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How to Promote the Installation of Photovoltaic Systems

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In order to promote the installation of photovoltaic (PV) systems the city of Wädenswil decided to identify the 300 roofs with the highest solar potential in the year 2012. The owners of these houses were contacted. In this follow up survey 4 years later the number of newly built PV systems and the main barriers when adopting rooftop PV were identified. Out of the 387 contacted owners 102 questionnaires were returned and analyzed.

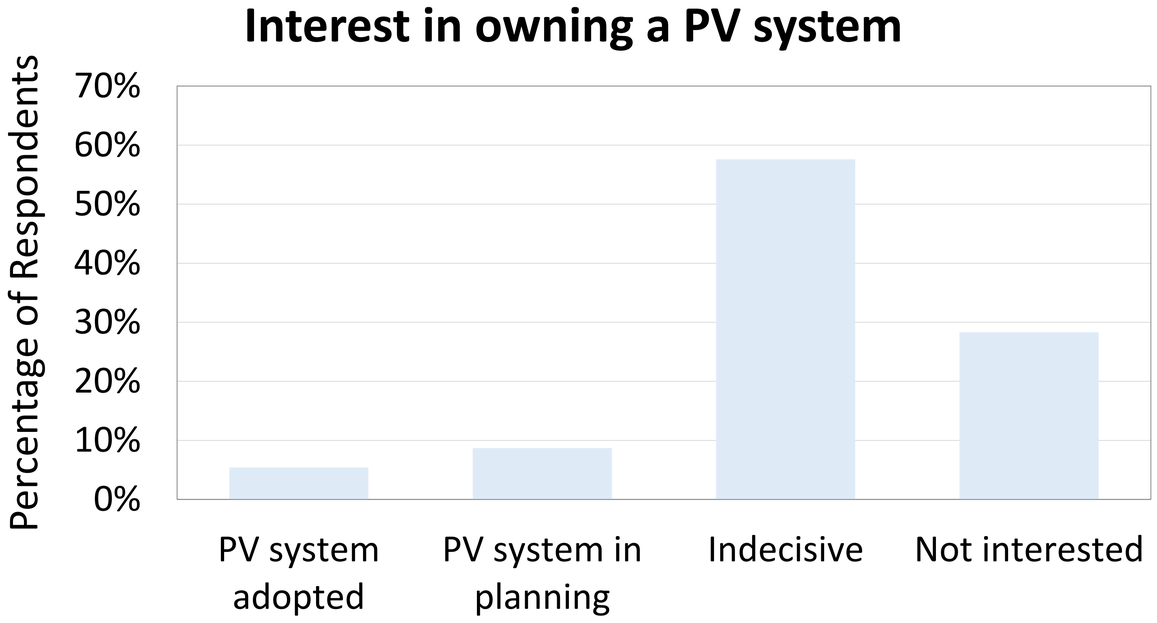

Fig. 1: Interest in owning a PV system (percentage of respondents)

Unexpected Outcome:

Despite the well attended information event most respondents (58%) are still indecisive on building a PV system.

→ **Increasing the level of information available does not seem to be enough to promote roof-top PV on suited buildings**

Joint ownership of buildings and economic factors were the most often mentioned main barriers. Over all, 6 categories of main barriers were found.

The main barriers are not equally often mentioned by different owner-groups:

- Joint ownership as an additional barrier for buildings with multiple owners
- Economic factors are more often mentioned for commercial buildings

Tab. 1: Main barriers indicated by the respondents

Main Barrier	Times Mentioned	Percentage
Joint ownership	30	32%
Economic factors	20	22%
Lack of interest	13	14%
Pending renovation	12	13%
Heritage protection	5	5%
Other	13	14%

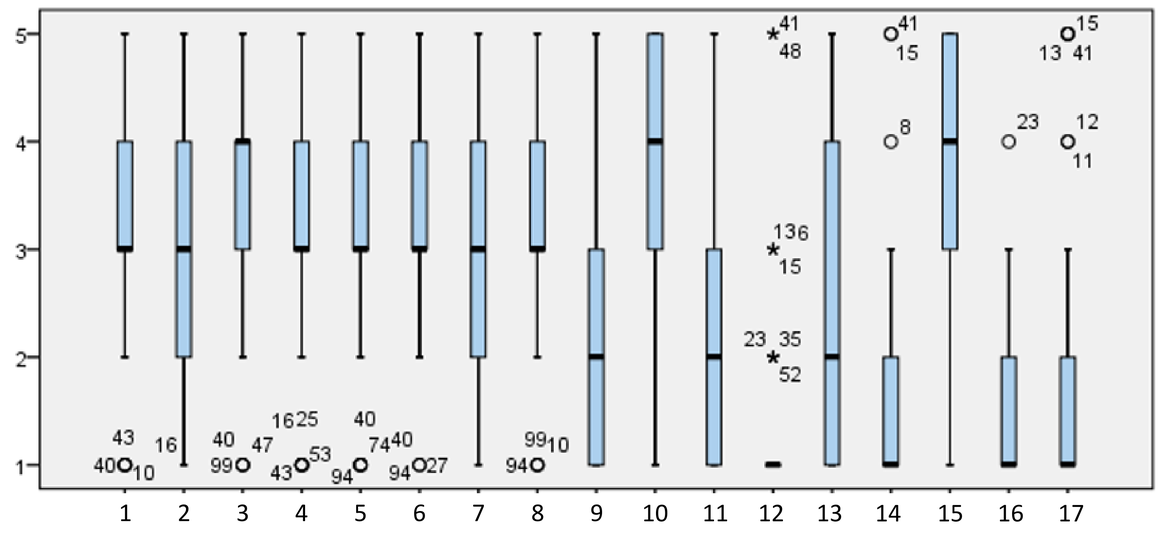

Fig. 2: Boxplot with the responses to 17 statements

The respondents expressed their acceptance of 17 statements on a five-point Likert scale (1 – “does not apply at all” to 5 – “fully applies”)

1: Investment costs for a PV system are too high
2: The profitability of the PV system is too low
3: Cost savings through on-site consumption are possible
4: I can’t sell the produced electricity at an acceptable price
5: The authorisation process is very time consuming
6: Realisation of a PV system is very time consuming
7: I would install rooftop PV if planning and realisation was taken off of me
8: The subsidy system is too complicated
9: PV systems are ecologically not sensible
10: PV systems help to achieve an independent electricity production
11: A PV system is no option right now because the roof is in need of renovation
12: A PV system is no option because this building will be sold or taken down
13: PV systems diminish the look of the building
14: The roof needs to be freely accessible
15: A solar-thermal system should also be considered
16: A PV system is not viable because other objects cast a shadow on the roof
17: I prefer roof greening over a PV system

For certain statements the answers significantly differed by owner-groups:

- The time needed for realisation of a PV system (6) is perceived higher in joint ownership
- The importance of independent electricity production (10) is perceived higher by sole owners of buildings

Conclusion:

Different approaches are needed to motivate owners to adopt PV systems
Switching focus to co-benefits and addressing owner-groups separately

Ideas for actions to promote the installation of PV systems:

- **Joint ownership:** Procedural guidelines
- **Commercial buildings:** Image enhancement
- **Rented buildings:** Guidelines for on-site consumption
- **Detached houses:** Independent electricity production

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