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# Warning regarding small investor protection

Study on the effect of the warning  
on asset investments on the grey capital market

*wirksam regieren* project group in the Federal Chancellery  
on behalf of the Federal Ministry of Finance





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## Executive summary

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In 2014, Prokon and other capital investment issuers going bankrupt resulted in significant asset losses for many investors. In the case of Prokon, this hit the more than 75,000 small investors particularly hard. When looking for the cause of the high asset losses, it became apparent that many of the affected parties were not sufficiently aware of the risk of losses associated with investments on the so-called grey capital market.<sup>1</sup> Not all companies which are active on the financial market are regulated and under government oversight. If providers do not require a license from the Federal Financial Supervisory Authority (BaFin) and need to meet only a few legal requirements, then we talk of the grey capital market. Investors are exposed to particular risks here.<sup>2</sup>

Against the background of such incidents, the Federal Government has further improved protection for asset investments on the grey capital market with the law on small investor protection. With this law, among other things, the obligation for issuers to provide a warning with asset investments and to typographically emphasise this was introduced in 2015. Every investor must confirm with their signature that they noticed this warning before subscription to an asset investment. If subscription is done electronically, then the signature is replaced by the provision of clear identifying data. This regulation should contribute to ensuring that investors are consciously aware of the risks and the possibility of a total loss before deciding to subscribe to an asset investment.

Currently, the wording of the warning and the process for electronic acknowledgement is stipulated by the legislator. The implementation of the typographical emphasis and the positioning of the warning is up to the issuer of the asset investment. In practice, this leads to a wide variety of design variants for the warning.

This study investigated the following questions:

- 1 What effect do various design variants for the warning have on its visibility?
- 2 Does the existing wording have the intended effect of making people aware of the risks of asset investments?

- 3 Is the existing process for electronic acknowledgement comparable to a signature in its effect?

The empirical research showed the following:

1. A clear improvement in the visibility of the warning can be achieved predominantly through consistent positioning of the warning. Here, positioning at the top of the first page underneath the title would be the best variant. Likewise, a consistent design for the asset investment information sheet (VIB) in the form of continuous text would improve visibility.
2. Persons with poor financial knowledge would benefit most from better visibility for the warning. This group of people demonstrated a particularly pronounced effect as a result of the warning. It led to more conservative investment behaviour. Independently from this, the study demonstrated that the existing wording of the warning generated a high level of willingness to deal carefully with the risks of asset investment in the participants in the study. Alternative wordings did not result in any significant increase in this willingness.
3. The testing of various options for electronic acknowledgement showed that the existing procedure with entry of clearly identifiable data was considered to be slightly more meaningful than a personal signature. The highest importance was given to a procedure with a so-called media break, in which the confirmation needs to be printed out, signed and sent through the post. Overall, all forms of acknowledgement tested on small investors resulted in comparable levels of willingness to re-examine the risks of asset investment more thoroughly as well as in a comparable tendency to refrain from investing in an asset investment.





# I. Research question

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The law on small investor protection entered into force on 10 July 2015.<sup>3</sup> Alongside a range of legal changes, an obligation was introduced in §13 para. 6 of the Asset Investment Law (VermAnlG) for the issuers of asset investments on the grey capital market to provide a warning with these asset investments. Since then, it has been mandatory for the following wording to be placed on the first page of the asset investment information sheet (VIB) and typographically emphasised:

*“The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested.”*

Before such an asset investment can be signed, each investor must confirm in writing that they have taken note of this warning. This is done by means of a signature (§15 para. 3 of the VermAnlG) or, if means of remote communication are being used, alternatively in electronic form (§15 para. 4 and 5 of the VermAnlG in conjunction with §2 of the VIBBestV (regulation for the implementation of §15 para. 4 of the VermAnlG)). These regulations should contribute to potential investors reading the VIB carefully in order to thoroughly address the risks of asset investments before making a decision on an investment.

The wording, the signature requirement and the process of electronic acknowledgement of the warning are clearly specified by the legislator (§13 para. 6 and in accordance with §15 para 4 and 5 of the VermAnlG in conjunction with §2 of the VIBBestV). The implementation of the typographical emphasis and the positioning of the warning is up to the issuer of the asset investment. In practice, this results in a multitude of different implementations from the different providers and to significant differences, for example in the emphasis and embedding of the warning. The effect of these variations on the perception and effect of the warning has been unknown until now.

In order to investigate the effectiveness of the current legal requirements, the Federal Ministry of Finance (BMF) commissioned the *wirksam regieren* project group with a research project. It examines what effect the various design variations for the warning have on its perception and effect. To this end, the typographical emphasis and positioning, as well as the wording and the process for electronic acknowledgement were empirically studied.

The central questions of the study were:

## 1 Visibility of the warning

Does the current regulation ensure that the warning is perceived by potential investors, or should other design aspects of the warning be regulated by law in order to guarantee visibility?

## 2 Effect of the warning

Does the warning have an effect on investment behaviour? Does the current wording achieve the objective of causing potential investors to read the VIB carefully and to deal carefully with the risks of asset investment? Are there alternative wordings which would better achieve this objective?

## 3 Effect of the electronic acknowledgement

A considerable proportion of investment in asset investments is done online. Is the electronic acknowledgement of the warning perceived by investors as being equivalent to a personal signature? Are there alternative methods for electronic confirmation which would be closer to being equivalent to a personal signature in potential investors' perception? Does the electronic acknowledgement procedure encourage investors to take another look at the risks of the investment? And do different methods lead to different cancellation rates?



	Maximum
	2.886,63 €
	2.986,63 €
	3.177,64 €
	3.532,88 €
	4.531,38 €
	5.271,38 €
	5.999,99 €

## II. Study

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### Study design

The central aim of this study is to investigate the effectiveness of the current legal regulation from the consumer's perspective and furthermore to involve consumers in the design of a warning which is optimal from their viewpoint.

*Part 1* of the study concentrated on the visibility and perception of the warning. To this end, a study group of small investors was presented with a VIB in a variety of designs. In a first step, the various warnings were studied with regard to their visibility and perception by means of eye-tracking measurements. In a second step, they were discussed by the participants in focus groups. The participants then developed possible alternatives for the design and wording of the warning with the aim of improving perception and clarity. The participants then discussed alternatives to electronic acknowledgement. These should be comparable with the effect of a personal signature.

*Part 2* of the study tested the effect of the various design proposals from the focus groups in a representative survey of small investors. To this end, the warning on a VIB was systematically varied. Each participant in the study was first provided with a VIB at random with one of the eight variants of the warning. All other investment conditions were unchanged. The participants were asked whether, and if yes what amount, they would invest in the capital investment on offer. Each participant then evaluated various proposals for the wording of the warning with regard to their clarity and warning effect. In a final step, the participants evaluated a variety of methods of electronic acknowledgement. Here, comparability with a handwritten signature was investigated, as well as the effect of the acknowledgement process on engagement with the risks and on the investment decision.

The study design was established by the *wirksam regieren* project group in collaboration with the Federal Ministry of Finance. The data was collected by the service provider Kantar Public. The *wirksam regieren* project group is responsible for the analysis. A material volume for this report, which allows for more in-depth insights into the study, is available.<sup>4</sup>

### Part 1: Visibility of the warning

In part 1 of the study, the visibility of existing design variants for the warning was analysed with the help of eye-tracking measurements. The subjective effect of the warning was also discussed in focus groups and alternative options for the design and wording of an optimal warning from the consumer's point of view were developed.

### Sample

All of the 32 participants had already made an individual investment of at least 5,000 Euros in the past. They stated that they are open in principle to risky forms of investment such as foreign currencies, shares, corporate bonds or real estate funds. In addition, the participants' formal education, employment status and general financial knowledge were taken into account in the selection of participants (see *Table 1*).

**Table 1: Participant attributes in part 1 of the study**

Attribute	Number	Proportion
<b>Gender</b>		
male	19	59%
female	13	41%
<b>Age (years)</b>		
25-44	13	41%
45-64	18	56%
65+	1	3%
<b>Level of education</b>		
Secondary school	16	50%
A level equivalent	16	50%
<b>Financial knowledge (5 questions)</b>		
4-5 questions correct	8	25%
2-3 questions correct	22	69%
0-1 question(s) correct	2	6%

On the basis of this data, four focus groups consisting of eight potential investors each were established (see *Table 2*).

**Table 2: Composition of the focus groups in part 1 of the study**

Focus group	Characteristics
Group 1	Small investors with A level equivalent and poor financial knowledge
Group 2	Small investors with A level equivalent and good financial knowledge
Group 3	Employed small investors with secondary education and poor financial knowledge
Group 4	Self-employed small investors with secondary education and poor financial knowledge

### Eye-tracking measurement

The participants were each presented with six from among a total of 12 differently designed VIBs for realistic but fictitious financial investments (see *material volume A 3*). The participants were asked to get an overview of the various offerings. The positioning, layout, typographical emphasis and linguistic embedding of the warning was systematically varied on the different VIBs here (see *Table 3*).

The design dimensions were chosen on the basis of the principles of perceptual psychology, common design variants from real life and the relevant jurisprudence on the minimum requirements for typographical emphasis in other fields of law.<sup>5</sup>

The “colour highlighting” design dimension was not taken into account in order to guarantee the effect of the warning even on the black and white printers which are common in private households.

In order to be able to evaluate the visibility and impact of various design variants, an eye-tracking measurement was taken. Through the use of technical aids, for example special glasses, this method makes it possible to track the movement of a person’s gaze on a screen or on a printed medium (see *Figure 1*). Based on the data obtained in this manner, statements can be made concerning whether, and if yes in what order and for what length of time, a person looks at a specific image or section of text.

In order to achieve the highest possible visibility, a warning should be designed such that it is recognised by as many participants as possible, at the earliest point in time possible and for a sufficiently long period of time. In this manner, the probability that the risks will also be taken into account in the evaluation of the information in the VIB, for example

Figure 1: Glasses for measuring eye movements



Table 3: Design dimensions for the warning in the VIB in part 1 of the study

Design dimension	Form
<b>Positioning &amp; layout</b>	
Positioning of the warning	above vs. below the heading
	within vs. underneath the main text
Positioning of the signature	underneath the warning vs. at the end of the document
Layout of the information	in a table vs. running text
<b>Typographical emphasis</b>	
Bolding	bold vs. not bold
Font size	same as main text vs. larger than main text
Framing	without vs. with frame
Pictograms	without vs. with pictograms (e.g. exclamation mark)
<b>Additions</b>	
The word “warning”	without vs. with the word “warning”
Reference to legal source	without vs. with reference to legal source

the potential returns, is increased. Ideally, the warning is the first piece of information to be seen by all participants and is looked at long enough that full absorption and digestion of the information can be assumed.

The eye-tracking measurement process measures the initial contact time or dwell time, for example, but does not allow any statements to be made regarding understanding of the content. However, a sufficiently long contemplation period is a prerequisite for it to be possible for the information to be processed and understood.

### **Focus groups**

In the subsequent discussions in focus groups, the results of the eye-tracking measurements were compared with the experiences the participants reported and complemented by qualitative impressions.

- **Identification of design variants with good visibility**

First, the participants were asked whether they had the impression of having overlooked information or having perceived it particularly clearly. Those design dimensions which are necessary for good visibility and perception of the warning from the consumer's point of view were then identified in a structured group process.

- **Identification of wording variants with an appropriate warning effect**

The aim of the warning is to highlight the high relevance of risk assessment for this type of investment. At the same time, potential investors who are able to evaluate the risk of the investment and whose appetite for risk is appropriate for the risk of loss should not be put off by the warning.

Against the background of these objectives, the participants were asked to describe their perception of the warning and to suggest variants for the wording which are clearly understandable from the consumer's point of view. Here, the participants could vary all aspects of the wording as they wished and, for example, use longer or more colloquial wordings. The effect of a selection of the variants developed was tested in part 2 of the study with a representative sample.

- **Identification for methods of electronic acknowledgement which are comparable with the effect of a personal signature**

Furthermore, the potential investors discussed in the focus groups the extent to which various options for electronic acknowledgement of the warning are perceived as being comparable to a personal signature. These suggestions developed by the participants were also used for a representative comparison of the effect in part 2 of the study.

## Part 2: Effect of the warning

In part 2 on the study, the effect of various design variants and wordings for the warning and various procedures for electronic confirmation were comparatively tested with a representative sample.

### Sample

Like the participants for the eye-tracking measurements and focus groups, the participants in this sample of 2,514 small investors had also already made an individual investment of at least 5,000 Euros in the past and stated that they are open in principle to risky financial investments. The participants had to be at least 25 years old and to be the main earner in their household. For the section of the population to which these characteristics applied, representativity was ensured with regard to level of education, age and gender (see *Table 4*).

**Table 4: Participant attributes in part 2 of the study**

Attribute	Number	Proportion
<b>Gender</b>		
male	1831	73%
female	683	27%
<b>Age (years)</b>		
25-44	762	30%
45-64	1055	42%
65+	697	28%
<b>Level of education</b>		
Lower secondary school / primary school / no qualifications	465	18%
GCSE equivalent / polytechnic secondary school	798	32%
A level equivalent	1251	50%
<b>Financial knowledge</b>		
4-5 questions correct	1753	69%
2-3 questions correct	611	24%
0-1 question(s) correct	150	6%

## Comparative testing of various design variants

In order to test the effect of design variants on investment behaviour, the small investors in the representative survey were asked to imagine that they had recently inherited a sum of 10,000 Euros. All participants were presented with an investment proposal which they should examine in detail. The asset investments on offer were identical in all cases and only differed with regard to the design of the warning and the arrangement of the information in the VIB.

Each participant was shown one of eight variants, selected at random. The variants differ with regard to font size, framing, negative space, positioning of the signature and layout of the information (see *Table 5* and *Figure 2*).

**Table 5: Design dimensions for the various warnings in part 2 of the study**

Design dimension	Forms
<b>Typographical emphasis</b>	
Font size	as in main text vs. larger
Framing	present vs. not present
Negative space around the warning	present vs. not present
Signature in the negative space	present vs. not present
<b>Positioning &amp; layout</b>	
Layout of the information	in a table vs. running text

Figure 2: The variants of the asset investment information sheet tested in part 2 of the study

Variant 1

**RE22 Windenergie Deutschland**  
**Vermögensanlagen-Informationsblatt (VIB)**

**Warnhinweis:** Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.

<b>1. VERMÖGENSANLAGE</b> RE22 Windenergie Deutschland	<b>Finanzierung</b> Das geplante Gesamtfinanzierungsvolumen beträgt EUR 50.900.000, davon EUR 14.421.030 Eigenkapital (Emissionskapital inkl. Treuhänderin i. H. v. EUR 14.001.000 sowie ein Agio i. H. v. EUR 420.030) und EUR 36.478.970 Fremdkapital. Daraus ergibt sich in der Darstellung des Investitions- und
<b>2. ART DER VERMÖGENSANLAGE</b> Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft	

Variant 2

**RE22 Windenergie Deutschland**  
**Vermögensanlagen-Informationsblatt (VIB)**

**Warnhinweis:** Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.

<b>1. VERMÖGENSANLAGE</b> RE22 Windenergie Deutschland	<b>Finanzierung</b> Das geplante Gesamtfinanzierungsvolumen beträgt EUR 50.900.000, davon EUR 14.421.030 Eigenkapital (Emissionskapital inkl. Treuhänderin i. H. v. EUR 14.001.000 sowie ein Agio i. H. v. EUR 420.030) und EUR 36.478.970 Fremdkapital. Daraus ergibt sich in der Darstellung des Investitions- und
<b>2. ART DER VERMÖGENSANLAGE</b> Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft	

Variant 3

**RE22 Windenergie Deutschland**  
**Vermögensanlagen-Informationsblatt (VIB)**

**Warnhinweis:** Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.

<b>1. VERMÖGENSANLAGE</b> RE22 Windenergie Deutschland	<b>Finanzierung</b> Das geplante Gesamtfinanzierungsvolumen beträgt EUR 50.900.000, davon EUR 14.421.030 Eigenkapital (Emissionskapital inkl. Treuhänderin i. H. v. EUR 14.001.000 sowie ein Agio i. H. v. EUR 420.030) und EUR 36.478.970 Fremdkapital. Daraus ergibt sich in der Darstellung des Investitions- und
<b>2. ART DER VERMÖGENSANLAGE</b> Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft	



Variant 4

# RE22 Windenergie Deutschland

## Vermögensanlagen-Informationsblatt (VIB)

**Warnhinweis: Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.**

<p><b>1. VERMÖGENSANLAGE</b> RE22 Windenergie Deutschland</p> <p><b>2. ART DER VERMÖGENSANLAGE</b> Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft</p>	<p><b>Finanzierung</b> Das geplante Gesamtfinanzierungsvolumen beträgt EUR 50.900.000, davon EUR 14.421.030 Eigenkapital (Emissionskapital inkl. Treuhänderin i. H. v. EUR 14.001.000 sowie ein Agio i. H. v. EUR 420.030) und EUR 36.478.970 Fremdkapital. Daraus ergibt sich in der Darstellung des Investitions- und</p>
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Variant 5

# RE22 Windenergie Deutschland

## Vermögensanlagen-Informationsblatt (VIB)

Warnhinweis: Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.

1	Vermögensanlage	RE22 Windenergie Deutschland
2	Art der Vermögensanlage	Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft
3	Anbieterin der Vermögensanlage	re-energy GmbH, Flensburger Straße 36, 21049 Hamburg

Variant 6

# RE22 Windenergie Deutschland

## Vermögensanlagen-Informationsblatt (VIB)

Warnhinweis: Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.

1	Vermögensanlage	RE22 Windenergie Deutschland
2	Art der Vermögensanlage	Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft
3	Anbieterin der Vermögensanlage	re-energy GmbH, Flensburger Straße 36, 21049 Hamburg

Variant 7

**RE22 Windenergie Deutschland**  
**Vermögensanlagen-Informationsblatt (VIB)**

**Warnhinweis: Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.**

1	Vermögensanlage	RE22 Windenergie Deutschland
2	Art der Vermögensanlage	Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft

Variant 8

**RE22 Windenergie Deutschland**  
**Vermögensanlagen-Informationsblatt (VIB)**

**Warnhinweis: Der Erwerb dieser Vermögensanlage ist mit erheblichen Risiken verbunden und kann zum vollständigen Verlust des eingesetzten Vermögens führen.**

Mit nachfolgender Unterschrift bestätige ich die Kenntnisnahme des oben genannten Warnhinweises.

Vorname	Nachname
Ort, Datum	
Unterschrift des Anlegers X	

1	Vermögensanlage	RE22 Windenergie Deutschland
2	Art der Vermögensanlage	Kommanditbeteiligung, operativ tätige Beteiligungsgesellschaft

The participants were asked whether they could in principle imagine themselves investing on the capital investment offered. If yes, what proportion of the inherited money would they use for this? Participants who decided against an investment were asked to give the reason for this.

A so-called “supported survey” of the remembered content of the VIB was then carried out. To this end, the participants received a list of possible content (e.g. return on the investment, term, minimum investment, the issuer’s debt-equity ratio). They were asked to mark only the content from the VIB which they could remember. For quality control, this list also included options for content which was not part of the VIB. In order to be able to rule out the possibility that the position of the options on the list had an impact of the probability of them being selected, the order was varied at random.

In order to be able to evaluate the various design variants, the following result variables were measured:

- Proportion of participants who could in principle imagine themselves investing the inheritance of 10,000 Euros in the investment in whole or in part;
- The hypothetical investment sum for participants who would consider the investment;
- The reason for not investing for participants who would not consider the investment;
- The content of the VIB which participants could remember.

## Comparative testing of various wordings

The small investors in the representative survey were asked to evaluate the effect of various suggested wordings from the focus groups.

Regardless of the wording in the stricter sense, the question of the extent to which embedding of the wording, which is not regulated by law but occurs

frequently in practice, has an effect on the warning effect came up in the focus groups. This includes, for example, introduction of the wording with the addition of “warning:” or information regarding the legal basis of the warning. Based on a variety of existing implementations and taking the suggestions from the focus groups into account, a total of 16 wording variants including various additions were therefore tested (see *Table 6*).

**Table 6: Wordings tested in part 2 of the study**

Variant	Wording
Current wording	1.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested.
Alternative wordings	2.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested. Basically: the higher the yield or return, the greater the risk of a loss.
	3.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested. More information concerning the risks associated with this product can be found under the “Risks” heading.
	4.) The acquisition of this asset investment is associated with significant risks. Only investors who are financially able to do without the amount invested should invest.
The above wordings plus “Warning:”	5.) Warning: plus 1.)
	6.) Warning: plus 2.)
	7.) Warning: plus 3.)
	8.) Warning: plus 4.)
The above wordings plus “Warning in accordance with §13 para. 6 of the asset investment law:”	9.) Warning in accordance with §13 para. 6 of the asset investment law: plus 1.)
	10.) Warning in accordance with §13 para. 6 of the asset investment law: plus 2.)
	11.) Warning in accordance with §13 para. 6 of the asset investment law: plus 3.)
	12.) Warning in accordance with §13 para. 6 of the asset investment law: plus 4.)
Personalised wordings	13.) The acquisition of this asset investment is associated with significant risks and may result in you losing all of your invested assets.
	14.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets you have invested. Basically: the higher the yield or return, the greater the risk of a loss.
	15.) The acquisition of this asset investment is associated with significant risks and may result in you losing all of your invested assets. You can find more information concerning the risks associated with this product under the “Risks” heading.
	16.) The acquisition of this asset investment is associated with significant risks. You should only invest if you are financially able to do without the amount invested.

All of the participants were each shown three or four randomly selected variants. These were to be evaluated with regard to the extent to which they affected the person's inclination

- to consider the respective investment, and

- to thoroughly address the risks.

The following two eleven point scales were available for evaluation (see *Figure 3*).

**Figure 3: Scales for evaluation of the wordings**

Has no effect at all on whether I consider the financial investment.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 10	Deters me completely from considering the financial investment.
Has no effect whatsoever on how thoroughly I address the risks.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 10	Causes me to address the risks very thoroughly.

### Comparative testing of various methods of electronic confirmation

The effect of various suggestions for electronic acknowledgement of the warning which had resulted from the discussion in the initial phase were likewise tested (see *Table 7*):

**Table 7: Electronic confirmation methods tested in part 2 of the study**

Confirmation method	Description
Existing regulation	Entry of identifying personal data such as date of birth, place of birth, ID number
Confirmation clause	Transcription of the following clause: "I, FIRST NAME SURNAME, have read and understood the present asset investment information sheet – including the warning highlighted on page 1 under the title"
Confirmation link	Entry of an email address and confirmation of reading through clicking on a link in an email
Postal confirmation	Printing the confirmation out and signing it by hand, with return by post
Pop-up	Double confirmation of a pop-up with a tick box and click


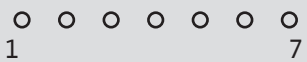

Each participant evaluated one method selected at random which was demonstrated through a short video. Questions were asked regarding:

- the perceived equivalence to a personal signature,
- the inclination to abandon the further purchasing process as a result of the process, and

- the inclination to read through the risks again as a result of the confirmation method.

For evaluation, a scale with seven points and the end points specified below was available for each question (see *Figure 4*).

**Figure 4: Scales for evaluation of the electronic confirmation methods**

Feels less meaningful than a signature.		Feels more meaningful than a signature.
Does not raise any doubts for me.		Results in me abandoning the purchasing process.
Results in me reading the warning and the risks in detail (again).		Has no effect on how carefully I read through the warning and the risks.



## III. Findings

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### 1 Visibility of the warning

#### • Positioning of the warning

The results of the eye-tracking measurements suggest that positioning of the warning in the upper section of the first page directly under the title produces the greatest visibility and attention (see *Table 8*). In comparison with the other variants, this positioning had both the highest perception proportion (i.e. the warning was seen by the greatest proportion of test subjects) and the shortest initial contact time (i.e. the warning was seen earliest on average) and the longest dwell time (i.e. the participants concentrated on the warning for longest on average).

In contrast, the “top, above the title” and “bottom margin” variants had the lowest visibility.

These results were confirmed as explicit perception in the focus groups: the “top, under the title” variant was likewise indicated as the optimally visible positioning of the warning here.

**Table 8: Effect of different positions on the quality of perception according to eye-tracking measurements in part 1 of the study**

Position of the warning	Perception proportion (in %)	Initial contact time (in seconds)	Dwell time (in seconds)
Top, above the title	95%	8 s	7 s
Centred in a column	84%	18 s	4 s
Bottom margin	69%	66 s	4 s
Top, above the title	65%	48 s	3 s

Figure 5: Differences in initial contact time for two asset investment information sheets

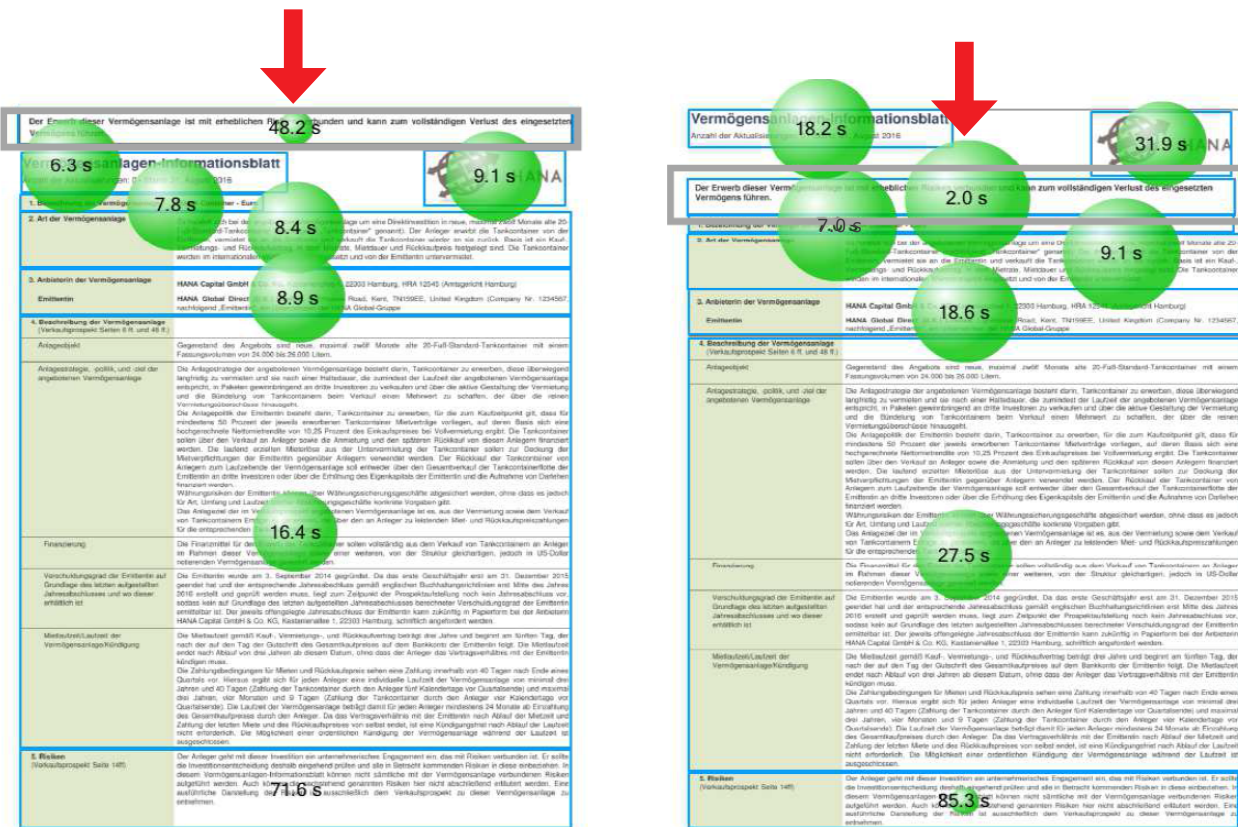


Figure 5 shows the initial contact times for two VIBs in which only the position was varied. The circles indicate the observer's field of view; the larger the circle, the earlier the visual contact with an image or text field. The test shows: the warning which is positioned above the title was seen after 48.2 seconds (left-hand VIB, see arrow). It was therefore seen significantly later than the warning which was positioned underneath the title. This was seen after just 2 seconds (right-hand VIB, see arrow).

Both the eye-tracking measurements and the statements from the participants therefore point to placement in the top section of the VIB but below the title as the optimal variant.

• Positioning of the investor's signature

Furthermore, the eye-tracking measurement data revealed that placement of the investor's signature at the top of the first page with otherwise the same conditions improved the visibility and the dwell time in comparison with a variant with no signature (see Table 9).

The eye-tracking measurement data is not indicative of whether the increased impact can be attributed to the fact that this form of presentation does not correspond to the normal practices for reading and signatures or the fact that the larger area of the signature field draws attention to itself. Some participants found positioning of the signature at the beginning of the VIB to be "strange" and to some



**Table 9: Effect of the position of the signature on the quality of perception according to eye-tracking measurements in part 1 of the study**

Position of the warning	Perception proportion (in %)	Initial contact time (in seconds)	Dwell time (in seconds)
With signature at the top	100%	4 s	10 s
Without signature at the top	83%	27 s	5 s

extent “dubious”. They had the “feeling of signing something before having read it”, even though in the case of the example, the signature related solely to acknowledgement of the warning.

In order to clarify this question, both a version with a signature field and a version with a comparably large area but no signature field were tested during the course of the representative survey. Since a comparable effect occurred even with the variants with a larger area with no signature, it can be assumed that it is the larger area which is decisive for the attention.

It is therefore also possible to achieve improved perceptibility for the warning through more negative space.

#### • Typographical emphasis

A comparison of various typographical emphasises for the warning showed, during the course of the eye-tracking measurements, further differences in perception (see *Table 10*). If a frame was used to emphasise the warning, the warning was seen earlier and was more likely to be seen than without a frame. In addition, a larger font in comparison with the general text in the VIB or the use of the “Warning:” addition resulted in slightly increased and earlier perception than with the same font or a variant without the addition of “Warning:”.

The differences in the perception of different variants of typographical emphasis are significantly smaller than for the positioning, however. The “frame” and “larger font” emphasis elements were therefore investigated in more detail in the representative survey, wherein there were however no significant differences between different variants.

**Table 10: Effect of different design variants on the quality of perception according to eye-tracking measurements in part 1 of the study**

Optical design feature	Perception proportion (in %)	Initial contact time (in seconds)	Dwell time (in seconds)
With framing	91%	13 s	7 s
Without framing	76%	42 s	4 s
Larger font than the rest of the text	90%	17 s	7 s
Same font as the rest of the text	80%	30 s	4 s
With the signal word “Warning:”	92%	9 s	7 s
Without signal word	82%	32 s	5 s

## 2 Effect of the warning

### • Effect of the warning on the investment decision

On average, around one third of the small investors surveyed in the representative sample could imagine investing in the asset investment on offer. Depending on the design variant for the warning, this proportion fluctuated between 27 percent and 36 percent. However, this fluctuation is statistically insignificant, even though the difference appears to be large at first glance.

Around two thirds of the small investors surveyed therefore declined to make an investment. 71 percent of those declining to make an investment spontaneously (i.e. without being given a list of reasons to choose from) gave too great a risk as the primary reason they declined. Around 2 percent of those declining to make an investment spontaneously named specifically the warning.

Does the warning have an effect on the perception of risk and the investment decision? *Table 11* shows noticeable differences in the investment sums depending on the design variant for the warning. The differences are not statistically significant.

However, if we compare people who had seen the warning or had not seen the warning, then there is a clear difference: People who stated that they had seen the warning invested an average of 1,383 Euros, significantly less than people who had not seen the warning. The latter were prepared to invest 2,247 Euros on average, a statistically demonstrably higher sum ( $t = 6.84$ ,  $df = 1560.7$ ,  $p < 0.0001$ ). The average sum invested by everyone in the sample was 1,695 Euros.

This means there is no demonstrable effect on the investment decisions caused by the individual design variants. However, significantly lower investment sums were observed from the participants who had seen the warning. In other words: if the warning is seen, then it is effective. Efforts to increase the visibility are worthwhile.

### • Effect of financial knowledge on the investment decision

The warning conveys information which people with good financial knowledge should already be aware of: in a direct investment in an individual company not secured with collateral, there is a possibility of a total loss of the capital invested. It was therefore assumed that the warning would have a particularly pronounced effect on people with poor financial knowledge, for whom the information is more likely to be new.

Overall, it can be observed that people with good financial knowledge were significantly more conservative, with an average investment sum of around 1,471 Euros, than people with poor financial knowledge. Here, the sum invested, at around 2,209 Euros, was higher by a statistically significant amount ( $t = 5.43$ ,  $df = 1204.5$ ,  $p < 0.0001$ ).

For participants with poor financial knowledge, there was actually a particularly clear relationship between perception of the warning and more conservative investment behaviour. If participants with poor financial knowledge had *not* perceived the warning, then they decided on average to make an investment of around 2,850 Euros. However, if the warning was seen in this group of people, the investment sum dropped considerably, and statistically significantly, to an average of around 1,610 Euros ( $t = 18.4$ ,  $df = 760$ ,  $p > 0.0001$ ,  $d = 0.4$ ). This equates to a reduction in the investment sum of around 43.5 percent following perception of the warning for participants with poor financial knowledge.

For participants with good financial knowledge too, perception of the warning resulted in significantly lower willingness to invest ( $t = 23.2$ ,  $df = 1752$ ,  $p < 0.0001$ ,  $d = 0.2$ ). The extent of the effect was significantly lower here, with a reduction in the average investment sum from around 1,840 Euros to around 1,310 Euros. This equates to a reduction in the investment sum of around 32.8 percent following perception of the warning for participants with good financial knowledge.

In summary, it can be said that the perception of the warning was associated with demonstrably more conservative investment decisions in the participant groups with good and poor financial knowledge. In the group with poor financial knowledge, this relationship was significantly more pronounced. The underlying assumption is that the perceived risk increases as a result of the warning and the sum invested is therefore reduced.

**Table 11: Investment decisions in part 2 of the study**

Design variant of the warning	Average willingness to invest in Euros		
	All participants	Warning not seen	Warning seen
Variant 1 (running text + normal font size)	1,790	2,229	1,572
Variant 2 (running text + larger font size)	1,557	2,026	1,344
Variant 3 (running text + larger font size + frame)	1,499	2,092	1,178
Variant 4 (running text + larger font size + frame + negative space)	1,330	1,511	1,256
Variant 5 (table + normal font size)	1,789	2,110	1,608
Variant 6 (table + larger font size)	1,861	2,634	1,261
Variant 7 (table + larger font size + frame)	1,937	2,424	1,590
Variant 8 (table + larger font size + frame + signature)	1,793	2,642	1,262
<b>Average across all VIB variants</b>	<b>1,695</b>	<b>2,247</b>	<b>1,383</b>

• **Effect of the warning on the memory of the concrete content of the VIB**

The warning was the most frequently remembered content of the VIB (see *Table 12*). Depending on the design variant, the proportion of participants who could remember the warning varied between 56 percent and 71 percent. This means that the design of the warning has a statistically significant effect on recollection ( $\chi^2 = 23.9, df = 7, p = 0.001$ ). The best memorability was achieved by a design of the warning in running text with a large box without a signature (variant 4).

Depending on the design of the VIB, between 53 percent and 66 percent remembered an explanation of the risks. Here, recollection of the warning

was closely connected to recollection of the risks (see *Table 13*). 73 percent of people who remembered the warning said that they also remembered the risks. In contrast, of the people who had no recollection of the warning just 42 percent remembered the risks. This value is a good 30 percentage points, and therefore statistically highly significantly, lower ( $\chi^2 = 233, df = 1, p < 0.0001$ ).

Here too, the assumption that the warning ensures better perception of the risk was confirmed.

**Table 12: Proportion of participants with recollection of the warning and risks according to the supported survey on the variants in part 2 of the study**

Recall effect	Recollection of the warning	Recollection of the risks
Variant 1	67%	66%
Variant 2	67%	65%
Variant 3	65%	65%
Variant 4	71%	65%
Variant 5	64%	59%
Variant 6	56%	60%
Variant 7	58%	62%
Variant 8	62%	53%
Average value for VIB in table form (Variants 1-4)	60%	58%
Average value for VIB in running text (variants 5-8)	68%	65%
Average value across all VIBs	64%	62%

**Table 13: Proportion of participants with recollection of the warning and risks according to the supported survey in part 2 of the study**

Recollection of Warning	Risks	
	Yes	No
Yes	73%	27%
No	42%	58%

- **Effect of the VIB in the form of a table vs. running text**

The examination of the remembered content showed that participants remembered the warning and presentation of the risks less often with the VIB in the form of a table (VIB variants 1 to 4) than with the VIB as running text (VIB variants 5 to 8). If the VIB was designed in the form of a table, the proportion of participants who had perceived the warning, across all variants of typographical emphasis, dropped statistically significantly from 68 percent to 60 percent ( $t = 4.1$ ,  $df = 2507$ ,  $p < 0.0001$ ).

The tabular form also resulted in a larger proportion of the test subjects, at 35 percent, being able to imagine investing in the capital investment than the running text form (31 percent). This difference of 4 percentage points (or 12 percent) in the willingness to take risks is statistically significant ( $t = -2.28$ ,  $df = 2509$ ,  $p = 0.02$ ).

A comparable pattern could also be observed for the hypothetical investment sum. With a VIB in the form of a table, at around 1,840 Euros, it was statistically significantly higher than with the VIB in running text, at around 1,540 Euros ( $t = 29.38$ ,  $df = 2513$ ,  $p < 0.0001$ ).

With a presentation in the form of a table, the warning was therefore perceived less often; this was accompanied by increased willingness to invest and a higher investment sum.

- **Effect of the wording: wording variants**

Overall, the participants in the focus groups expressed the opinion that a comprehensible warning should be clearly worded and not formulaic. In order to promote risk assessment, it should refer for example to the part of the VIB which contains more detailed information about the risks of the investment.

Some participants expressed the view that the possibility of a complete loss should be more strongly emphasised and should be presented more vividly and more colloquially. Potential investors for whom this type of capital investment is not suitable should be warned more clearly.

Owing to the additional requirements for the content of the warning, the participants' own wording suggestions were generally significantly longer than the existing regulation. At the core, however, they included the existing wording.

- **Effect of the wording: additions**

The signal word "warning" before the information text had a positive effect on the perception proportion and initial contact time in the eye-tracking measurement, but the effect is not statistically significant.

The participants in the focus groups also took the view that additional signal words such as "warning" or "warning in accordance with, §13 para. 6 of the VermAnlG" had an impact on the effect of the actual information text. The signal word "warning" placed in front was experienced as an increase in the warning effect. However, the information about the legal basis – instead of a warning which is specifically valid for the individual product – was experienced by some participants as a dilution of the warning effect since it emphasised the formulaic nature of the statement.

### • Effect of the wording in comparison

Based on a systematic combination of the results of the focus group discussions with the additions of “warning” and the information about the legal basis, a total of 16 different wording variants were tested. Evaluations were done on a scale of 0 to 10, where

0 stands for limited effect and 10 stands for significant effect of the wording on the dimension being investigated. With average values of between 7.3 and 7.7 out of a maximum of 10 points, all variants of the wording tested had a significant warning effect (see *Table 14*).

**Table 14: Average rating and standard deviation (s) for the alternative wordings with regard to warning effect and handling of risks in part 2 of the study**

Optical design features	Warning (s)	Risks (s)
1.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested.	7.5 (2.7)	7.4 (2.9)
2.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested. Basically: the higher the yield or return, the greater the risk of a loss.	7.3 (2.7)	7.2 (2.8)
3.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets invested. More information concerning the risks associated with this product can be found under the “Risks” heading.	7.3 (2.6)	7.4 (2.7)
4.) The acquisition of this asset investment is associated with significant risks. Only investors who are financially able to do without the amount invested should invest.	7.4 (2.7)	7.4 (2.8)
5.) Warning: plus 1.)	7.6 (2.7)	7.4 (3.0)
6.) Warning: plus 2.)	7.4 (2.6)	7.4 (2.7)
7.) Warning: plus 3.)	7.4 (2.4)	7.5 (2.5)
8.) Warning: plus: 4.)	7.3 (2.8)	7.2 (2.8)
9.) Warning in accordance with §13 para. 6 of the asset investment law: plus 1.)	7.6 (2.6)	7.3 (2.9)
10.) Warning in accordance with §13 para. 6 of the asset investment law: plus 2.)	7.4 (2.7)	7.4 (2.7)
11.) Warning in accordance with §13 para. 6 of the asset investment law: plus 3.)	7.4 (2.5)	7.4 (2.6)
12.) Warning in accordance with §13 para. 6 of the asset investment law: plus 4.)	7.4 (2.6)	7.3 (2.8)
13.) The acquisition of this asset investment is associated with significant risks and may result in you losing all of your invested assets.	7.7 (2.7)	7.5 (2.9)
14.) The acquisition of this asset investment is associated with significant risks and may lead to complete loss of the assets you have invested. Basically: the higher the yield or return, the greater the risk of a loss.	7.5 (2.6)	7.4 (2.8)
15.) The acquisition of this asset investment is associated with significant risks and may result in you losing all of your invested assets. You can find more information concerning the risks associated with this product under the “Risks” heading.	7.6 (2.5)	7.6 (2.7)
16.) The acquisition of this asset investment is associated with significant risks. You should only invest if you are financially able to do without the amount invested.	7.6 (2.5)	7.4 (2.8)

Warning: “To what extent does this information influence whether you would consider the financial investment?”

Risks: “To what extent would this information cause you to address the risks of this financial investment in greater detail?”

Depending on the variant, between 29 percent and 39 percent of the participants stated that the warning would completely deter them from the investment (10 points). On average, the current wording in a personalised form (variant 13) achieved the greatest warning effect. This was closely followed by other personalised wordings in versions 15 and 16, as well as by the current wording with additions in versions 5 and 9. The current wording with no addition followed just behind.

The same applies for the motivation to address the risks in detail: here, depending on the variant, between 30 percent and 42 percent of the participants gave the maximum value of 10 points. With regard to the average ability to cause test subjects to address the risks in more detail, a personalised variant with reference to the risks (variant 15) scored highest, closely followed by the current wording in a personalised form and with the addition of “Warning:” (variants 7 and 13).

### 3 Effect of the electronic acknowledgement

#### • Variants for various electronic confirmation methods

Among the participants in the group discussion, it was considered that a personal signature had the most strongly felt binding force, even if the binding force felt is heavily dependent on the context. Among others, quickly signing a credit card payment in the supermarket in comparison to the deliberated signing of a contract was given as an example.

The type of electronic confirmation should, in the participants’ view, not only ensure information, but should also significantly slow down the investment process and thus guarantee the warning effect. The solutions discussed were therefore accompanied by a delay to the investment decision.

The following variants were suggested:

- a conscious media break, i.e. printing out, a personal signature and returning the form through the post (variant 1);
- a confirmation link, i.e. a confirmation procedure via email (variant 2);
- a double pop-up, i.e. active confirmation on two occasions that the warning has been read (variant 3), and
- a defined interval between downloading the VIB and the option of concluding the contract.

For a comparative test, the variant with a defined interval had to be done without owing to the difficult technical implementation. The following were added

- the existing legal regulation (variant 4), and
- a confirmation clause (variant 5).

The last variant was included as a result of behavioural science considerations: on the one hand, transcription through the necessary process of saving and retrieving the information ensures that the clause is actually consciously perceived. On the other hand, the personal connection is reinforced through entry of the person’s own name.

For the comparative test, the five variants were visualised, animated in a short video and presented to the participants for evaluation (see *Figure 4*).

Figure 6: Visualisation of the electronic confirmation solutions

Variant 1: media break

- 1 Sie müssen zunächst alle Unterlagen für den Kauf inklusive des Vermögensanlagen-Informationsblatts (VIB) als PDF downloaden und speichern.
- 2 Um den Kaufprozess fortsetzen zu können, müssen Sie bestätigen, dass Sie den Warnhinweis in dem VIB gelesen haben.
- 3 Für die Bestätigung des Warnhinweises drucken Sie das dreiseitige VIB aus und unterschreiben dieses.
- 4 Das unterschriebene VIB schicken Sie per Post oder Fax an den Anbieter zurück.
- 5 Sobald der Anbieter die Bestätigung erhalten hat, können Sie mit dem Kauf fortfahren. Dazu müssen Sie noch weitere Informationen wie Zahlungsdaten etc. angeben.

**RE22 Windenergie Deutschland**

**Vermögensanlagen**

**Ich habe den Warnhinweis auf Seite 1 zur Kenntnis genommen.**

Vorname  Nachname

Ort, Datum  Unterschrift des Anlegers

Variant 2: confirmation link

- 1 Sie müssen zunächst alle Unterlagen für den Kauf inklusive des Vermögensanlagen-Informationsblatts (VIB) als PDF downloaden und speichern.
- 2 Um den Kaufprozess fortsetzen zu können, müssen Sie bestätigen, dass Sie den Warnhinweis in dem VIB gelesen haben.
- 3 Für die Bestätigung des Warnhinweises müssen Sie zunächst Ihre E-Mail-Adresse angeben.
- 4 Sie bekommen eine E-Mail zugesendet. Die Kenntnisnahme des Warnhinweises bestätigen Sie durch einen Klick auf einen Link in der E-Mail.
- 5 Nach der Bestätigung der E-Mail können Sie sofort mit dem Kauf fortfahren. Dazu müssen Sie noch weitere Informationen wie Zahlungsdaten etc. angeben.

Von: Windenergie Deutschland GmbH  
 Gesendet: Mittwoch, 19. Oktober 2016 11:01  
 An: max.mustermann@beispiel.com

**Betreff: Warnhinweis Vermögensanlagen-Informationsblatt**

Sehr geehrte Kundin, sehr geehrter Kunde,

Um mit dem Kauf der Vermögensanlage fortfahren zu können, bestätigen Sie bitte zunächst die Kenntnisnahme des Warnhinweises im Ihnen vorliegenden Vermögensanlageninformationsblatt (VIB).

**Ich habe das vorliegende Vermögensanlagen-Informationsblatt – inklusive des auf Seite 1 unter der Überschrift hervorgehobenen Warnhinweises – zur Kenntnis genommen.**

**Bestätigen**



**Variant 3: double pop-up**

- 1

Sie müssen zunächst alle Unterlagen für den Kauf inklusive des Vermögensanlagen-Informationsblatts (VIB) als PDF downloaden und speichern.
- 2

Um den Kaufprozess fortsetzen zu können, müssen Sie bestätigen, dass Sie den Warnhinweis in dem VIB gelesen haben.
- 3

Für die Bestätigung des Warnhinweises wird Ihnen die nebenstehende Einblendung angezeigt. Dort müssen Sie einen Haken setzen, bevor der Prozess fortgesetzt werden kann.
- 4

Nach dieser Bestätigung des Warnhinweises können Sie sofort mit dem Kauf fortfahren. Dazu müssen Sie noch weitere Informationen wie Zahlungsdaten etc. angeben.

X

Ich habe das [Vermögensanlagen-Informationsblatt](#) – inklusive des auf Seite 1 unter der Überschrift hervorgehobenen Warnhinweises – zur Kenntnis genommen.

Weiter

Abbrechen

**Variant 4: existing regulation**

- 1

Sie müssen zunächst alle Unterlagen für den Kauf inklusive des Vermögensanlagen-Informationsblatts (VIB) als PDF downloaden und speichern.
- 2

Um den Kaufprozess fortsetzen zu können, müssen Sie bestätigen, dass Sie den Warnhinweis in dem VIB gelesen haben.
- 3

Für die Bestätigung des Warnhinweises werden mit diesem Formular persönliche Daten abgefragt. Sie müssen dabei alle (mit \*) markierten Felder ausfüllen.
- 4

Nach dieser Bestätigung des Warnhinweises können Sie sofort mit dem Kauf fortfahren. Dazu müssen Sie noch weitere Informationen wie Zahlungsdaten etc. angeben.

**Ich habe das vorliegende Vermögensanlagen-Informationsblatt – inklusive des auf Seite 1 unter der Überschrift hervorgehobenen Warnhinweises – zur Kenntnis genommen.**

Familienname\*
Vorname\*

Straße\*
Hausnummer\*

ggf. Adresszusatz

Postleitzahl\*
Ort\*

E-Mail-Adresse\*

Telefonnummer\*

Geburtsdatum (TT/MM/JJJ)\*
Geburtsort\*

Nummer des Personalausweises (alternativ: Reisepass)\*
Ausstellende Behörde\*

Ort\*
den

Datum\*

\* Pflichtangabe

**Variant 5: confirmation clause**

**1** Sie müssen zunächst alle Unterlagen für den Kauf inklusive des Vermögensanlagen-Informationsblatts (VIB) als PDF downloaden und speichern.

**2** Um den Kaufprozess fortsetzen zu können, müssen Sie bestätigen, dass Sie den Warnhinweis in dem VIB gelesen haben.

**3** Für die Bestätigung des Warnhinweises werden Sie gebeten, einen Satz in ein Formular zu schreiben und dabei Ihren eigenen Namen zu ergänzen.

**4** Nach dieser Bestätigung des Warnhinweises können Sie sofort mit dem Kauf fortfahren. Dazu müssen Sie noch weitere Informationen wie Zahlungsdaten etc. angeben.

„Ich, VORNAME NACHNAME, habe das vorliegende Vermögensanlagen-Informationsblatt – inklusive des auf Seite 1 unter der Überschrift hervorgehobenen Warnhinweises – zur Kenntnis genommen.“

Bitte Bestätigen Sie die Kenntnisnahme des Warnhinweises, indem Sie den oben genannten Satz abschreiben und mit Ihrem Namen ergänzen.

Ich, Max Mustermann, habe das |

• **Equivalence to a personal signature**

The participants in the representative survey (part 2 of the study) evaluated the equivalence of the electronic methods to a personal signature on a scale of 1 “feels less meaningful than a signature” to 7 “feels more meaningful than a signature”. An average value of 4.0 expressed perceived equivalent meaning to a personal signature. Values above (below) this expressed greater (lesser) meaning.

Confirmation of a pop-up window (variant 3) was ranked as less meaningful than a personal signature, and confirmation of a link in an email (variant 2) was ranked as roughly comparable.

The existing regulation (variant 4) and a confirmation clause (variant 5) were rated as slightly more meaningful than a signature.

The media break and personal signature was perceived to be most meaningful, with an average value of 4.8 (see *Table 15*).

Variance analysis of the equivalence to a personal signature showed a statistically highly significant difference between the various electronic confirmation methods ( $df = 4, F = 21.2, p < 0.0001$ ). This can be attributed to the method with a media break, which stands out clearly and statistically significantly from the other methods with a rating of 4.8. The difference from the next method with a lower rating (method 4, existing regulation) equates to 0.4 points on the scale ( $t = 3.5, df = 992.43, p = 0.0004$ ).

- **Tendency towards breaking off the confirmation process**

For all variants of the electronic confirmation process, a high tendency towards breaking off the process was indicated (see *Table 15*).

With average values of around 5 points on a scale of 1 (minimum) to 7 (maximum), at least 35 percent of the participants always stated that they would break off the purchasing processes owing to the respective confirmation method. There were no statistically significant differences between the methods with regard to discontinuation.

- **Tendency towards addressing the warning and risks**

A similar result appears for all variants with regard to a high tendency to read through the warning and risks again more thoroughly (see *Table 15*).

Depending on the variant, at least 50 percent of the participants stated that the confirmation process resulted in them reading through the warning and risks in detail. Here, lower values correspond to a higher tendency. There were no significant differences between the variants with regard to engagement with the warning and risks.

**Table 15: Average rating and standard deviation (s) for the electronic confirmation methods in part 2 of the study**

Confirmation method	Meaning (s)	Discontinuation (s)	Risks (s)
1. Media break	4.8 (1.7)	5.3 (1.7)	2.4 (1.9)
2. Confirmation link	4.0 (2.0)	5.2 (1.8)	2.4 (1.9)
3. Double pop-up	3.8 (2.1)	5.2 (1.7)	2.5 (2.0)
4. Existing regulation	4.4 (1.9)	5.2 (1.8)	2.4 (2.0)
5. Confirmation clause	4.4 (1.9)	5.2 (1.9)	2.4 (2.0)

Evaluations were done on a scale of 1 to 7 with the following end points:

Meaning: "Feels less meaningful than a signature" (1) vs. "Feels more meaningful than a signature" (7)

Discontinuation: "Does not raise any doubts for me" (1) vs. "Results in me abandoning the purchasing process" (7)

Risks: "Makes me read the warning and the risks in detail (again)" (1) vs. "Has no effect on how carefully I read through the warning and the risks" (7)

## Summary of the findings

### 1 Visibility of the warning

The findings of the study indicate that an improvement in the visibility and perceptibility of the warning could be achieved through consistent positioning of the warning (at the top of the first page under the title).

With regard to the effect of various typographical emphases for the warning on its visibility and the investment behaviour, there were differences between the different variants (e.g. with a larger font or more negative space), but these were not statistically significant. There is therefore no indication that consistent or concrete requirements for the typographical emphasis of the warning would result in a more pronounced effect.

The position of the signature for acknowledgement of the warning had no statistically significant impact on the effect of the warning.

A design with running text, in comparison with a table, resulted in better recollection of the content of the VIB as well as in more conservative investment behaviour and a lower investment sum. Standardisation of the text of the VIB in the form of running text could therefore have a positive effect on the perception of the VIB and the effect of the warning.

### 2 Effect of the warning

The warning works, particularly for small investors with poor financial knowledge. Participants who saw the warning appeared to be significantly more conservative in their investment decision than participants who did not see the warning – this applies in particular for people with poor financial knowledge. This indicates particular value and informational content in the warning for this group.

All of the wording variants tested for the warning showed a high perceived warning effect and caused the participants to deal carefully with the risks. None of the alternative wordings had a significantly more or less pronounced warning effect than the wording of the current regulation.

### 3 Effect of the electronic acknowledgement

The current regulation on electronic acknowledgement (entry of identifying data) is perceived as being slightly more meaningful than a personal signature. An electronic variant with media break was found to be most meaningful.

Overall, all forms of acknowledgement tested resulted in comparable levels of willingness to re-examine the risks of asset investment more thoroughly as well as in a comparable tendency to refrain from making an investment.

## Endnotes

- <sup>1</sup> Federal Ministry of Finance (2015). Monthly report by the Federal Ministry of Finance, August 2015, P. 24-39. Available at: [www.bundesfinanzministerium.de/Content/DE/Monatsberichte/2015/08/Downloads/monatsbericht-2015-08-deutsch.pdf](http://www.bundesfinanzministerium.de/Content/DE/Monatsberichte/2015/08/Downloads/monatsbericht-2015-08-deutsch.pdf)
- <sup>2</sup> Federal Financial Supervisory Authority (2014). Grey capital market. Available at [www.bafin.de/DE/Verbraucher/GeldanlageWertpapiere/Investieren/GrauerKapitalmarkt/grauer\\_kapitalmarkt\\_node.html](http://www.bafin.de/DE/Verbraucher/GeldanlageWertpapiere/Investieren/GrauerKapitalmarkt/grauer_kapitalmarkt_node.html) (last accessed on 22/06/2017).
- <sup>3</sup> For the law on small investor protection, see <http://www.bundesfinanzministerium.de/Content/DE/Monatsberichte/2015/08/Inhalte/Kapitel-3-Analysen/3-3-kleinanlegerschutzgesetz.html>
- <sup>4</sup> <http://www.bundesregierung.de/Content/DE/StatischeSeiten/Breg/wirksam-regieren/Anlagen/Download-Materialband-Warnhinweis-Kleinanlegerschutz.html>
- <sup>5</sup> See for example Federal Supreme Court civil law 58/03 on typographical emphasis according to § 5 a para. 2 P. 1 of the Insurance Contract Act or Federal Supreme Court civil law IV 197/11 on typographical emphasis as separate communication according to § 28 para. 4 of the Insurance Contract Act.

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# With citizens for citizens – *wirksam regieren* government strategy and project group

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“We want to increase the delivery and effectiveness of political projects by developing projects more strongly from the point of view of and with participation from citizens.”

Source: coalition agreement between CDU, CSU and SPD in December 2013

The Federal Government has followed through on this goal from the coalition agreement in December 2013. The project group “*wirksam regieren*” (citizen-centred government) in the Federal Chancellery has been supporting ministries and other government agencies since 2015 in getting citizens involved in the design and continuous improvement of specific projects.

Whether law or administrative rule, administrative process or a simple form – the state has a wide variety of options for organising society and pursuing political goals. For each of these cases, these questions need to be answered: what is the optimal design and how should the implementation look like for achieving the political goal in question?

For selected political projects, *wirksam regieren* tests alternative options for design and implementation. This is done very practically, under realistic conditions, and in dialogue with citizens.

## **Approach: understanding – designing – testing – evaluating**

### **Understanding.**

The first step of each project is to understand the situation and the viewpoint of all stakeholders.

To this end, and depending on the details of the project, input is collected from citizens, consumers or users on questions such as: do the affected parties benefit in the intended manner from a proposed policy? How do citizens experience public services and where do they see potential for improvement? Are forms, applications and legal language easy to understand and clear? Is the information provided to

consumers helpful? *Wirksam regieren* works interdisciplinarily and builds on the latest findings of the empirical social sciences. For example, behavioural and decision sciences provide insights into how people deal with information or perceive processes.

### **Designing.**

In a second step, design alternatives for a proposed policy are developed from these results.

Wherever appropriate, citizens are involved in this process of developing design alternatives. Citizens’ experiences and viewpoints are thus taken into account.

### **Testing.**

The various design options are empirically tested with a view to their actual effect, user-friendliness or clarity. Issues can be identified early on to optimize delivery and implementation.

### **Evaluating.**

Ministries or authorities define the research question and the project scope. *Wirksam regieren* formulates and implements the research design, collects data and evaluates it.

The results become part of the political process and decision-making in the ministries and government agencies.

The benefits of this approach: the effectiveness of political projects can be optimised from the citizens’ point of view: laws and programmes become more targeted. Information is made clearer. Forms, processes and legal language become simpler. Unnecessary bureaucracy is avoided and taxpayers’ money is saved.

By incorporating scientific expertise along with citizens’ ideas and viewpoints better solutions for an effective policy making process can be achieved.





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### **Authors**

Dr. Sabrina Artinger, Susanne Baltes, Dr. Christian Jarchow,  
Dr. Malte Petersen, Dr. Andrea M. Schneider

### **Coordination**

Federal Chancellery  
Political Planning, Fundamental Issues and Special Projects unit  
wirksam.regieren@bk.bund.de  
Willy-Brandt-Straße 1  
10557 Berlin

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Direct link to the *wirksam regieren* site:  
[www.bundesregierung.de/wirksam-regieren](http://www.bundesregierung.de/wirksam-regieren)

“Warning regarding small investor protection“ report & material  
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berichte](http://www.bundesregierung.de/breg-de/themen/wirksam-regieren/berichte)

