

Global PV InstallerMonitor 2020/2021©

Proposal for Primary Research on PV Installers in Australia, Austria & Switzerland, Belgium, France, Germany, Italy, the Netherlands, Poland and Spain



Background

The Global PV InstallerMonitor 2020/2021©

The year 2020 was largely shaped by the global COVID-19 pandemic and the associated lockdown restrictions. Economic growth has been curbed or declined significantly in many countries. The development of the photovoltaic market was also influenced by these circumstances. There was a great deal of uncertainty as to how the production and export opportunities of the Asian production facilities would develop. In order to again stimulate the economy, there were calls to focus more on long-term, climate-friendly economic stimuli ("green recovery"). How successful these measures will be remains to be seen in the future.

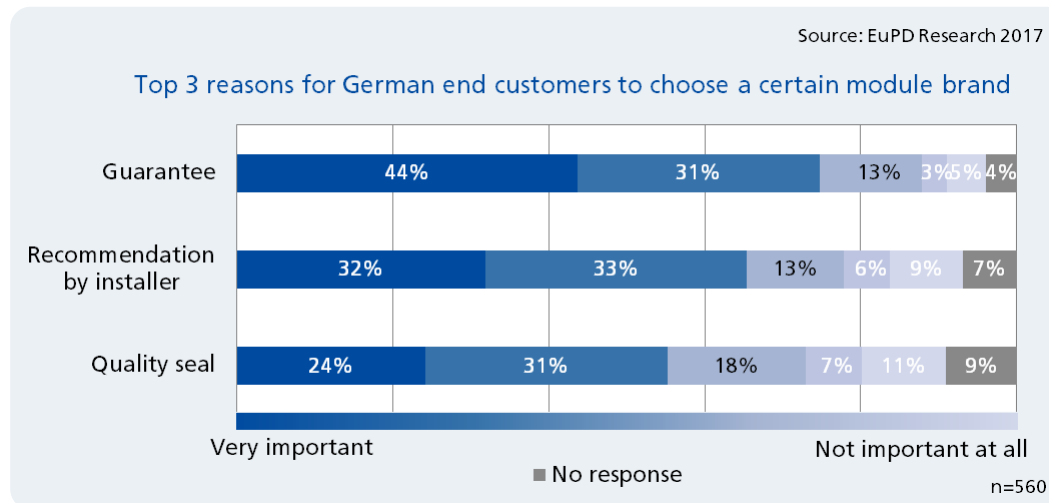
A mere consideration of the provisional PV additions for 2020, however, gives reason for optimism. In most countries, the growth remained stable or grew compared to 2019. Good news is also coming from Eastern Europe; here the installation figures are picking up speed. In Poland, auctions for ground-mounted PV systems and an attractive self-consumption model have led to a fertile market environment. For this reason, this year EUPD Research decided to include a PV InstallerMonitor country report for Poland.

- ✓ The 13th edition of the Global PV InstallerMonitor© provides comprehensive insights into different PV and storage markets. You are flexible in choosing the countries that are of interest to you.
- ✓ Many evaluations are displayed on a brand level. Compare your position with those of your competitors and find out where and how to improve.
- ✓ The information provided in the Global PV InstallerMonitor 2020/2021© will assist you in order to adapt your business strategies and your PV product portfolio.

Background

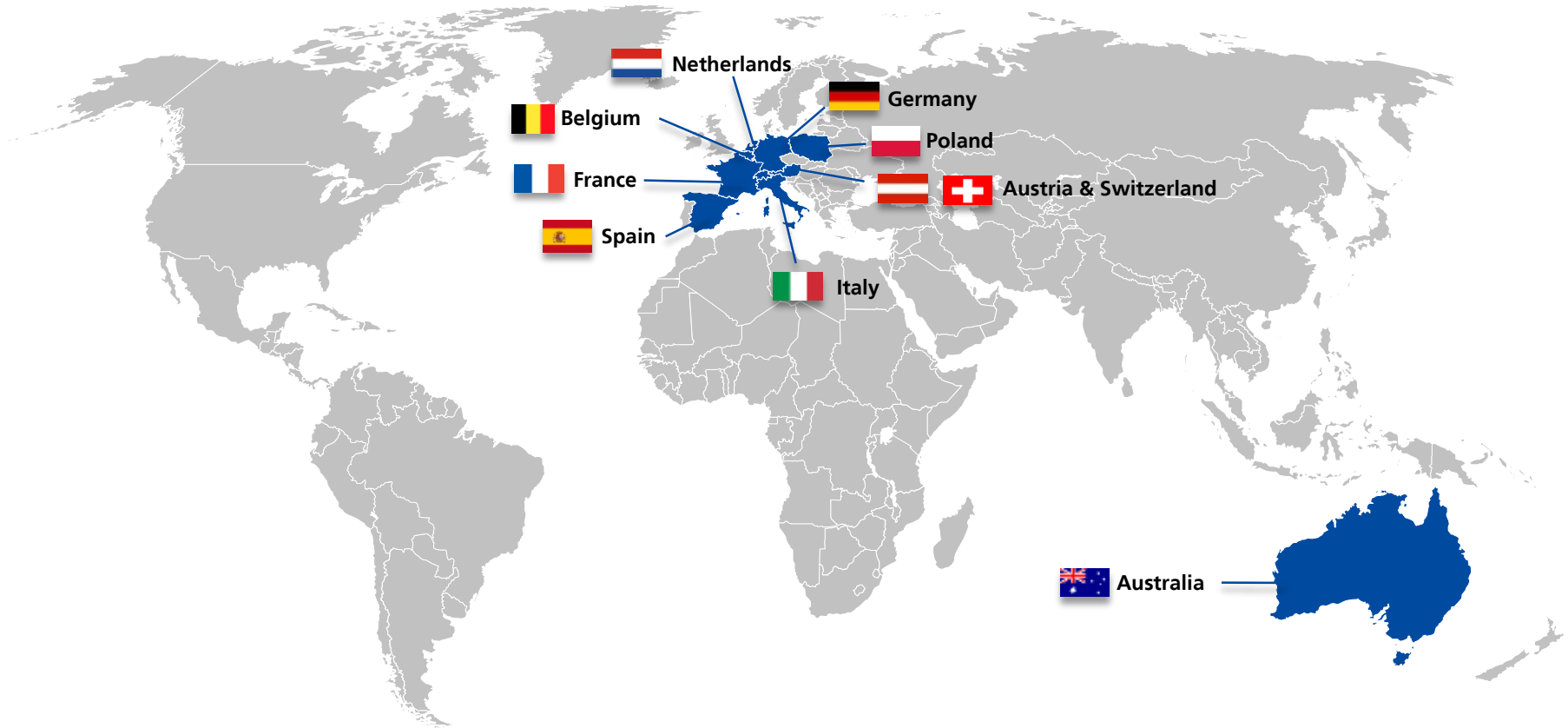
The PV Installer as Gatekeeper

- PV end customers surveyed by EUPD Research often state, that the **recommendation of the installer** is the **main reason** to choose a certain brand. For manufacturers, it is therefore of high importance to be well positioned in terms of brand awareness among the installers.
- Once having reached a wide distribution in the installers' portfolios, it counts 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**. The Global PV InstallerMonitor 2020/2021© sheds light on aspects such as procurement, brand buying behavior and satisfaction for wholesalers, modules and storage. Many evaluations are made on a brand level.













Research Design | Target Countries

The Global PV InstallerMonitor 2020/2021© results can be chosen from the markets with a high sales potential. For this year's edition you can select from the following countries:



Research Design | Target Countries

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

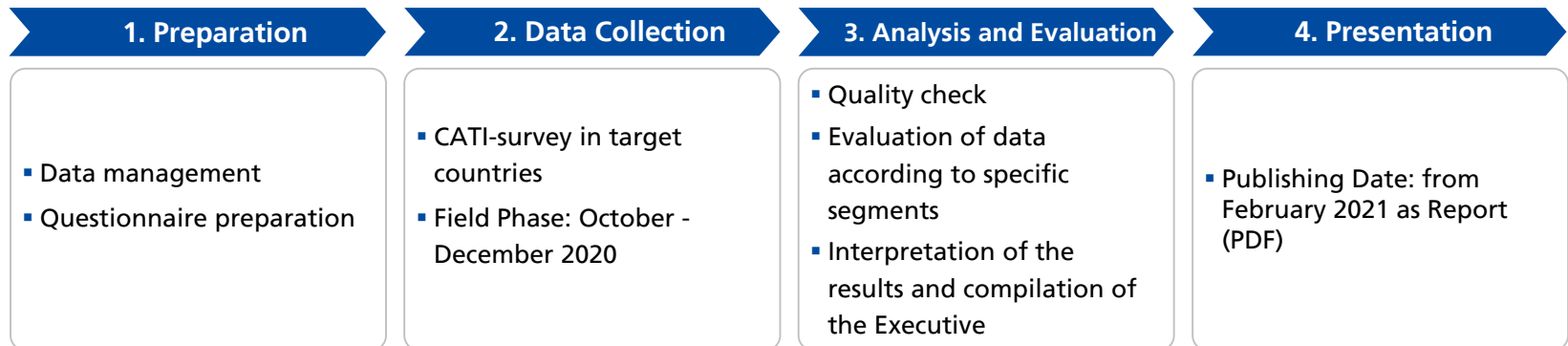
Country	Targeted number of interviews*
 Australia	n=200
  Austria & Switzerland	n=135
 Belgium	n=100
 France	n=100
 Germany	n=250
 Italy	n=100
 Netherlands	n=100
 Poland	n=100
 Spain	n=100

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

Research Design | Research Process & Methods

Methodology

- 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.



Target Group and 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.

Content | Overview

As in previous years, the EUPD Research Global PV InstallerMonitor 2020/2021© emphasizes the topics of brand and procurement management. In order to allow a year-over-year comparison of the results, the basic structures of the proven approach remain the same.

The structure of the EUPD Research Global PV InstallerMonitor 2020/2021© will be as follows:

Executive Summary

General Introduction

- A. **Market Data:** basic PV market information for the country market
- B. **Sample Description:** description of surveyed installers and head groups
- C. **Electric Mobility:** activity of the installers in the field of electric mobility is examined
- D. **Procurement Management:** procurement channels for modules and inverters, positioning of wholesalers
- E. **Market Penetration:** distribution width and depth of module and inverter manufacturers
- F. **Brand Management:** unaided brand awareness of module and inverter brands
- G. **Satisfaction Analysis:** Net Promoter score for wholesaler, module and inverter manufacturers
- H. **Storage Solutions:** procurement, market penetration, brand management, satisfaction, services

Content | Overview

Main topics*	See sample slide
Key data on PV markets : cumulated and installed capacity, segments, main funding schemes	<u>s. 10</u>
Characteristics of installers (e.g. type and size of companies, focus on technologies, years in PV)	<u>s. 11</u>
Procurement channels for modules, inverters and storage	<u>s. 12</u>
Type of wholesalers modules are bought from; detailed market map	<u>s. 12</u>
Unaided brand awareness for modules, inverters and storage manufacturers	<u>s. 13</u>
Importance of features when buying a module, inverter or storage brand	<u>s. 13</u>
Module, inverter and storage brands in portfolio; share of brands in portfolio	<u>s. 14</u>
Net Promoter Score for wholesalers, module, inverter and storage brands	<u>s. 15</u>
Satisfaction with detailed items for module, inverter and storage brands	<u>s. 15</u>
Overall satisfaction with module, inverter and storage brands	<u>s. 15</u>
Avoided module and storage brands	<u>s. 16</u>
Share of installers offering storage; reasons for not offering storage	<u>s. 17</u>
More detailed information about the storage market (e.g. primarily installed sizes, new installations vs. retrofits, detailed satisfaction analysis)	<u>s. 17</u>

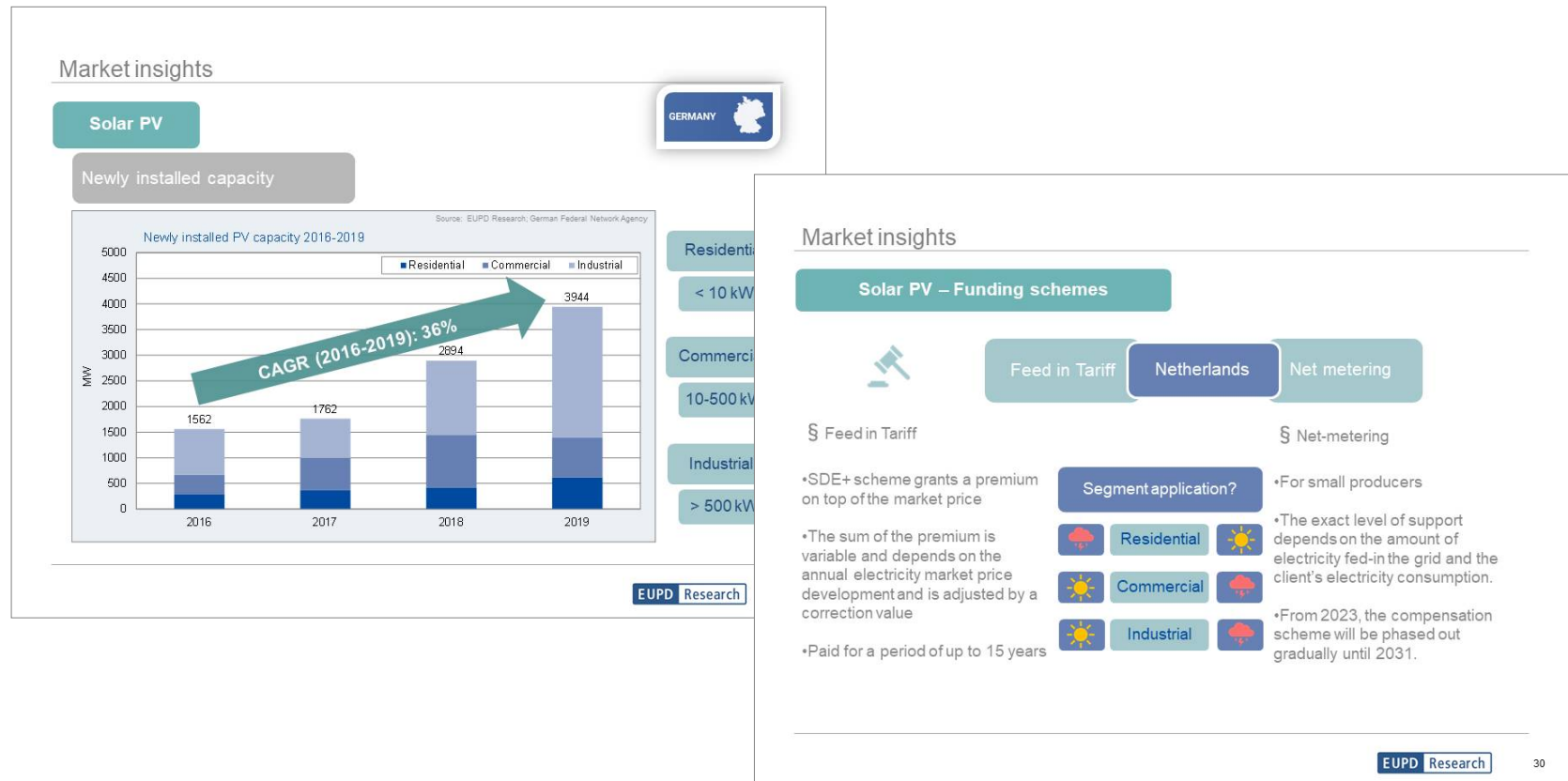
*The mentioned topics are displayed if the number of respondents (n) is sufficient.

Content Sample Slides

Sample Slides of the Study – Market Data

Key data on PV market

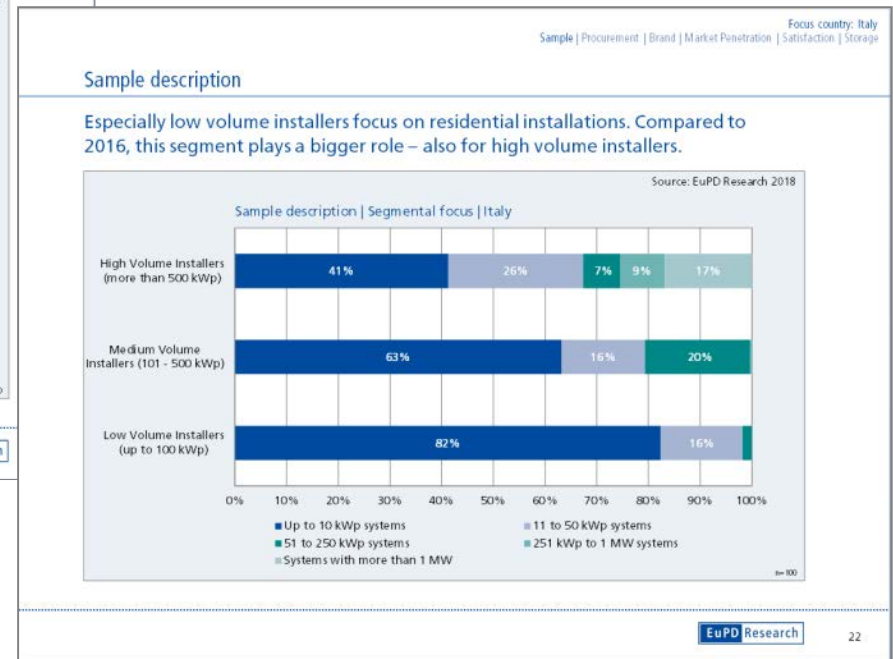
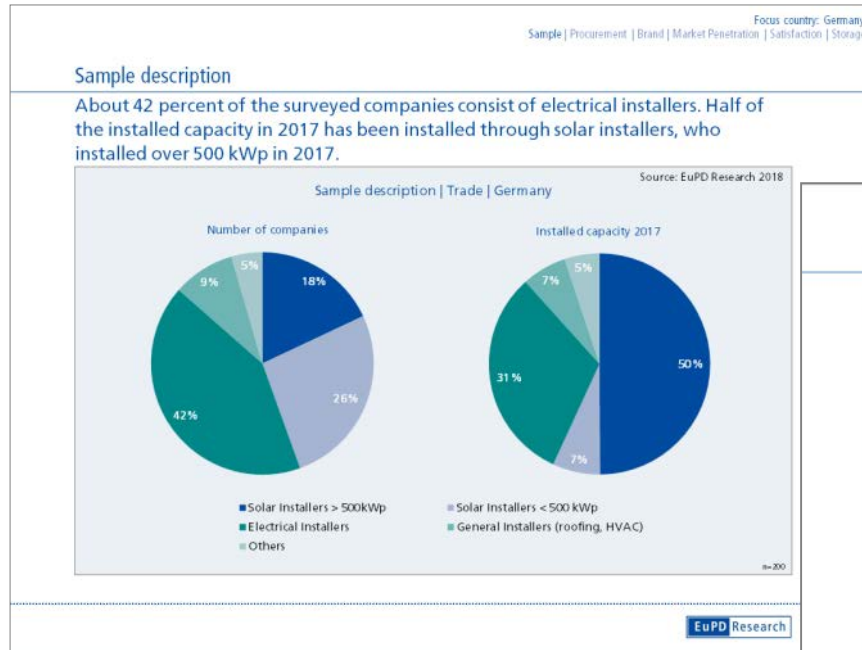
- Cumulated and installed capacity, relevant segments are displayed.
- Main funding schemes are briefly outlined.



Sample Slides of the Study – Sample Description

Analysis of the characteristics of installers

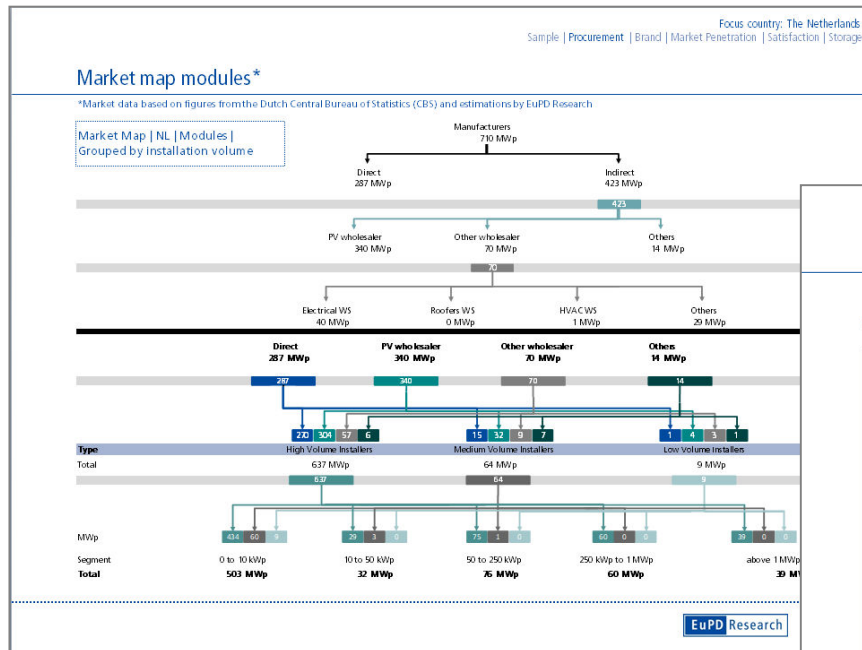
- The surveyed installers are described according to their type of business, their installed PV capacity etc.
- The activity of the installers in the field of electric mobility is examined.



Sample Slides of the Study – Procurement Management

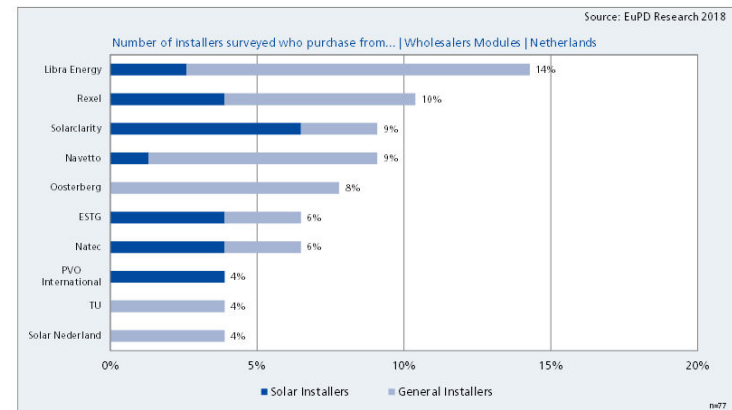
Analysis of installer's procurement management

- Installer procurement channels 2020/2021 in relation to total annually installed PV capacity
- Analysis of wholesalers used most often for purchasing modules.



Distribution width of wholesalers

Libra Energy is the leading wholesaler for PV modules. Compared to 2016, Solarclarity lost 9 percent-points and is on third rank.



Sample Slides of the Study – Brand & Importance of Features

Unaided brand awareness and importance of features

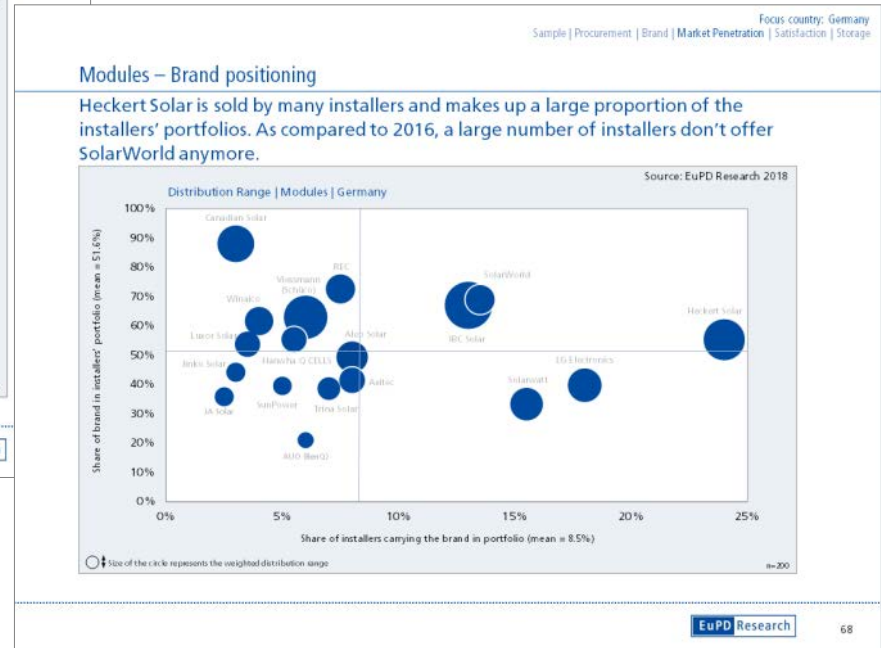
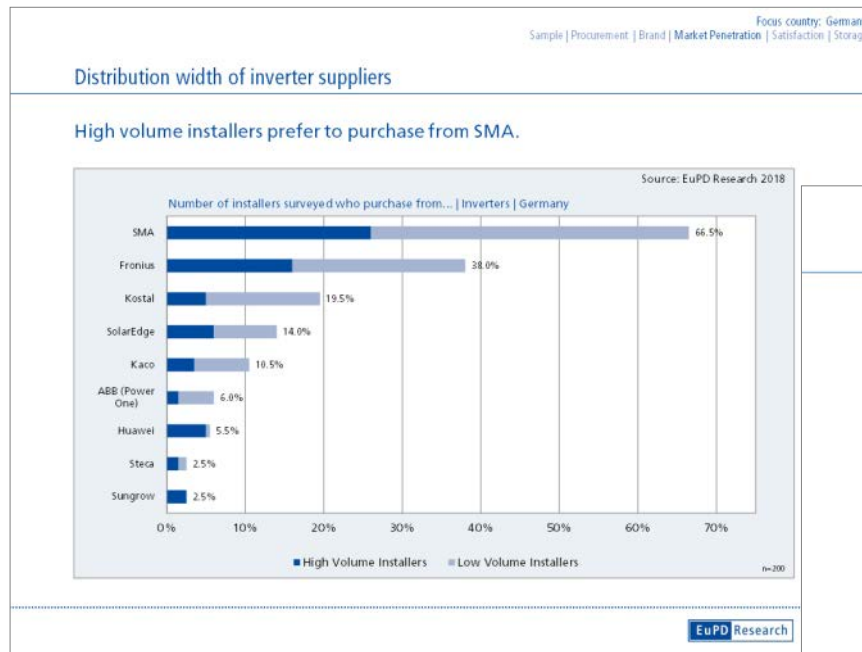
- Unaided brand awareness is a commonly used indicator for brand positioning in a market.
- Importance of features for deciding to buy a module, inverter or storage brand.



Sample Slides of the Study – Brands in Portfolio

Brand management

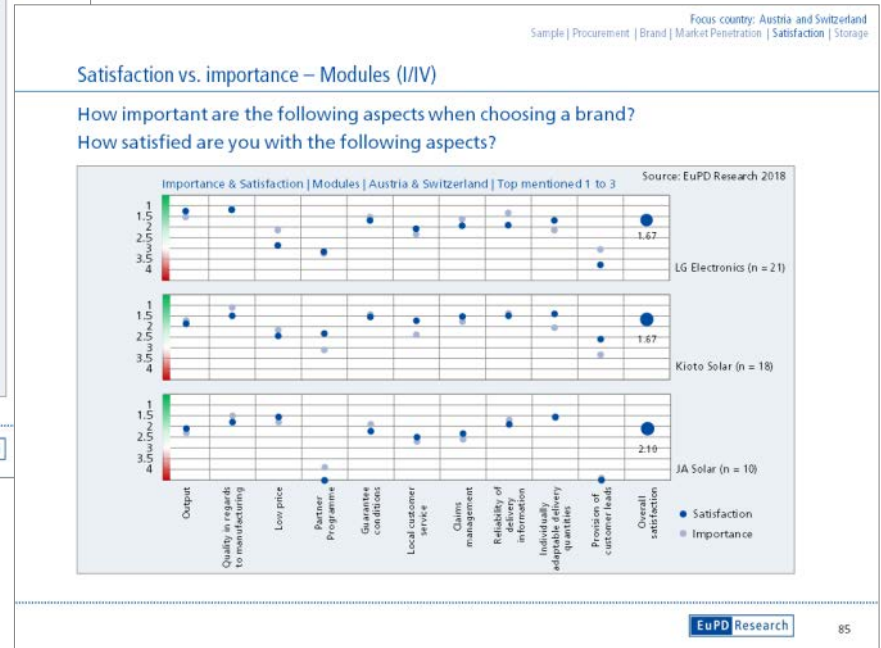
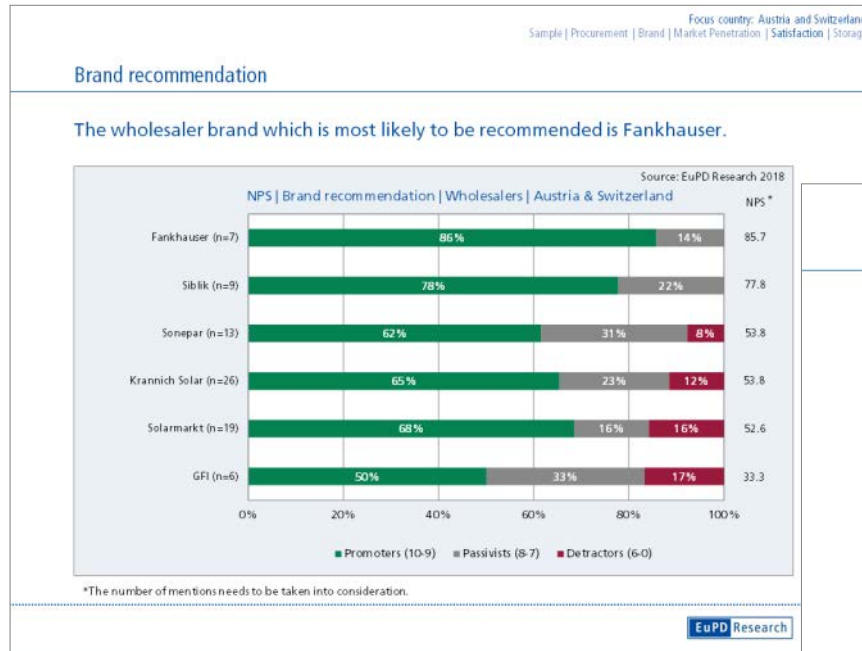
- The percentage of installers, who buy from certain module, inverter and storage manufacturers is displayed.
- The exclusiveness of a brand in the portfolio indicates if it is used as a dominator or a space-filler.



Sample Slides of the Study – Satisfaction

Net Promoter Score and Satisfaction with detailed items

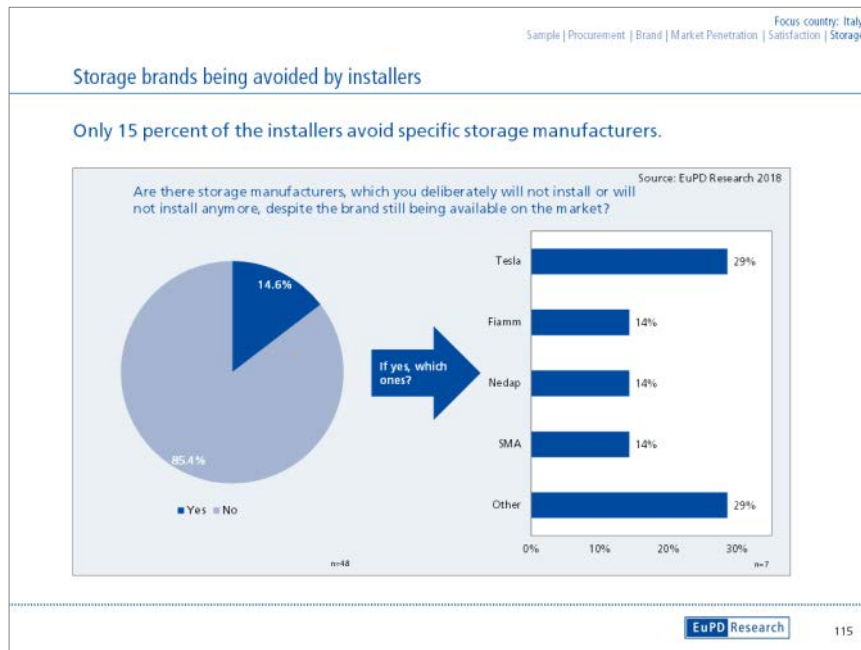
- The Net Promoter Score, a common tool in marketing, is derived from a brand's recommendation rate.
- The evaluation of different items gives a detailed picture of the satisfaction with a certain brand.



Sample Slides of the Study – Avoiding Brands

Avoiding brands

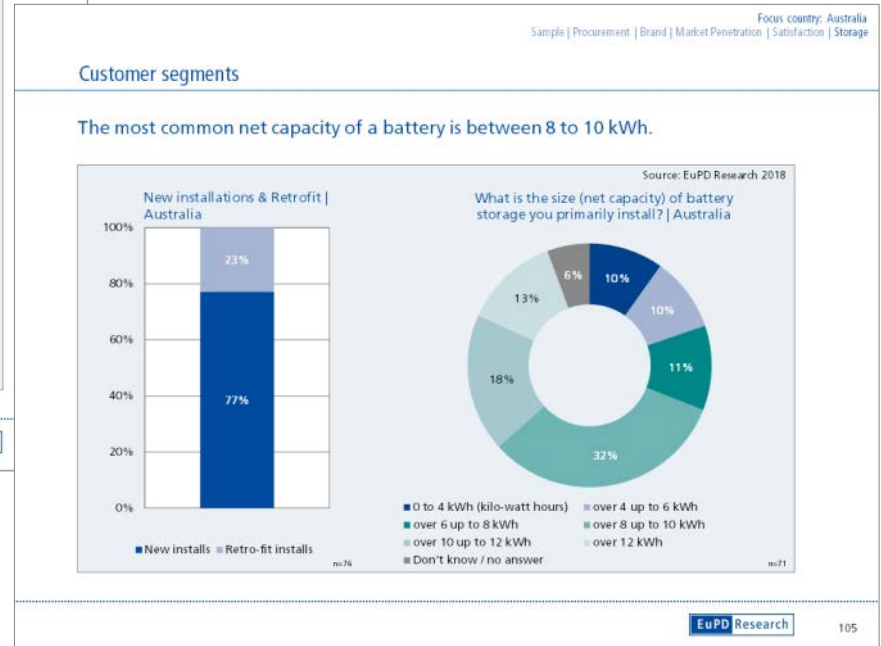
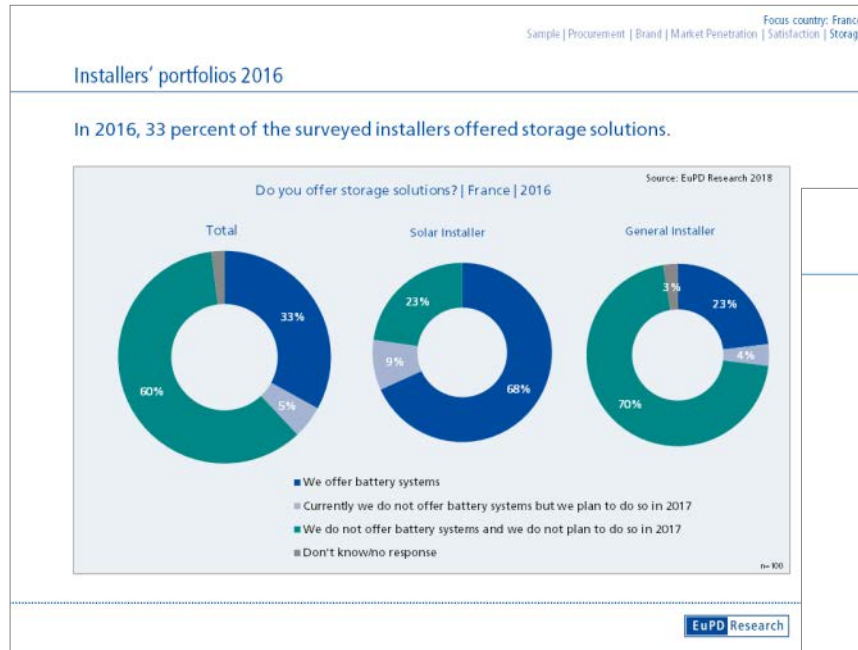
- Installers are asked if they deliberately avoid certain module and storage brands.



Sample Slides of the Study – Energy Storage

Energy Storage Market

- The share of installers who are offering (and planning to offer) energy storage is captured.
- The segments of storage installations are depicted (e.g. new installations vs. retrofits, the size of installations).



Order Form & Additional Services

Order Form – Global PV InstallerMonitor 2020/2021[©]

Country Market PDF-Reports*

	Price
<input type="checkbox"/> Australia	5,750 €
<input type="checkbox"/> Austria & Switzerland	4,750 €
<input type="checkbox"/> Belgium	4,500 €
<input type="checkbox"/> France	4,500 €
<input type="checkbox"/> Germany	5,950 €
<input type="checkbox"/> Italy	4,500 €
<input type="checkbox"/> Netherlands	4,500 €
<input type="checkbox"/> Poland	4,500 €
<input type="checkbox"/> Spain	4,500 €

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

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

Name: _____

Fax: _____

Company: _____

E-Mail: _____

Street: _____

Sales Tax ID: _____

City / zip Code: _____

☐ I accept the terms and conditions of business (p. 24-25)

Phone: _____

Signature: _____

Additional Products and Services

In order to derive the best possible benefit from the results of the Global PV InstallerMonitor 2020/2021©, EUPD Research offers you additional services at a fair price. Do not hesitate to contact us for further information.

Standard Presentation

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

Consulting Workshop

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

Brand Health Check

The data-set allows in depth 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. The result is a PDF-report tailored to your company's needs.



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", "Inverter", "Wholesaler" and "Storage". The data for the scoring is derived from the Global PV InstallerMonitor 2020/2021.



About EUPD Research

EUPD Research: The B2B Specialist for International Market Research



Exclusive Services

- Customer Satisfaction
- Market Analyses
- Storage Workshops



PV-Reports

- EndCustomer Monitor
- Global PV Installer Monitor



Certifications

- Customer Satisfaction Seal
- Top PV Supplier
- Top Brand PV



EUPD Research: References (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 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.

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 customer-oriented 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 licensor 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