Results of a consultation among TU Delft staff and students on collaboration with the fossil industry

Technical University Delft

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POPULYTICS
What would you do?

Rationale, main question, method and structure

Executive summary (1 of 7)

- **Rationale:** TU Delft is investigating whether, and if so under what conditions, it should continue working with the fossil industry. The consultation and the results published in this report are part of a broader dialogue on the topic of collaboration with the fossil industry. This broader dialogue consists of three tracks, including the consultation. A report is produced for each of the tracks, which together will serve as the basis for advice to the Executive Board in 2024.

- **Main question:** What measures should TU Delft take with regard to its collaboration with the fossil industry?

- **Method:** Populytics has conducted a Participatory Value Evaluation (PVE) on behalf of the Climate Action Programme, taking full responsibility for the design and analysis of the survey. As part of the design process, Populytics consulted people with different views on the main question.

- **PVE as a method:** The consultation is based on the Participatory Value Evaluation (PVE) method, which lets participants spend 15 minutes in a policy-maker's, administrator's or politician's shoes and experience policy dilemmas firsthand. Participants were shown 10 measures TU Delft could take in its work with the fossil industry. Participants could also advise against taking restrictive measures altogether. They were shown the effort required from TU Delft to implement the measures. Participants then justified why they had or had not chosen certain measures.

- **Consultation design:** The consultation consisted of 2 parts:
    1. A series of statements, asking participants whether they agreed or disagreed and why
    2. PVE choice task: What measures should TU Delft take with regard to its collaboration with the fossil industry?

Response, silent group, reliability and complexity

Executive summary (2 of 7)

- **High response rate:** All students and staff were personally invited to participate in the consultation. Between 5 and 20 December 2023, 2921 TU Delft staff and students completed the consultation in its entirety. 97% of participants gave the survey a passing mark, with an average of 7.7, and 88% of participants think that this method should be used more often for policy decisions made by the Executive Board. These figures suggest that the university's collaboration to the fossil industry are a hot-button issue and that people appreciate being involved in decisions that will affect them.

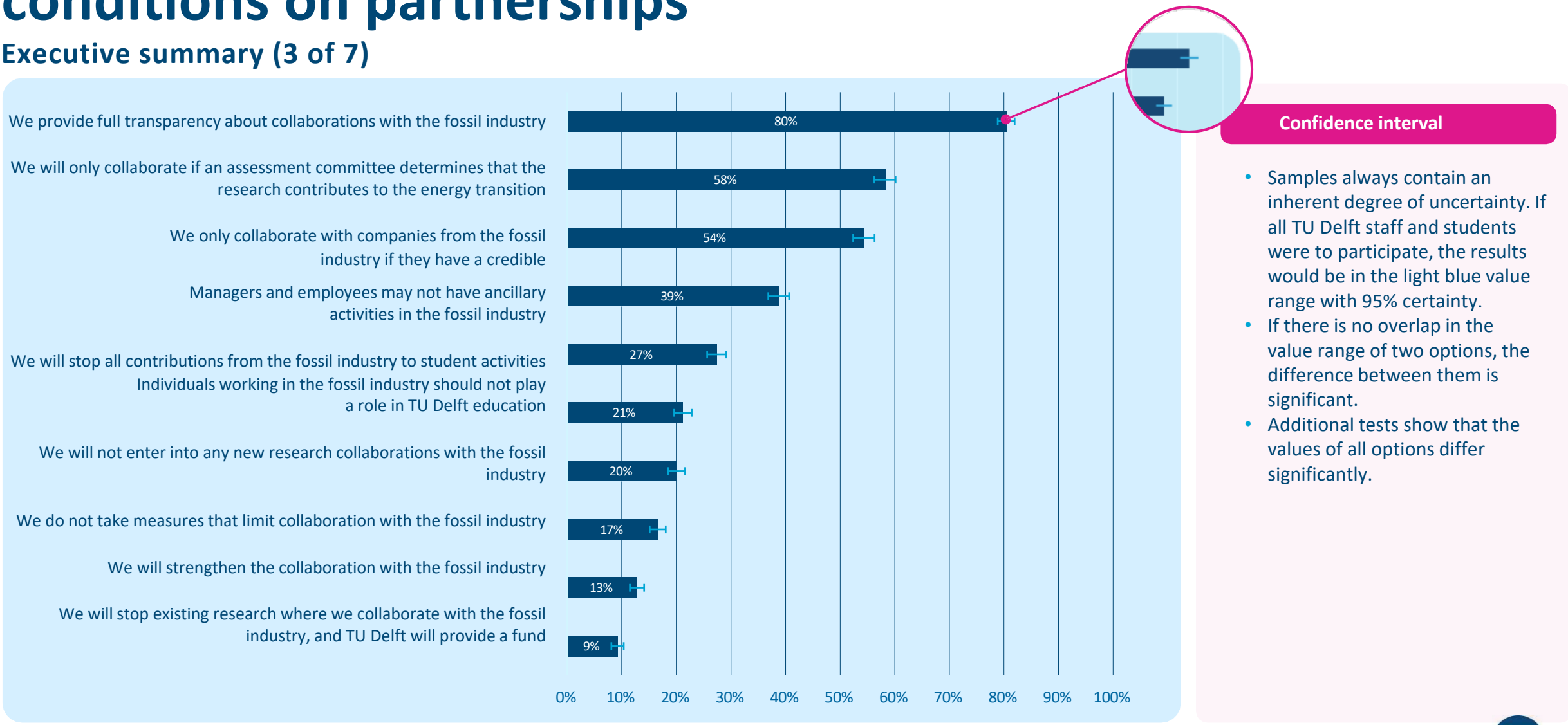
- **Silent group breaks silence:** 87% of participants had never expressed their views on this topic before.

- **Representativeness:** The top five measures recommended by participants are similar regardless of participant role, organisational unit, gender or age, which suggests that these characteristics do not affect how participants rank measures. We therefore argue that, based on these findings, the main conclusions of this report are representative of the population of Delft staff and students with regard to age, gender, organisational unit and position.

- **Complex theme**: The qualitative analysis shows that participants gave multiple arguments in favour of and against each measure, making the process of advising on any such measures rather complex. This report on the results of the consultation provides guidance for the Executive Board to make decisions by presenting a wide range of arguments in favour of and against collaboration with the fossil industry.

Majority recommends transparency and imposing conditions on partnerships

Executive summary (3 of 7)



Confidence interval

- Samples always contain an inherent degree of uncertainty. If all TU Delft staff and students were to participate, the results would be in the light blue value range with 95% certainty.
- If there is no overlap in the value range of two options, the difference between them is significant.
- Additional tests show that the values of all options differ significantly.

Major similarities in climate concerns, TU Delft's intended goal and advice on transparency

Executive summary (4 of 7)

- **There is broad support among participants for full transparency on partnerships.** First, it is the measure most often recommended by participants on average, with 80% recommending this measure. Secondly, among groups with different characteristics and different views on the topic, we see that the majority recommend this measure. The most cited argument is that transparency is an inherent, important value for the university.
- **Great similarities in climate concerns. A** large proportion (94%) of participants are somewhat (31%) or seriously (63%) concerned about the climate. This is a much higher percentage than the Dutch average. A previous national climate survey conducted by Populytics showed that 66% of a representative group of participants are concerned about the climate.
- **Great similarities in intended purpose of policy. A** large proportion (94%) of participants agreed with the statement: 'It is the task of the TU Delft to contribute to the energy transition'.
- **Participants do differ in *how* they think the energy transition can be accelerated and what role the fossil industry should play**. Participants disagree on which measures taken by TU Delft contribute to the energy transition and which do not. On the next page, we will elaborate on these differences.

Role, organisation, gender & age do not explain differences, intrinsic beliefs do

Executive summary (5 of 7)

- **The top five measures recommended by participants are consistent, regardless of role, organisational unit, gender or age.** This suggests that these characteristics do not affect how participants rank measures. The main conclusions from this report are representative of TU Delft students and staff.

- **Apart from a widely shared opinion on full transparency, the measures participants recommend depend strongly on how much they care about climate change and their attitude towards the two main statements:**
  - Participants' levels of climate concerns are an explanatory factor for the measures they recommend. A small group (6%) of participants who are not really or not at all concerned about the climate are much more likely to advise no action and to strengthen collaboration than participants who are concerned or seriously concerned about the climate.
  - Participants' views on statement 1 "Collaboration with the fossil industry will accelerate the transition to a sustainable energy system" are an explanatory factor for the difference in recommended measures.
    - Participants who strongly agree with statement 1 are much more likely to recommend no measures and to strengthen collaboration than to participants who disagree with statement 1.
    - Participants who strongly disagree with statement 1 are much more likely to recommend restrictive measures than those who agree with statement 1.
  - Participants' views on statement 2: "We must set a hard line and sever contacts with fossil industry companies that do not credibly act in line with the Paris Agreement goals" is another explanatory factor for the difference in recommended measures.
    - Participants who strongly agree with statement 2 are much more likely to recommend restrictive measures than those who disagree with statement 2.
    - Participants who strongly disagree with statement 2 are much more likely to recommend no action and to strengthen collaboration than to participants who agree or strongly agree with statement 2.
  - Participants' views on both statements are not as strongly correlated with their preferred conditions for collaboration; across all subgroups, imposing conditions on projects (review committee) and imposing conditions on companies (credible plan) appear in the top 5 measures, though at different positions.

Dialogue needed on what type of conditions to place on partnerships

Executive summary (6 of 7)

- **76% of participants recommend at least one of the two measures that impose conditions on partnerships:**
  1. 'We will only work with partners if a review committee finds that the research aims to develop knowledge geared towards accelerating the energy transition, phasing out fossil fuels, and/or avoiding carbon emissions'
  2. 'We will only work with fossil fuel companies if they have a credible plan for meeting the Paris Agreement climate targets'

	Percentage recommending only this measure	Percentage recommending both measures	Total percentage recommending this measure
Review committee (project conditions)	21.5%	36.7%	58.2%
Credible plan (company conditions)	17.6%	36.7%	54.3%

- **The main argument for imposing project conditions is that this will only allow for research that accelerates the energy transition.** Other arguments are: avoiding a black-and-white approach and encouraging a more critical approach to partnerships. A concern brought up by participants who do not recommend this measure is that assessing individual projects would be very labour-intensive.
- **Several arguments are made for imposing company conditions.** Participants argue that partnerships will not contribute to the energy transition if companies do not have a credible plan; that this measure rules out partnerships with irresponsible companies; and that the measure is a good fit for the university. Participants who do not recommend this measure are concerned about feasibility and the idea that plans alone are not enough.
- **The decision between project conditions or company conditions is not an easy one and more dialogue is needed**. The arguments given by participants in favour of their proposed measures highlight that many participants have a nuanced opinion. They see the pros and cons of both project conditions ('review committee') and company conditions ('credible plan') and realise that it is a difficult choice to make. Participants commonly addressed elements of one measure in justifying their choice for the other measure.

Least popular measures evoke most resistance, but minority views should still be acknowledged

Executive summary (7 of 7)

- **Participants can broadly be categorised into four groups with differing views.**

  Participants within each group recommend a similar set of measures.
  - Groups 1 and 2 cover 71% of participants and mainly advise measures that impose conditions on partnerships. Group 1, which accounts for 43% of participants, wants to impose a limited number of conditions: transparency, a credible plan to meet the Paris Climate Goals (company condition) and a positive opinion from a review committee (project condition).In addition, most participants from Group 2, which accounts for 28% of participants, want other conditions; including no ancillary activities and no contributions to student activities.
  - Groups 3 and 4 more often recommend the measures that are least popular on average. Group 3, which covers 17% of participants, mainly recommends transparency, no action or closer collaboration with the fossil industry. Other measures found little support in Group 3.Group 4, which covers 12% of participants, mainly recommends no more new partnerships, banning ancillary activities and contributions to student activities and advises that people from the fossil industry should not be allowed to play a part in teaching. 42% of Group 4 also recommend discontinuing ongoing research projects. While this is not a majority, it is a remarkably high percentage compared to the other groups.

- **Ending the ongoing partnerships and refraining from taking measures will provoke resistance.** A relatively small group of participants recommend taking no action (17%) or, on the contrary, discontinuing partnerships entirely (9%). Not only are these measures unpopular, but participants who disagree with them also give extensive reasons for their negative opinion. Both 'doing nothing' and 'ending ongoing partnerships' seem to be characterised by a strong negative sentiment.

- **Follow-up of decision-making process:** When a decision-maker takes the outcomes of consultation and wider dialogue seriously, acknowledges participants' arguments and provides feedback on why certain recommendations were or were not adopted, participants are more likely to experience the decision-making process as fair, reducing the likelihood that decisions will come up against much resistance.

Full report

Participant breakdown

2921 people took part in the consultation

Number of participants	N = 2921
Age	**Share**
age <25	47%
age 25-34	24%
age 35-44	11%
age 45-54	9%
age 55-64	7%
Age > 65	1%

Affiliation	
Bachelor's student	18%
Master's student	32%
PhD/Postdoc	14%
Assistant professor/Associate professor/Professor	15%
Management	2%
Support staff	15%

Gender	**Share**
Male	68%
Female	28%

Organisational unit	
Architecture and the Built Environment	7%
Civil Engineering & Geosciences	13%
Electrical engineering, Mathematics & Computer science	12%
Industrial Design (ID)	6%
Aerospace Engineering	10%
Technology, Policy and Management	6%
Applied Sciences	13%
Mechanical Engineering, Marine Engineering & Technical Materials Science	16%
University Corporate Office	9%

Explanation

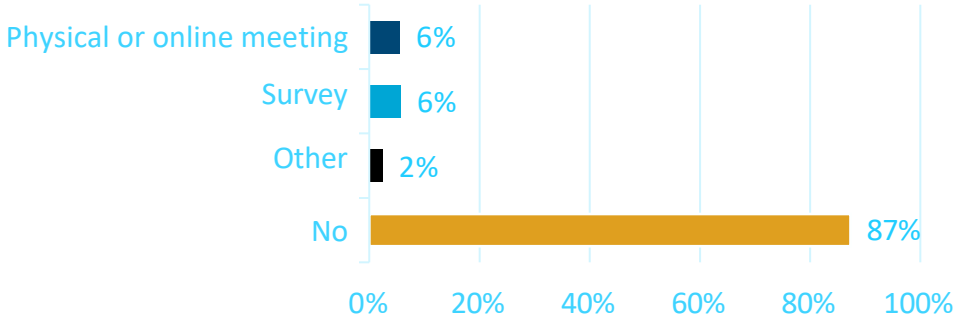
- *Gender: Almost* 2.5 times as many men participated than women. Their top five recommended measures are no different from the top five measures recommended by women.
- *Age*: Almost half of the participants are under 25 years old. Almost a quarter are between 25 and 34 years old. Just over a quarter are 35 or older.
- *Representative outcomes: The* top five measures recommended by participants are similar regardless of participant role, organisational unit, gender or age, which suggests that these characteristics do not affect how participants rank measures. We therefore argue that, based on these findings, the main conclusions of this report are representative of the population of Delft staff and students with regard to age, gender, organisational unit and position.
- *I'd rather not say:* Totals do not always add up to 100 per cent. The remainder consists of participants who answered, 'I'd rather not say'.

Many participants had never expressed their views on the subject before

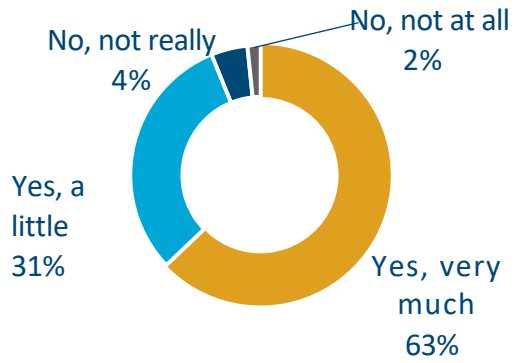
Explanation

- 87% of participants had never before expressed their views on the subject.
- A large proportion (94%) of participants are concerned about the climate: 63% say they are very concerned and 31% say they are a little concerned.

I have previously expressed my views on this topic



I am concerned about the climate

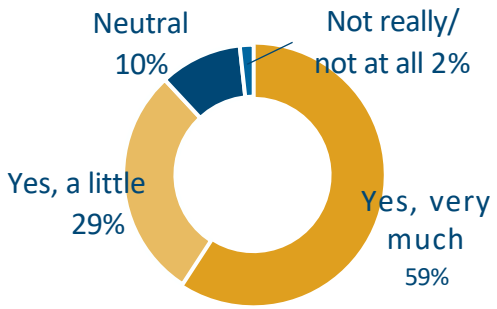


Participants find the consultation understandable, somewhat leading and worth repeating

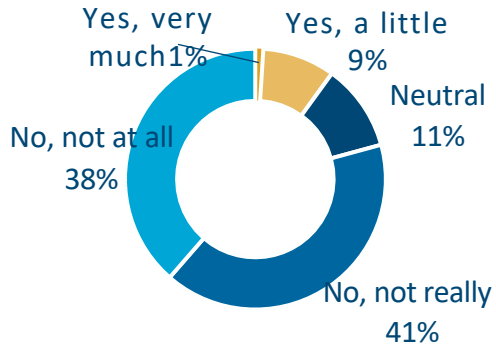
Explanation

- 97% of participants were satisfied with the consultation. On average, participants gave the consultation a 7.7 out of 10. 88% felt the consultation was worth repeating. Compared to other consultations, these outcomes are above average.
- 25% of respondents felt the consultation was somewhat leading, with 5% saying they found it very leading. 52% felt the consultation was not leading/not leading at all. Compared to other consultations, slightly more people than average felt the consultation was leading.
- One explanation is that there were more restrictive measures than non-restrictive measures. Participants who felt the consultation was leading were more likely than average to recommend no action.

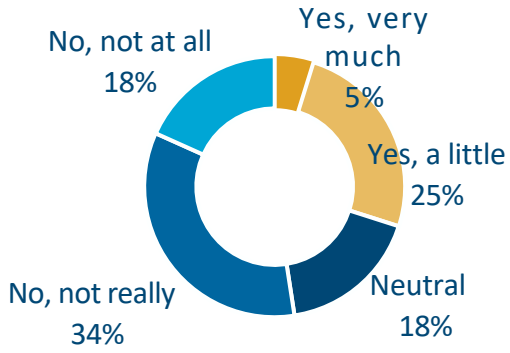
I appreciated being able to share my opinion on this topic



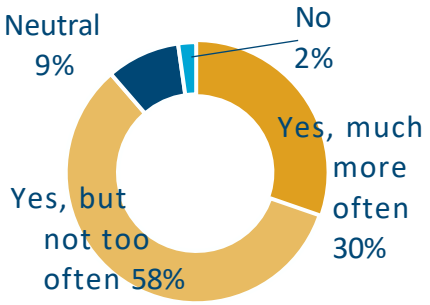
I found the study difficult to understand



This survey led my choices in a particular direction



This method should be used more often to involve staff in decision-making



Definition of ‘fossil industry’

93% of participants agree with the definition of 'fossil industry'

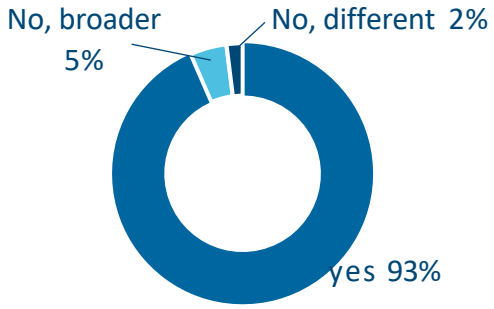
Explanation

- In the first section, participants could indicate whether they agreed with how the fossil industry was defined for the purpose of the consultation or whether they preferred another definition. They could also choose a broader definition or suggest one of their own.

- Of the participants who prefer a different definition, 64% chose the broader definition: ‘Companies whose business model is largely based on the extraction, processing, sale, transportation and/or large-scale use of fossil fuels. Examples include Shell, Exxon Mobil, Tata Steel, RWE, Dow and KLM.'

In this consultation, we define the fossil industry as follows: 'Companies whose business model is largely based on the extraction, processing, and/or sale of fossil fuels such as oil, coal, and gas.'

Do you agree with the definition chosen for this consultation?



Two statements with argumentation

Participants have very different views about the two main statements and arguments

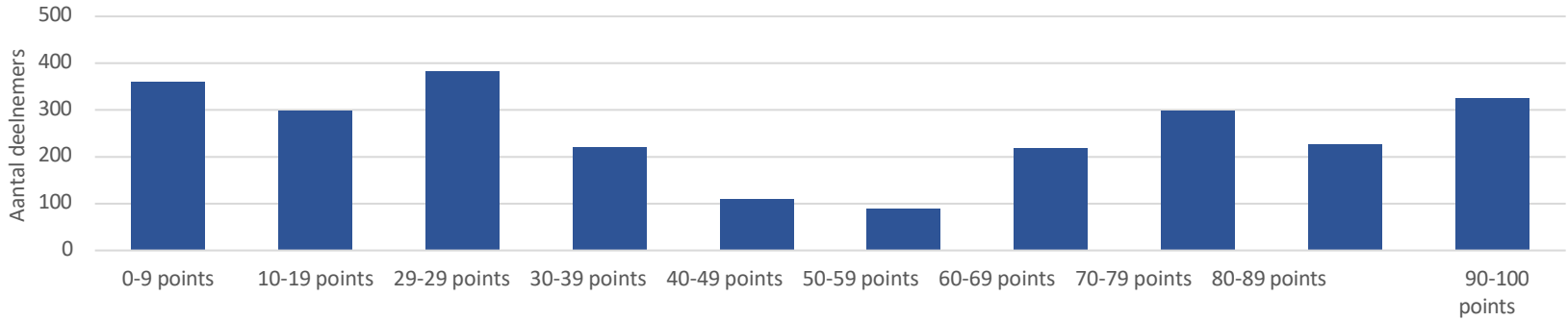
Explanation

- Participants were shown two statements, followed by several arguments from people who agreed and disagreed with the statement. Participants were then asked to rate the extent to which they agreed or disagreed with the statement. Afterwards, participants could share their arguments.

- Participants are strongly divided on the two statements. Relatively more participants agreed strongly with statement 2.

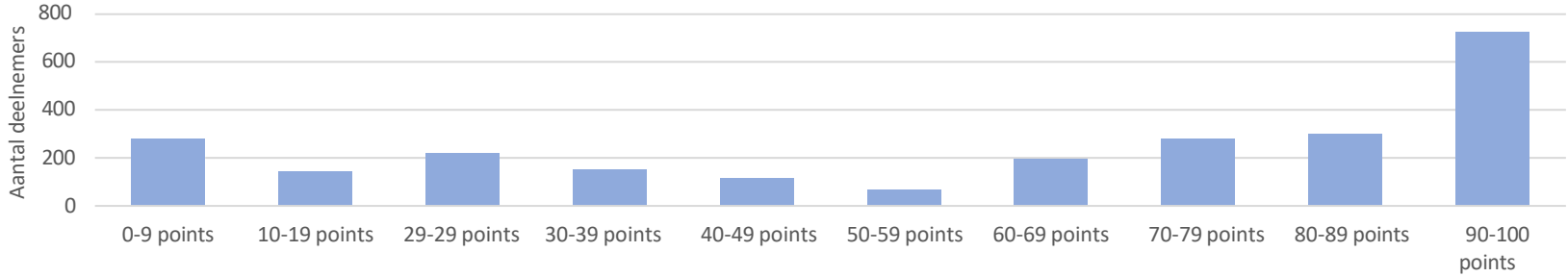
Statement 1: "Collaboration with the fossil industry will accelerate the transition to a sustainable energy system.“

Completely agree = 100 points, completely disagree = 0 points



Statement 2: "We must set a hard line and sever contacts with fossil industry companies that do not credibly act in line with the Paris Agreement goals”

Completely agree = 100 points, completely disagree = 0 points



Arguments: ‘Collaboration with the fossil industry will accelerate the transition to a sustainable energy system’

Why do participants give points?
(Most cited arguments. Arguments with more stars were mentioned more often)

Arguments for >50 points	Frequency	Argument for <50 points	Frequency
We need knowledge, skills and capital from the fossil industry, partly to accelerate the energy transition	★★★★	The fossil industry's priorities lie elsewhere: their goal is to thwart the energy transition	★★★★★
If we refuse to work with the fossil industry, we cannot influence it	★	True innovation requires collaboration with new creative partners	★

Other remarks

- The university does not have the power to influence major players like Shell
- Condition: we should collaborate with the fossil industry only if it enables research that accelerates the energy transition

Illustrative quotes

"There is a lot of money in the fossil industry, which can be incredibly valuable for TU Delft. While it comes at the risk of enabling them to buy influence and influence results, the fossil industry’s own studies are even less reliable or never published."

“We will need existing fossil industry infrastructure to accelerate the transition, but these parties have shown little willingness to cooperate in the past."

"I think we need the fossil industry for the sustainable development of society, while also heeding the arguments of those who oppose it, because the dangers are real."

“It is important to not shun these companies and to engage in active discussions with them.”

"I think there are plenty of companies and parties who have a lot of knowledge and resources and who do have the best interests of the planet at heart. We should focus on working with them.”

“These companies are simply not motivated to actually promote innovation: any radical green innovation would immediately ruin their business model, so they’d never fight for it."

“The only incentive of fossil fuel companies is to make money, everything else is secondary to them”

Arguments: ‘We must set a hard line and sever contacts with fossil industry companies that do not credibly act in line with the Paris Agreement goals’

Why do participants give points?
(Most cited arguments. Arguments with more stars were mentioned more often)

Arguments for >50 points	Frequency
There are limits to academic freedom	★★
Following legislation, such as the Paris Agreement, is a good thing	★
The fossil industry is not credible, and we should no longer collaborate	★

Argument for <50 points	Frequency
Setting limits is not our responsibility	★★
Hard boundaries would be a bad thing. We should assess on a case-by-case basis	★★
Imposing conditions on collaboration would put us on a sliding scale	★

Other remarks

- Yes, it would send a strong and important message.
- Yes, we need to set hard, quantifiable conditions
- No, it would restrict academic freedom, which would be a bad thing
- No, these collaborations are actually useful
- No, dialogue is always the best option

Illustrative quotes

"Academic freedom is all well and good, but there are also ethics to consider. You just can’t work with companies that actively operate in and profit from a system that makes the earth unliveable and already costs millions of lives a year. It's akin to working with arms dealers."

“The university should not impose hard restrictions and sever ties. Rather, we can guide developments in the right direction, which would be a lot more effective than blunt, sweeping generalisations.”

"Academic freedom can never be absolute. Academia should serve society. If companies choose to wilfully harm society for profit, TU Delft should respond accordingly.”

"I am against censorship of any kind. It is also not the job of the university to be a political entity, it is a knowledge institution and must uphold its responsibilities as such."

"Companies that do not pursue the Paris targets should have no (economic) right to exist and they should not be validated by partnerships with scientific institutes.

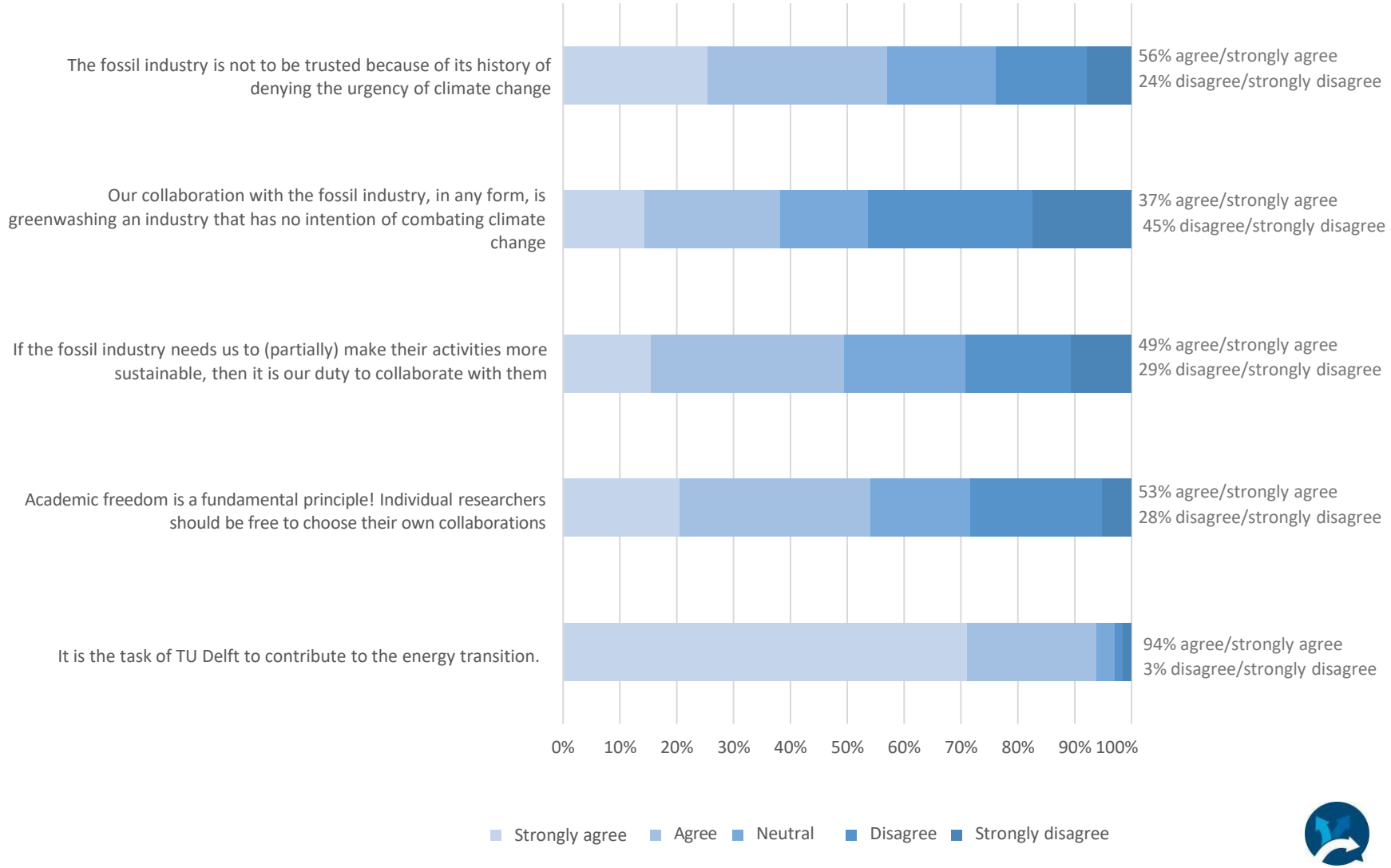
“This is a tricky statement. I would advocate assessing each individual case on its own merits, looking at the goal of each.”

Five statements without argumentation

Participants' views

Explanation

- Participants were shown five statements without arguments and were asked to rate the extent to which they agreed or disagreed with the statement. Afterwards, participants could share their arguments.
- 94% of participants agree/strongly agree with the statement: 'It is the task of TU Delft to contribute to the energy transition.'
- Participants were divided on all other statements.
- Participants justify their views by setting conditions and adding nuance. Some of these justifications are shown on the next page.



Arguments mentioned in response to the 5 statements

It is the task of TU Delft to contribute to the energy transition

Arguments in favour
- TU Delft has the chance to play a meaningful role and it is our duty to do so
- Science must always serve society
- TU Delft should lead by example

Arguments against
- Our job is science, not sustainability

Academic freedom is a fundamental principle! Individual researchers should be free to choose their own collaborations

Arguments in favour
- Academic freedom comes first
- While academic freedom is important, it does have limits

Arguments against
- We have a responsibility to society
- Our research must not deliberately harm the planet
- The fossil industry has proven in the past to be an unreliable partner (e.g. by hampering academic freedom)

If the fossil industry needs us to (partially) make their activities more sustainable, then it is our duty to collaborate with them

Arguments in favour
- Agree, but only if it is shown to contribute to sustainable development
- Helping these companies is the fastest way to become more sustainable
- It is the best way to contribute to sustainable development

Arguments against
- We are under no obligation
- It is not a duty as much as it is an opportunity
- Only if these companies become truly sustainable

Our collaboration with the fossil industry, in any form, is greenwashing an industry that has no intention of combating climate change

Arguments in favour
- This is partly true, but not entirely
- Things will not change until they have solid sustainability plans
- This will never change, because they are for-profit companies

Arguments against
- Yes, that's why we should make demands but keep working together
- Collaboration that promotes sustainability is not greenwashing
- Collaboration is not tantamount to greenwashing

The fossil industry is not to be trusted because of its history of denying the urgency of climate change

Arguments in favour
- we should be sceptical about future partnerships
- Yes, and it's their own fault
- The fact that they knew about climate change all along and did nothing is especially revealing

Neutral arguments and arguments against
- This would be overly drastic
- Yes, but these companies also deserve another chance
- After all, they are for-profit companies

What measures should TU Delft take to define its collaboration with the fossil industry?

What measures should TU Delft take to define its collaboration with the fossil industry?

Explanation

- **Objective:** Gaining insight into the measures chosen by staff and students with regard to collaboration with the fossil industry
- **Task:** participants were asked to pick 1 or more measures out of a set of 10. For each measure, they saw how much effort it would cost TU Delft.
- **Justification**: Participants were also able to justify their choices.
- **Analysis**: Based on various characteristics of the respondents, we use statistical analysis methods to determine the differences and similarities between participants or groups of participants.

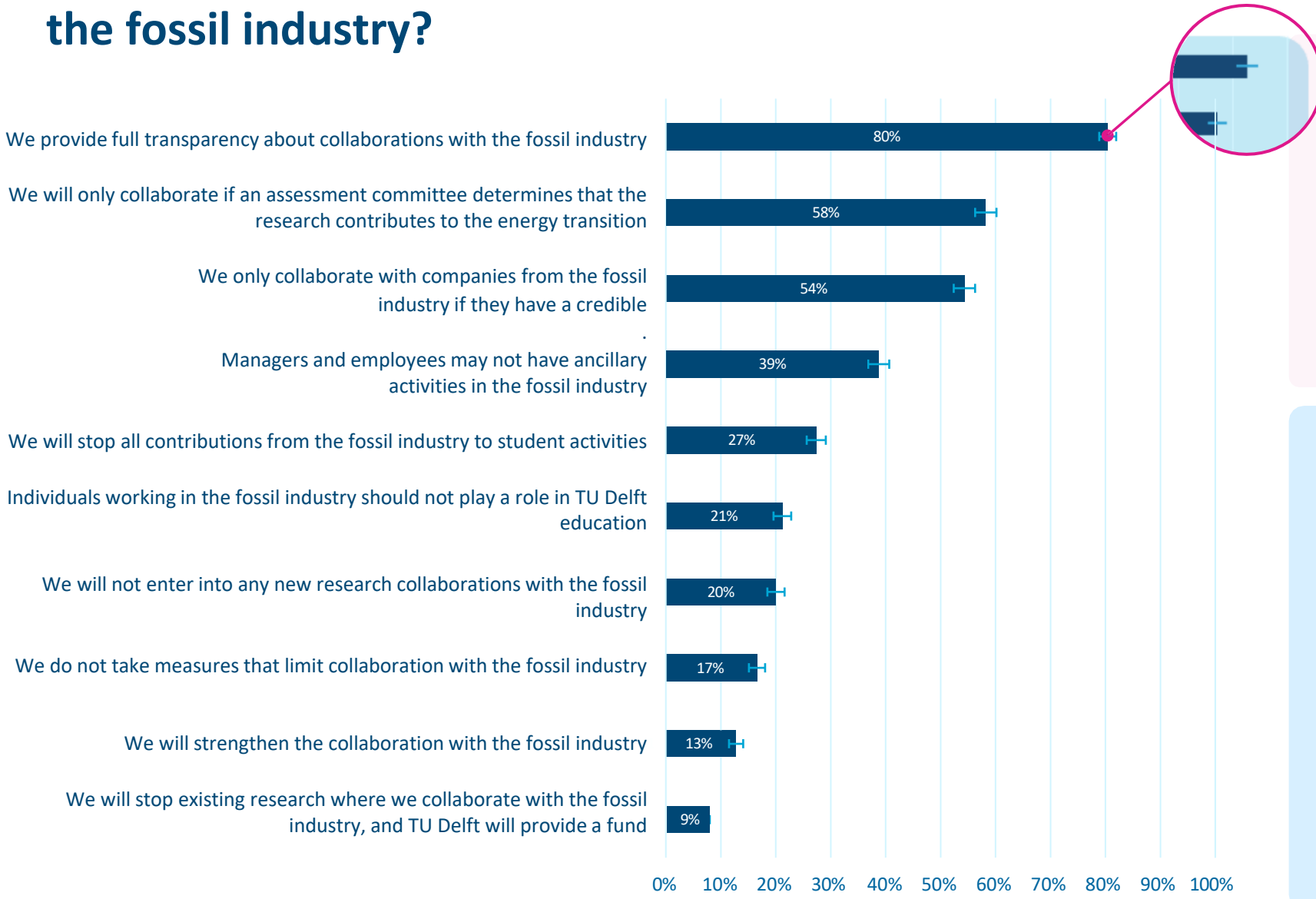
Summary of results

Overall results
- What measures do participants choose with regard to TU Delft's collaboration with the fossil industry?
- Breakdown by role and organisational unit, demographic characteristics, climate concerns and views on the statements

Breakdown by measure
- Why do participants choose or not choose a particular measure?

Results of Latent Class Cluster Analysis
- Profile of 4 groups of TU Delft staff and students

What measures should TU Delft take to define its collaboration with the fossil industry?



Confidence interval

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- If there is no overlap in the value range of two options, the difference between them is significant.
- Additional tests show that the values of all options differ significantly.

Explanations and insights

- *Explanation:* The percentages show the proportion of participants choosing a particular measure. For example: 80% of participants think TU Delft should fully disclose its collaboration with the fossil industry.

- *Interpretation:* Besides transparency, there are two more measures that were chosen by the majority of participants, both of which revolve around conditions to be imposed on partnerships. Participants were least likely to choose the two most far-reaching measures: strengthening collaboration and discontinuing all ongoing research projects.

Summary of results

Overall results
- What measures do participants choose with regard to TU Delft's collaboration with the fossil industry?
- Breakdown by role and organisational unit, demographic characteristics, climate concerns and views on the statements

Breakdown by measure
- Why do participants choose or not choose a particular measure?

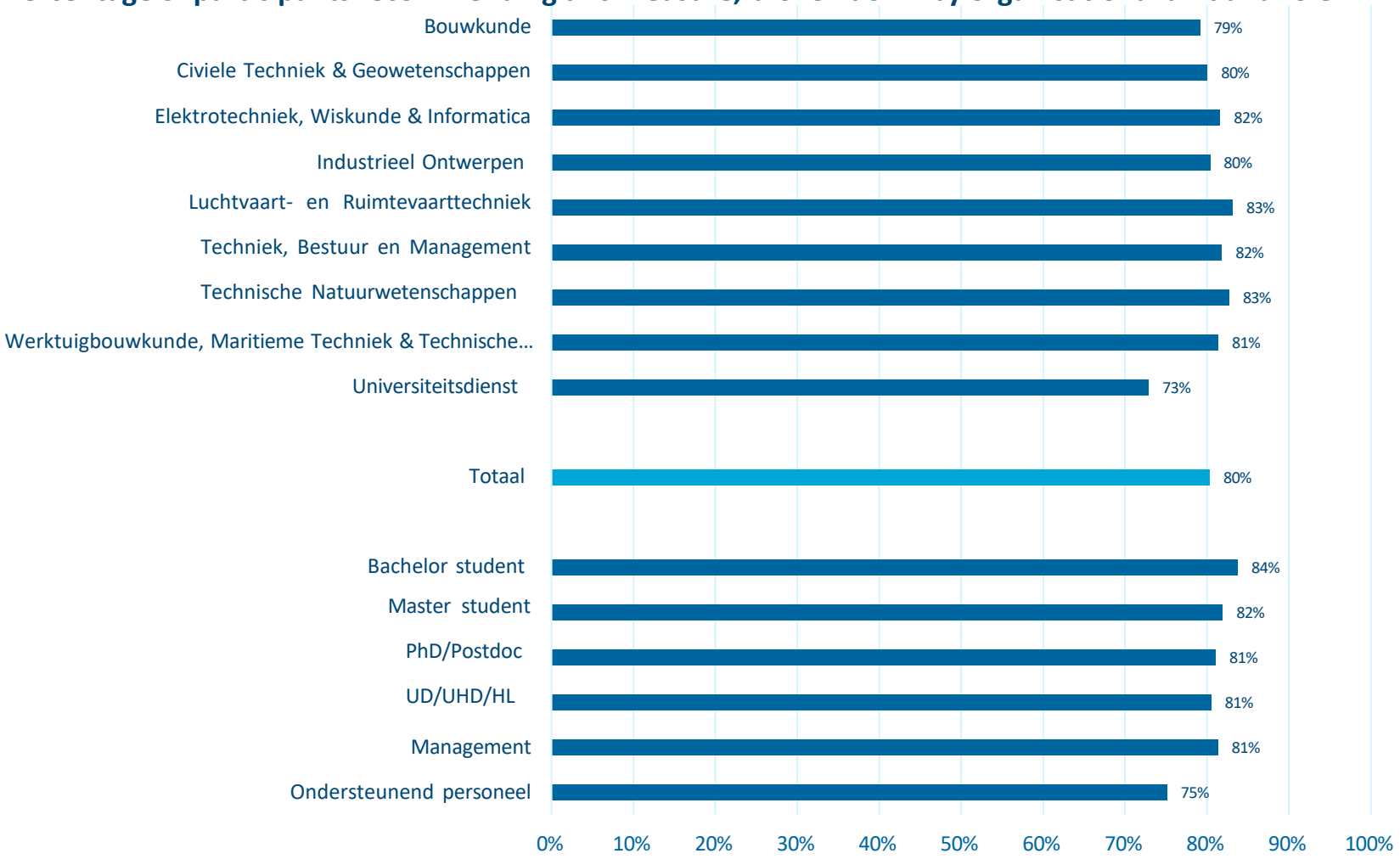
Results of Latent Class Cluster Analysis
- Profile of 4 groups of TU Delft staff and students

Role or affiliation with organisational unit does not affect preference for measures

Breakdown measure 1. We provide full transparency about collaborations with the fossil industry

Breakdown of other measures can be found in the Appendix

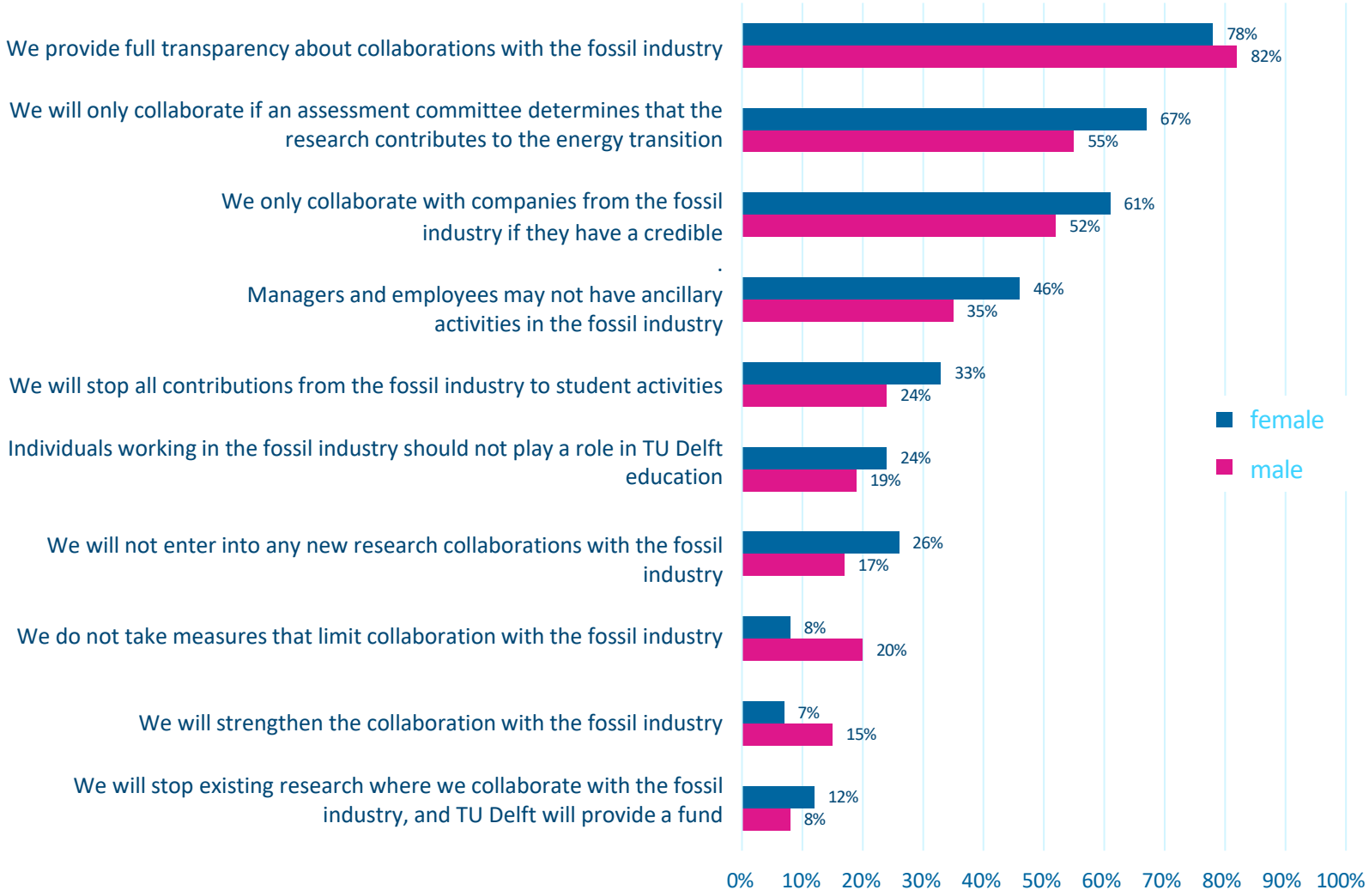
Percentage of participants recommending this measure, broken down by organisational unit and role.



Explanations and insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.
- Findings for other measures are similar; role or organisational unit do not have a substantial impact on the popularity of measures.

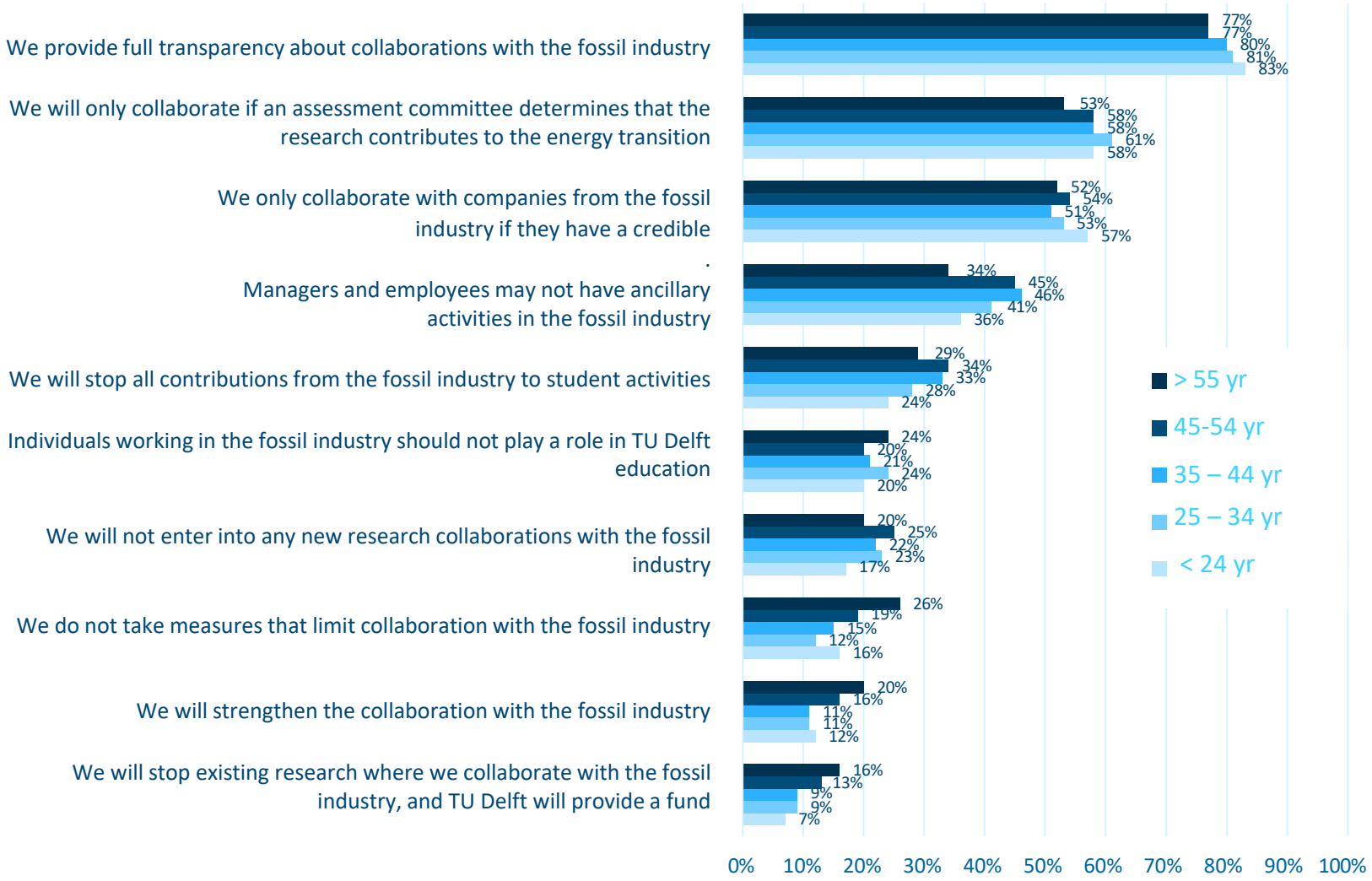
Men and women recommend same top five measures



Explanations and insights

- Men and women recommend the same top five measures in the same order.
- No extreme differences were found with regard to the 5 least popular measures. Men are slightly more likely to advise continued collaboration, while women are slightly more likely to advise not entering into new partnerships.
- In a nutshell, there are many more similarities than differences between men and women in terms of their recommendations on collaboration with the fossil industry.

Participants of all ages recommend the same top five measures

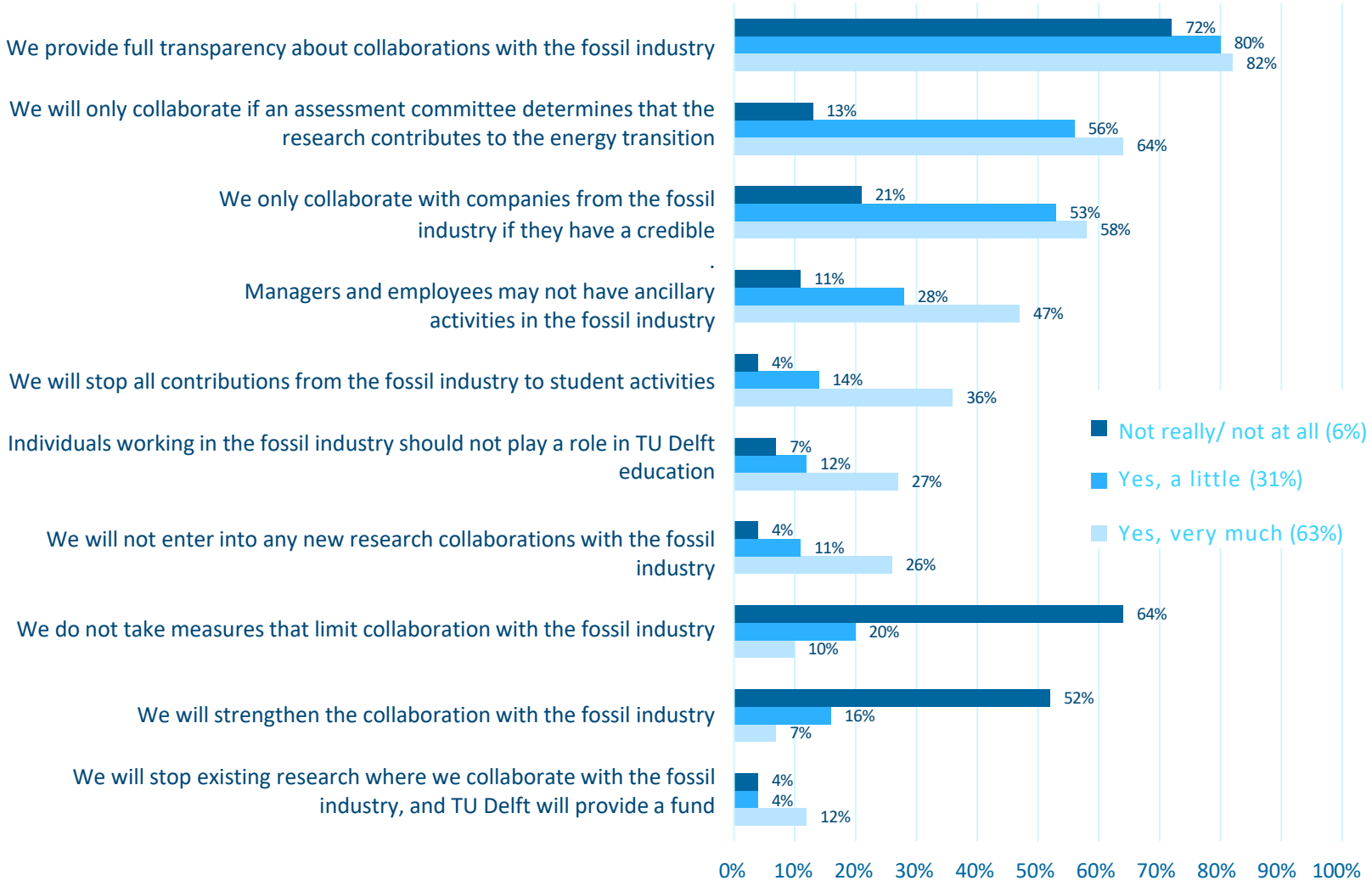


Explanations and insights

- Participants of each age group recommend the same top five measures in the same order.
- The most far-reaching measures (strengthening collaboration and discontinuing ongoing research projects) are proportionally more popular among older participants.
- In a nutshell, there are many more similarities than differences between participants of all ages in terms of their recommendations on collaboration with the fossil industry.

Climate concerns help explain preference for measures, except for transparency

Average score for ‘I am concerned about the climate'

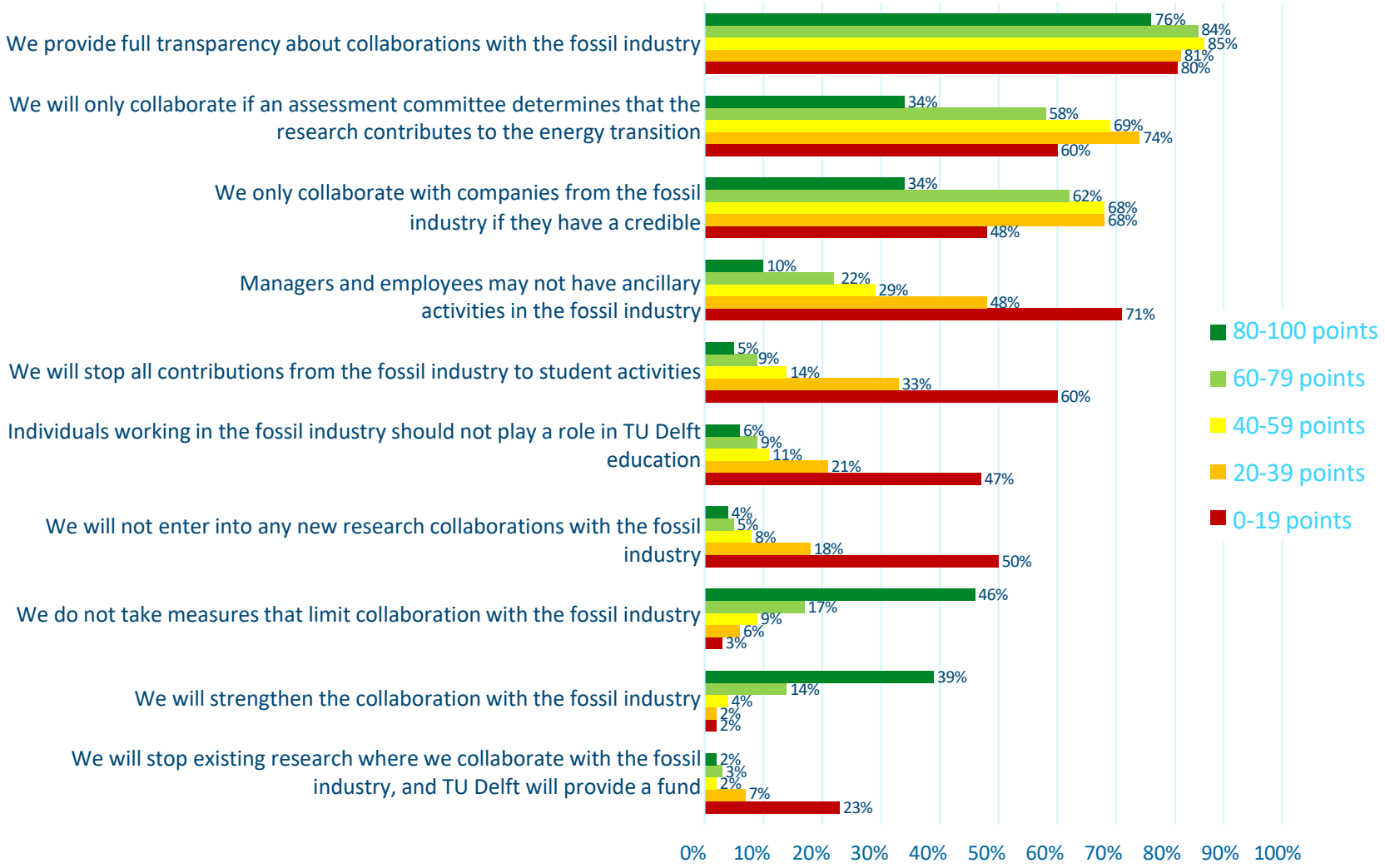


Explanations and insights

- Full transparency on collaboration with the fossil industry is a widely supported measure among participants who are not concerned about climate and those who are deeply concerned alike.
- The top three measures recommended by participants who are very concerned about the climate are: full transparency (82%), review committee (64%) and credible plan (58%).
- The top three measures recommended by participants who are not really or not at all concerned about the climate are: full transparency (72%), no measures (64%) and strengthening collaboration (52%).

Views on statement 1 help explain preference for measures, except for transparency

Statement 1: "Collaboration with the fossil industry will accelerate the transition to a sustainable energy system."

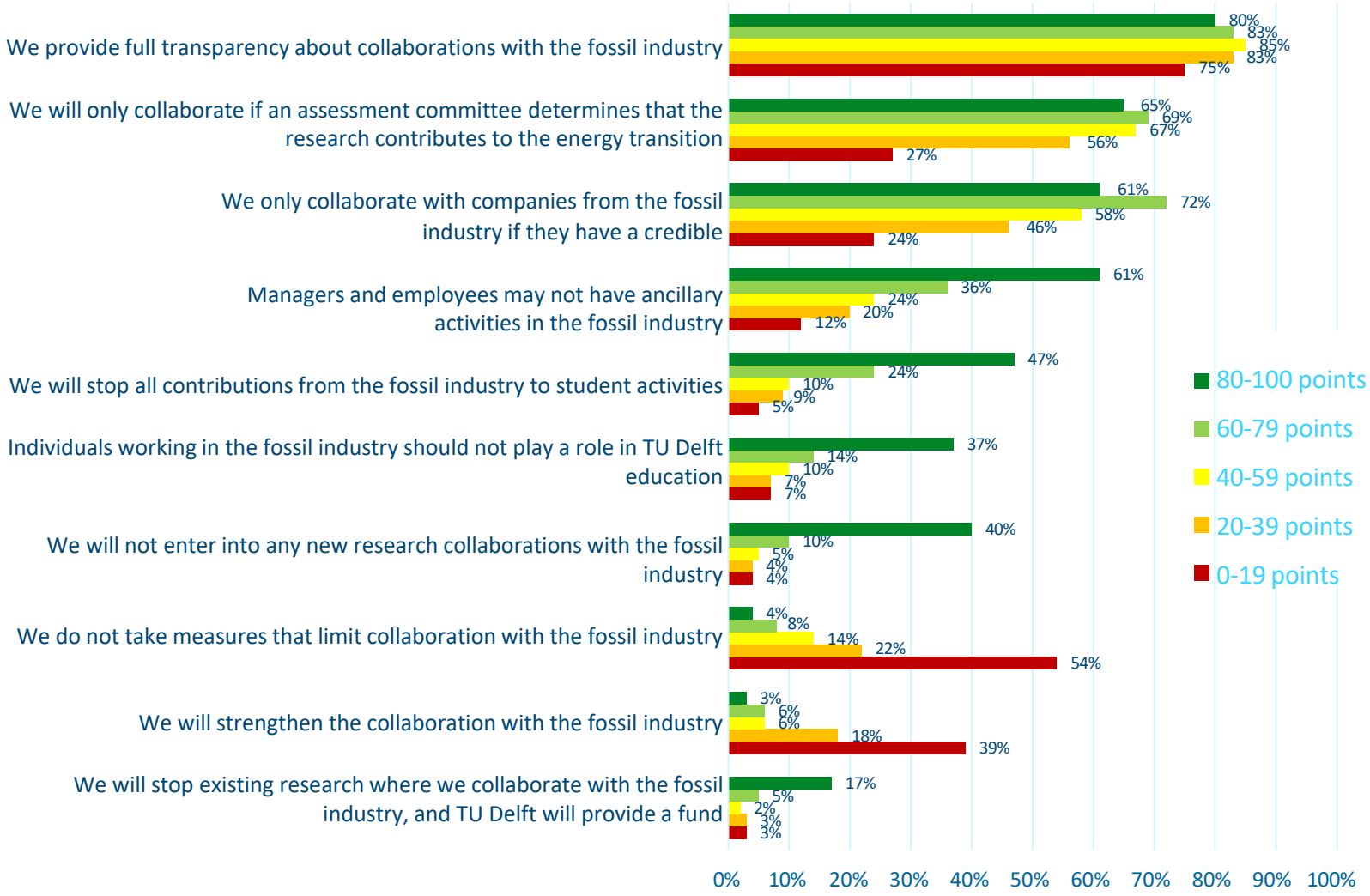


Explanations and insights

- Full transparency on collaboration with the fossil industry is a widely supported measure regardless of participants' views on statement 1.
- Differences between different subgroups are smaller for the measures that set project conditions (review committee) or company conditions (credible plan) than for the other measures.
- The top three measures recommended by participants who agree/strongly agree with statement 1 (80-100 points) are: full transparency (76%), no measures (46%) and strengthening collaboration (39%).
- The top three measures recommended by participants who disagree/strongly disagree with statement 1 (0-19 points) are: full transparency (80%), no ancillary activities (71%) and no contribution to student activities (60%).

Views on statement 2 help explain preference for measures, except for transparency

Statement 2: "We must set a hard line and sever contacts with fossil industry companies that do not credibly act in line with the Paris Agreement goals



Explanations and insights

- Full transparency of collaboration with the fossil industry is a widely supported measure regardless of participants' views on Statement 2.
- Differences between different subgroups are smaller for the measures that set project conditions (review committee) or company conditions (credible plan) than for the other measures.
- The top three measures recommended by participants who agree/strongly agree with Statement 2 (80-100 points) are: full transparency (80%), review committee (65%), credible plan (61%) and no ancillary activities (61%).
- The top three measures recommended by participants who disagree/strongly disagree with Statement 2 (0-19 points) are: full transparency (75%), no measures (54%) and strengthening ties (39%).

Summary of results

Overall results
- What measures do participants choose with regard to TU Delft's collaboration with the fossil industry?
- Breakdown by role and organisational unit, demographic characteristics, climate concerns and views on the statements

Breakdown by measure
- Why do participants choose or not choose a particular measure?

Results of Latent Class Cluster Analysis
- Profile of 4 groups of TU Delft staff and students

What did we do?

Qualitative analysis

Explanation

- **Justification:** Participants were given the chance to justify their advice. Many gave similar arguments, using their own words.
- **Codebook:** We coded the most frequently cited arguments.
- **Analysis:** For 100 randomly selected participants, we coded the arguments given for the 10 measures, producing a saturated list of arguments. We then analysed the arguments given by 100 randomly selected participants, which did not yield any new categories.
- **Main arguments: Below**, we show the most cited arguments for each option. The stars show how many participants used the argument.
  - ★ = this argument is given by 1.5-2.5% of participants
  - ★★★★ = this argument is given by 3-5% of participants
  - ★★★★★★★ = this argument is given by 5.5-7.5% of participants
  - ★★★★ = this argument is given by 8-10% of participants
  - ★★★★★ =this argument is mentioned by >10% of participants

Arguments cited by <1.5% of participants are grouped under ‘other remarks’. An exception is made for situations in which there are no arguments mentioned by more than 1.5% of the participants, in which case the most frequently mentioned arguments are listed with 1 star (★) in the table.

“We provide full transparency about collaborations with the fossil industry”

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
Transparency is an inherent, important value for the university	★★★★★	Privacy must be protected	★
Transparency creates more space for conversation and reflection	★★	Not necessary if there is a committee that reviews all partnerships	★
Without information, you do not need reviews or interviews	★★		

Other remarks

- Yes, a public institution should provide full transparency so that society can judge us
- Yes, it would help build trust
- Yes, you can’t be critical of the fossil industry without providing full transparency yourself
- Yes, in an open culture, there’s no such thing as a wrong suggestion
- Yes, transparency improves research

Illustrative quotes

"As far as I am concerned, this is a no-brainer. Why shouldn’t we do it for all partnerships with all companies? Openness gives room for criticism, this criticism can be continuously monitored and used for decision-making"

"Transparency is always a good thing"

“This would enable third parties to examine TU Delft research more critically and review it for possible conflicts of interest.”

“Not doing this suggests that we’re entering into secret partnerships and might be ashamed to divulge what we’re working on.”

"Essential for integrity and public support."

"Why not provide full transparency about all our collaborations? We are funded by taxpayers, and they owe the right to know what we're doing and how we spend their money."

"Openness is essential to stay credible and to be judged by external parties"

“We will only collaborate if an assessment committee determines that the research contributes to the energy transition”

58%

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
It ensures that the university’s projects accelerate the energy transition.	★★★★★	This would be too labour-intensive	★★
This would avoid a black-and-white approach that rules out partnerships altogether	★	This would not go far enough	★
It will encourage us to be more critical of the university’s collaboration with the fossil industry	★	This would harm academic freedom	★

Other remarks

- Yes, we have to review whether research projects are in society’s best interests
- Yes, it ensures that projects are reviewed objectively
- Yes, because decision-making processes should be transparent
- Yes, a committee would be the best way to review these things

“Agree! These partnerships are valuable. Force fossil companies to change or innovate so thoroughly that they meet the requirements of a review committee. Only then can they harness TU Delft’s knowledge.”

"Also, it seems to infringe on freedom of research"

“I don’t oppose all forms of collaboration across the board. The underlying goal should be socially responsible, however. Research proposals should be reviewed by an independent committee for the sake of transparency and diligence.”

“This isn’t a bad measure, but an outright ban on collaboration would be even better and require less effort.”

"There has to be some mechanism for deciding whether research is directed to the transition."

“I’m sceptical as to whether a review committee and guidelines could be impartial. It sounds like a lot of fine-tuning and optimisation, and therefore a lot of time. Researchers would have to bear the burden of the system’s teething problems, which would be unacceptable.
We should encourage passion and ambition”

“We only collaborate with companies from the fossil if they have a credible plan”

54%

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
If companies do not have a credible plan, working with them will not contribute to the transition	★★	This feels difficult to implement	★★
It ensures that you work only with responsible companies and lock out irresponsible ones	★★	Plans alone are not enough	★★
This is a good fit for the university	★★	This measure is too drastic	★

Other remarks

- Yes, this would be a good incentive for the fossil industry
- Yes, this would align the goals of the fossil industry with those of the university
- Idea: convince companies and help them meet climate targets
- No, I would prefer reviewing this within TU Delft
- No, TU Delft should not get involved in politics
- No, we should stop altogether
- No, this would harm the energy transition
- No, not without academic freedom

“It is too difficult for TU Delft to assess, check and guarantee that companies comply”

“TU Delft should not become a useful idiot for greenwashing campaigns. TU Delft should only support companies willing to use their knowledge and capital to pursue a full transformation.”

“The alternative is working for companies that are knowingly destroying the earth”

“TU Delft needs partnerships to become more sustainable. We should not exclude the entire fossil industry, but we can make demands on the companies we work with. I think requiring companies to meet climate targets is reasonable.”

“Plans alone are not enough. You need to make concrete arrangements.”

"This seems to me by far the most important statement. It would ensure that companies that are actually looking to improve get the access to researchers they deserve (and need)."

“It’s fine for research projects that are actually geared towards sustainability, regardless of the company’s less than stellar sustainability performance.”

“Managers and employees may not have ancillary activities in the fossil industry”

39%

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
There should be no actual or perceived conflicts of interest	★★	Not the university's job, it would run counter to academic freedom	★
Staff should not benefit from sustaining the fossil industry	★	You should work together, not exclude potential partners	★
Collaborating with the fossil industry validates these companies (greenwashing), which is a bad thing	★		

Other remarks

- Yes, as it would allow us to invest more knowledge and energy into the sustainable industry
- Condition: Ancillary activities are fine as long as researchers hold on to their academic freedom
- Condition: They have to contribute to making the companies more sustainable
- No, it would be to harmful for staff
- No, staff has the ability to foster sustainability in the fossil industry

“Ancillary activities could become a conflict of interest"

"Preventing conflicts of interest is crucial for neutral and incorruptible research, regardless of your field.”

“Any form of dependence on the fossil industry effectively hampers the energy transition.”

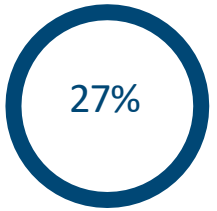
“What managers and employees do with their ancillary activities should not be dictated as it encroaches on their freedoms.”

"Research should not be influenced by external or internal parties, but I have no objections to partnerships."

“Claiming that we want to help fight climate change and still going into business with the fossil industry would put TU Delft in a bad light. It would be like all those housing cooperative executives who invested in real estate. It is morally indefensible.”

“cannot cancel people by what they do or are. It is not a crime to work at these companies, thus we should not handle it as one. You are not your job.”

We will stop all contributions from the fossil industry to student activities



Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
These activities contribute to greenwashing, which is a bad thing	★★	These activities contribute to the energy transition, which is exactly what you need	★
The activities paint the companies in a positive light	★	This is not the university's job. Students should be allowed to make up their own mind	★
The activities effectively use money to draw in students, which is a bad thing	★	All those projects would miss out on funding, which would be a bad thing	★

Other remarks

- Yes, because greenwashing is bad for TU Delft's reputation
- Yes, there are plenty other sponsors
- No, we need engineers for the energy transition. It would be a good thing if the fossil industry made a contribution.

"Students may choose to be complicit in these things. TU Delft is not responsible for its students' political motivations or actions."

"it shouldn't focus students' attention solely on the green side of a company. And that's exactly what's happening now.

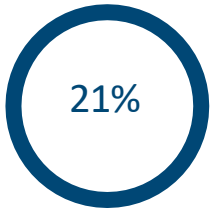
"Sponsorships from irresponsible companies have been normalised, and this normalises their irresponsible actions."

"You need engineers to keep the energy transition alive and accelerate it where possible"

"I'm not opposed to collaborating with the fossil energy because their capacity can be a massive help in the transition. Banning partnerships or other forms of collaboration would be extremely naive."

"I can't justify the fact that fossil companies are so closely involved with these sustainable student initiatives. I'm very aware that it makes up a large part of the funding for some dream teams, but it still feels a lot like greenwashing."

Individuals working in the fossil industry should not play a role in TU Delft education



Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
Presence of fossil industry workers creates conflict of interest	★★	Fossil industry workers have relevant knowledge	★★★
We do not need these people for the curriculum	★	It is good for students to encounter different points of view. One-sided views are never good.	★★
		This is nonsense	★

Other remarks

- Yes, we need to stop lobbying and giving companies a voice in teaching the next generation
- Condition: Projects should be reviewed on a case-by-case basis, or a committee has to have the power to make exceptions
- Condition: As long as we can accelerate the energy transition by working together, we have to do so
- Condition: we can keep collaborating as long as critical reflection remains possible
- No, that would be discrimination
- No, students benefit greatly from lectures given by fossil industry people who want to change the industry
  No, negative inspiration is also inspiration and actually fosters critical reflection
- No, it is too early for such measures

"this is a conflict of interest, and applies to all education/research positions"

"Many people working in the fossil industry have knowledge that is very important for students. Just because it is bad for the environment does not mean we should stop teaching – we're still a university, so teaching comes first"

"I believe this measure is very strong and should be evaluated in a case-to-case manner"

"Students should internalise what they learn and decide what to do with that knowledge on their own accord"

"Industry knowledge can be very valuable for education. In my opinion, commercial motives should not be pursued."

"Only for companies that aren't committed to sustainability"

"Given that we want to get rid of the fossil energy as soon as possible, preferably within one generation, it would be nonsensical to teach young people things that will soon be irrelevant."

"Nonsense, we've been doing just fine for almost 190 years..."

We will not enter into any new research collaborations with the fossil industry

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
This is a good measure that I would be proud of	★	Not all partnerships with the fossil industry are inherently bad	★★★★★
The fossil industry always have a hidden agenda when it comes to research, they cannot be trusted	★	If collaboration stops, then so does our chance to influence the fossil industry	★★★
		This is going way too far	★★

Other remarks

- Yes, refraining from any new research projects would be the right move
- Yes, Condition: Partnerships that accelerate the energy transition should be continued
- No, but we could avoid new partnerships in due course
- No, doing so would violate academic freedom

“This is by far the most important measure and outweighs many others. I understand that "

“Doing so would violate the individual freedoms of researchers”

“This measure is overly drastic, especially because the notes explain that it would also apply to indirect funding. To my mind, we cannot oversee what this means for TU Delft. Plus, I’m fundamentally opposed to the idea that we should completely cut ourselves off from the fossil industry."

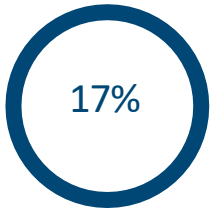
“Taking along the fossil industry on 'the ride' under the right conditions might even accelerate the transition.”

“They always have a second agenda when it comes to research: Making money. And as long as their business model, stakeholders and all other interests in maximising fossil fuel sales persist, they will always have a hidden agenda underlying innovative projects: - Greenwashing - Smashing innovation - Getting their hands on innovation for a new monopoly"

“Sound research with clear added value for society is fine, subject to strict conditions”

"Research aimed at mitigating climate change still seems sensible to money. And has money that can be used for meaningful research"

We do not take measures that limit collaboration with the fossil industry



Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
I believe in academic freedom	★★	It would run counter to TU Delft's goal of making a contribution to fighting climate change	★★★★★
Partnering with the fossil industry accelerates sustainability	★	This is an overly black-and-white measure	★
It is not up to TU Delft to have a political agenda	★		

Other remarks

- Yes, we need money to accelerate the energy transition and the fossil industry has deep pockets
- No, restrictions are needed; we don't work on nuclear weapons research with North Korea either, do we?

"A researcher must be free to collaborate with any company that seems appropriate"
"Leave it up to the individual judgement of each researcher"
"I don't think the fossil industry is inherently bad. Universities should not become politicians and have to start deciding what does and does not fly. The fossil industry has followed the letter of the law for all these years. Once they stop complying, you can start taking measures, but not because doing so would be the 'ethical thing to do'."

"You wouldn't be able to argue that you take global warming seriously"

"It's important that we avoid any restrictions and keep talking to the fossil industry, convincing the industry to make the transition happen by showing there's another way"

"Completely going in the wrong direction, fossil fuel industry (a company) first needs to show a true attempt into the energy transition before we should collaborate. Or we should only collaborate on certain projects. However, a limit is necessary"

"Way too passive for an institute that can have so much impact"

We will strengthen the collaboration with the fossil industry

13%

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
We need money to accelerate the energy transition and the fossil industry has deep pockets	★	It would run counter to TU Delft's goal of making a contribution to fighting climate change	★★★★★
Partnering with the fossil industry would encourage it to change rapidly	★	There's nothing wrong with the partnerships as they are now	★★

Other remarks

- Condition: only if there is evidence that it will help achieve the goals
- No, we should make an effort to improve ties with other industries

"For the energy transition to happen as quickly as possible, we need a lot of money. In the energy sector, fossil companies are the ones with the deepest pockets."

"No, with an exception for research projects that are actually geared towards the energy transition subject to strict conditions and committee review. Should we make contractual arrangements to limit opportunities for greenwashing?"

"Assuming that TU Delft aims at collaboration that reduces the ecological footprint of the fossil industry (complicated, but ...)."

"No. Just no!"

"It's not necessary. There's nothing wrong with the partnerships as they are now."

"In my mind, this would run counter to the direction society is headed. I think it could harm TU Delft."

"Collaboration would spark positive innovations

"TU Delft should not actively pursue this goal. It would not be a bad thing if collaboration would grow due to circumstances."

We will stop existing research where we collaborate with the fossil industry, and TU Delft will provide a fund

Why do participants choose measures?
Most cited arguments. Measures with more stars are mentioned more often)

Argument in favour	Frequency	Argument against	Frequency
Stopping these studies will help protect academic freedom	★	Stopping ongoing research would be going too far	★★★
Difficult problems call for difficult measures	★	It would cost too much	★★★
		Our research, now and in the future, can help make the fossil industry more sustainable	★★

Other remarks

- No, doing so would violate academic freedom
- No, this should be determined on a case-by-case basis
- No, it would take too much effort
- No, it would meet too much resistance and is therefore simply not feasible

"If we stop ongoing research and block future research, there are many things that could help sustainability immensely that will never come to fruition."

"Disagree – a university should be an open academic institution in which there should also be room for dissent. A university should not behave like a dictatorship."

"Seems too severe a measure. Finish existing and ongoing research projects, but carefully review future collaborations."

“Blunt stopping is not the best strategy. Reconsidering and changing direction is.”

“This should be reviewed on a case-by-case basis. Sweeping generalisations would not work”

“This is really costly to implement and could disrupt many scholarships and projects"

“It would damage our reliability as a partner and come with unnecessary costs”

What conditions should TU Delft impose?

Explanation

- After the choice task, participants who had not advised no action were given an open-ended follow-up question: “Suppose TU Delft decided to impose conditions on partnerships with the fossil industry. What conditions do you think it should impose?”

- This page shows the qualitative analysis.

That the company pursues the Paris Climate Goals	★★★
That our research contributes something to sustainability or the energy transition	★★
That they are transparent	★★
That we hold onto our academic freedom	★★
That the companies contribute to sustainability or energy transition	★★
That they have climate ambitions	★
That our research is not used for greenwashing	★

Illustrative quotes

"Transparency, result-oriented, ambitious."

"Openness, no conflicts of interest, oversight by an independent committee (independent of either party)"

“A realistic plan for reducing emissions to meet the Paris targets and clear steps to comply. There should also be clear evidence of the company’s good intentions and that the project will have a positive effect on accelerating the energy transition.”

“That the researcher still has full academic freedom, i.e. the company can't even decide what the research goal will be.”

"The project should have nothing to do with fossil energy, while projects on underground hydrogen storage, carbon storage and geothermal energy should be encouraged."

"Sticking to the Paris goals."

“The partnership should make a real contribution to sustainability and should be subject to strict conditions to rule out any chance of greenwashing, etc.”

"They have to comply with European and Dutch targets and should have a clear and feasible plan to achieve this."

"Energy reduction. Minimum budget for better energy."

"All research projects involving fossil should contribute to climate change prevention"

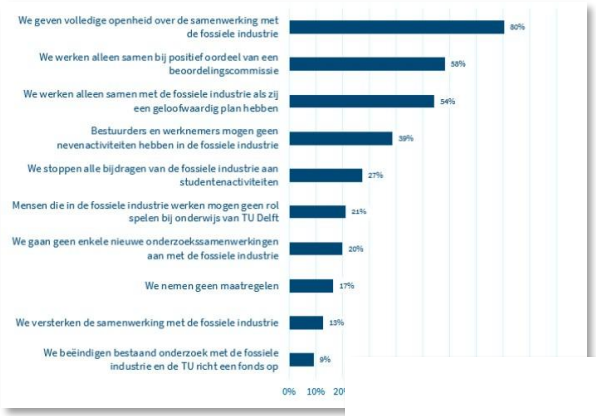
Summary of results

Overall results
- What measures do participants choose with regard to TU Delft's collaboration with the fossil industry?
- Breakdown by role and organisational unit, demographic characteristics, climate concerns and views on the statements

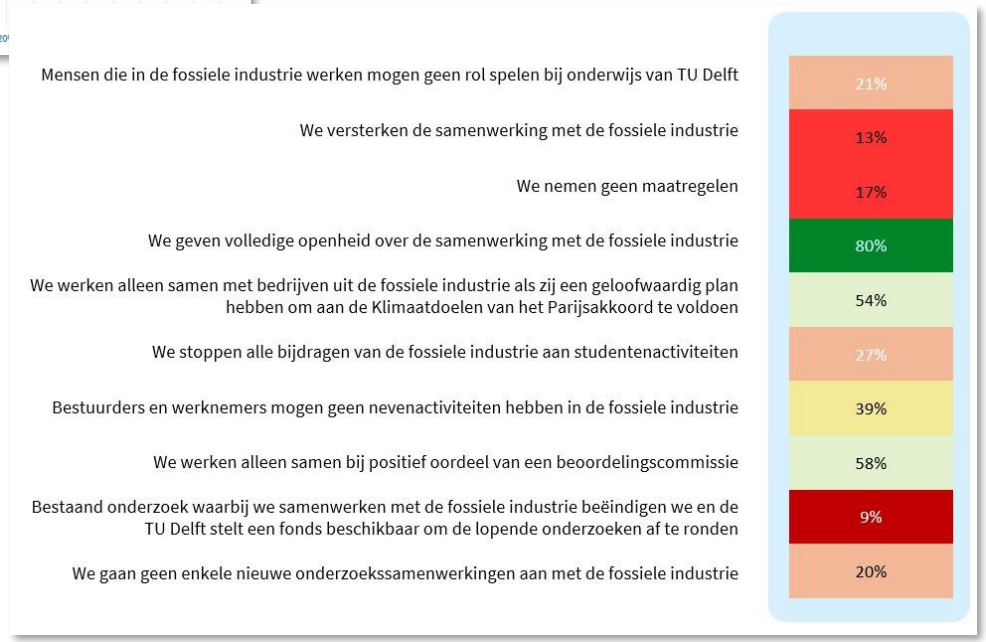
Breakdown by measure
- Why do participants choose or not choose a particular measure?

Results of Latent Class Cluster Analysis
- Profile of 4 groups of TU Delft staff and students

Looking for patterns in the data: what do we find?



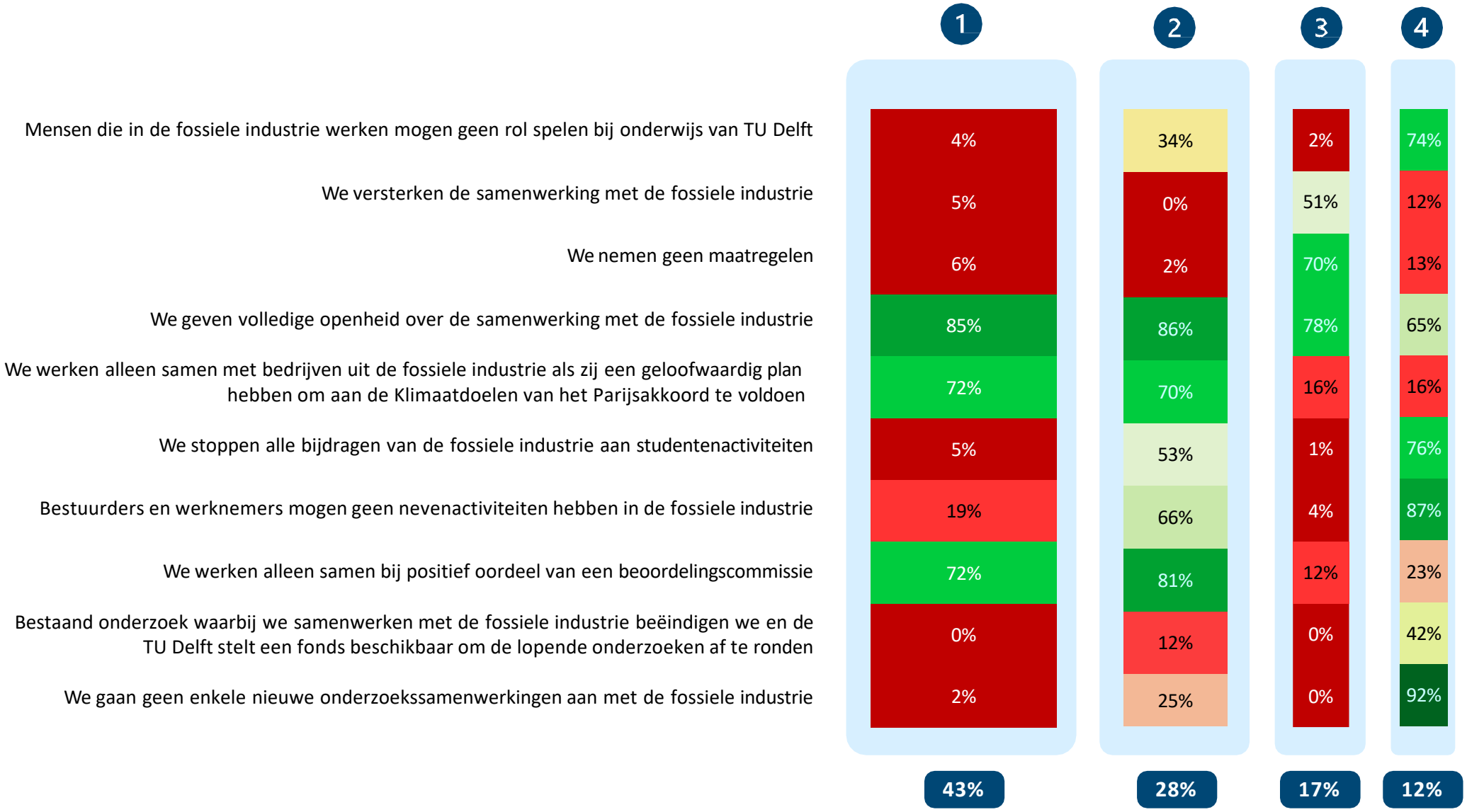
This analysis shows the percentage of participants choosing a particular measure in a slightly different form



Introduction to LKCA

- **Why this analysis?** We used Latent Class Cluster analysis to examine the data from this consultation, analysing which groups can be distinguished based on their preferences.
- **What is an LKCA?** LKCA is a method that looks for groups that give largely the same answers in the PVE choice task or who ranked the ten measures completely differently than other groups. The method itself looks for significant features, irrespective of suspicions or causes.
- **Four groups of participants:** The LKCA shows that participants can be categorised into four groups with differing views on the measures TU Delft should take with regard to its collaboration with the fossil industry. These groups are broken down in greater detail on the following pages.

The consultation reveals 4 distinct groups

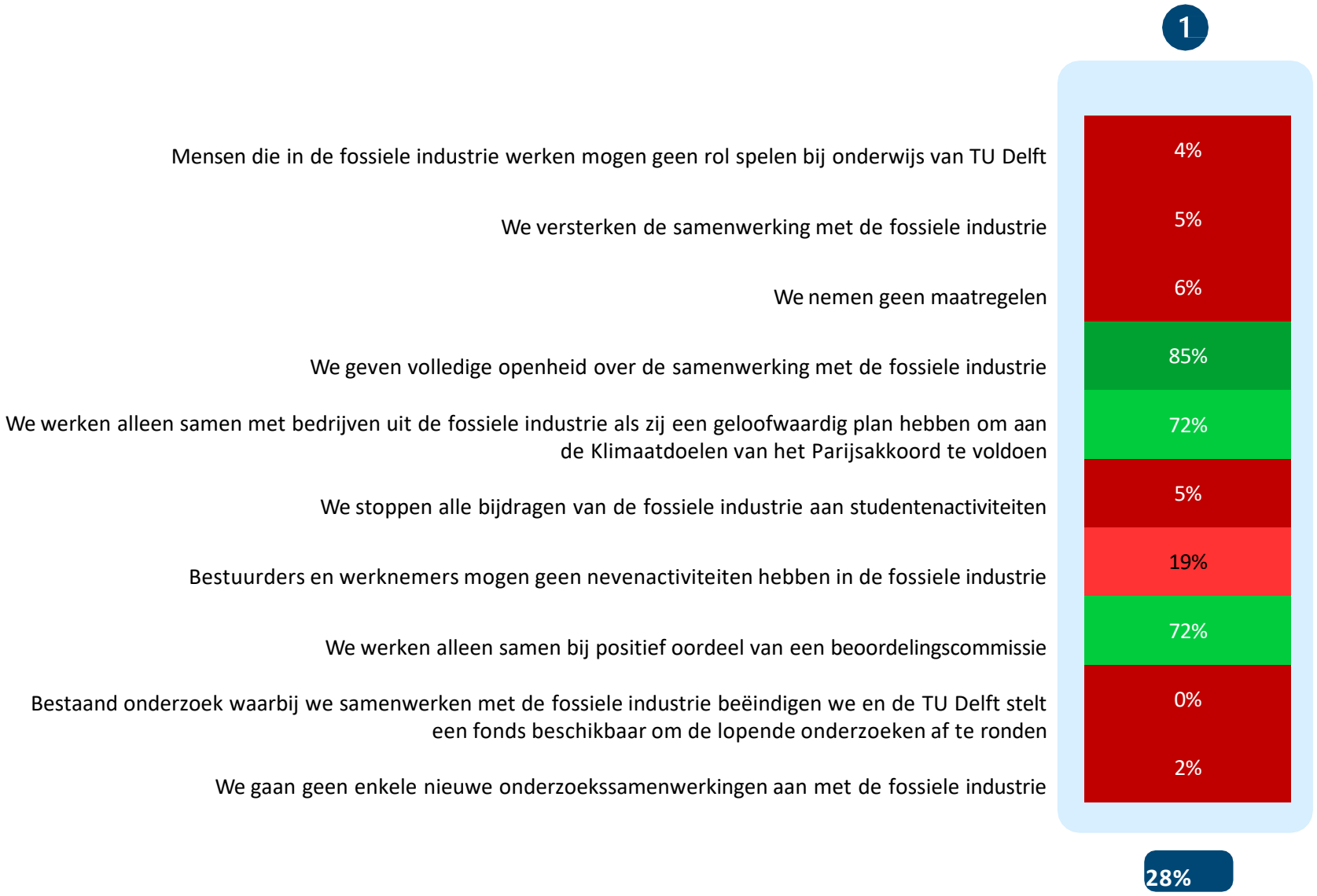


Our model identified four groups of participants with differing preferences. Within groups, participants' preferences are similar.

The percentages at the bottom indicate group size; at 43% the shared views of Group 1 are most widely held.

The percentages for each measure show the proportion of participants from that group who recommended the measure.

What distinguishes the groups? Group 1



Explanation

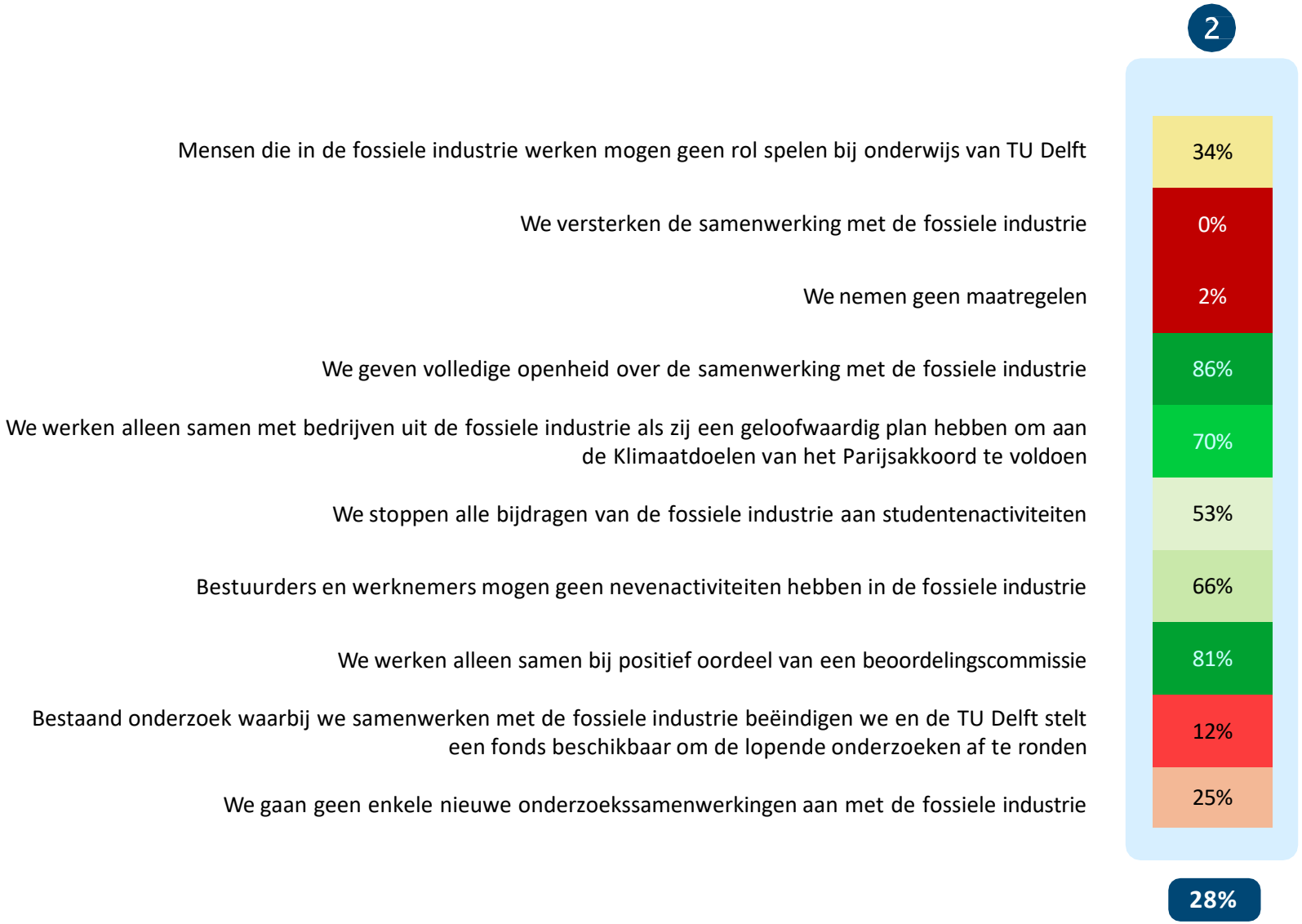
Group 1's advice:

- What is striking about Group 1's views is that they mainly recommend 3 measures: transparency, company conditions (credible plan) and project conditions (review committee).
- This group did not recommend many other measures.

Group 1's profile

- Close to the average in terms of age, gender, position and organisational unit
- On average, Group 1 participants do not have a strong opinion on the two main statements
- statement 1 (collaboration will accelerate the energy transition): 55 points
- statement 2 (hard boundaries): 55 points

What distinguishes the groups? Group 2



Explanation

Group 2's advice:

- Strikingly, this group shares the advice given by Group 1 participants (transparency, company conditions and project conditions), while a majority also recommend additional measures (no ancillary activities in the fossil industry, stop contributions to student activities).

Group 2's profile

- Slightly younger than the other groups
- Slightly more women than average
- Slightly more master's students
- On average, this group disagrees with statement 1 (collaboration will accelerate the energy transition): 21 points
- On average, this group agrees with statement 2 (hard boundaries): 84 points

What distinguishes the groups? Group3

Explanation

Group 3 advice:

- The main distinguishing views of this group compared to other groups is that this group mainly advises no action and strengthening collaboration.

Group 2's profile

- Slightly younger than the other groups
- Many more men than in other groups
- Slightly more bachelor's students than in other groups
- On average, this group agrees with statement 1 (collaboration will accelerate the energy transition): 87 points
- On average, this group disagrees with statement 2 (hard boundaries): 13 points

What distinguishes the groups? Group 4

Explanation

Group 4 advice:

- This group's distinguishing feature is that it does not recommend entering into new research partnerships and opposes people from the fossil industry being involved in teaching students.
- Less distinctive views include banning ancillary activities in the fossil industry and stopping fossil industry contributions to student activities.

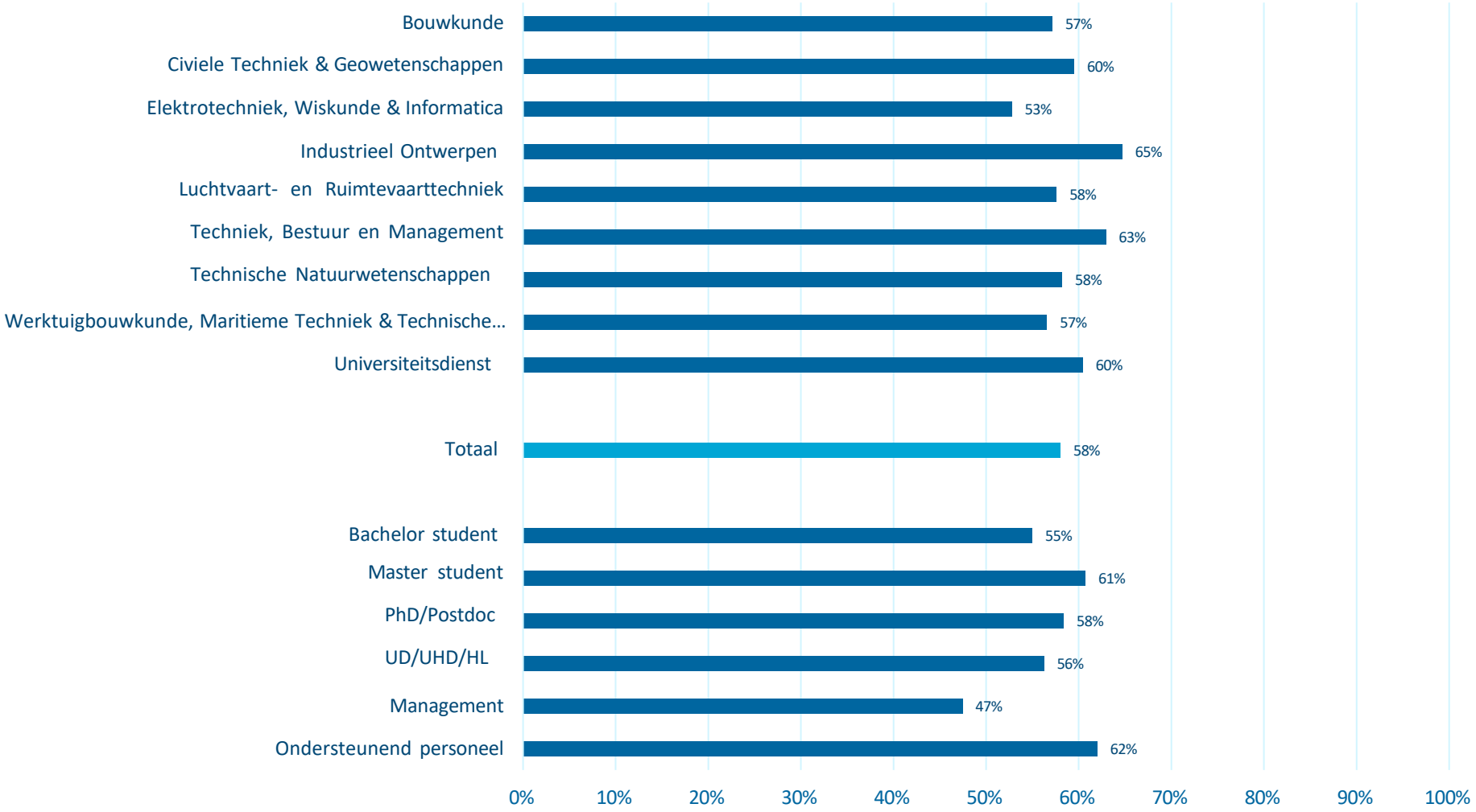
Group 2's profile

- Slightly older than the other groups
- More likely to be in management or assistant professor/associate professor/professor
- On average, this group disagrees with statement 1 (collaboration will accelerate the energy transition): 16 points
- On average, this group agrees with statement 2 (hard boundaries): 85 points

Appendix

Breakdown: ‘We will only collaborate if an assessment committee determines that the research contributes to the energy transition’

Percentage of participants choosing this measure broken down by organisational unit and role

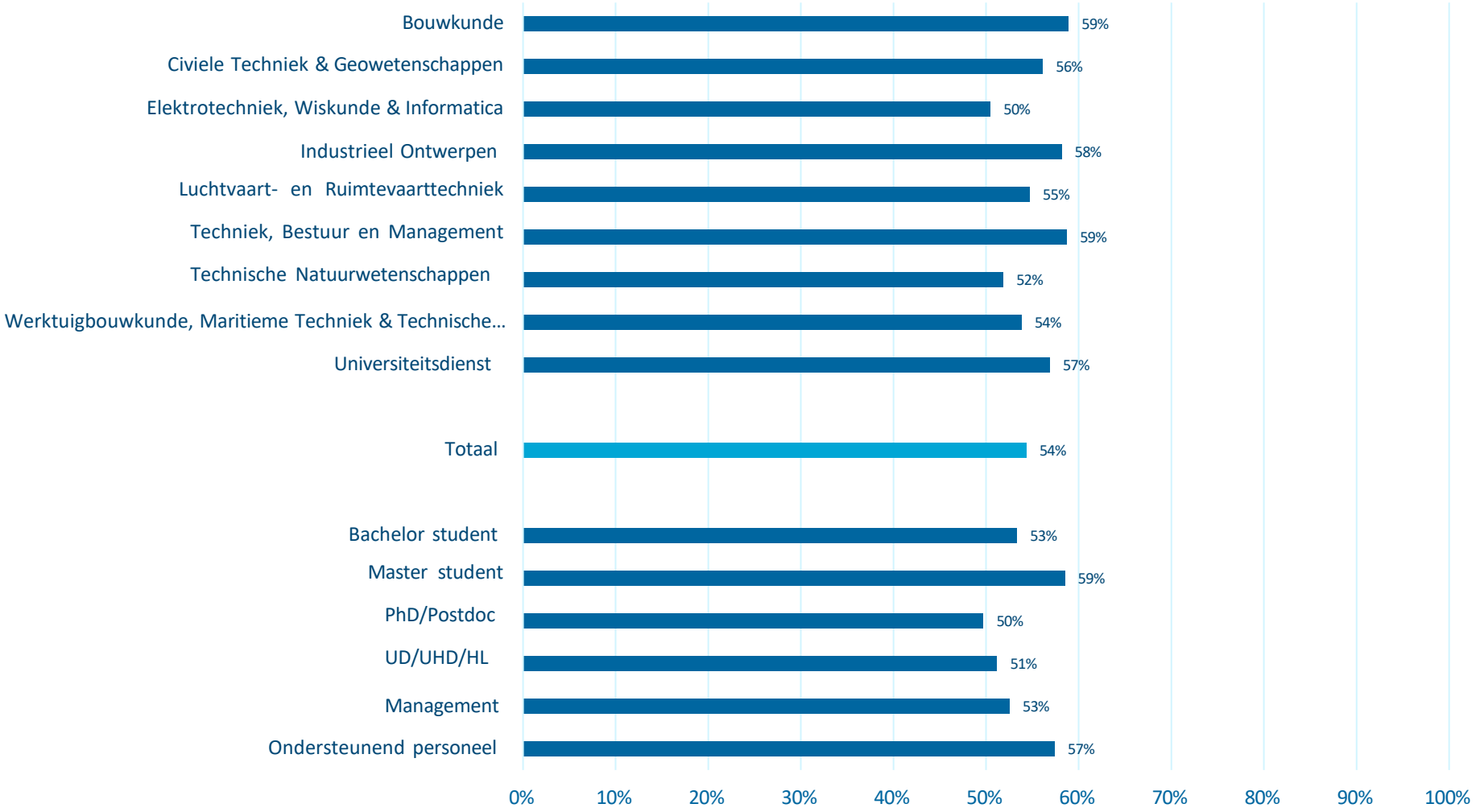


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We only collaborate with companies from the fossil industry if they have a credible plan’

Percentage of participants choosing this measure broken down by organisational unit and role

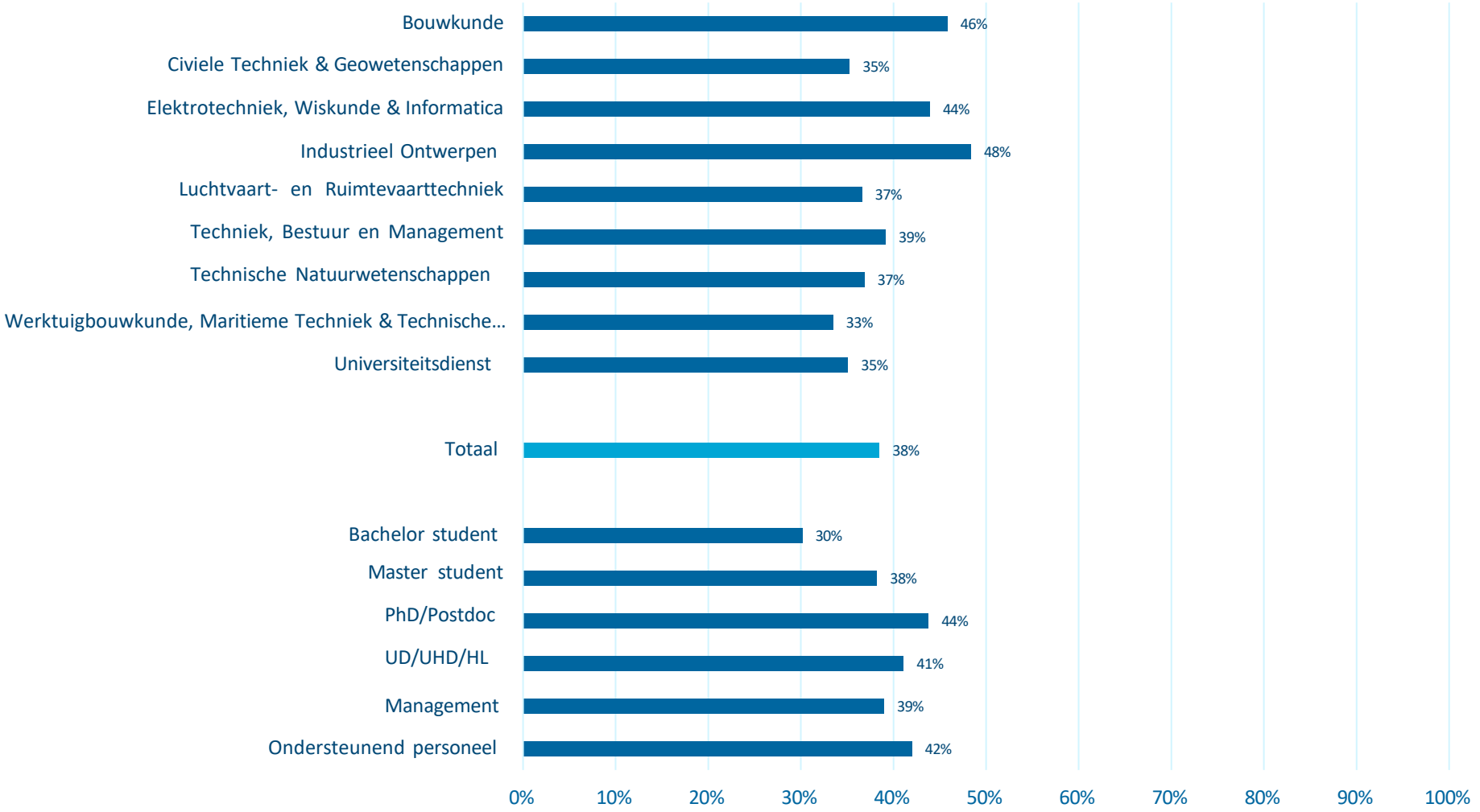


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘Managers and employees may not have ancillary activities in the fossil industry’

Percentage of participants choosing this measure broken down by organisational unit and role

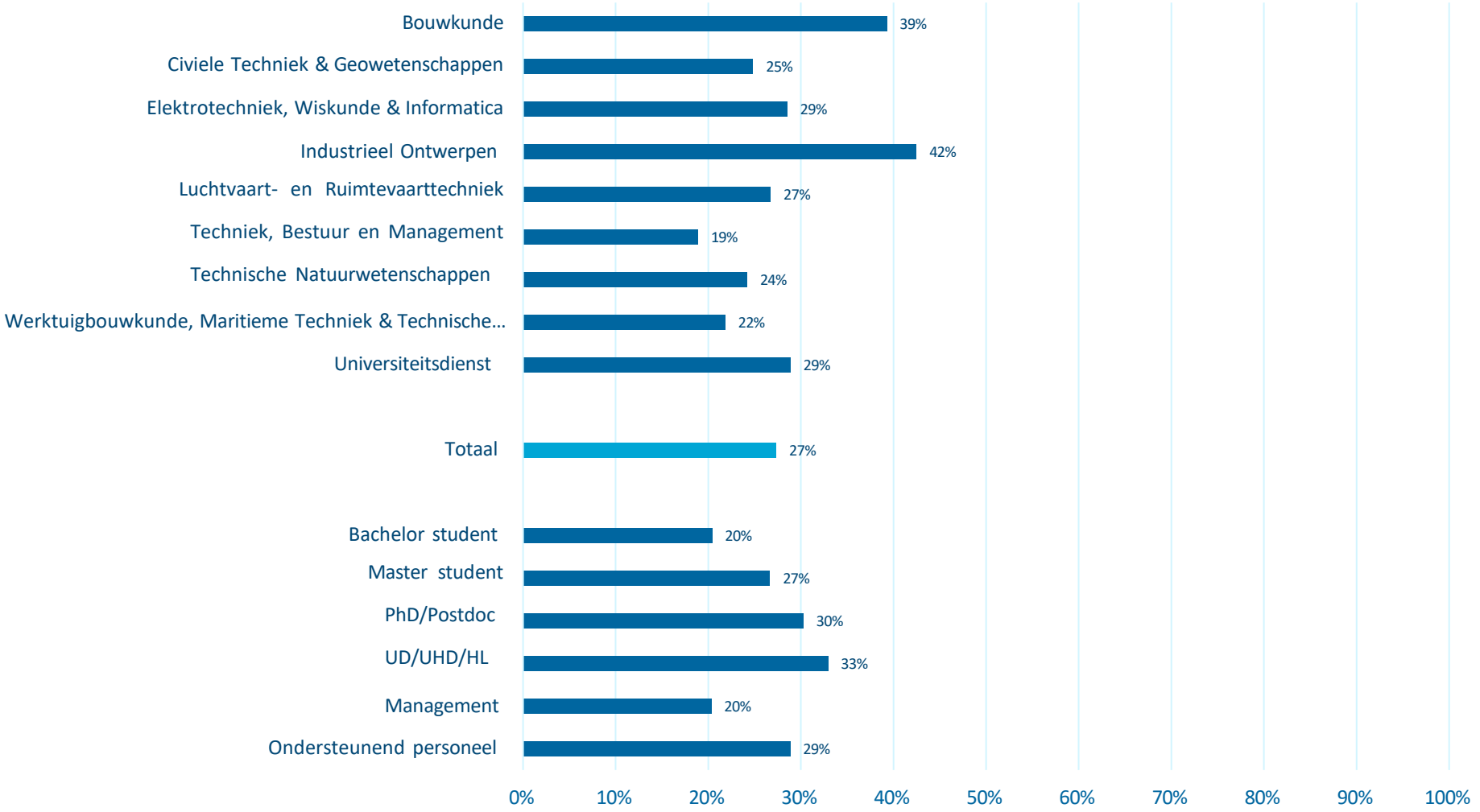


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We will stop all contributions from the fossil industry to student activities’

Percentage of participants choosing this measure broken down by organisational unit and role

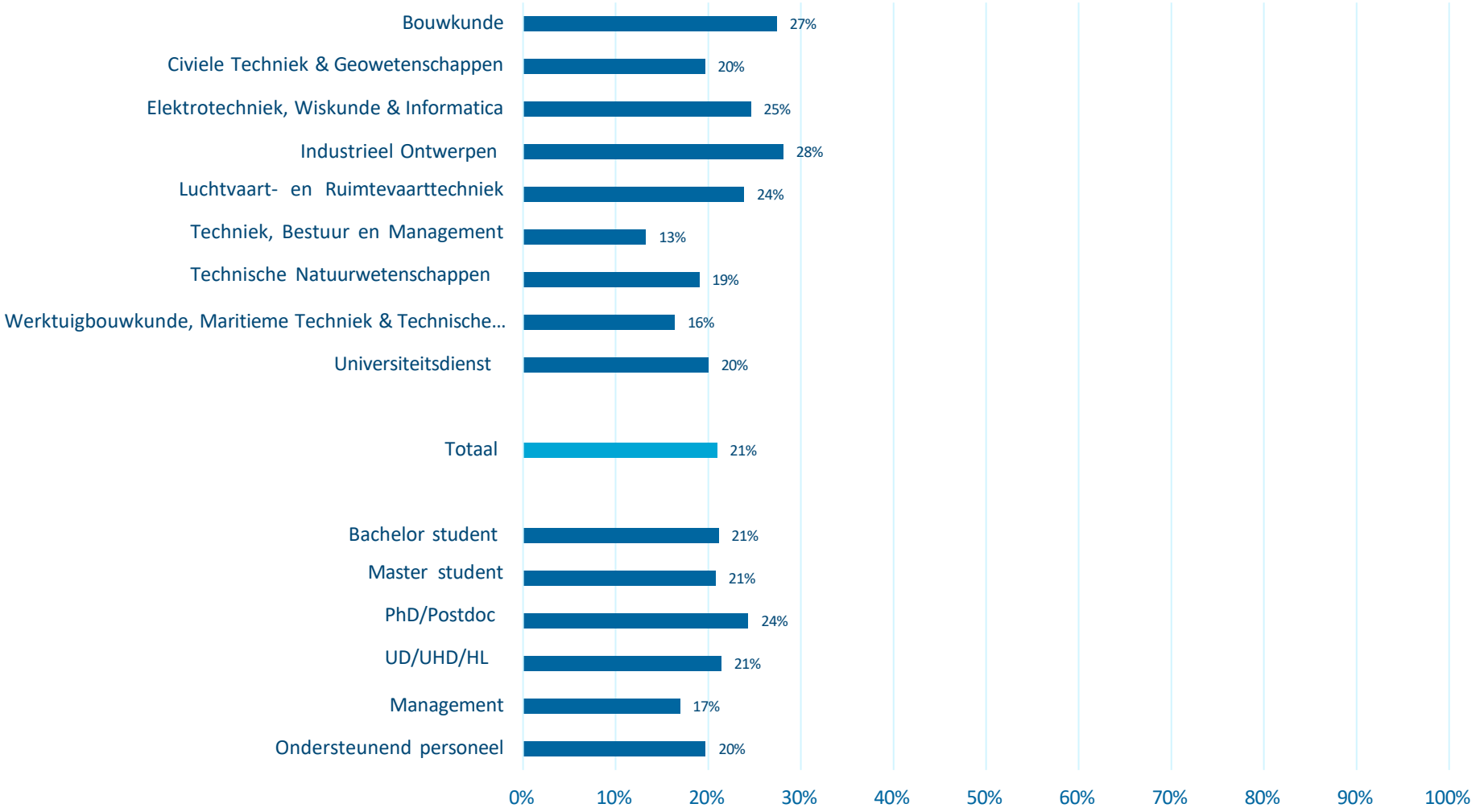


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘Individuals working in the fossil industry should not play a role in TU Delft education’

Percentage of participants choosing this measure broken down by organisational unit and role

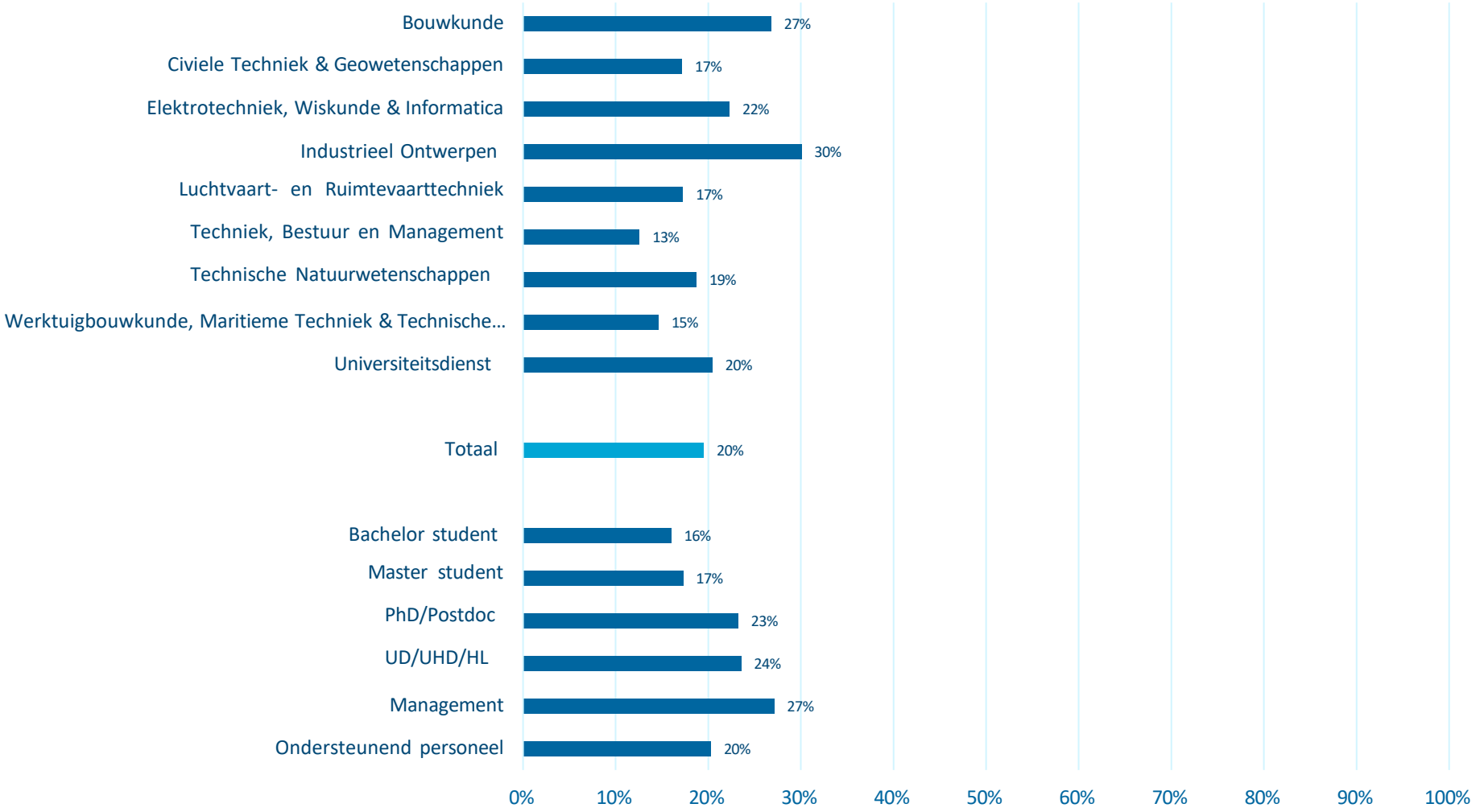


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We will not enter into any new research collaborations with the fossil industry’

Percentage of participants choosing this measure broken down by organisational unit and role

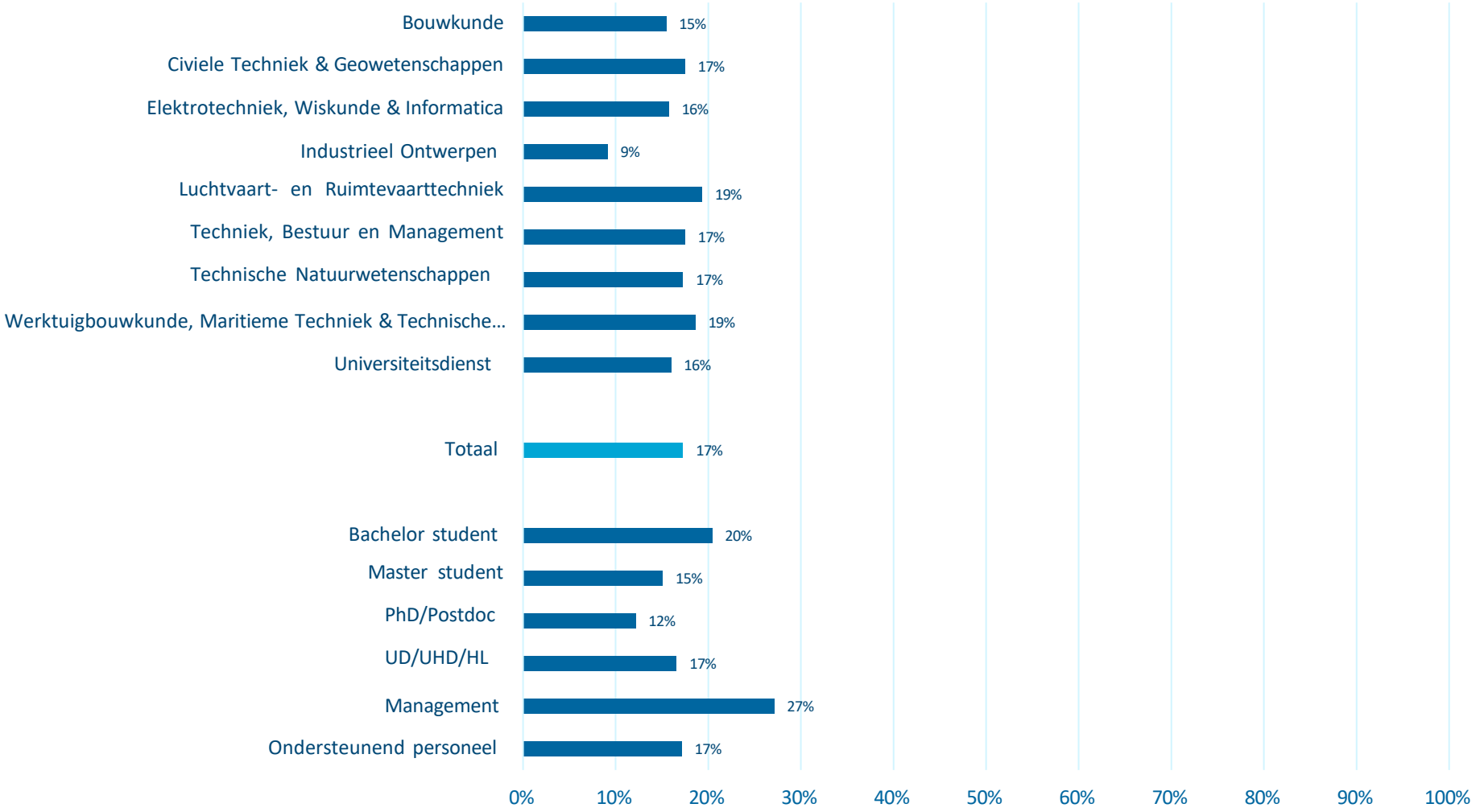


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We do not take measures that limit collaboration with the fossil industry’

Percentage of participants choosing this measure broken down by organisational unit and role

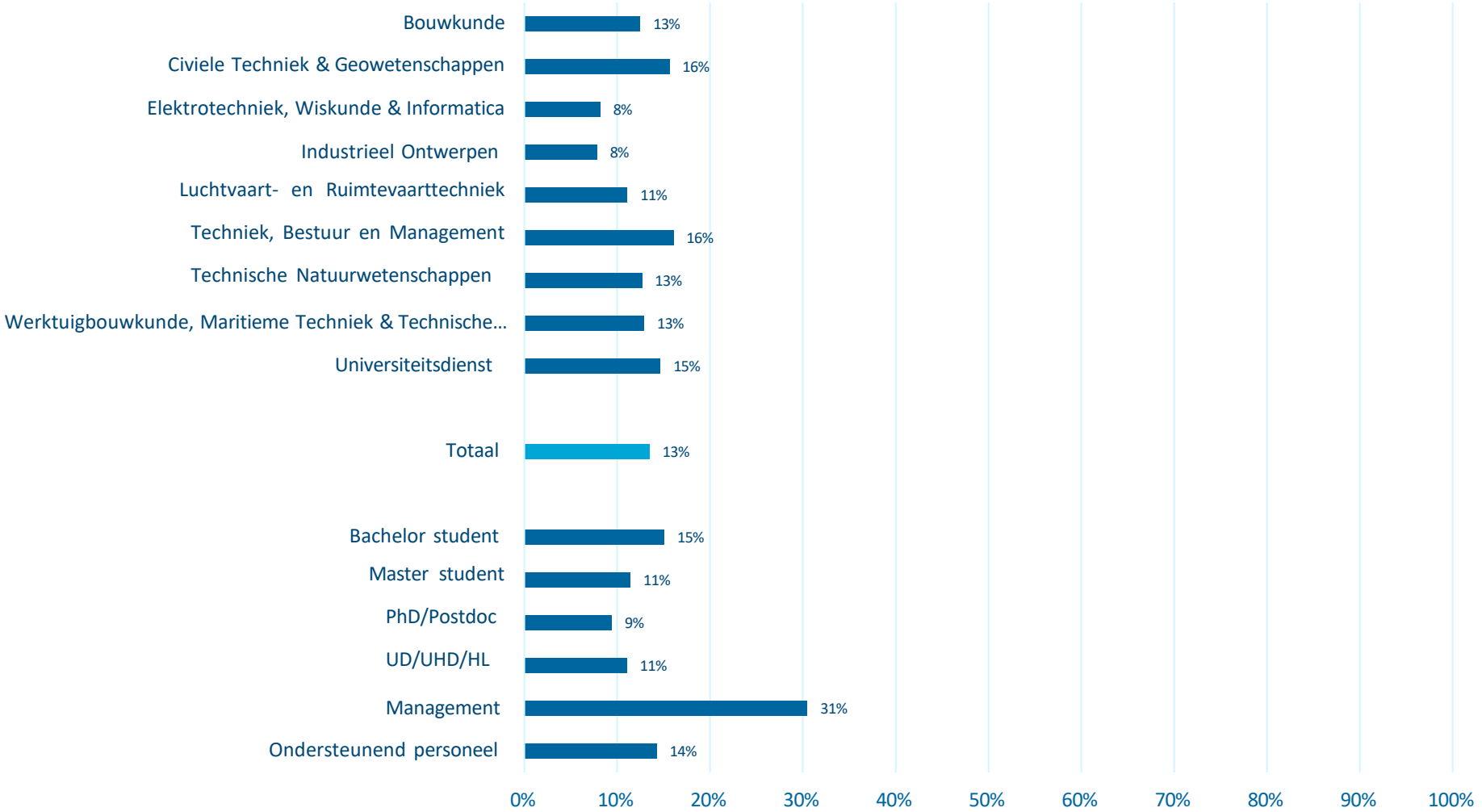


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We will strengthen the collaboration with the fossil industry’

Percentage of participants choosing this measure broken down by organisational unit and role

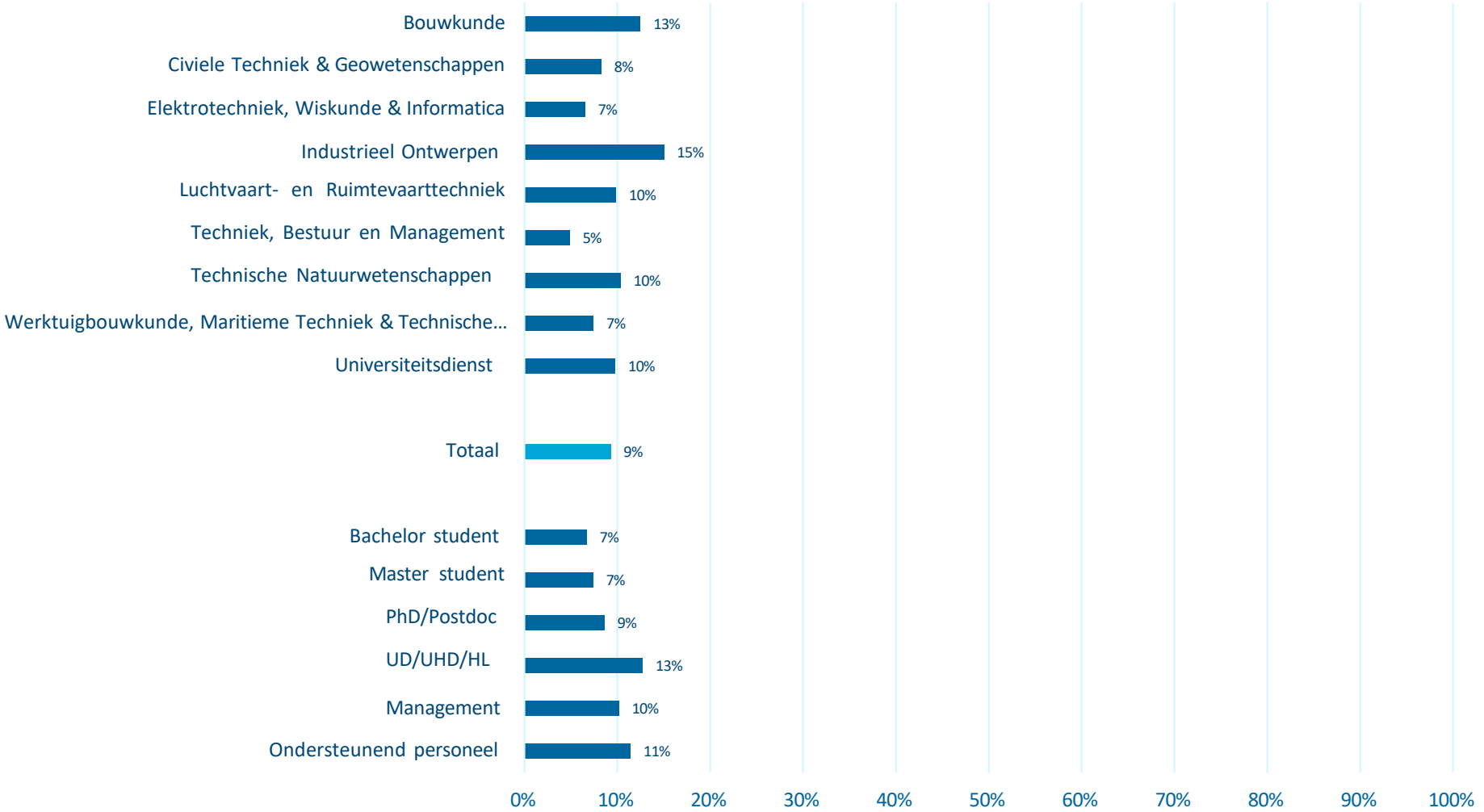


Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

Breakdown: ‘We will stop existing research where we collaborate with the fossil industry, and TU Delft will provide a fund’

Percentage of participants choosing this measure broken down by organisational unit and role



Insights

- An important insight is that this measure is not substantially more or less popular among groups of participants with a particular role or affiliation with a particular organisational unit.

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