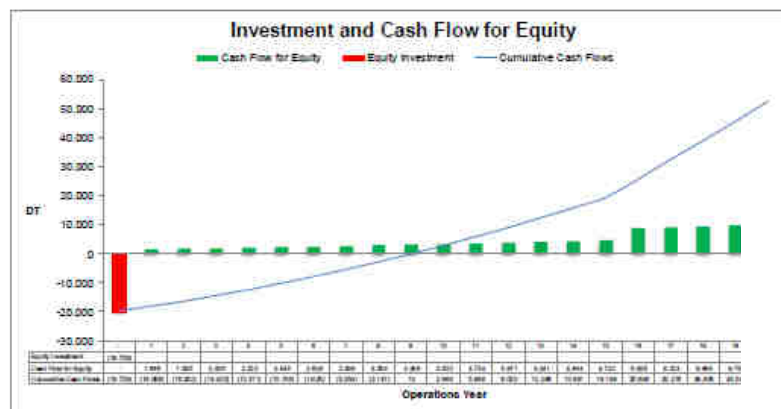
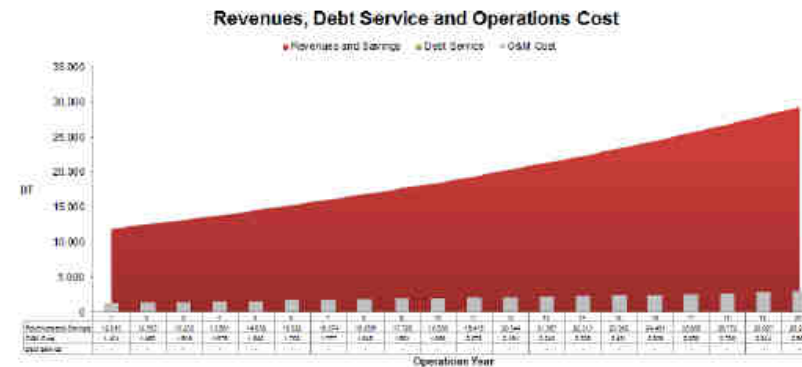


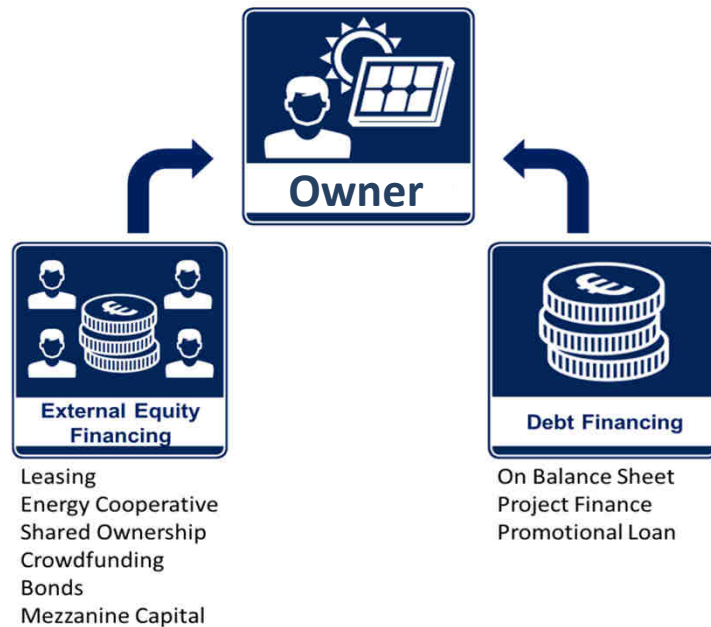
Figure 15 Project Cash Flow: Investment and Cash Flow for Equity



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

Financial Schemes– WP3

Equity and Debt Financing for PV Systems



Interview

Report on PV Financing Schemes:

Analysis of the financing schemes based on **interviews with investors as well as banks and installers**, in order to understand the **requirements for financing PV projects** when applying different financing schemes

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

Next steps

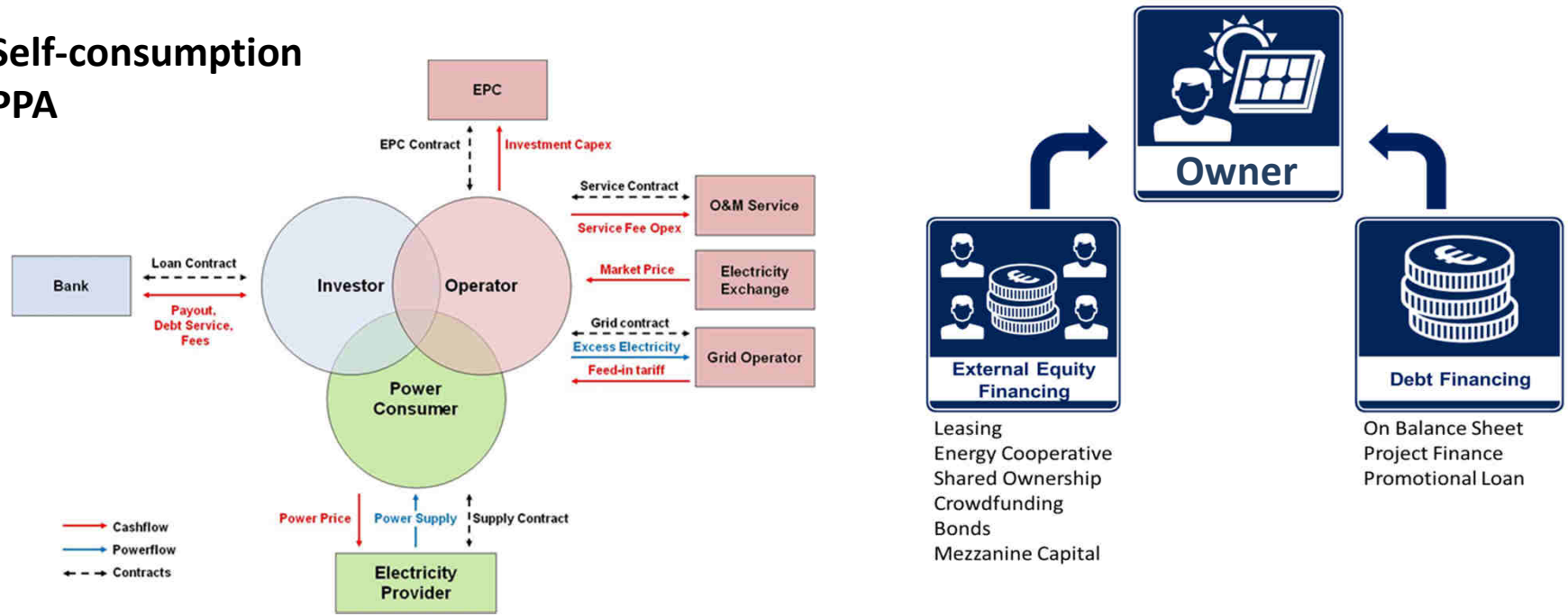
Next steps

Business Models

- Self-consumption
- PPA

Bring together 

Financial Schemes



Next steps



- Guidelines on Financing Schemes
- National and European Project Implementation Guidelines (incl. cash flow modelling tools)
- Update of PV Grid Database
- 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