

Global PV InstallerMonitor 2020/2021©

Understanding the key market intermediaries – the PV installers – in the markets

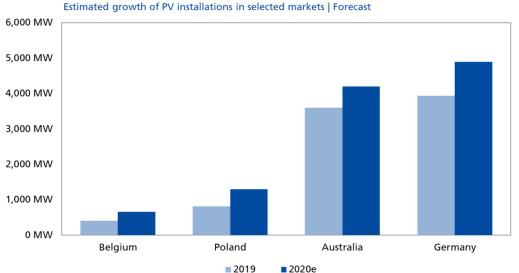
Australia, Austria & Switzerland, Belgium, France, Germany, Italy, the Netherlands, Poland and Spain



EUPD Research | September 2020

CHANCES & CHALLENGES

- The PV markets in Europe and Australia have shown constant growth for many years now.
- Markets with a large rooftop segment offer a constant investment environment and favorable margins.

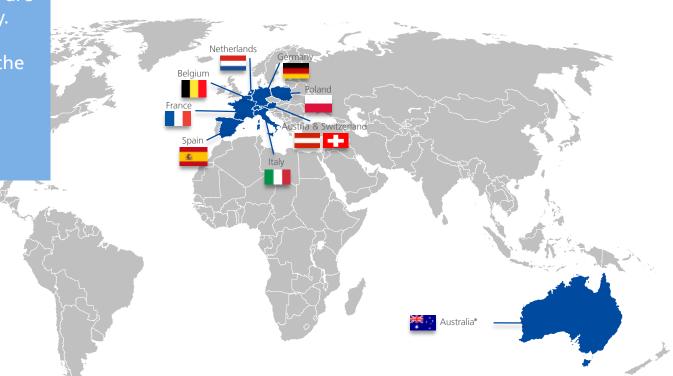


Source: EUPD Research 2020



CHANCES & CHALLENGES

- However, all markets are structured differently.
- To be successful, you need to understand the key market intermediaries in the different markets.



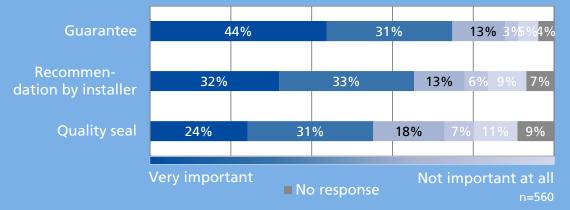


THE GATE KEEPERS

- The recommendation of the installer is the main reason for customers to choose a certain brand. For manufacturers, it is therefore of high importance to be well positioned in terms of brand awareness and recommendation.
- Having reached a wide distribution in the installers' portfolios, it is vital to assure one's position by maintaining a high level of satisfaction. This is expressed, for example, by a high rate of recommendation, which again leads to a broader brand awareness.
- Understanding the PV installers, their attitudes and needs, is of crucial importance for your successful PV business. Installers are directly connected to the customers and know the current market trends.

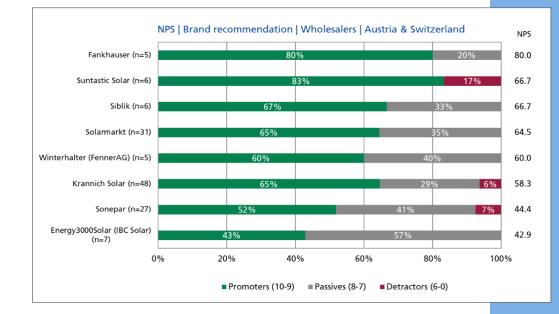


Top 3 reasons for German end customers to choose a certain module brand





THE GLOBAL PV INSTALLERMONITOR[©]



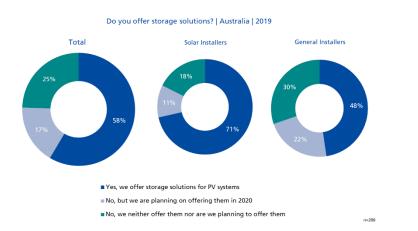
- Receive insights on aspects such as procurement, brand buying behavior and satisfaction for wholesalers, modules and storage.
- Benchmark your company against your main competitors.
- Analyse the buying- and decision making process of installers.
- Identify potential for improvements.
- Communicate your success based on valid stats and figures.

THE GLOBAL PV INSTALLERMONITOR[©]

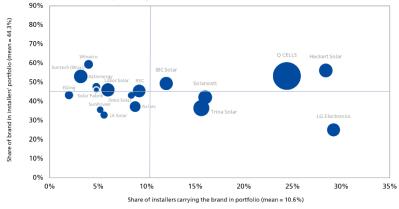


CHECK THE KPI'S REGARDING





Distribution Range | Modules | Germany

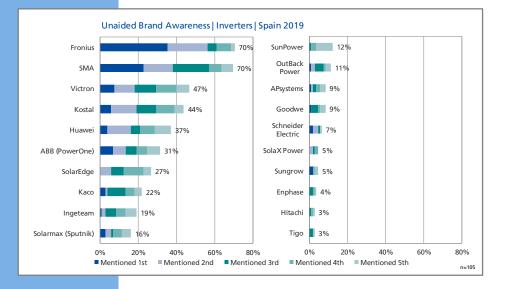


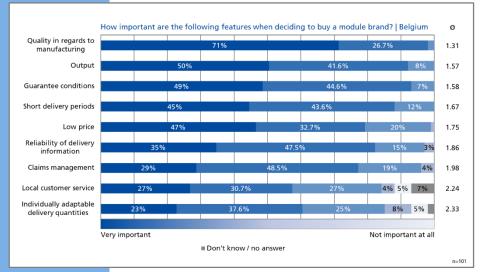
O^{\$} Size of the circle represents the weighted distribution range

BRAND POWER IS THE INITIAL FORCE.



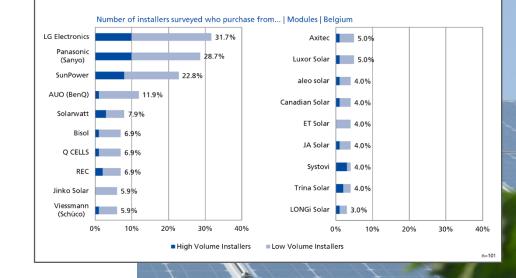
- Monitor the perception of your brand via the measured unaided brand awareness.
- Check which brands come to installers' minds first and which later on.
- Verify the most important features that influence the decision making process of installers.
- ✓ Find out which brands are avoided by installers.
- Use these indicators to measure your sales-, marketing- and communication activities.

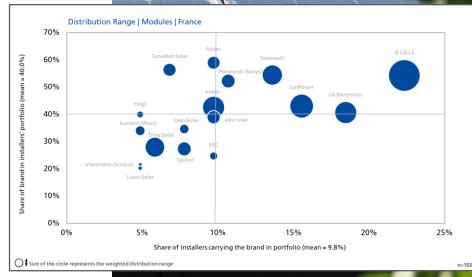




THE POSITIONING IN THE INSTAL-LERS' PORTFOLIOS IS CRUCIAL.

- Measure the percentage of installers that buy your products and solutions.
- Analyze how exclusive your brand is positioned in the installers' portfolios.
- Clarify if you are first choice or a replaceable space-filler.
- Track the way and development from a rarely bought niche product to a frequently requested exclusive star.

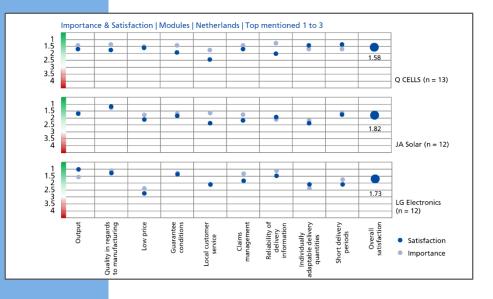


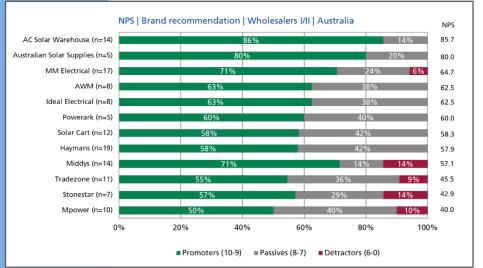


THE SATISFACTION LEADS TO SUSTAINABILITY.



- Count your promoters and deduct the customers that are critical.
- Calculate your Net Promoter Score and compare it with the results of your main competitors.
- Analyze the difference between expectation and satisfaction of the most important brands.
- Identify the items that overperform in terms of the most vital business aspect, and those who do not reach the required satisfaction levels.
- Verify the items that influence the satisfaction most and least.





ENERGY STORAGE AND E-MOBILITY ARE THE NEW BUSINESS DRIVERS.

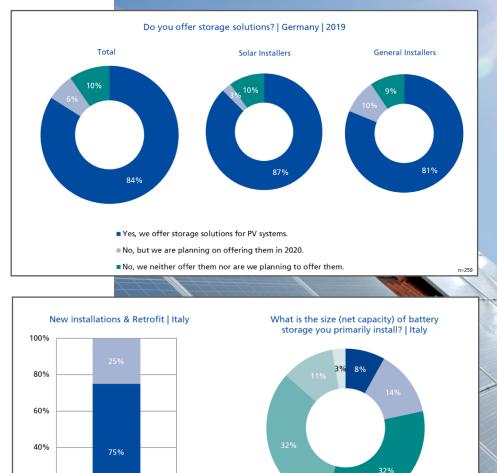
- Understand the installers that already offer energy storage and e-mobility solutions, and those that will do in the near future.
- Anticipate the further development of these industries and the importance for installers.
- Measure the number of existing and upcoming storage and wallbox installations.
- Receive insights into the potential of new and retrofit installations.
- Prepare yourself for installers who will offer solutions from both segments.

20%

0%

New installs Retro-fit installs

n=37



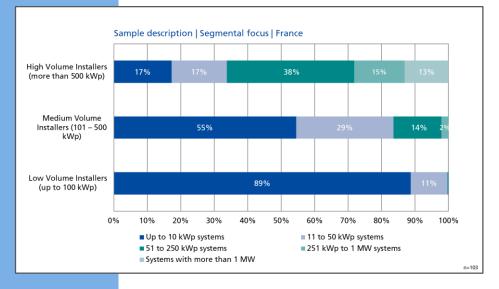
0 to 4 kWh
Over 6 up to 8 kWh
Over 70 up to 12 kWh
Over 10 up to 12 kWh

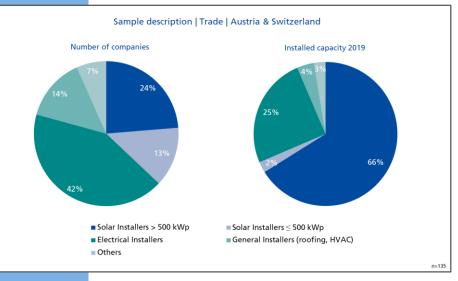
n=37

THE INSTALLERS HAVE A MULTIFARIOUS BACKGROUND.



- Distinguish the surveyed installers according to their:
 - type of business
 - installed capacity
 - number of employees
 - experience in the PV industry
- Measure their level of activity in the fields of energy storage and emobility.
- Understand their backgrounds to enable to address it pro-actively and focused.





THE MARKETS AND THEIR FRAMEWORK CONDITIONS CHANGE.



 Retrace the cumulated and installed capacity in the relevant segments. Understand the main funding schemes.

 Use the key market data for your planning.





BENEFITS OF THE GLOBAL PV INSTALLERMONITOR $^{\odot}$

Utilize the Global PV InstallerMonitor[©] to:





RECEIVE YOUR ISSUE OF THE GLOBAL PV INSTALLERMONITOR 2020/2021

THE 'GLOBAL PV INSTALLERMONITOR 2020/2021©' ORDER.



COUNTRY MARKET PDF-REPORTS*

	Regular Price
Australia	5,750 €
Austria & Switzerland	4,750 €
Belgium	4,500 €
France	4,500 €
Germany	5,950€
Italy	4,500 €
Netherlands	4,500 €
Poland	4,500 €
Spain	4,500 €

Name:_______Company:_______Street:_______Street:_______ City / zip Code:_______Phone: _______ Phone: _______ Fax:______ E-Mail:_______ Sales Tax ID:______ I accept the terms and conditions of business (p. 24-25) Signature: ______

E-Mail to the attention of Saif Islam | Senior Consultant s.islam@eupd-research.com

*Please note:

All prices excluding travel expenses and VAT. Payment conditions: 100% upon order.

ADDITIONAL PRODUCTS AND SERVICES



Brand Health Check

The data set allows indepth analysis, that will help you to answer individual questions for

your company. In addition to the regular results of the Global PV InstallerMonitor 2020/2021©, various questions are evaluated only for the installers that carry your products in their portfolio. For certain countries, EUPD Research is able to include a part on end customers, as well.

Consulting Workshop

A consulting workshop includes a comprehensive and customized result presentation (3 manday preparation) and an onsite presentation.



Standard Presentation

The online or on site product presentation is a pure demonstration of the results excluding an individualized presentation.

Top Brand PV Seals 2021



Since 2011, EUPD Research awards the 'Top Brand' Seals to manufacturers and wholesalers who convince with their successful brand management. The seal is given out in the categories 'Modules', 'Inverters', 'Wholesaler' and 'Storage'. The data for the scoring is derived from the 'Global PV InstallerMonitor 2020/2021'.

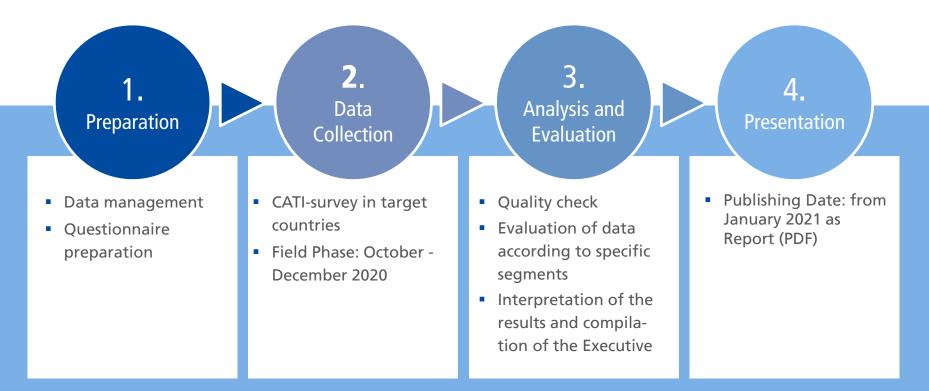


BACKGROUND

BENEFITS OF THE GLOBAL PV INSTALLERMONITOR[©]



- The study is based on an empirical survey (primary research). The survey employs a quantitative telephone questionnaire (CATI) carried out by multilingual interviewers. The results of the study are analyzed anonymously in line with the requirements of modern market research.
- Also, secondary research will be involved in the analysis: Through desk research and the use of internally available data, the information provided by the installers is enriched with figures about market development.





THE SAMPLE

- The target group is made up of installation companies who install PV systems. This group can include:
 - Pure solar installers
 - HVAC installation companies
 - Electricians or
 - Roofers
- The selection of the sample is drawn from EUPD Research's extensive address database of PV installers. This database is constantly refreshed and updated. As only a limited number of big project developers exist and they might not participate in the survey, the residential segment might be over-, the large scale segment underrepresented in the sample.





THE TARGET COUNTRIES

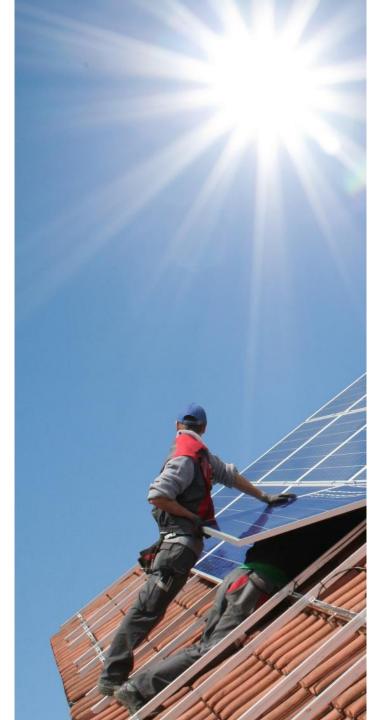
The Global PV InstallerMonitor 2020/2021© results can be chosen from the following country markets:

	Country	Targeted number of interviews*
*	Australia	n=200
	Austria & Switzerland	n=135
	Belgium	n=100
	France	n=100
	Germany	n=250
	Italy	n=100
	Netherlands	n=100
-	Poland	n=100
8	Spain	n=100

* The target markets differ with regard to market maturity and installer's andscape and therefore the number of interviews cannot be guaranteed.

THE CONTENT

- General Introduction
- Market Data: Basic PV market information for the country market
- Sample Description: Description of surveyed installers and head groups
- Procurement Management: Procurement channels for modules and inverters, positioning of wholesalers
- Market Penetration: Distribution width and depth of module and inverter manufacturers
- Brand Management: Unaided brand awareness of module and inverter brands
- Satisfaction Analysis: Net Promoter score for wholesaler, module and inverter manufacturers
 - Storage Solutions: Procurement, market penetration, brand management, satisfaction, services





ABOUT EUPD RESEARCH

THE B2B SPECIALIST FOR INTERNATIONAL MARKET RESEARCH.





Market Research

- Endcustomer Monitor
- Global PV InstallerMonitor
- Business/Industry Monitor



EUPD Cert

Certification

- Customer Satisfaction
- Top PV Supplier
- Top Brand PV



EUPD Consult

Exclusive Consulting

- Customer Satisfaction
- Market Analysis
- Workshops



THE REFERENCES OF EUPD RESEARCH – EXTRACT.





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General Terms and Conditions of Business I



1. Scope

1.1 All contracts between EUPD Research Sustainable Management GmbH (hereafter EUPD GmbH) - and the customer shall be subject to the following terms and conditions only. The customer's terms and conditions of business shall not be applicable and shall not put EUPD GmbH under any obligation to comply unless EUPD GmbH explicitly gives written acknowledgment and acceptance of such conditions.

1.2 Offers are aimed exclusively at commercial clients, that is, companies according to Article 14 BGB (German Civil Code). Private customers, that is, customers according to Article 13 BGB, are not permitted to place legally binding orders based on the aforementioned. Interested private customers should contact EUPD Research by telephone for information on how to place a non-commercial order. Furthermore, the legal right to return items as stated in consumer protection law does not apply to orders placed by commercial clients but does apply to orders placed by private customers.

2. Offer and Ordering Process

2.1 The presentation of the products together with the order form does not constitute a legally binding offer. Offers are subject to the written confirmation of EUPD GmbH. They are designated for the internal use of the customer only.

2.2 The purchaser places a binding offer for the product of choice when all relevant purchase details have been given and the general terms and conditions of business accepted. This will be confirmed immediately by email or fax sent to the address given by the customer. The contract to purchase between the purchaser and EUPD GmbH is valid from when the order is confirmed, or, the products are delivered either by mail or download.

3. Scope of Services, Remuneration and Prices

3.1 Services offered include but are not limited to the following:

a. Multi-Client-Services: client-independent studies for an indefinite number of customers.

b. Shared-Services: commissioned study on behalf of a limited number of customers for the exclusive purchase of those customers.

c. Exclusive-Services: assignments carried out on behalf of a single customer who will have the exclusive license to use the product but only for an individually negotiated period of time. This exclusive license will be for a period no longer than 12 months. After a period of no longer than 12 months it will become a non-exclusive license.

3.2 The prices are net prices in Euros. They do not include sales tax/VAT or delivery costs. Sales tax/VAT will be added to the net costs according to the legally defined percentage. The prices valid at the time of ordering are binding.

3.3 Travel expenses incurred for EUPD GmbH workshops either provided in combination with studies or booked separately are not included in the scope of the offer. Prices have to be paid separately by the customer. This does not apply if it is explicitly agreed that the workshop or the resulting travel expenses for the workshop are part of the negotiated contract and thus do not to have to be paid separately.

3.4 Should circumstances arise beyond the control of EUPD GmbH which impose a temporary hindrance on the provision of services, then services and delivery appointments agreed on will be extended. Customers will be informed of any such event or other delay immediately

4. Terms of Payment and Delivery

4.1 Payment is to be made to the amount and method stated in the contract. Any addition and/ or aberration require the written confirmation of EUPD GmbH in order to be effective

4.2 Payment is generally to be made upon receipt of invoice. The products will be shipped as soon as full payment has been made to the account of EUPD GmbH. The terms and conditions for payment and delivery of Shared- Services and Exclusive-Services are stipulated in the binding offer.

4.3 Delivery costs depend on the quantity of products ordered, their destination as well as type of delivery. There are no delivery costs for products which can be downloaded. The customer accepts that any fees or charges owed for customs or non-EU addresses will not be paid by EUPD GmbH nor is EUPD GmbH liable for them.

4.4 The method of delivery, route and company employed to deliver will be chosen by EUPD GmbH at their sole discretion. Once the purchaser has taken delivery of the item from the delivery service, the purchaser is responsible for the item. The company responsible for delivery is to be made aware of any damage sustained in transit immediately. These damages are also to be reported to EUPD GmbH immediately. Part deliveries are permissible where appropriate

2 EUPD Research

General Terms and Conditions of Business II

4.5 EUPD GmbH retains ownership of all goods and all licensing rights pertaining to the usage of data files as well as intellectual property until payment of invoice has been made in full. Intellectual property rights are lawfully retained by the author.

4.6 The purchaser is only able to offset counter claims if they are acknowledged by law, uncontested, or prior written consent has been granted by EUPD GmbH. Customers are only have the right of retention if counterclaims are based on the same contractual relationship. The customer is prohibited from transferring any claims of payment against EUPD GmbH to a third party.

4.7 The estimated costs for the services provided by EUPD Research are based on project calculations and experience. Estimations are optimized and customeroriented so that lower deviations may not be assumed.

However, it cannot be fully excluded that additional effort may be required in the completion phase of the project. Should the suggested amount be exceeded, EUPD Research will inform the client promptly. Such additional efforts will be calculated on the basis of man-day costs and these may vary according to the qualification of the staff involved.

Upon notification of these additional costs the client may choose whether the project shall continue in accordance with the original cost estimation as stated in the proposal although full completion of the project may no longer be possible or agree to the revised cost estimation thus enabling full completion of the project. Should the client agree to the latter, this shall be subject to a separate written agreement.

5. Copyright and Licenses

5.1 The products and their intellectual property are protected by copyright. It is only possible to purchase a license to use the product and not the product itself or its content. The author/ creator remains the owner of intellectual property.

5.2 The customer is granted a non-transferable and non-exclusive license to use the product and the results and content in the product (with the exception of Exclusive-Services) for personal use only. As far as the customer (for example an agency) exclusively acts as the purchaser for a user mentioned by name within the order, then the right of use applies solely for said user.

5.4 Permission to use the licensed product in the national and international affiliates of the company is subject to the written approval of EUPD GmbH. 5.5 Any use of the product not explicitly permitted under copyright law is prohibited without the prior written consent of EUPD GmbH as the licenser and/or the written consent of the author. This includes but is not limited to copying, distributing, publishing, translating, saving, processing and reproducing the work in databases. Non-compliance will be prosecuted

6. Liability

6.1 The products were prepared with the utmost care, using professional methodologies and taking relevant legislation into account with the aim of assuring the best possible accuracy of the studies and their results. The data contained in this product is based on surveys of sample populations, conducted using standard statistical methods to the best of our knowledge. As such the study is subject to a certain statistical error rate and is based exclusively on the facts which were available at the time of the survey. Due to the aforementioned, no guarantee can be given for the accuracy and completeness of the studies and the data made available in them.

6.2 The studies contain specific information, but explicitly do not contain any definite recommendations on investments or actions to be taken. Should the user, having taken the above mentioned into consideration, choose to use the studies to support their decision making process, EUPD GmbH shall not assume liability for the economic success of such investments or actions.

7. Jurisdiction

The court of jurisdiction is Bonn. German law will be applied in all legal proceedings.

8. Severability Clause

Should any of these terms and conditions, either in full or in part, be invalid or incomplete, it shall not affect the validity of the other terms and conditions. In that case, the terms and conditions, as stated in German law come into effect.

As of October 2017