



CONSUMERS' EXPERIENCE WITH HEAT PUMP AND INSTALLERS/RETAILERS EU REPORT





SLOVENE CONSUMERS' ASSOCIATION

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1 BACKGROUND TO THE RESEARCH

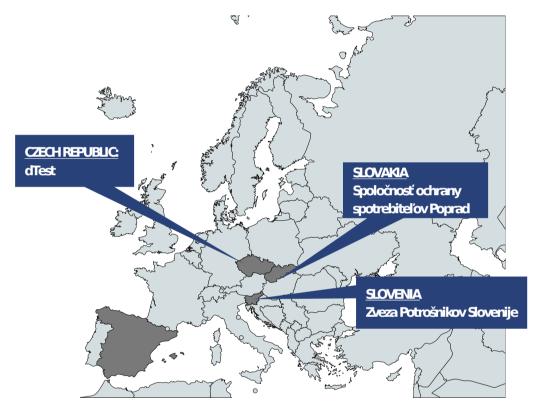
When buying a heat pump (hereafter "HP"), as well as following installation, things can go wrong. And consumers often find themselves in a quandary about where to turn and how to solve the problem. It is important to choose the right HP as they are complex devices that require professional installation. Above all, it is important to choose a device of the right capacity. For poorly insulated houses, high-temperature HPs are suitable, while in a new-build or renovated house, a lower-power device that operates with its heating source at a lower temperature can be installed. To ensure efficient operation of the HP, major or minor modifications to the heating system (e.g., replacement of radiators, improvement of the thermal envelope of the building) often need to be carried out before installation. However, this is sometimes not communicated to the customer by the installer and the necessary modifications are not carried out, which can lead to inefficient energy consumption (the HP does not provide enough heat, heat losses occur).

In the process of choosing a HP provider, most customers do not know which aspects they need to pay attention to, and are therefore sometimes exposed to scams and incorrect installation of the HP. They may then suffer financial losses as there is a risk that the HP will not work efficiently.

This mystery shopping of heat pumps, which was conducted up to just before the point of purchase, was designed to understand how heat pump installers, as well as consumers themselves, can best prepare the consumer for the installation of a heat pump – ensuring access to information on financing, the suitability of the home, and the technology itself, among other issues.

2 METHODOLOGY

The project was implemented in 4 countries: the Czech Republic, Slovakia, Slovenia, and Spain. A mystery shopping survey was carried out by a consumer association within each country in cooperation with local agencies, between March and April 2023. The Slovene Consumers' Association (ZPS) coordinated the project. Picture 1 presents the list of all participating countries.



Picture 1: The list of participating countries and organisations

The mystery shopping survey was carried out with 40 HP customers (hereafter referred to as "MS", which stands for "mystery shopper"). The research sample was made up of people who were already interested in purchasing a heat pump, as the study was also interested in their previously collected information. Furthermore, participants shared information about their overall pre-purchase process, the content of which was further divided into 4 substantive sections. TEach MS was assigned a company with whom they would arrange the home visit, but without further instructions on how to contact them. The goal was for the consumer to approach the situation as they would in everyday life.

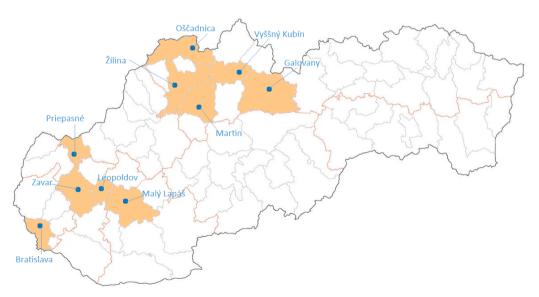
The actual purchase of a heat pump was not necessary for participation in the study, but an arranged visit by an expert/contractor to the MS' home was

mandatory.¹ As such, this project investigated the process of purchasing a heat pump up to **immediately before the point of sale** - to discover how shoppers get their information, what kind of pre-sale service is available, and what information is provided by installers.

Below you can find maps detailing the regions of each country in which the project was run.

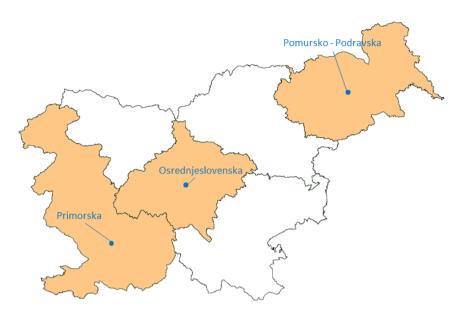


Picture 2: Regions where mystery shopping was conducted are highlighted in orange – Czech Republic

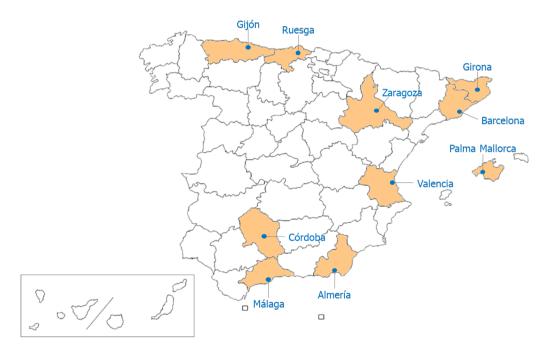


Picture 3: Regions where mystery shopping was conducted are highlighted in orange – Slovakia

¹ (1 unit = 1 installer visit, and each participant filled in the questionnaire based on his/her visit).



Picture 4: Regions where mystery shopping was conducted are highlighted in orange - Slovenia



Picture 5: Regions where mystery shopping was conducted are highlighted in orange - Spain

Below is a list of mystery shoppers' tasks and their obligations during their participation in our project.



Picture 6: MS' task list

The total number of home visits from experts is presented below. In two countries (Czech Republic and Slovenia) 2 visits didn't happen (due to providers' unresponsiveness). In total, 36 home visits were conducted in 4 countries.

	Total No. Of Visits
CZECH	
REPUBLIC	8
SLOVAKIA	10
SLOVENIA	8
SPAIN	10
TOTAL	36

Table 1: Number of expert visits per country

3 EXECUTIVE SUMMARY

• How easy it is to find a heat pump installer: do public authorities or manufacturers hold a list of certified installers?

The answers will be presented below on a country-by-country basis. Of the four countries, only Slovakia and Slovenia operate with a list of certified installers/manufacturers, while the Czech Republic and Spain do not report having one.

Slovenia

As mentioned above, Slovenia operates with a list of accredited companies for the installation and maintenance of air conditioners and heat pumps, regulated by the Ministry of Natural Resources and Spatial Planning.² However, the list is difficult to access for the average consumer. It requires self-initiated research and a further review, since it offers the names of the accredited companies, their addresses, their post codes, and the name of the accredited installer, while HP suppliers do not share the list on their websites. Consumers must therefore initially contact the supplier, who will then direct them to an installer.

Otherwise, Slovenian MSs in most cases had no problems finding heat pump suppliers, the majority of whom also offered the possibility of installing the pump. There were only 3 cases where the providers did not offer the possibility of installation, but gave the MS the contact details of an installer, with whom he/ she had to make further arrangements on his/her own. If the installer did not respond, the participant had to contact the providing company again to get new contact details. It would therefore be easier for companies to provide the official list on their websites so that consumers could contact the installers themselves and not be dependent on the HP provider.

Czech Republic

Unlike Slovenia, the Czech Republic does not operate with a publicly regulated list of heat pump installers. Despite that, Czech MSs had no problems finding heat pump providers, as there are many sources (internet, media, articles, or the personal acquaintances of existing users, etc.) from which they can obtain credible information; both about the pumps, and about providers and installers.

Slovakia

In 2014, the Slovak Ministry of Economy published a publicly available list of heat pump installers, which can be found via the link below.³ In addition, the web is the main source for gathering general information on HPs, while customers can

² <u>https://www.gov.si/assets/ministrstva/MOPE/Okolje/Podnebne-spremembe/</u> toplogredni_plini/PP-HKTC_abc.pdf

https://www.economy.gov.sk/uploads/files/MDqVPAvP.pdf.

also contact a supplier (which they can find online) who, as in Slovenia, will forward them the contact details of an installer, or vice versa.

Spain

Spain does not operate with an official list of certified HP installers. Additionally, participants report that, unlike in the other countries, **finding a contractor was not an easy task** (more detailed information about the process will be provided in the following chapters).

• How long does it take for an installer to visit a consumer's premises to assess whether the home is fit for a heat pump?

		CZECH REPUBLIC	SLOVAKIA	SLOVENIA	SPAIN
Minimum	4 days	7 days	3 days	2 days	2 days
Maximum	26 days	21 days	30 days	23 days	29 days

Table 2: Waiting time per country

Slovenia

Based on the waiting period between the initial contact and the actual visit of the installer to the property, contractors can be divided into two groups: reasonable waiting time and unacceptable delay. In the first group, 5 visits can be counted (1 participant arranged a visit the next day, 2 within 3 days, 1 within a week, and 1 within 10 days), and in the second group are the remaining 3 (2 MSs were visited within 20 days, and 1 within 17 days). On average, it took between 2 and 23 days to schedule the visit of the contractor in order to get an opinion on the suitability of the premises for the installation of the HP.

Czech Republic

3 participants received a visit from the installer within a week, 2 within 2 weeks, and 3 within 3 weeks of first contact with the provider. In 2 cases, the providers did not respond to the enquiry of the MS for 3 weeks, therefore making a home/site visit impossible. On this basis, 5 visits can be classified as reasonable waiting times and 5 visits as unacceptable ones.

Slovakia

2 out of 10 providers visited participants within 6 working days of the first contact, 6 visits were made within 8-12 working days. In 1 case the visit was not possible, and in the remaining case the company postponed the visit of the contractor for a month. Therefore, according to the division into reasonable and unreasonable waiting times, 8 cases can be counted in the first group and 2 in the second (the Slovak study adds that in some regions the time to the first visits could have been delayed due to the then underway spring holidays within the western, central and eastern Slovak regions).

Spain

The waiting period for an installer/contractor to visit the home/facility of an MS varied greatly depending on the provider. The longest waiting period was 29 days, the shortest was 2 days, and the most common waiting period was 1 week.

• What is consumers' experience with the installer?

Slovenia

All participants were satisfied with the visit of the installer. Friendliness, technical knowledge, and professionalism were cited as the most positive attributes. The contractors were also responsive to potential questions, which further contributed to the positivity of the experience. The lack of good solutions and the organisation of the visit itself were cited as negative elements by half of the participants. Despite this, in all 8 cases, the preliminary expectations of the MSs were achieved.

Czech Republic

All participants were satisfied with the visit of the installer, with half of them having their expectations exceeded, and half of them being satisfied. The main reasons for positive experiences were the expertise and professionalism of the contractor, the contractor's ability to answer questions and provide a variety of information (mainly technical), the contractor's ability to explain the key differences between the new heating system and the existing one, and the contractor's ability to address the topic of subsidies. On the negative side, the installers' lack of knowledge of the financing area was cited.

Slovakia

Participants were satisfied with the visits of the operators. Furthermore, elements of professionalism, their behaviour, and attitudes constituted positive visit experiences, while limited knowledge of financing was mentioned as a negative element. Also, the MSs did not feel that the installers were forcing them to buy, which in most cases also reflects the lack of follow-up contact from the contractor - this only happened in 2 cases.

Spain

While the other three countries reported user satisfaction with their visits, Spanish MSs reported dissatisfaction, mainly based on a lack of interest and proactivity on the part of the installers during the visit (a more detailed overview of the arguments follows below).

• What prices are being offered to consumers by installers?

		CZECH REPUBLIC	SLOVAKIA	SLOVENIA	SPAIN
Minimum	€7,998	€10,381	€7,028	€6,700	€7,883
Maximum	€21,358	€22,936	€14,399	€19,600	€28,495

Table 3: HP prices per country

Slovenia

Pump prices varied depending on the type and the supplier. The price range for a 12kW pump (air-to-water) was $\leq 12,000$ to $\leq 15,500$, for an 8kW (air-to-water) $\leq 6,700$ to $\leq 9,200$, for a 14kW (air-to-water) $\leq 11,000$, and for a 7.4kW (water-to-water) $\leq 19,600$.

		NB.	OF
HP POWER	PRICE RANGE	VISITS	
14kW	€11,000	1	
	€12,000	-3	
12kW	€15,500		
8kW	€6,700 - €9,200	4	
		1	
7.4kW	€19,600		
	14kW 12kW 8kW	€12,000 12kW €15,500 8kW €6,700 - €9,200	HP POWER PRICE RANGE VISITS 14kW €11,000 1 €12,000 -3 12kW €15,500 8kW €6,700 - €9,200 4 1 1

Table 4: HP price range - Slovenia

Czech Republic

In the Czech Republic, several factors influence the purchase and installation price of a pump, namely the type of pump, the pump's power, the pump's brand, potential accessories, and additional work/adaptation to be done by an installer. The price range of the ground-to-air pumps is between $\leq 12,700$ and $\leq 15,400$, while the price of the ground-to-water pump is $\leq 22,900$.

HP TYPE		NB.	OF
	PRICE RANGE	VISITS	
AIR-WATER	€10,381	-7	
	€17,432		
EARTH-		1	
WATER	€22,936		

Table 5: HP price range – Czech Republic

Slovakia

The installer showed a basic price range during the visit and sent a final quotation after the visit. The prospective buyers were further offered the possibility of carrying out the necessary adaptations themselves, thus saving money. Prices ranged from \notin 7,000 to \notin 14,400.

HP TYPE		NB.	OF
	PRICE RANGE	VISITS	
AIR-WATER	€7,028 - €14,399	9	
AIR-EARTH	€13,932	1	

Table 6: HP price range – Slovakia

Spain

The prices of the (water-to-water) pumps offered by installers range from \notin 6,400 to \notin 28,500, excluding VAT, and the power of the pumps ranges from 4kW to 12.5kw.

ΗΡ ΤΥΡΕ			NB.	OF
	HP POWER	PRICE RANGE	VISITS	
WATER-	4kW - 12.5kW	€7,883 - €28,495	10	
WATER				

Table 7: HP price range – Spain

4 PRE-EXISTING KNOWLEDGE

At the initial stage, the aim was to find out how the respondents felt about their existing knowledge of the heat pump market. In this way, our research wanted to understand why participants decide to change their existing heating system for an HP in the first place, what the important sources of information in the decision-making process are, and where they all look for information.

The main motivation for replacing existing heating systems with HPs in all four countries is the increase in the costs of energy and the consequent trend towards replacing older heating systems with more energyefficient ones. Secondary reasons cited by participants were the **obsolescence of their current heating system** and the ability to benefit from available **subsidies**, while the MSs of the Czech Republic, Spain, and Slovakia additionally raised the issue of **environmental awareness** and the contribution to reducing climate change.

GATHERING INFORMATION

The **internet** is a key source of information on heat pumps in all four countries (online search, various websites, official websites of providers, etc.), while participants also ask their closest **family members and friends** for useful advice. **This shows the high importance to consumers of having trusted peers in their networks and communities who have had a positive experience with heat pumps.** Those factors constitute the basic structure of the enquiry through which participants gather information before deciding to contact a particular provider.

	AVERAGE		
	%yes		<i>n</i> =
RECOMMENDATION - I consulted friends or family		78 %	28
SEARCH ENGINE - searching by brand name		75%	27
SPECIALIZED WEB PORTALS - I read reviews		67 %	24
PRODUCT WEBSITE - I visited the website		56%	20
SEARCH ENGINE - searching by store names/ product group		47 %	17
WEBSITES - I made comparisons of offers by browsing websites		47 %	17
FORUM - I searched and read blogs/forums/customer comments		39 %	14
VIDEO – I watched a video about the product online		36 %	13
SOCIAL MEDIA - I looked at Facebook, Twitter, etc.		22 %	8
EXPERT OPINION - I consulted an independent expert		19%	7
SPECIALIZED STORES - I consulted with the seller		19%	7
COMPARISON - I used a comparison site or an aggregator		17%	6
I sent the web link to other person, asked for their opinion.		6%	2
ONLINE INFLUENCERS - I looked at a post		6 %	2
SPECIALIZED FAIRS - I visited the exhibition sites of the providers		3 %	1
SMALL ADVERTISEMENTS - I browsed small advertisements.	1	3 %	1
QUESTION PHONE - I spoke with the seller over the phone	1	3 %	1
QUESTION BY EMAIL - I spoke with the seller online	I	3 %	1

Picture 7: Information gathering tools

ASSESSMENT OF INFORMATION GATHERED

Mystery shoppers in all four countries indicated that they were satisfied with the availability and amount of initial information on heat pumps that was freely available to them and that they could refer to during the initial information phase. The initial information is sufficient for interested buyers to answer basic questions related to the possible reduction of heating costs, co-financing

possibilities, installation method/route, etc. However, the information provided did not answer all their questions.

In all four countries, it emerged **that participants would like more information on investment price ranges, different co-financing options**, more detailed **technical information**, and a variety of information on **how to install** HPs (how to get started, what kind of pre-baselines are needed, which types of pumps are known, potential barriers/defects of pumps, etc.). MSs less knowledgeable about the technology or the field of heat pumps in the Czech Republic and Slovakia also raised the problem of having 'too much information' that is to say, consumers felt overwhelmed by the amount of information available, and they weren't sure it was trustworthy - how to know which website, which provider to trust when everyone is presenting their HP as the best and most suitable? For this purpose, the MSs of Czech Republic proposed an increase in intervention from the state or from non-profit organisations in order to satisfy the desire for a more standardised set of information and ranges of installation price.

Have you found all the important information about HP so far?	average %yes		n=
YES, I have all the information I need.		14%	5
I have some information but still have questions.		86%	31
I haven't found the information I need.		11%	4
How easy was it for you to find the information about HP?			
Very simple		17%	6
Simple		44%	16
Something between		33%	12
Demanding		11%	4
Very demanding		6 %	2
Are you satisfied with the information about HP you have found so far?			
l am completely satisfied		6%	2
I am very satisfied		17%	6
l am satisfied		47%	17
I am neither satisfied nor dissatisfied		33%	12
l am not satisfied		8 %	3

Picture 8: Searching for information

Moments of magic (positive experience):

- satisfaction with the information you get on energy and cost savings
- satisfaction with the possibility of obtaining a subsidy (this was a positive moment only in the case of Slovenia),
- good structuring and transparency of the EcoFund website (also only in the case of Slovenia; website providing information on installation subsidies),
- Spanish MSs highlighted the ease of maintenance as a positive (that HR does not need to be powered by oil, pellets, etc.), and Czech customers were impressed by the fact that the pump heats optimally even when the temperature outside is below freezing,
- customers in all four countries indicated their enthusiasm for the amount of information freely available about heat pumps on the internet.

Moments of misery (negative experience):

- Slovenian, Czech, and Slovak mystery shoppers expressed dissatisfaction with the **information overload** on providers' websites, with Czech shoppers adding dissatisfaction with the complexity of the information and Slovak shoppers with the lack of "proof"; each provider advertises its pump as the best and most optimal,
- Slovenian and Spanish mystery shoppers reported dissatisfaction with the lack of information on prices; it is clear that they cannot get an exact purchase and installation price by making an initial enquiry, but they miss at least an indicative price range,
- Spanish mystery shoppers further report dissatisfaction with the lack of information on the savings and recovery of costs associated with the purchase and installation of the pump, the lack of information on the most common technical malfunctions of the appliances, and the lack of information on the compatibility of the pump with the domestic hot water heating already existing on the premises,
- Czech MSs reported frustration with the fact that state subsidies for the purchase and installation of the HP are only provided to those who have previously heated their homes using solid fossil fuels.⁴

⁴ Currently there is HP subsidy available only for those who heat up their house with solid fossil fuel heating unit class 1 and class 2 (coal and firewood) and electricity, and who fully replace this heating unit with an HP. At the moment, there is no subsidy for those who have older house and use natural gas heating. Ministry of environmental affairs is supposed to specify during the summer 2023 which types of gas heating units will qualify for the subsidy, later this year. Source: https://novazelenausporam.cz/rodinne-domy/.

5 RESEARCH

One of the most important steps in the decision-making process of purchasing a heat pump is the choice of supplier. Therefore, the goal was to understand what the motivators for choosing a particular supplier are, how MSs get in touch with them, what information they need to provide, and how long it takes from the time the enquiry was made to the time of the first visit of the installer.

The majority of the mystery shoppers across the four countries cited quality and professional service, the price of the service (but not at the expense of quality), recommendations from loved ones, and brand reputation as key motivators for choosing a provider.

CONTACT

5

Participants contacted providers in various ways. In Slovenia, Spain, and the Czech Republic, the first contact was most often made by telephone. The second most popular method was sending an email in Slovenia, followed by filling in an online form in the Czech Republic and Spain. The majority of mystery shoppers in Slovakia made their first contact via email, noting that the method of first contact depends on how quickly they want to get information or start the service. If people are not in a rush, they will more often use email or a web form, while a phone call is a method for immediate correspondence, as people do not need to wait for several days for a reply, because they communicate with the provider directly.

Within all four countries, once contacted, the MSs provided the supplier with certain personal data (name, surname, address, telephone number, email address, region of residence), and most of them also provided information on the type of building, the square footage of the heated area, the current type and amount of heating and energy use, the existing type of connection to the electricity grid (phase voltage of the current), the location of the water pipes, and the number of hot water consumers within the building.

In all countries, MSs were, in most cases, contacted back the same day or, at most, within a week, while in the Czech Republic they waited from 1 to 18 days for the contractor's first visit to the property, and in Slovenia from 1 to 11 days.⁵

There is no data for Slovakia and Spain.

6 PRE-INSTALLING

The following chapter examines the content of the first visit by the contractor to the MS's home. The aim of this visit is to understand how suitable the existing infrastructure is for the installation of a heat pump, how much attention contractors devote to it, which elements of the existing infrastructure receive the most attention, and how much information and how many reasons for switching to a heat pump are offered to the mystery shopper.

On average, the first visit in all four countries lasted between 30 and 60 minutes. Mystery shoppers in all four countries report that the main focus of the contractor's first visit was to provide information on the current heating system and to review the condition and optimality of the existing infrastructure for the switch to heat pump heating. Most of them also addressed the area of financing and potential cost, and about half of them also brought up the topic of maintenance.

Most of the participants were satisfied with the installer's visit. The Slovenian, Czech, and Slovak mystery shoppers largely agreed that the contractors provided them with most of the information they needed, that they were professional, friendly, trustworthy, technically knowledgeable, and able to convey technical details and information in an understandable and polite manner. In Spain, however, only 3 participants were satisfied with the visit, the details of which are explained below.

The dissatisfaction of Czech and Slovenian MSs stems mainly from the initial stages of contact, i.e. the events preceding the actual visit of the contractor – such as unresponsiveness when making an enquiry, repeated calls, waiting, postponing of visits, and an inability to provide a full service when switching to a new heating method (e.g. they do not provide solar power), while also missing more information on the possibility of co-financing throughout the visit. By contrast, the dissatisfaction of the Slovak and Spanish mystery shoppers stems from their frustration during the visit, as the contractors reportedly had little time available, did not mention the possibility of co-financing, and provided information in a too casual and complicated a way. The Spanish mystery shoppers in particular reported a marked lack of proactivity and a scarcity of information of a technical nature; e.g. installation costs and the possibility of using existing infrastructure (radiators, current insulation, electrical wiring, windows, etc.).

PRECONDITIONS AND FEASIBILITY

The following themes were highlighted by the operators during the visits:

Heating system:

In most cases, the contractors in all four countries were interested in the square footage of the heating area, the current heating method, the energy source currently used, the energy consumption for heating, and the method of heating the domestic water. To a lesser extent, they were interested in whether mystery shoppers planned to install underfloor heating, and whether they intended to heat domestic hot water via a heat pump.

	AVERAGE		
	%yes		<i>n</i> =
heating surface area	e	4%	23
energy source currently using	3	B%	30
energy usage heating season	5	6 %	20
heating method	3	66 %	13
heating domestic water with HP	4	2%	15
heating system advice	5	50%	18
heating costs per heating season	4	2%	15
heating domestic water	Ę	8%	21
existing heating system	4	4%	16
plan to heat domestic water	5	3%	19
plan to change the radiators		8 %	3
installing foor heating		8 %	3

Picture 9: Technical advice - Heating system

• Thermal insulation:

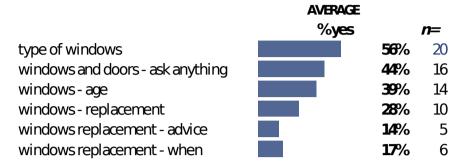
In the Czech Republic, Slovakia, and Slovenia, the contractors were mostly interested in the insulation of the building, the thickness of the insulation on the walls and roof, and if the participants planned to add additional insulation. In Spain, questions about the existing thermal insulation and potential future intentions arose spontaneously with only 2 contractors.

	AVERAGE		
	%yes		<i>n</i> =
thermal insulation - ask anything		58%	21
many cm of insulation you have		47 %	17
thermal insulation advice		19%	7
plan to insulate further		36%	13
plan to insulate further - when		17%	6
plan to install - how many cm		6 %	2

Picture 10: Technical advice - Thermal insulation

• Building infrastructure:

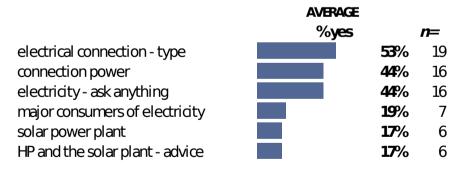
In most cases, contractors in Slovakia and Slovenia checked the condition and age of the windows and doors and the materials they were made of. This occurred in only half of the cases in the Czech Republic. And in Spain, only 2 contractors checked the condition of the windows and doors.



Picture 11: Technical advice - Building fittings

• Electricity consumption and type of electricity connection:

The majority of the contractors in the Czech Republic, Slovakia, and Slovenia were interested in electricity consumption, and the type of connection (1 or 3 phase current), about half were also interested in the power of the connection, less than half were interested in the number of major electricity consumers within the property. In Spain, 2 contractors were interested in the power of the electricity connection, 1 in the major consumers within the building, while none were interested in the type of connection. Half of the contractors in the Czech Republic were interested in whether MSs intended to build solar panels, while this information was of interest to 1 Slovenian and 1 Spanish contractor, and to no Slovak contractor.



Picture 12: Technical advice - Electricity

Almost all of the properties visited were considered suitable for a switch to HP, with the exception of 1 in Spain and 1 in Slovakia, whose previously used infrastructure did not permit a switch.⁶ Most of the participants in the Czech

⁶ However, given the information on the poor proactivity of the Spanish installers in inspecting the facility, the credibility of their information on the suitability of the property for conversion to HP should be questioned.

Republic, Slovenia, and Slovakia were further recommended a type of pump according to their needs and previous infrastructure, while in Spain this was done in half of the cases.

Most of the Czech, and about half of the Slovenian and Spanish mystery shoppers also received maintenance and servicing information from the contractor, while in Slovakia such information was not yet provided, since it was still the preliminary stages of the enquiry.

The visits and the information provided (technical and financial) convinced all Slovenian, and most Czech mystery shoppers into purchasing an HP, while the Slovak study does not operate with this kind of information. In addition, the home visit by the installer did not convince any Spanish mystery shopper into buying, which is mainly due to the poor proactivity and lack of interest of the installers during the visit. ⁷

Moments of magic (positive experience):

- The mystery shoppers of Slovenia, Czech Republic, and Slovakia reported satisfaction with the professionalism and friendliness of the installers which, despite the elements of dissatisfaction already highlighted, was also shared by 3 Spanish mystery shoppers,
- Czech and Slovenian mystery shoppers additionally reported the good technical knowledge of the contractor, who advised them, for example, on where to place the indoor and outdoor units of the pump, on how to heat the sanitary water or on the possibility of installing a storage tank, on the different ways of installing a suitable electrical connection, on which type of pump is best suited to the mystery shopper's building, and on why it is not possible to combine the heat pump with an already existing heating system. In addition, the Slovenian contractors photographed the existing heating source, and the Czech contractors offered an explanation as to why HP heating is more optimal than the current heating method,
- Despite dissatisfaction with many aspects of the visit, Spanish mystery shoppers reported being glad to know that they can further benefit from some of the existing heating infrastructure within the facility, e.g. radiators and boilers, and were positively surprised by the information

⁷ The reason for the reluctance to purchase among Spanish shoppers was the lack of pro-activity of the contractors who came to visit. The mystery shoppers, within various stages of the tour, reported a lack of interest on the part of the contractors, who were not forthcoming with information and conducted very little inspection of the building. Most questions, beyond those of a purely general nature (the current heating method of the building, the current source of domestic hot water, and with the installation related costs), were forced by the participants themselves which, in combination with the aforementioned disinterest of the contractors, would have led them not to make a purchase decision at all.

on the simplicity of the installation of the HP,

- Slovak MSs reported a positive experience regarding the flexibility of the installers in terms of time and of the information provided on nontechnical matters, such as the availability of subsidies and their different sources,
- Slovenian, Czech, and Slovak MSs all reported contractors with a pleasant, relaxed manner, and who did not force the final sale of the HP during the visits.

Moments of misery (negative experience):

- Spain undoubtedly stands out in terms of the number of negative visit experiences. Spanish mystery shoppers reported a lack of proactivity on the part of the contractors, a scarcity of technical information, and poor investigation of the existing infrastructure within the property visited. The installers also did not provide satisfactory answers to the questions raised by the mystery shoppers. In particular, the MSs missed information on the advantages of installing a pump (technical and financial), and on the maintenance of the installation and its financial aspects. As a consequence, most of the Spanish mystery shoppers reported that they would not have decided to buy an HP. And there were also participants who got the impression from the operator that the HP was not very different from the existing heating system, and therefore they would not have decided to buy it,
- Although generally satisfied with the installer's visit, MSs from Slovenia, the Czech Republic, and Slovakia still expressed certain elements of dissatisfaction, e.g. the installer's lack of time (e.g. he was in a hurry) and the company's arrogance - for example, Slovenian mystery shoppers pointed out that they had the feeling that certain companies did not care about them because of the already large number of existing customers as a consequence, they got less responsiveness and time availability from the provider. Slovak mystery shoppers reported that the installer was too technical (giving information in an over-technical way which resulted in the MS not fully understanding the content), and that there was a lack of communication about prices and the potential financing of the service,
- Slovenian MSs reported disappointment when the installer forgot to visit, or when a company that does not offer the possibility of installing the HP sent out-of-date contractor contacts (either their certificate has expired or they only install a certain type of pump and not all of them),
- Czech and Slovenian mystery shoppers also pointed out their disappointment with the lack of a full solution (participants were told by

the contractor that they would have to carry out certain adaptations of the property etc. by themselves before the installer could install the HP).

7 QUOTE

The last chapter consists of two themes, with the main purpose being to find out how long after the visit participants received the final quote, and how long they had to wait for the delivery of the pump. At the same time, it also focuses on the area of financing and subsidies, where the aim is to find out to what extent operators are aware of these areas and to what extent they presented them to MSs.

In most cases, in all four countries, the contractor made an indicative quote after or during the visit. The final quote was given to the participants between 1 and 14 days later. In most cases the final quote matched the indicative quote, while in 2 cases the final amount exceeded it, in 4 cases the final amount was lower than the indicative amount. All participants agreed to the final quote.

HP delivery times vary by country:

- - Czech Republic: 1 7 months
- - Slovenia: 14 days 3 months
- - Slovakia: /
- - Spain: approx. 3 months.8

FINANCING AND SUBSIDIES

The section below differentiates between financial instruments and financing options such as loans, which involve payback by the consumer, and subsidies, which do not require payback.

The financing field is rather unfamiliar to operators in all four countries. In the Czech Republic, none of the contractors mentioned the possibility of financing independently. Only when asked further by a mystery shopper did they provide some basic information (e.g. the names of banks or organisations offering credit), and further offered assistance with filling in forms to obtain finance. In Slovenia the possibility of financing was explained to 2 mystery shoppers, who were then offered further assistance in applying. In Slovakia, the possibility of funding was mentioned to 6 participants, 2 of whom were also presented with different funding options, and 3 with further assistance with filling in the form. In Spain, the financing option was presented to 1 MSs, with the report highlighting that the majority of Spanish contractors were unfamiliar with the area of financing or not aware of the different options within it.

⁸ Not all hidden buyers have been given a delivery deadline. It turns out that the delivery date depends on the confirmation of the purchase or on further communication between the provider and the mistery shopper, whereas the study do not posses any information about Slovakia.

The situation was different on the topic of subsidies, which is generally better known to operators, especially in Slovenia. All operators in Slovenia were aware of the possibility of subsidising from the so-called Eco Fund and mentioned it to mystery shoppers, who were also offered assistance in applying for the subsidy. Similarly in Slovakia, where the possibility of a subsidy was mentioned by 8 of 10 operators, with 7 of them offered further assistance. In Spain, however, the possibility of a subsidy was mentioned by only 1 of 10 installers, and 3 installers offered further assistance with the application when mystery shoppers raised the subject of subsidies themselves, while in the Czech Republic, the possibility of a subsidy was mentioned by 5 of 8 installers, 2 of whom offered further assistance.

FINANCING	AVERAGE %have mentioned	n=
AVERAGE	25%	9
Czech Republic	 0%	0
Slovakia	60%	6
Slovenia	25%	2
Spain	10%	1
SUBSIDIES		
AVERAGE	61%	22
Czech Republic	63%	5
Slovakia	80%	8
Slovenia	100%	8
Spain	10%	1

Picture 13: Financing and subsidies

Moments of magic (positive experience):

- Slovenian and Slovak MSs reported satisfaction/gratefulness for the possibility of subsidisation by the state, and for the further assistance of the contractor in applying for it,
- Slovak mystery shoppers also mentioned the possibility of paying in instalments as a positive experience, while Spanish mystery shoppers did not report any positive experience within the area of financing and subsidies.

Moments of misery (negative experience):

 Slovenian mystery shoppers miss information on green loans on the HP provider's website, while the financing provider's (Eco Fund) website is too detailed, leading MSs to experience difficulties finding information relevant to them,

 Spanish, Slovak, and Slovenian mystery shoppers pointed out their dissatisfaction with the lack of knowledge from the contractor on the topic of financing and subsidies. Spanish mystery shoppers in particular indicated high dissatisfaction regarding this matter, since it is a rather large investment and this is not given enough importance by the contractors.

8 CONCLUSION RECOMMENDATIONS

How can the market improve the heat pump journey for consumers?

1. Be a heat pump champion: Communicate the technological benefits of switching to heat pumps

Despite the fact that, with the exception of the Spanish mystery shoppers, most of the MSs were satisfied with the visit, it is still important to stress the importance of the information that contractors provide to participants in relation to why switching to an HP is better than the existing heating method. Therefore, the task of the contractor is not only to inspect the building and its technical suitability, but also to provide a variety of information that will help the consumer to make the decision to switch.

2. Provide indicative price range

Mystery shoppers in all four countries highlighted the lack of information on prices and on the costs of the overall installation. The study has shown that this information is important in easing the purchasing decision, as price was one of the key factors in the selection of the provider and its service. Therefore, providers should provide (e.g. on their website) the indicative range of costs for the complete installation of the HP.

3. Communicate the cost benefits

As mentioned above, energy savings and cost reduction were among the main motivating factors behind the decision to switch to heat pumps. However, during the visits within all four countries, it became apparent that this aspect was under-emphasised. Spanish consumers in particular lacked information on the actual savings that could be achieved by using a heat pump, which would have told them approximately how long it would take to recover their investment.

4. Provide information on subsidies and funding

The research has shown that the financing field is rather poorly known among both consumers and contractors. Although it is not the contractor who should necessarily have knowledge about financing, they are the person who comes to visit the facility and has direct contact with the consumer. Furthermore, it has been shown that it is the visit of the contractor that has a major weight upon the final decision of the buyer to purchase the HP. Therefore, it seems important for suppliers/contractors to have a more detailed knowledge of the financing and subsidies areas, as price and the costs incurred are among the most important factors in making the final decision.

5. Kick-start a national list of installers

Slovakia and Slovenia are the only countries operating with a publicly accessible and regulated list of contractors/installers. This practice should be extended to the other countries. At the same time, HP suppliers that do not themselves provide pump installation services should be checking local contractors more frequently, as their quality and responsiveness greatly influence the overall HP buying experience.

6. Inform consumers about their buildings' needs

The consumer should be made aware that some pre-adaptation of the existing infrastructure may be necessary before the final installation of the HP. This information must be supplied by the installer, as heat loss may represent an unnecessary cost and a reduction in the efficiency of the pump. As most installers do not provide this renovation service, installers should be able to refer consumers to professionals to carry out this work.

7. Create visual aids for consumers

For less technically savvy consumers, HP providers could provide (e.g. on their websites) a demonstration/visualisation of the pump installation and the different types of pumps and their benefits, to help customers understand why they should choose an HP, and which type to choose.

How can consumers improve their own heat pump purchasing experience?

1. Do your research

The consumer should be sufficiently informed in advance about the field and the different types of heat pumps and their installation. There is plenty of information available, but not all of it is reliable. Consumers should conduct research using reliable internet resources, and should consider discussing with trustworthy peers who have gone through a heat pump installation, while being aware that consumer experiences can vary. Consumers should outline in advance their expectations from buying a heat pump and how it will serve the energy needs of their home (this can be helpful to outline to installers, particularly if the consumer plans to purchase other devices such as PV panels).

2. Shop around

Consumers should check with different providers about HPs, as prices vary and are not standardised. Also, not all providers offer the same service. The quality of the service itself varies, as do the waiting time for first contact and first visit, the quality of the information provided during the visit, the delivery time of the pump, and the installation method. Not all providers offer the installation option, so in some cases a separate contact with an installer is needed. This contact is usually provided by the supplier, but they are then not responsible for the quality or the timing of the installation service.

3. Prepare for the installer's visit

Before the visit of a contractor, the customer should be informed in advance (same sources as in point 1) about what to look out for. It has been shown that the quality of the contractor's visit varies greatly from one country to another, so it is a good idea to have a preliminary knowledge of the key areas needed for an optimal HP installation, and to address these if they are not addressed by the contractor themselves (this information can be found in the report, under the section "Pre-Installation"). Consumers should also enquire about the possibility of cofunding beforehand, as in all four countries the area of funding has been shown to be less familiar to contractors than the area of subsidies.

4. Don't be afraid to switch installer

If you are not satisfied with the on-site visit, you should contact another provider. Dissatisfaction or lack of proactivity and technical information has been shown to be one of the main arguments why MSs have not decided to continue with the purchase process.



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