



# Crowdfunding of Renewable Energy Projects – Survey of Crowdfunding Platforms

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D2.2: Survey on the hurdles crowdfunding platforms face when dealing with RES projects (WP2;T2.2)

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CrowdFundRES  
*Unleashing the potential of Crowdfunding for Financing Renewable Energy Projects*



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## Technical references

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## Table of contents

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Technical references .....	2
Table of contents.....	4
<b>List of Tables.....</b>	<b>4</b>
<b>List of Figures .....</b>	<b>5</b>
Introduction and Context .....	6
Methodology .....	8
<b>Overall survey methodology .....</b>	<b>8</b>
<b>Design of the survey questions .....</b>	<b>9</b>
<b>Dissemination of the survey .....</b>	<b>10</b>
Analysis and Results .....	11
<b>Descriptive statistics of population surveyed .....</b>	<b>11</b>
<b>Renewable Energy Project Share and Crowdfunding Specifications.....</b>	<b>12</b>
Conclusions .....	25
References.....	28
Appendix .....	29
<b>Appendix 1: Responses to multiple choice statements Q 17 to 21 .....</b>	<b>29</b>
<b>Appendix 2: Survey Questionnaire.....</b>	<b>31</b>

### List of Tables

Table 1: Dissemination channels.....	10
Table 2: Geographic coverage of the platforms.....	11
Table 3: Total number of projects on platform in 2014 .....	13
Table 4: Total number of projects successfully funded in 2014.....	14
Table 5: Average amount raised per projects (in €) .....	15
Table 6: Average size range (in kWh) of RES projects .....	21
Table 7: Application of due diligence for RES projects.....	22

## List of Figures

Figure 1: Crowdfunding Model used by platforms.....	16
Figure 2: Involvement in RES projects.....	17
Figure 3: Technologies applied in RES projects .....	20

## Introduction and Context

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*“Crowdfunding is a collective effort of many individuals who network and pool their resources to support efforts initiated by other people or organizations.*

*This is usually done via or with the help of the Internet. Individual projects and businesses are financed with small contributions from a large number of individuals, allowing innovators, entrepreneurs and business owners to utilize their social networks to raise capital.”<sup>1</sup>*

Crowdfunding arrangements have attracted significantly increased attention in recent years, in particular regarding their potential role in financing renewable energy projects. Crowdfunding platforms are online-based sites that facilitate and consequently help project developers to fund their proposals. However, crowdfunding platforms face hurdles when dealing with renewable energy projects. Hence, the survey reported here aims at identifying, grouping and prioritizing these challenges in order to identify where crowdfunding platforms most need support if they are to fund significant investment in renewable energy source (RES) projects going forward. The findings serve as one of the key preparatory steps for the formulation of policy recommendations later in the project. In order to ensure a broad overview of the sector, the survey targets both platforms that are already involved with RES projects and those that currently deal only with other industries. In fact, certain questions deliberately target only those crowdfunding platforms involved in financing RES activities.

This report, conducted in the second half of 2015 and early 2016 at the European level, presents

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<sup>1</sup>de Buysere et al., 2012

the results of the survey and identifies the hurdles crowdfunding platforms face when dealing with RES projects. It describes the process, outlines the main conclusions and lists the main areas where crowdfunding platforms could most usefully be helped to provide meaningful levels of investment funding in the future.

The present report is complemented by two further European level surveys undertaken by the CrowdFundRES consortium at the same time as the survey of platforms. The first focusses on public perceptions of crowdfunding in the renewables sector, whilst the second addresses the community of RES project developers. In conjunction, these three surveys provide a coherent, up-to-date snapshot of crowdfunding in the RES sector and will serve as important inputs to the next stages of the CrowdFundRES project. The findings will feed into the formulation of both national- and European-level policy guidelines to encourage the unleashing of the potential of crowdfunding for renewables across the continent.

# Methodology

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## Overall survey methodology

An initial baseline questionnaire was compiled during February and March 2015 through an iterative process led by ECN and involving the lead partners of the other two surveys (UNIDUN, WIP). This baseline questionnaire, together with similar drafts from the other two surveys, was tested in moderated feedback sessions conducted at the first project meeting of the consortium in March 2015 to check for relevance of instruments among key stakeholder groups as represented in the CrowdFundRES consortium. Structured feedback gathered from this workshop fed into pilot drafts of the English versions of the three questionnaires, which was implemented by UNIDUN using Survey Monkey. It was piloted to check for semantic consistency via leads generated through snowballing the personal contacts of consortium members over a two-week period in April 2015. Analysis of the responses did not suggest more than minor modifications and the developers' survey was then translated into French and German, whereas the public survey was translated into Dutch, French and German. This approach ties in with the selection of countries targeted in the CrowdFundRES project (Austria, Belgium, France, Germany, the Netherlands, and the UK). The platform survey was presented in English only due to consistent feedback from the industry that English was the standard communication medium in the platform sector, and that running several language versions alongside each other would risk alienating respondents who had got used to significant levels of English-based surveying across the sector.

The three surveys went live on 15<sup>th</sup> June 2015, and survey dissemination was vigorously pursued according to a strategically oriented survey recruitment plan (see Table 1 for details). All project



partners (therefore representing academic institutions, law firms, crowdfunding platforms and renewable energy firms) disseminated the questionnaire via their social media networks to ensure that a reasonably knowledgeable sample of the European public would engage with the questionnaire.

## Design of the survey questions

The survey questions were designed to ensure applicability to: (a) crowdfunding platforms in general; and (b) crowdfunding for renewable energy projects. As the survey was not just sent to platforms specialising in RES, identification of the perceived obstacles to crowdfunding in general was facilitated, as well as problems specifically linked to crowdfunding for RES projects.

Subsequently, the obstacles were grouped and prioritised, with five areas identified:

1. Obstacles related to crowd investors
2. Obstacles related to project developers
3. Obstacles related to characteristics of a crowdfunding platform
4. Obstacles related to legal aspects
5. Obstacles related to competition and partnership

Next, the questions were formulated by categorising them on the following bases:

- Profile of the Crowdfunding Platform
- Market: potential barriers and perspectives
- Financial: potential barriers and perspectives
- Legal: potential barriers and perspectives
- Other barriers and perspectives

The survey was developed in a way that it took around 10 to 15 minutes to answer all questions.

## Dissemination of the survey

Dissemination of the survey took place via the various online channels listed in Table 1 between June 15<sup>th</sup> 2015 and March 2016. Over this period, the CrowdFundRES project website registered 136 views of the Platform survey page, from 113 unique users.

Table 1: Dissemination channels

Channel	Means	Date	Nr.	Target Group
ECN members network	1-to-1 E-Mail	29.09.2015	28	Crowdfunding Platforms RES and non-RES
ECN network (in the target countries UK, Belgium, Germany, France, Austria, the Netherlands)	1-to-1 E-Mail	15/16.10.2015	30	Crowdfunding Platforms RES and non-RES
Broader ECN network (covenant of mayors, project partners and ECN contacts)	1-to-1 E-Mail	30.09.2015	10	Municipalities
ECN contacts: Other project partners (CitizenEnergy)	1-to-1 E-Mail, Newsletter, Facebook Post	29.09.2015	?	RES related stakeholders, Crowdfunding platforms
ECN Website	<u>Post on News &amp; Surveys</u>	15.10.2015	?	Webpage visitors
ECN Twitter	Twitter Post	30.09.2015 14.12.2015 17.03.2016	> 1820	ECN Twitter Followers
ECN Facebook	Facebook Post	21.03.2016	> 500	ECN Facebook Like
ECN Newsletter (September)	Newsletter	15.09.2015	> 3500	ECN members, newsletter recipients

## Analysis and Results

### Descriptive statistics of population surveyed

As of March 25<sup>th</sup> 2016, 49 responses to the platform survey had been received. However, several of those who logged into the survey did not complete any questions, or only the first two, and then dropped out of the survey. These responses were excluded from the sample. The final useable sample comprised 27 responses.

As Table 2 shows, the majority of the usable responses (37%) were from French platforms, with around 26% from Germany and 22% from the Netherlands market. UK-based platforms represented just 7,4% of the sample, with other European countries providing the remaining 45%. Considering that the UK crowdfunding market is by far the most developed in Europe, it is evident that the response profile is not directly reflective of the sector as a whole, with the propensity to engage with the survey varying across the continent.

Table 2: Geographic coverage of the platforms

Market (multiple choice possible)	Responses (in %)
French	37,0
Germany	25,9
Netherlands	22,2
UK	7,4
Other (Poland, Spain, Denmark, Italy, Portugal and Scandinavia)	44,4

French was the most used language on respondents' platforms (46,2%), followed by English (42,3%) and German (26,9%). Encouragingly, given the potential of cross-border fund-raising models in the modern global financial market, the vast majority (80,8%) of the respondents stated that they have plans to expand to other European countries.

The overwhelming majority of the sample (86,4%) reported receiving financial support from private companies. More than half co-operate with associations (54,4%) or receive funding from national authorities and agencies (59,1%), with the figure decreasing to 27,3% for those receiving support from EU authorities and agencies and to 31,8% for those who are supported in similar ways at a local level.

## Renewable Energy Project Share and Crowdfunding Specifications

The questionnaire next explored respondents' experience with renewable energy projects taking into account the crowdfunding model used on their platform. Table 3 documents the total number of projects and RES projects respectively that the respondents had hosted on their platform in 2014. One platform clearly stands out in the table, with more than 5000 (5407) projects online, covering the French, German, Dutch and UK market, but only two of these related to RES. Another respondent, covering the Portuguese market, had a total number of 325 live projects, but none were RES-based. In terms of RES projects, the results show that most platforms (7) had between 1 to 9 in 2014. The respondent with the highest number of RES projects (60) was from the Spanish market, followed by a French platform with 12 RES projects.

Table 3: Total number of projects on platform in 2014

Scale of number of projects	Total number of projects on platform (Response Count)	Total number of RES projects on platform (Response Count)
1 - 9	5	7
10 - 49	5	2
50 - 99	5	1
100 - 499	2	0
500 - 999	0	0
1000 - 4999	0	0
>5000	1	0

Respondents were also asked about the number of projects that had been successfully funded in 2014. Inspection of Table 4 reveals that the range between 1 and 49 successfully funded projects is the one where the majority of the respondents lay, although one platform had 303 successfully funded projects. This platform is based in France and covers the European market; it has already hosted RES projects, but is not specialised in the renewables sector. More generally, the results indicate that the total number of successfully funded RES projects is low when compared to all fully funded projects on a platform, although a Spanish platform specialising in RES projects reported successfully funded 60 such investments. The majority of the survey sample (8 out of 11) fell in the range of 1 to 9 successfully funded RES projects.

Table 4: Total number of projects successfully funded in 2014

Scale of number of projects successfully funded	Total number of projects (Response Count)	Total number of RES projects (Response Count)
1 - 9	6	8
10 - 49	6	2
50 -99	3	1
100 - 499	1	0
500 - 999	0	0
1000 - 4999	1	0
> 5000	0	0

Again, whilst other surveys have revealed that the UK has by far the largest amount raised and number of projects funded through crowdfunding (Crowdsurfer et al., p. 26, 2015) the prior literature has not focused specifically on RES. However, the results of the present survey do not allow robust conclusions to be drawn in terms of project activity for the UK, as only 4,3 % of the population surveyed related to this market.

A further question in the survey enquired about the average amount (in €) raised per project. Table 5 below shows the results. One respondent, in this case operating in the Netherlands, is very different from the rest. This platform reported an average amount raised of 1.5 million € for all projects (although they had no RES projects online). The highest amount raised on average for RES projects was at 300.000 €.

Table 5: Average amount raised per projects (in €)

Scale of amount raised on average (in €)	All Projects (Response Count)	RES projects (Response Count)
10 - 99	3	2
100 - 499	0	0
500 - 999	1	1
1000 - 4999	2	0
5000– 9.999	0	1
10.000 –49.999	3	2
50.000 – 99.999	6	3
100.000 – 499.999	1	1
500.000 – 999.999	0	0
1.000.000 – 1.500.000	1	0

Other studies have indicated that the French market saw a marked peak in activity in June 2014 driven by large equity projects; these included projects for €3.9 million and one project for €1.7 million (Crowdsurfer et al., p. 28, 2015).

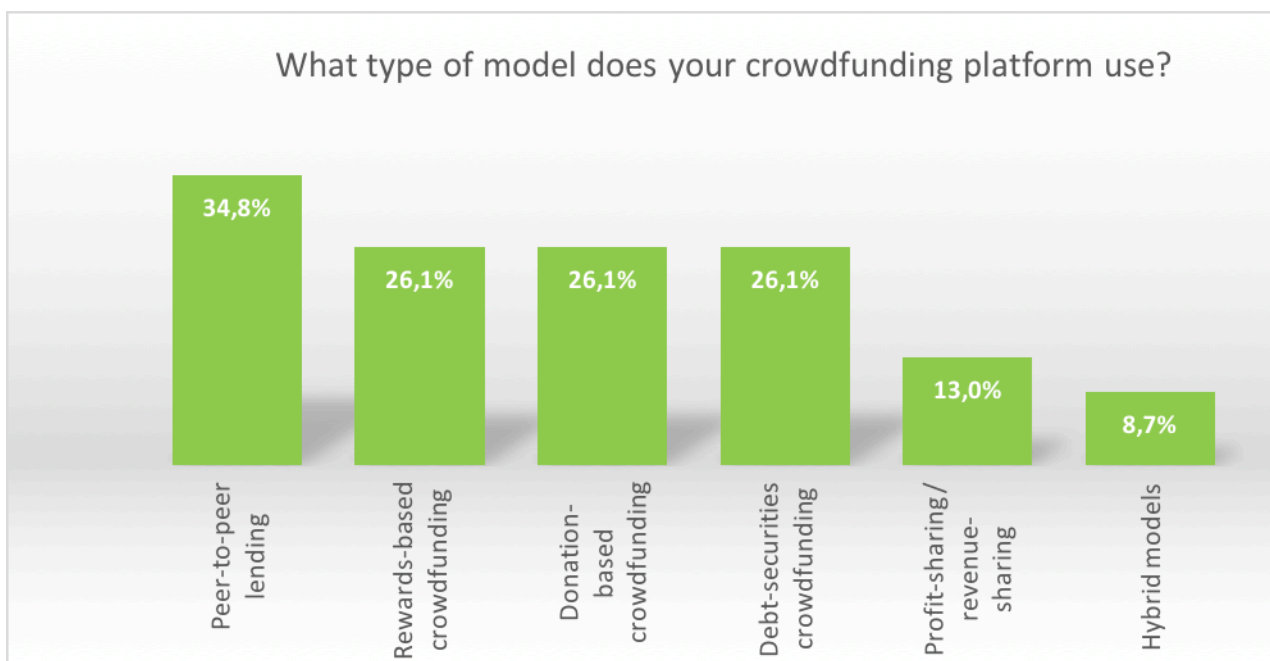
Having explored the number of projects and the average amount raised per project (in €), respondents were asked about the specifications of their platform in regard to the crowdfunding model used - and whether they specialise in RES. The results are depicted in Figure 1 and show that equity crowdfunding is the most popular model, used by more than half of the sample (60,9 %). This model is defined as follows:

*“Equity crowdfunding (also named crowd investing) is a way to obtain capital for start-ups by issuing equity that is distributed to the public. Hence, the investors do not only finance a project to*

*receive e.g. rewards or other benefits, but they own a share of the company and thus receive a portion of the profit.*<sup>2</sup>

Peer-to-peer lending is the second most common model, used by around 34,8%, whereas three other types were used by 26,1 % of the sample, namely: rewards-based-crowdfunding, donation-based-crowdfunding and debts-securities crowdfunding. These figures are in line with those reported in the survey of public perceptions reported elsewhere in this project regarding the most appropriate crowdfunding form for RES investments

Figure 1: Crowdfunding Model used by platforms



Again, it is important to note that these findings require a degree of circumspection, as the number of responses reflect only a sub-sample of European crowdfunding platforms. This becomes clear in the context of the Crowdsurfer (2015) report which examined platform funding

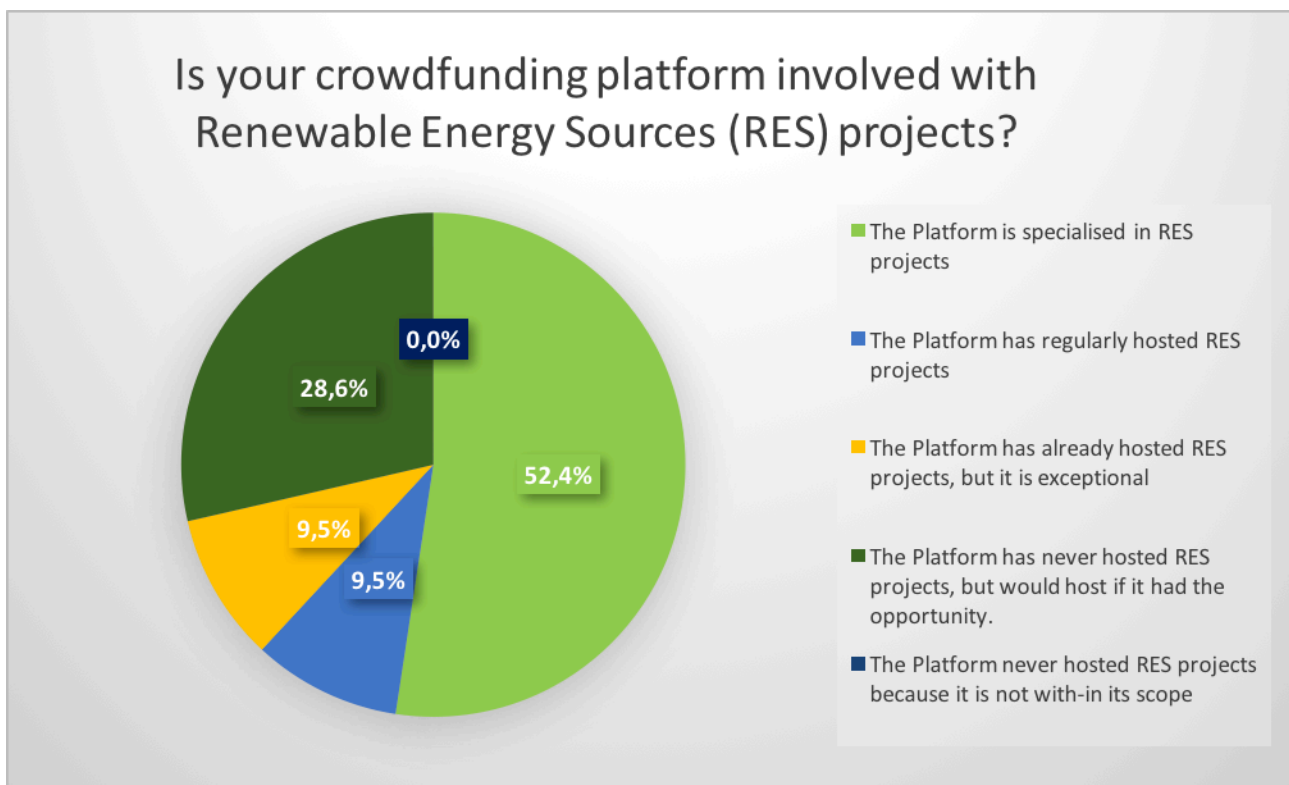
<sup>2</sup> Nasrabadi et al. p. 201, 2012



types across the whole, and reported that the rewards-based and equity models were the most common, and exhibiting significant growth. From 2009, the market shares of these models steadily increased, whereas the share of donation-based crowdfunding platforms has decreased (Crowdsurfer et al., p. 23, 2015). Hence, the outcomes of the present platforms survey correspond with the findings of the Crowdsurfer study as regards the equity model, whereas the findings relating to rewards-based crowdfunding do not.

As regards the respondents' involvement in renewable energy projects, several questions were posed to assess their experience. The first was formulated in such a way as to find out to what extent the surveyed platform has experience in renewable energy projects. Figure 2 illustrates the outcomes.

Figure 2: Involvement in RES projects



This question was answered by 21 respondents and the findings are divided into five areas illustrated in Figure 2:

1. The Platform is specialised in RES projects.
2. The Platform has regularly hosted RES projects.
3. The Platform has already hosted RES projects, but it is exceptional
4. The Platform has never hosted RES projects, but would host if it had the opportunity.
5. The Platform has never hosted a RES project, because it is not within their scope

#### **1. The platform is specialised in RES projects (52,4%).**

Eleven of the 21 respondents can be allocated to this category.

- Four cover the French market only. While two of them use the debt-securities and equity model, one uses peer-to business lending, and the fourth one uses the equity model only
- Two cover the German market only. One of them uses debt-securities crowdfunding and the other one uses the equity as well as the profit-sharing/revenue-sharing model
- One covers the Dutch market only, using the equity model only
- One covers the Spanish market only, using the equity model only
- One covers the Italian market only, using the equity model only
- One covers the French, German, Dutch and the UK market, using all five models
- One covers the Canadian market only, using the equity model and the peer-to-peer-lending model. Note: this answer is not relevant for our present study.

The dominance of the equity model is once again revealed by these findings, although the number of responses to this question is low. Nonetheless, the findings reveal that those respondents who specialise in RES projects do not make use of the rewards-based model at all.

## **2. The platform has regularly hosted RES projects (9,5%).**

Two of the 21 respondents acknowledged the regular hosting of RES projects. One of these platforms use only the equity model, covering the French market, whereas the other platform uses both equity and debt-securities crowdfunding and covers the Dutch market.

## **3. The platform has already hosted RES projects, but it is exceptional (9,5%).**

This category contained two respondents, neither of whom uses the equity crowdfunding model. One platform offers SME crowd lending on their platform and covers the French market only, with the other using both rewards-based and donation-based crowdfunding, and covers four markets (France, Germany, Netherlands and the UK).

## **4. The platform has never hosted RES projects, but would host if it had the opportunity (28,6%).**

There were six responses in this category.

- One covers the Spanish market, where peer to peer lending, equity, rewards-based and donation-based models were used (note: this respondent is not a platform but an advisor to project developers in Europe).
- One covers the Portuguese market, using rewards- and donation-based funding.

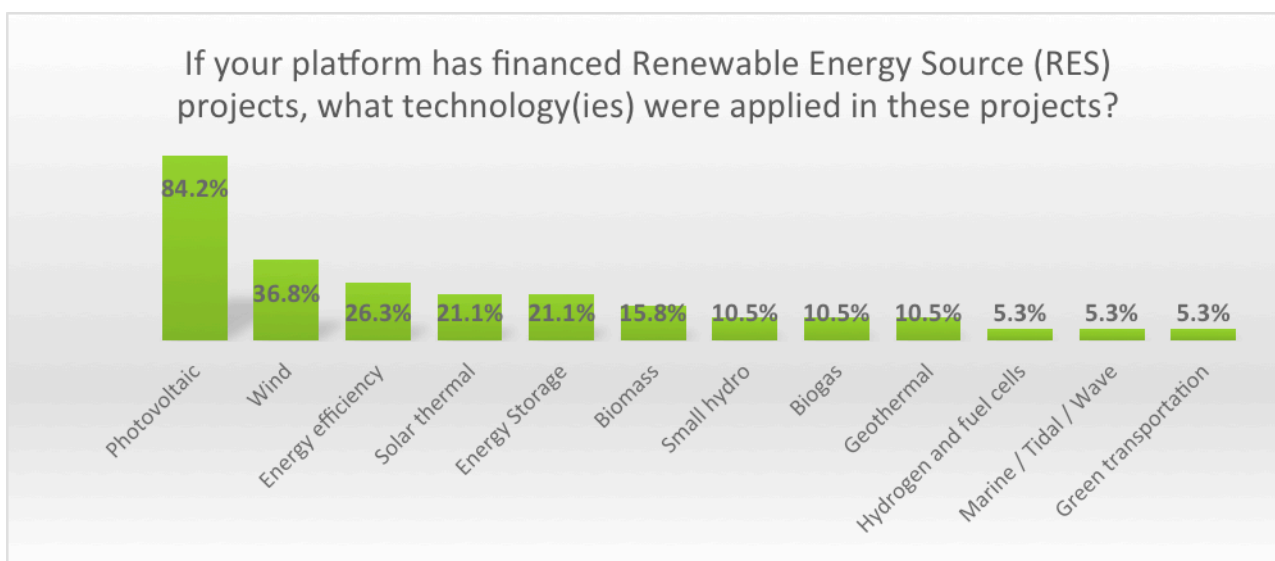
- One covers the German and the Dutch market using four models: rewards- and donation-based, profit sharing, debt-securities funding, and hybrid models.
- Two cover the French market; one uses peer-to-business funding, the other uses peer-to-lending funding
- One covers the Greek market, using the equity model

**5. The platform has never hosted a RES project, because it is not within their scope (0%).**

None of the respondents were in this category.

Following enquiry about on respondents’ specialisation, the survey next explored the different technologies involved in the RES projects hosted by the platforms in 2014. This question was only answered by respondents that have financed RES projects in the past; Figure 3 illustrates the results.

Figure 3: Technologies applied in RES projects



Photovoltaic technology was applied in more than 84,2% of the RES projects, followed (with a large gap), by wind energy (36,8%) and energy efficiency (26,3%). Solar thermal and energy storage were both used for 21,1% of the projects, with biomass employed by only 15,8%. Small hydro, biogas and geothermal are ranked number 6 amongst the technologies applied in RES projects with 10,5% each (i.e. two respondents) while the remaining technologies, namely hydrogen and fuel cells, marine/tidal/wave technology and green transportation, were used by 5,3% each (i.e. one platform in each case).

In terms of the average size range (in kWh) of the RES projects, the respondents had the opportunity to give multiple answers. The outcomes, which are illustrated in Table 6, show that the lower ranges (from smaller than 100 kW to between 1 MW and 10 MW) were the most common.

Table 6: Average size range (in kWh) of RES projects

	Response Count
Smaller than 100 kW	7
100 kW to 1 MW	7
Between 1 MW and 10 MW	7
Between 10 and 100 MW	1
100 MW and greater	0

Further contextualising of the RES projects and platform specialisation took place in the survey by enquiring as to whether the platforms that have financed RES projects use due diligence in their work. The question had 20 responses with the majority (16) stated that they do apply due

21

diligence. Of the 16 that apply due diligence, 11 have experience in conducting it in-house, whereas three outsource it regardless of their existing experience. Table 7 illustrates the outcomes of the two questions.

Table 7: Application of due diligence for RES projects

Application of Due Diligence (Response count)		
Yes	16	
	Experience in applying Due Diligence (Response Count)	
	Yes (in house)	10
	Yes (outsourced)	3
	No	2
No	4	

Assessment of the obstacles that crowdfunding platforms face both in general and in regards to RES projects was one of the main aims of this survey. A number of related statements were therefore presented in the survey and the respondents asked about the extent to which they agreed with each one. A detailed list with all answers given to the statements can be found in Appendix 1.

In regards to obstacles to crowd investors, the majority of the respondents (15 out of 21) agreed that the lack of information and low-level experience of non-professional investors towards alternative investment products hinder the growth of crowdfunding in their country. Similarly, 11

out of 21 agreed, and 4 out of 21 strongly agreed with the statement: *The potential lack of transparency on a project's progress after a crowdfunding investment is made is a barrier for the investment of the crowd in projects.*

The evidence about obstacles relating to project developers was not as clear-cut as in the previous case, with the answers more evenly distributed and often neutral (i.e. neither agree nor disagree). Six out of 19 respondents disagreed and one strongly disagreed with the notion that the process from the launch of the project to the effective access to finance is too long for RES developers who use crowdfunding platforms. However, four out of the 19 agreed while one strongly agreed with the statement; seven demonstrated their neutrality (neither agree nor disagree). Interestingly, considering the time and effort that is necessary for a successful crowdfunding campaign, the results suggest that the respondents do not overwhelmingly agree that these issues limit the attractiveness of crowdfunding for RES projects. Five agreed and another five neither agreed nor disagreed with the statement to this effect, while four respondents indicated their disagreement and two strongly disagreed.

As for the obstacles relating to the characteristics of a crowdfunding platform, the majority of the respondents either agreed (9) or strongly agreed (4) with the view that having only a limited number of projects on a platform is likely to discourage crowd investors / project developers. Most of the respondents also agreed (6) or strongly agreed (7) that language barriers are a key obstacle to attracting cross-border investors on a platform when a crowdfunding platform is only available in its national language.

A case where respondents indicated agreement particularly strongly related to legal aspects, namely: The absence of a European harmonised legal framework. Nearly half the respondents indicated their strong agreement with this statement.

After completing this section of the survey, respondents were asked about any additional obstacles to the crowdfunding of RES projects that they would like to highlight. The four concrete statements made in this context were:

- “Regulatory uncertainty (not too much regulation but changing regulation). Generic perception of crowdfunding, drawing the same conclusions for equity, donation and debt crowdfunding.”
- “Intransparency/incompleteness of info on projects from the project developers”
- “We should have one common banner: Citizen funding for energy transition in Europe, to communicate all together!”
- “Robust and sustainable RES projects. Willingness of stakeholders to work on novel business models, needed to launch RES projects on the platform.”



## Conclusions

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This report presents and analyses the outcomes of a survey-based investigation of the obstacles European crowdfunding platforms face both in general and when dealing with RES projects specifically. The study yielded a sample of 27 useable responses. Due to the rather small response rate, the study results need to be approached with circumspection, as they do not provide a full picture of the crowdfunding sector itself. Neither do the results fully cover the fast changing landscape of crowdfunding platforms operating in the renewable energy sector in Europe.

The work yields five main implications as listed below. These are of relevance to, and will have influence on, future tasks in the CrowdFundRES project, in particular the development of Policy guidelines and the organisation of two Workshops with Crowdfunding Platforms and Project Developers taking place on May 24<sup>th</sup> 2016 in Brussels.

- a. The results suggest that an information asymmetry exists regarding alternative investment products between non-professional investors and the crowdfunding platforms. This discovery implies the need for raising awareness of crowdfunding amongst non-professional investors and sharing information about crowdfunding itself. Hence, it is likely to be important to find ways to give more visibility to crowdfunding platforms, in particular RES specialised ones, going forward in order to attract investors interested in investing in renewable energy products.

- b. The outcomes illustrate a perceived lack of transparency and completeness of information on the part of project developers. Hence, the latter group could usefully adapt their practices and present more comprehensive and complete description of their projects, such that potential investors will be able to place more trust in extant plans. In this context, crowdfunding platforms should give clear instructions (e.g. a catalogue of criteria) that need to be followed concerning project description.
  
- c. The vast majority of those surveyed have plans to expand to other European countries and so concerns regarding the absence of a European harmonised legal framework are a key issue. The strength of views regarding obstacles relating to legal aspects underline this argument. Hence, the evidence points to the need for a single legal framework amongst EU member states that would simplify cross-border investment processes.
  
- d. The number of RES projects on the platforms surveyed is rather low. The responding platform with the highest number of RES projects (60) covers the Spanish market, followed by a platform covering the French market with 12 RES projects. This evidence might imply a lack of engagement between RES project developers and platforms, suggesting a need to bring these parties together and thereby increase the number of projects on the platform; this should in turn attract more crowd investors in the future. Additionally, the results identified that the high uncertainty of financial returns on RES projects serves as an obstacle to attracting investors; the failure of several RES projects or projects with very low returns in the past might explain this. Two possible ways of

addressing this issue might be to: (a) promote best practices in this regard; and/or (b) increase the use of crowdfunding models other than (the still dominant) equity, where the focus is not solely on profit-making.

- e. The fact that five out of 17 respondent platforms have never hosted RES projects - but would do so if they had the opportunity - supports the conclusion above. An important task for the upcoming Workshops with platforms and developers will involve approaching these five respondents and finding out what specific changes would be needed to persuade them to host RES projects. Five respondents cited specific additional barriers to the crowdfunding of RES projects and these will need to be addressed in the Workshops as well.

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## Appendix

### Appendix 1: Responses to multiple choice statements Q 17 to 21

#### a. Obstacles related to crowd investors

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Unsure	Total
Non-professional investors are not well enough informed and experienced in relation to particular investment products. This hinders the growth of crowdfunding in your country.	0.00% 0	77.78% 14	11.11% 2	5.56% 1	5.56% 1	0.00% 0	18
Non-professional investors are not well enough informed and experienced in relation to particular investment products. This hinders the growth of crowdfunding in Europe in general.	0.00% 0	43.75% 7	43.75% 7	6.25% 1	0.00% 0	6.25% 1	16
The lack of trust towards online payments is an obstacle for the development of crowdfunding in your country.	0.00% 0	44.44% 8	5.56% 1	33.33% 6	16.67% 3	0.00% 0	18
The lack of trust towards online payments is an obstacle for the development of crowdfunding in Europe in general.	0.00% 0	31.25% 5	25.00% 4	18.75% 3	6.25% 1	18.75% 3	16
The lack of trust towards data protection (in relation to investor information) is an obstacle for the development of crowdfunding in your country.	0.00% 0	27.78% 5	22.22% 4	33.33% 6	16.67% 3	0.00% 0	18
The lack of trust towards data protection is an obstacle for the development of crowdfunding in Europe in general.	0.00% 0	12.50% 2	43.75% 7	12.50% 2	12.50% 2	18.75% 3	16
The potential lack of transparency on what a project is doing after the investment is made on a crowdfunding platform is a barrier for the investment of the crowd in projects.	16.67% 3	55.56% 10	11.11% 2	11.11% 2	5.56% 1	0.00% 0	18
The complexity of taxation aspects for investors is an obstacle to attract investors.	38.89% 7	27.78% 5	22.22% 4	5.56% 1	5.56% 1	0.00% 0	18
The lack of knowledge of the crowd on renewable energy sources is an obstacle to attracting investors in this sector.	5.88% 1	17.65% 3	35.29% 6	29.41% 5	5.88% 1	5.88% 1	17
The lack of interest of the crowd in renewable energy sources is an obstacle to attracting investors.	5.88% 1	11.76% 2	17.65% 3	29.41% 5	29.41% 5	5.88% 1	17
The uncertainty of future financial returns on the RES projects is an obstacle to attracting investors.	11.76% 2	41.18% 7	35.29% 6	11.76% 2	0.00% 0	0.00% 0	17

#### b. Obstacles related to project developers

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Total
The process from the launch of the project to the effective access to finance is too long for the RES developers using crowdfunding platforms.	0.00% 0	18.75% 3	37.50% 6	37.50% 6	6.25% 1	16
Time and effort necessary for a successful crowdfunding campaign limit the attractiveness of crowdfunding for RES projects.	12.50% 2	18.75% 3	31.25% 5	25.00% 4	12.50% 2	16
The risk for project developers to have their project idea exposed to everyone, including competitors, is an obstacle to attracting RES project developers to crowdfunding platforms.	0.00% 0	12.50% 2	31.25% 5	37.50% 6	18.75% 3	16

## c. Obstacles related to characteristics of a crowdfunding platform

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Total
Limited number of projects on a platform is likely to discourage crowd investors	15.79% 3	47.37% 9	26.32% 5	10.53% 2	0.00% 0	19
Limited number of projects on a platform is likely to discourage project developers	0.00% 0	43.75% 7	25.00% 4	31.25% 5	0.00% 0	16
The lack of a local dimension of a crowdfunding platform is a weakness to attract projects and investors.	15.79% 3	31.58% 6	31.58% 6	21.05% 4	0.00% 0	19
The lack of a cross-border dimension of a crowdfunding platform is a weakness to attract projects and investors.	0.00% 0	35.29% 6	29.41% 5	17.65% 3	17.65% 3	17
Language barriers are a key obstacle to attract cross border investors on a platform when a crowdfunding platform is only available in its national language.	27.78% 5	38.89% 7	22.22% 4	11.11% 2	0.00% 0	18

## d. Obstacles related to legal aspects

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	Total
The lack of political will to have a legal framework for crowdfunding in your country is a strong limitation for the development of your platform.	15.79% 3	5.26% 1	26.32% 5	47.37% 9	5.26% 1	19
The absence of a European harmonised legal framework is for your platform a strong limitation to its development in other markets.	31.58% 6	21.05% 4	26.32% 5	21.05% 4	0.00% 0	19
Compliance costs and other costs on setting up the online platform are too high.	10.53% 2	21.05% 4	15.79% 3	52.63% 10	0.00% 0	19

## e. Obstacles related to competition and partnership

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Agree	Total
The strong competition from non-European crowdfunding platforms entering the EU is a major obstacle for the development of your platform.	0.00% 0	5.26% 1	42.11% 8	42.11% 8	10.53% 2	19
The strong competition from other European crowdfunding platforms (non-national) is a major obstacle for the development of your platform.	0.00% 0	10.00% 2	35.00% 7	45.00% 9	10.00% 2	20
The strong competition from other national crowdfunding platforms is a major obstacle for the development of your platform.	0.00% 0	26.32% 5	42.11% 8	31.58% 6	0.00% 0	19
The strong competition from other energy actors is a major obstacle for the development of your platform.	0.00% 0	5.88% 1	58.82% 10	35.29% 6	0.00% 0	17

## Appendix 2: Survey Questionnaire

## Crowdfunding Renewable Energy in Europe: Survey of Platforms

### Introduction

Thank you for taking this survey. The survey is sent to you by CrowdFundRES, a Horizon 2020 research project funded by the European Commission, and is being carried out by a team of renewable energy and crowdfunding experts. Full details of the project and the team can be found on our project website [CrowdFundRES](#).

We have designed the survey in a way that it should take you around 10 minutes to complete it. It follows the principles of informed consent, so we will ask you below before you can proceed with the survey to give us your explicit consent. The answers will be used anonymously. The findings of the survey will be disseminated via the the project website. You can also opt to be informed by indicating your interest at the end of this survey.

Whilst this survey targets all crowdfunding platforms, both those already involved with renewable energy and those that currently deal only with other industries or products, a limited number of questions are only targeting crowdfunding platforms involved in renewable energy sources (RES). You can skip these questions if your platform is not active in this area.

If you have any questions regarding this study or would like additional information please contact Dr Ariel Bergmann, University of Dundee, CrowdFundRES Project Survey and Data Supervisor, at [e.a.bergmann@dundee.ac.uk](mailto:e.a.bergmann@dundee.ac.uk), or Adrienne Lotos, ECN Head of Office, at [adrienne.lotos@eurocrowd.org](mailto:adrienne.lotos@eurocrowd.org)

Please continue to the next page and read the information on informed consent. Thank you for your time and participation in this research.



**3. Please give your name and company details:**

**Name**

**Company**

**Address**

**City/Town**

**Country**

**Email Address**

**Phone Number**

4. What is the legal form of your platform?

5. What are (is) the geographic coverage/markets of the platform?

- France
- Germany
- Netherlands
- United Kingdom
- Other (please specify)

6. What language(s) are used on the crowdfunding platform?

- Dutch
- English
- French
- German
- Other (please specify)

7. Does the platform have cooperation/support with institutional and/or private partners?

- EU Authorities and Agencies
- National Authorities and Agencies
- Local Authorities and Agencies
- Private companies
- Associations

8. Do you have plans to expand to other EU countries?

Yes

No

9. What is the model of your crowdfunding platform?

- Peer-to-peer lending
- Equity crowdfunding
- Rewards-based crowdfunding
- Donation-based crowdfunding
- Profit-sharing / revenue-sharing
- Debt-securities crowdfunding
- Hybrid models

None of the above (please explain)

### 10. Projects in your platform in 2014

Total number of projects:

Number of RES projects:

Total projects  
successfully funded:

RES projects successfully  
funded:

### 11. What is the average amount (in Euro) raised per project on your Platform?

All projects

RES projects

### 12. Is your crowdfunding platform involved with Renewable Energy Sources (RES) projects?

- The Platform is specialised in RES projects
- The Platform has regularly hosted RES projects
- The Platform has already hosted RES projects, but it is exceptional
- The Platform has never hosted RES projects, but would host if it had the opportunity.
- The Platform never hosted RES projects because it is not with-in its scope

13. If your platform has financed Renewable Energy Source (RES) projects, what technology(ies) were applied in these projects?

- Photovoltaic
- Wind
- Small hydro
- Biomass
- Biogas
- Solar thermal
- Geothermal
- Hydrogen and fuel cells
- Marine / Tidal / Wave
- Green transportation
- Energy Storage
- Energy efficiency
- Other (please specify)

14. If your platform financed Renewable Energy Source (RES) project(s), what was the average size range of the RES project(s) in your platform?

- Smaller than 100 kW
- 100 kW to 1 MW
- Between 1 MW and 10 MW
- Between 10 MW and 100 MW
- 100 MW and greater

15. Do you apply due diligence to RES projects?

Yes

s

No

16. If you apply due diligence to RES projects, is your team experienced in doing so?

- Yes, we conduct due diligence in house and are experienced in this.
- Yes we are experienced but we outsource due diligence.
- No.

**17. Obstacles related to crowd investors**

To what extent do you agree with each of the following statement:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Unsure
Non-professional investors are not well enough informed and experienced in relation to particular investment products. This hinders the growth of crowdfunding in your country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-professional investors are not well enough informed and experienced in relation to particular investment products. This hinders the growth of crowdfunding in Europe in general.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of trust towards online payments is an obstacle for the development of crowdfunding in your country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of trust towards online payments is an obstacle for the development of crowdfunding in Europe in general.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of trust towards data protection (in relation to investor information) is an obstacle for the development of crowdfunding in your country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strongly Agree      Agree      Neither Agree nor Disagree      Disagree      Strongly Disagree      Unsure

The lack of trust towards data protection is an obstacle for the development of crowdfunding in Europe in general.

The potential lack of transparency on what a project is doing after the investment is made on a crowdfunding platform is a barrier for the investment of the crowd in projects.

The complexity of taxation aspects for investors is an obstacle to attract investors.

The lack of knowledge of the crowd on renewable energy sources is an obstacle to attracting investors in this sector.

The lack of interest of the crowd in renewable energy sources is an obstacle to attracting investors.

The uncertainty of future financial returns on the RES projects is an obstacle to attracting investors.



**18. Obstacles related to project developers**

To what extent do you agree with each of the following statement:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The process from the launch of the project to the effective access to finance is too long for the RES developers using crowdfunding platforms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time and effort necessary for a successful crowdfunding campaign limit the attractiveness of crowdfunding for RES projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The risk for project developers to have their project idea exposed to everyone, including competitors, is an obstacle to attracting RES project developers to crowdfunding platforms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**19. Obstacles related to characteristics of a crowdfunding platform**

To what extent do you agree with each of the following statement:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Limited number of projects on a platform is likely to discourage crowd investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited number of projects on a platform is likely to discourage project developers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of a local dimension of a crowdfunding platform is a weakness to attract projects and investors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of a cross-border dimension of a crowdfunding platform is a weakness to attract projects and investors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Language barriers are a key obstacle to attract cross border investors on a platform when a crowdfunding platform is only available in its national language.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 20. Obstacles related to legal aspects

To what extent do you agree with each of the following statement:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
The lack of political will to have a legal framework for crowdfunding in your country is a strong limitation for the development of your platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The absence of a European harmonised legal framework is for your platform a strong limitation to its development in other markets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compliance costs and other costs on setting up the online platform are too high.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**21. Obstacles related to competition**

To what extent do you agree with each of the following statement:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Agree
The strong competition from non-European crowdfunding platforms entering the EU is a major obstacle for the development of your platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The strong competition from other European crowdfunding platforms (non-national) is a major obstacle for the development of your platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The strong competition from other national crowdfunding platforms is a major obstacle for the development of your platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The strong competition from other energy actors is a major obstacle for the development of your platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. Are there any other obstacles to the crowdfunding of RES projects that you would like to highlight?