

# Who are the respondents?

- Results have been weighted to be representative with regards to age in 2016 reference sample as well as Italian and Slovakian samples.
- 55% of respondents have had a tertiary education in 2016 sample; corresponding figures is 40% of Slovaks and 32% of Italians.
- 75% of respondents have an approximate monthly income of \$300-\$3,000, ie global middle class (according to Reuters, <http://www.reuters.com/middle-class-infographic>). For Slovakia and Italy, corresponding figures are 85% and 68%, after weighting.
- 77% describe themselves as “urban” or “mostly urban”. The same applies for 60% of Slovak and 74% of Italian respondents.
- Survey was distributed digitally, to the digitally literate population segment.
- Summary: The survey represents the digitally conscious, educated, urban segment of the population best – i.e. the global middle class consumer of the future.



## FUTURE

Research-based  
foresight

## STRATEGY

Future-  
based  
strategy

## ACTION

Strategy  
enforcement

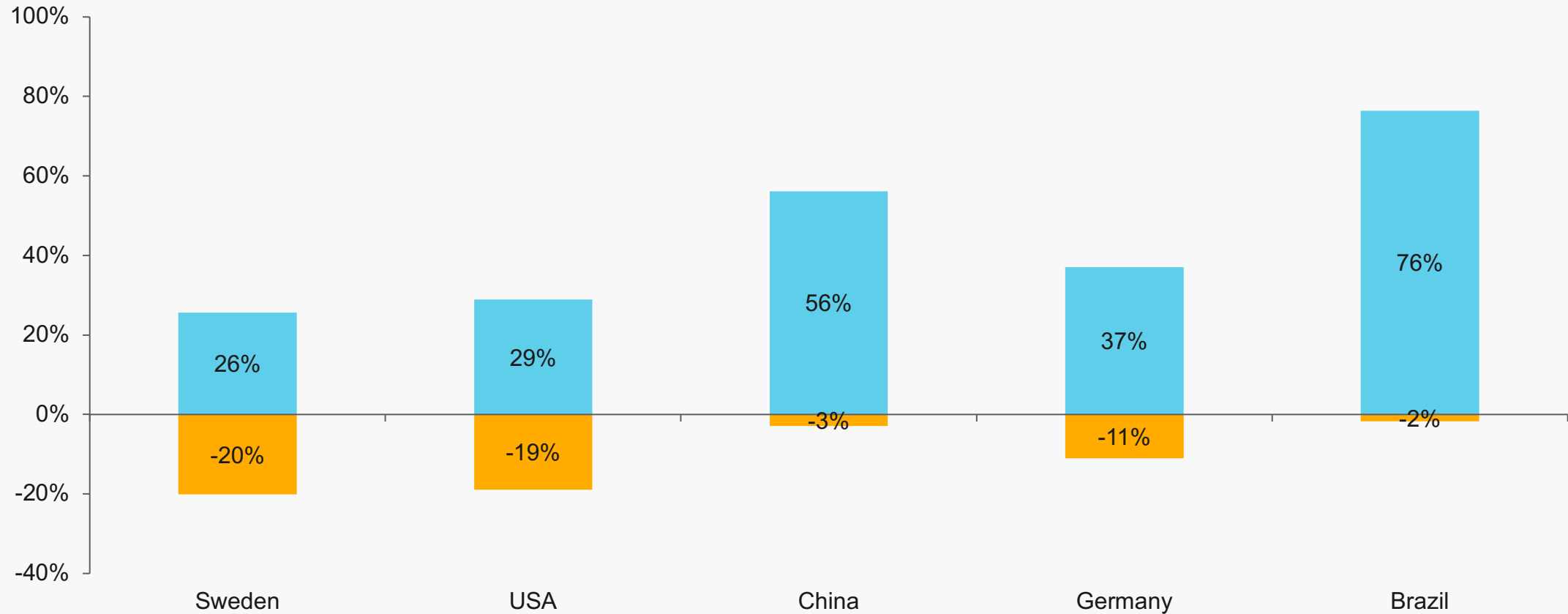
# Cellulose-Based Society Follow-up study 2018

ENVIRONMENT AND SOCIETY



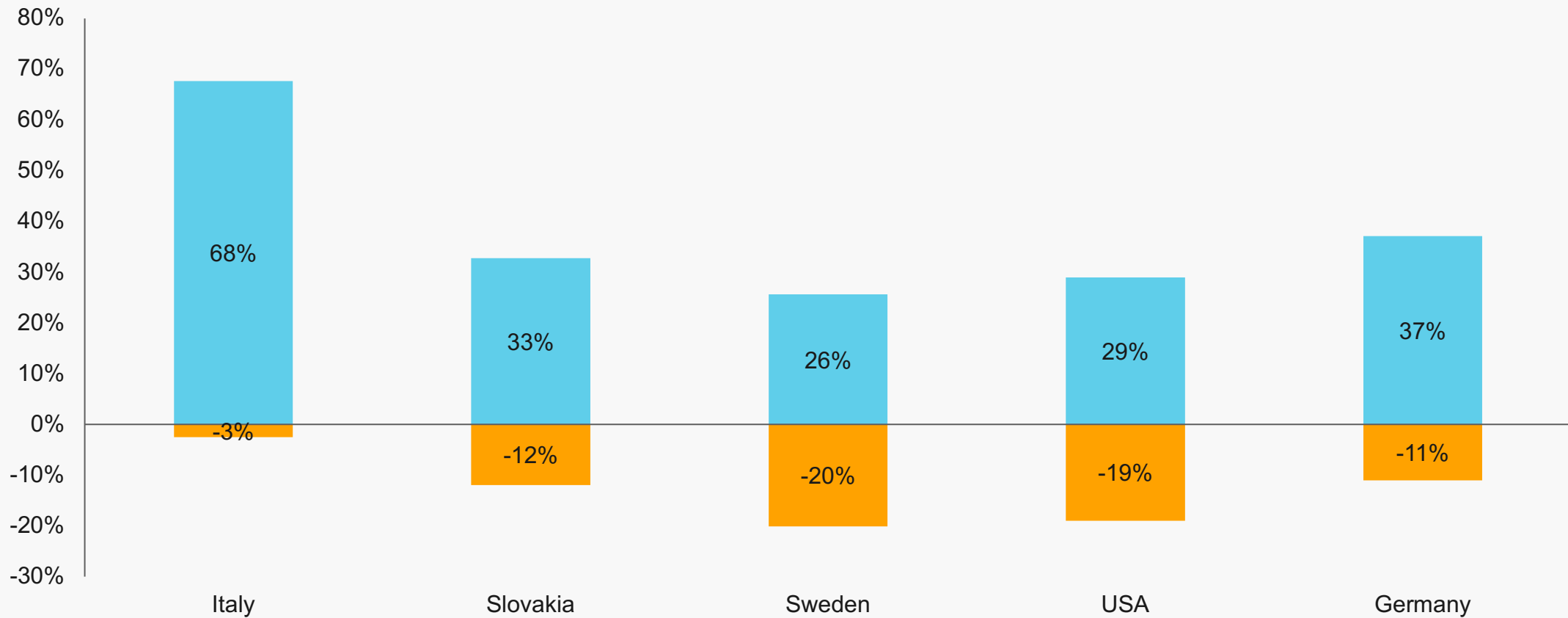
# How worried are you about... *Environmental issues?*

(Percent very worried above the axis, not worried at all below. Average of four environmental concerns: Natural disasters, global warming, resource shortage, deforestation)



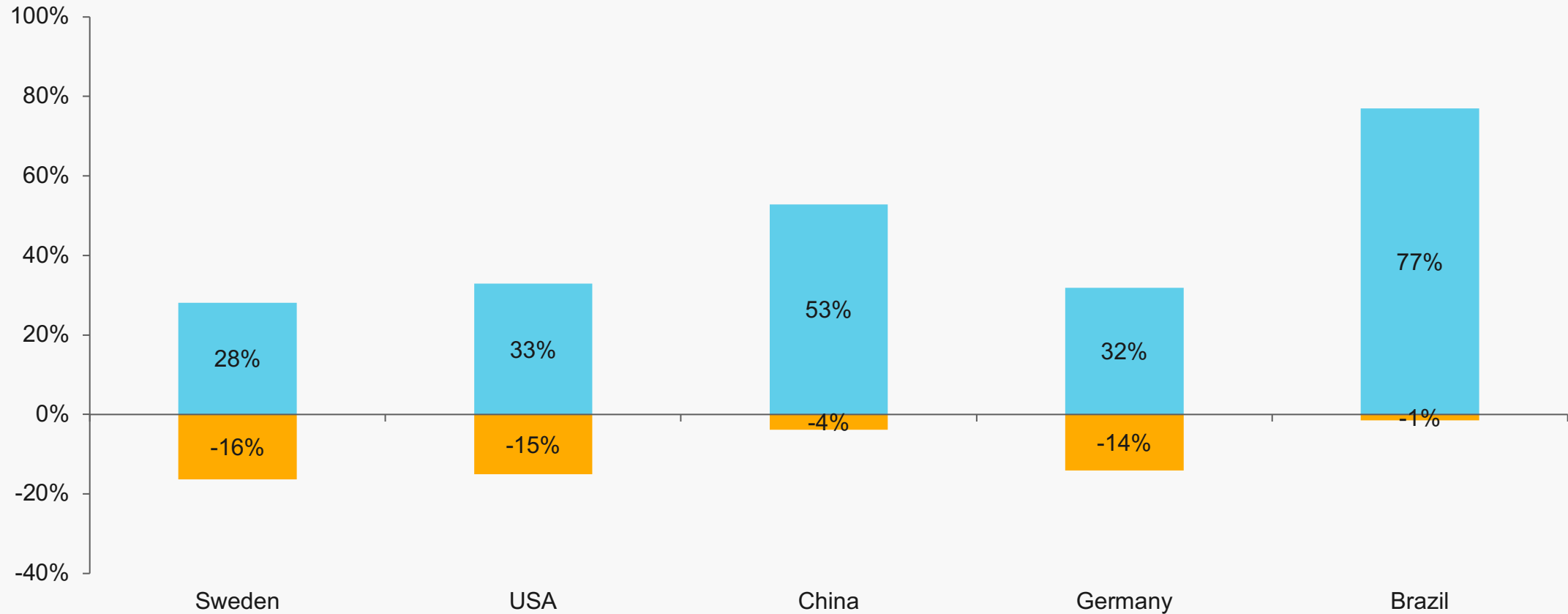
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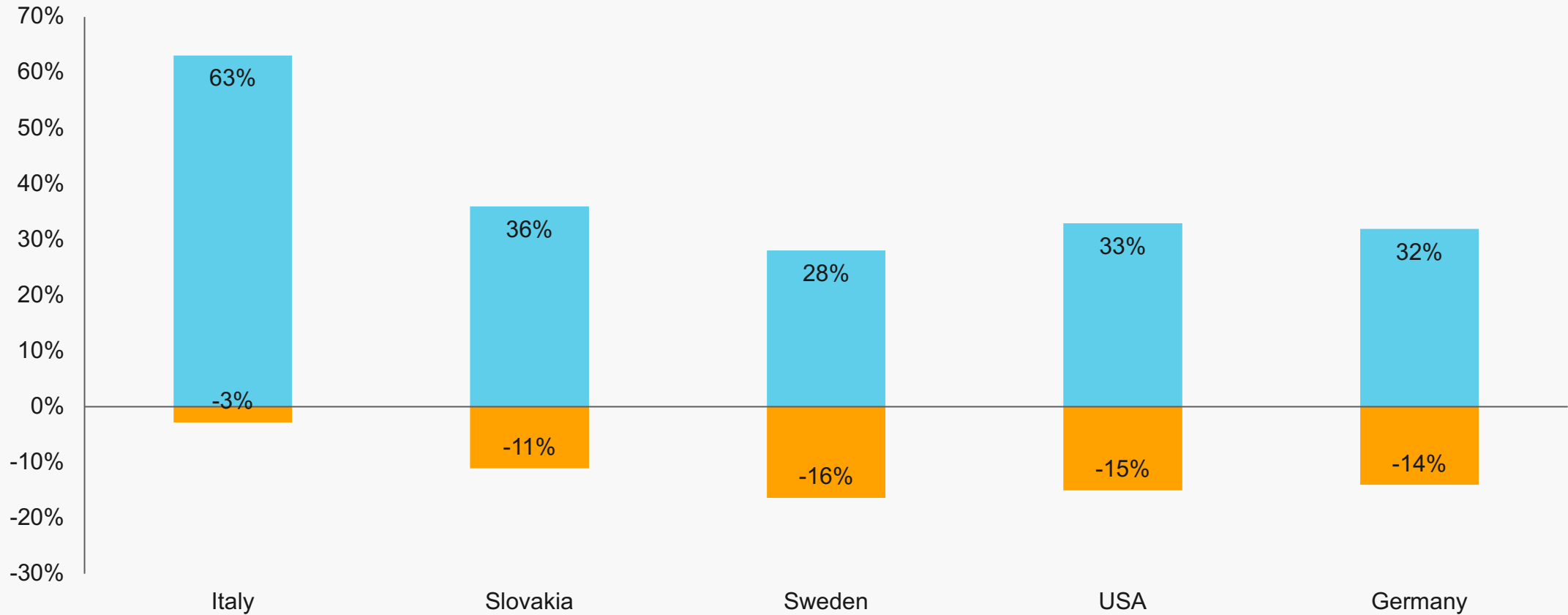
# How worried are you about... *Global issues?*

(Percent very worried above the axis, not worried at all below. Average of four global concerns: Food shortage, pandemics, economic recession)



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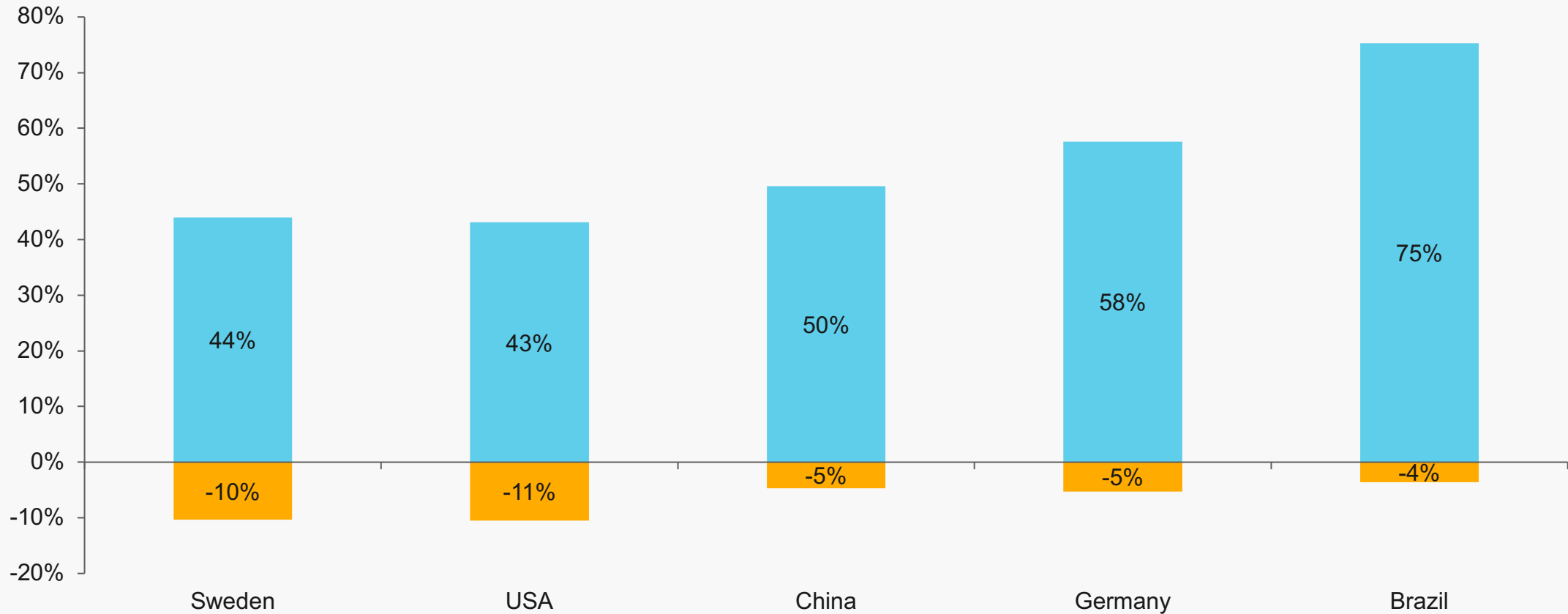
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# How worried are you about...

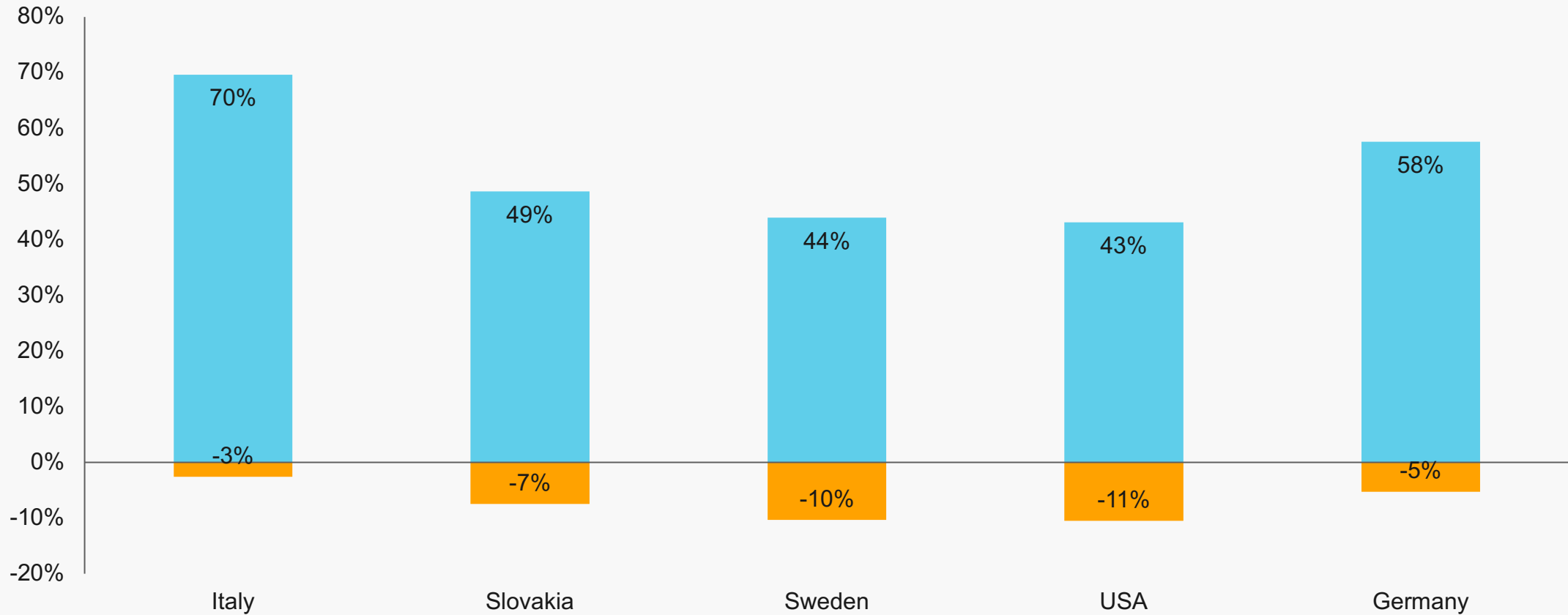
## *Political issues?*

(Percent very worried above the axis, not worried at all below. Average of four political concerns: Terrorism, crime, war and conflict.)



# How worried are you about... *Political issues?*

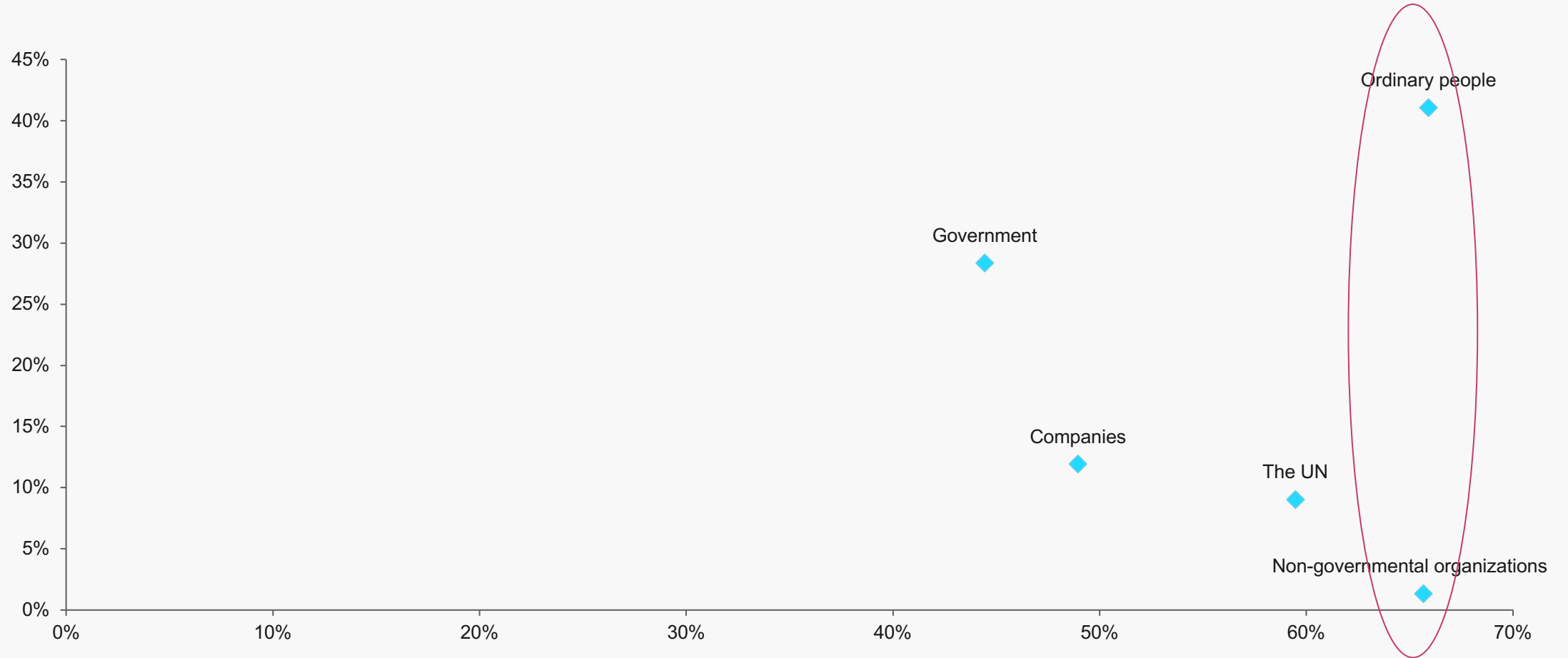
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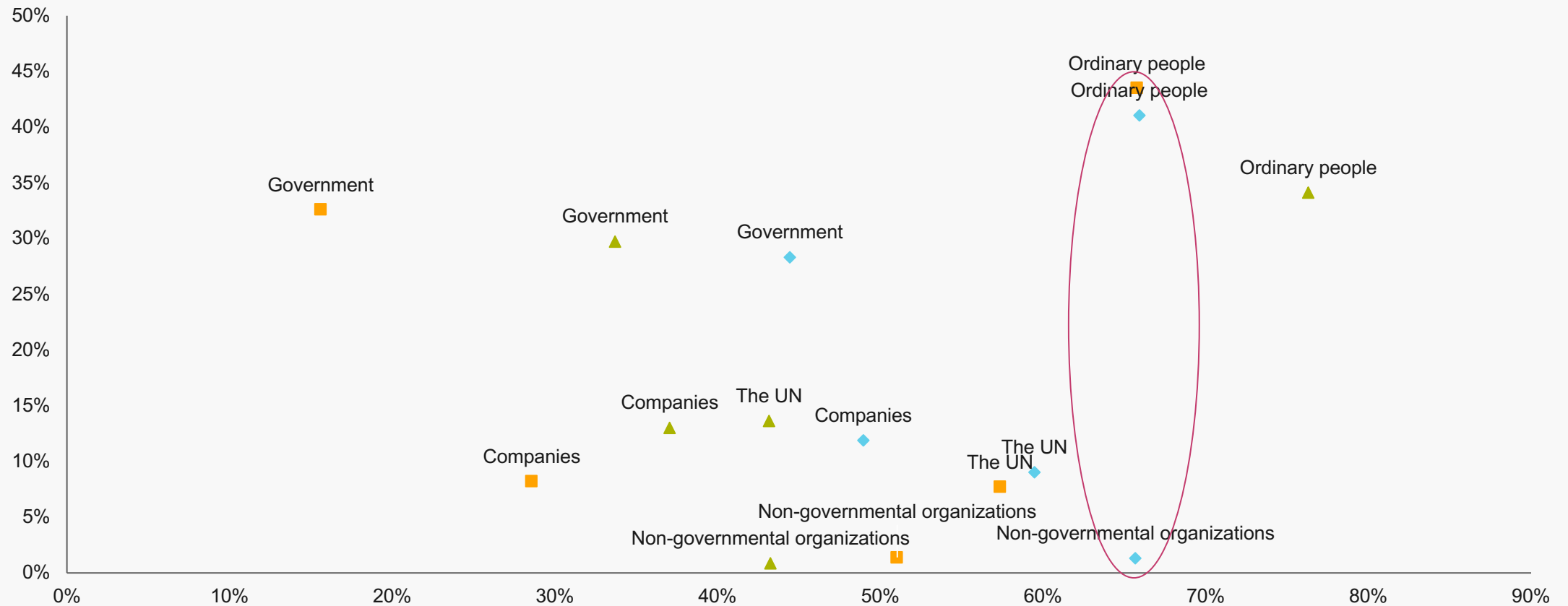
# Who is responsible for the environment?

(Horizontal axis shows trust for this group; vertical axis shows perceived responsibility for the environment)



# Who is responsible for the environment?

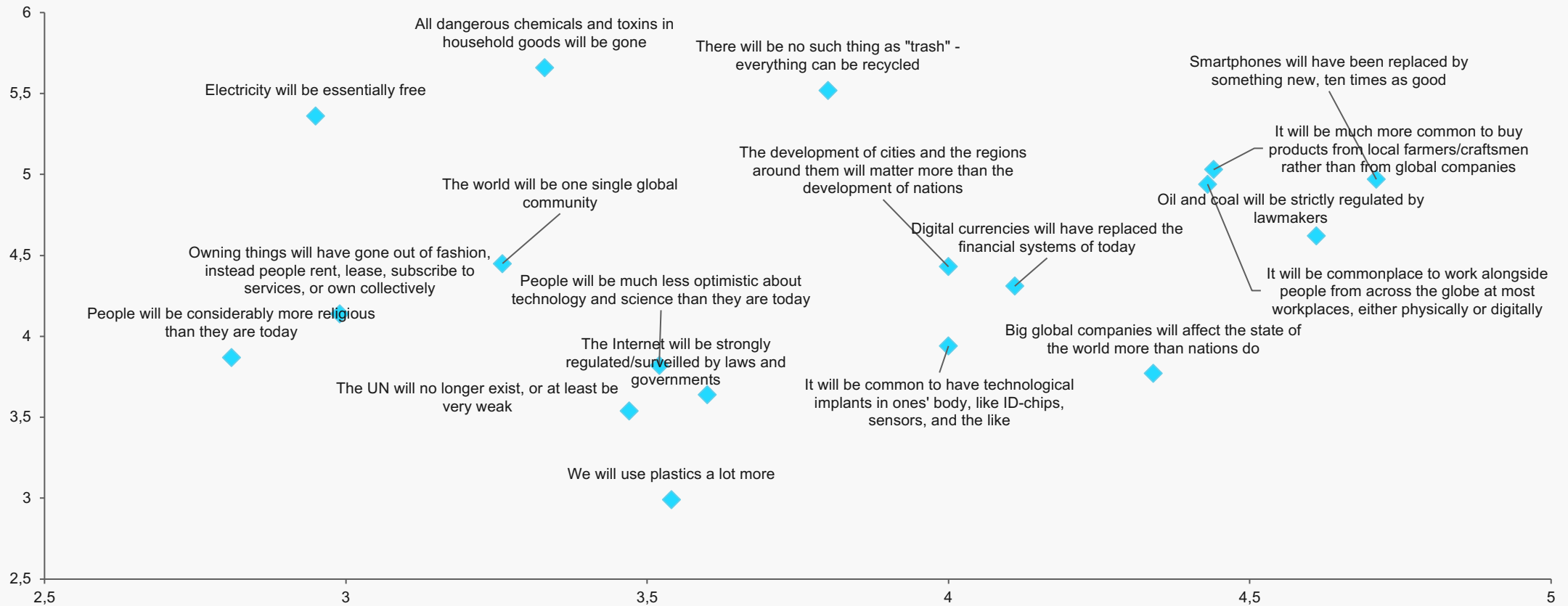
(Horizontal axis shows trust for this group; vertical axis shows perceived responsibility for the environment. Diamond, 2016 reference sample, average of all five countries. Square, Italy. Triangle, Slovakia.)



# Sweden maps the future

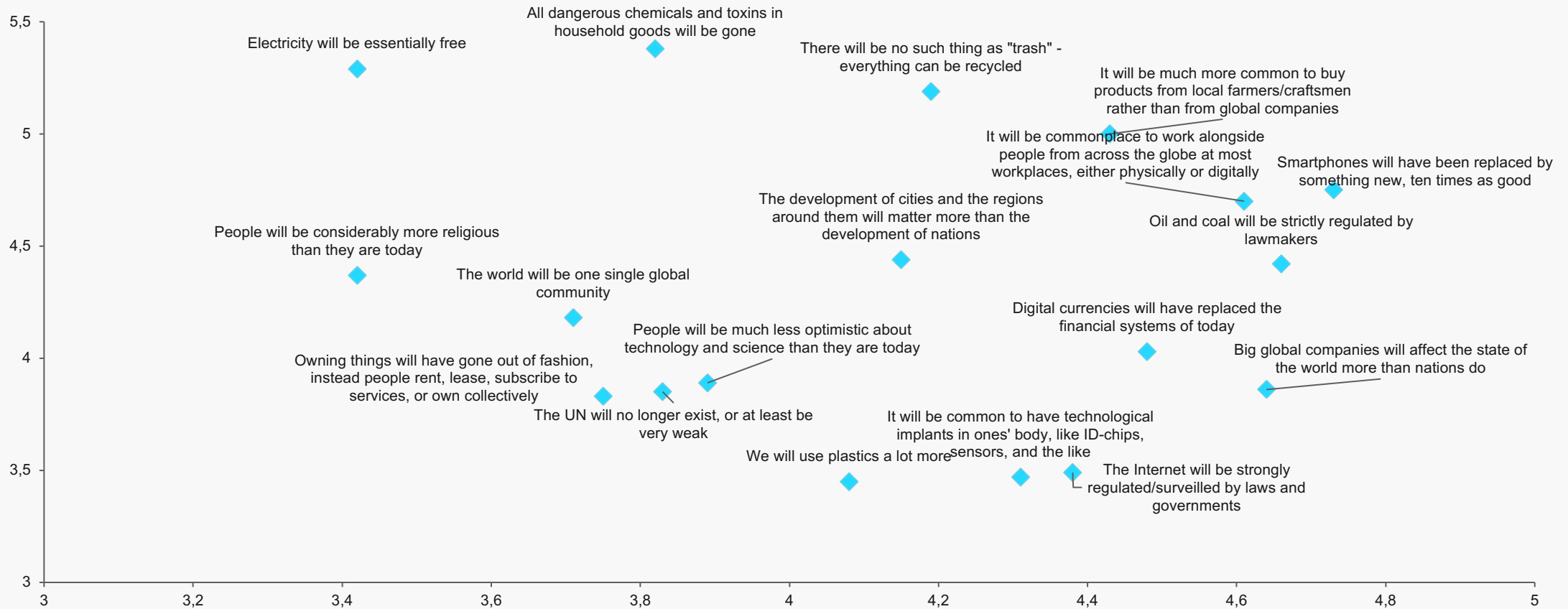
(Vertical axis shows desirability, horizontal axis shows how probable this future is)

NOTE: Scales vary between countries, focus on relative position within each country.



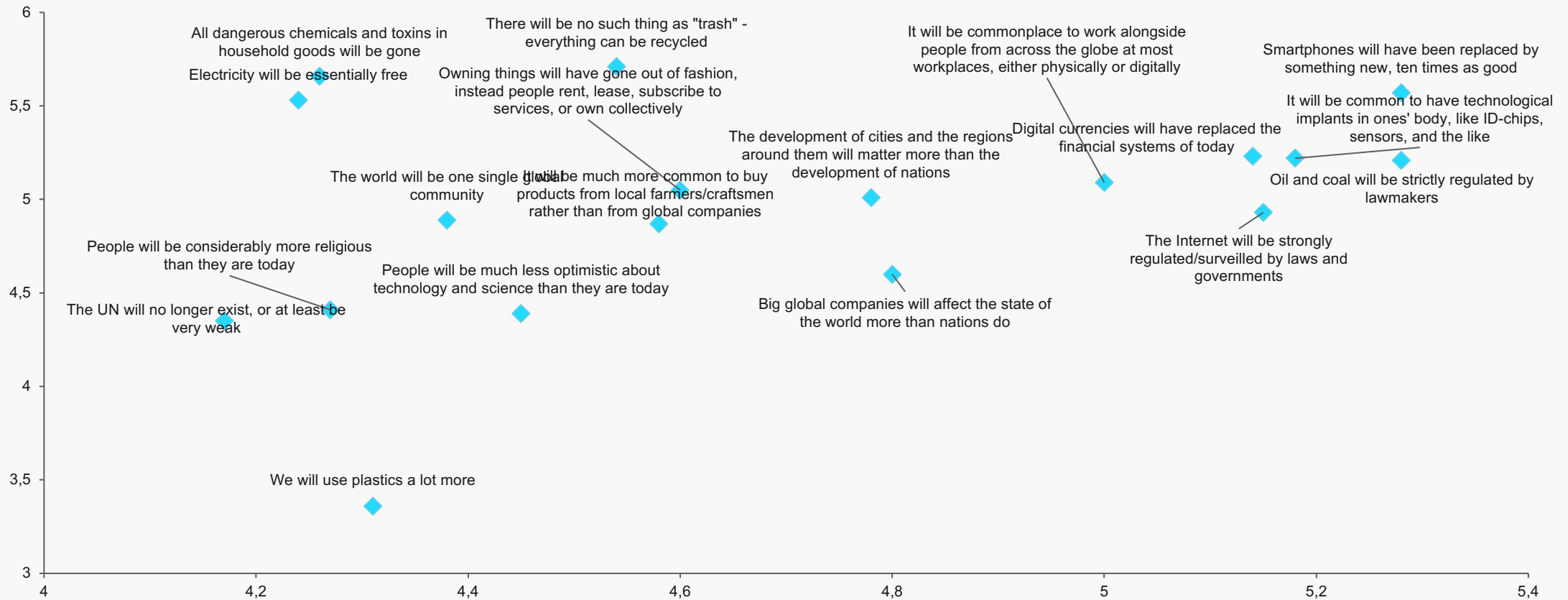
# USA maps the future

(Vertical axis shows desirability, horizontal axis shows how probable this future is)



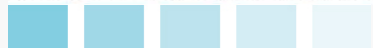
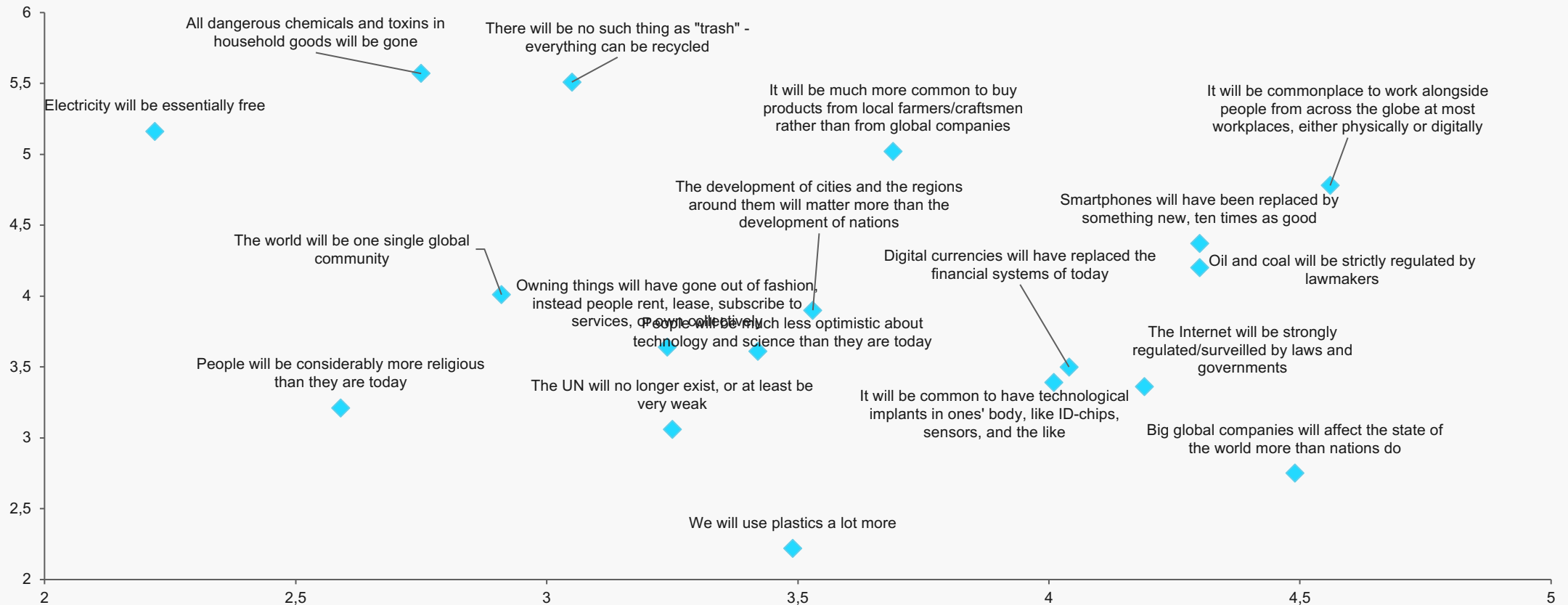
# China maps the future

(Vertical axis shows desirability, horizontal axis shows how probable this future is)



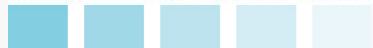
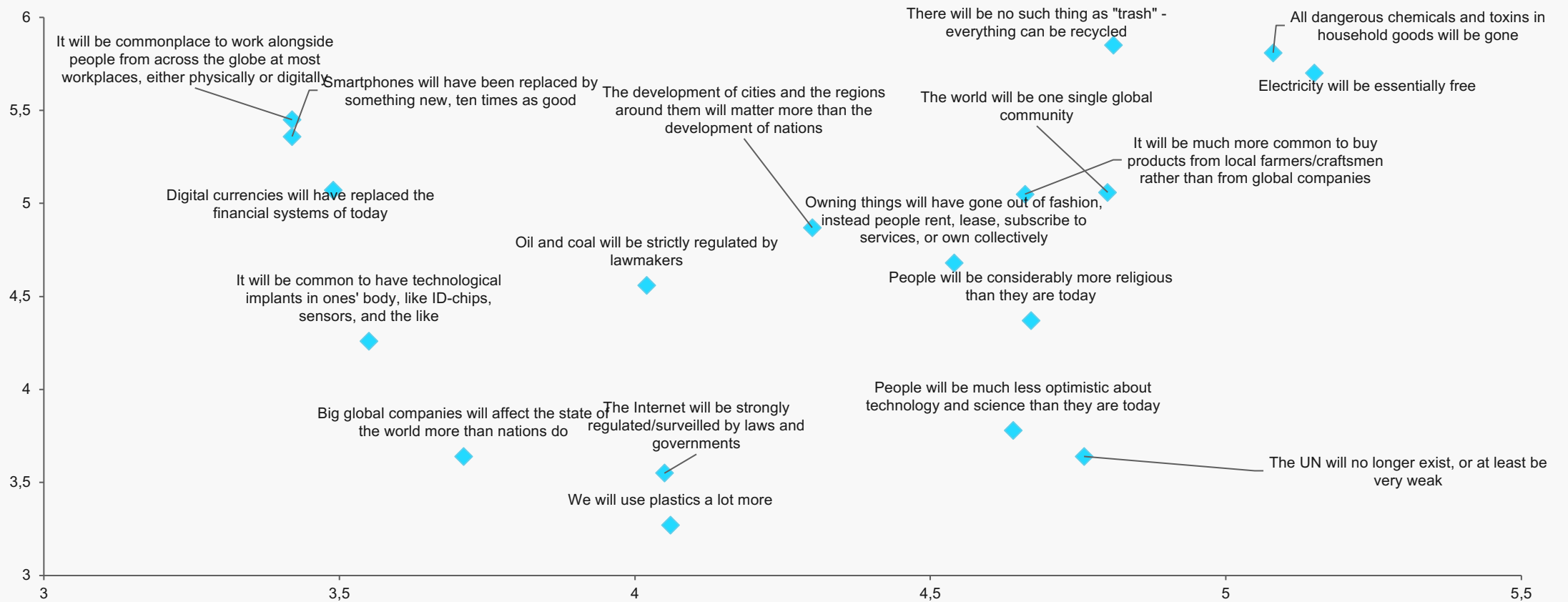
# Germany maps the future

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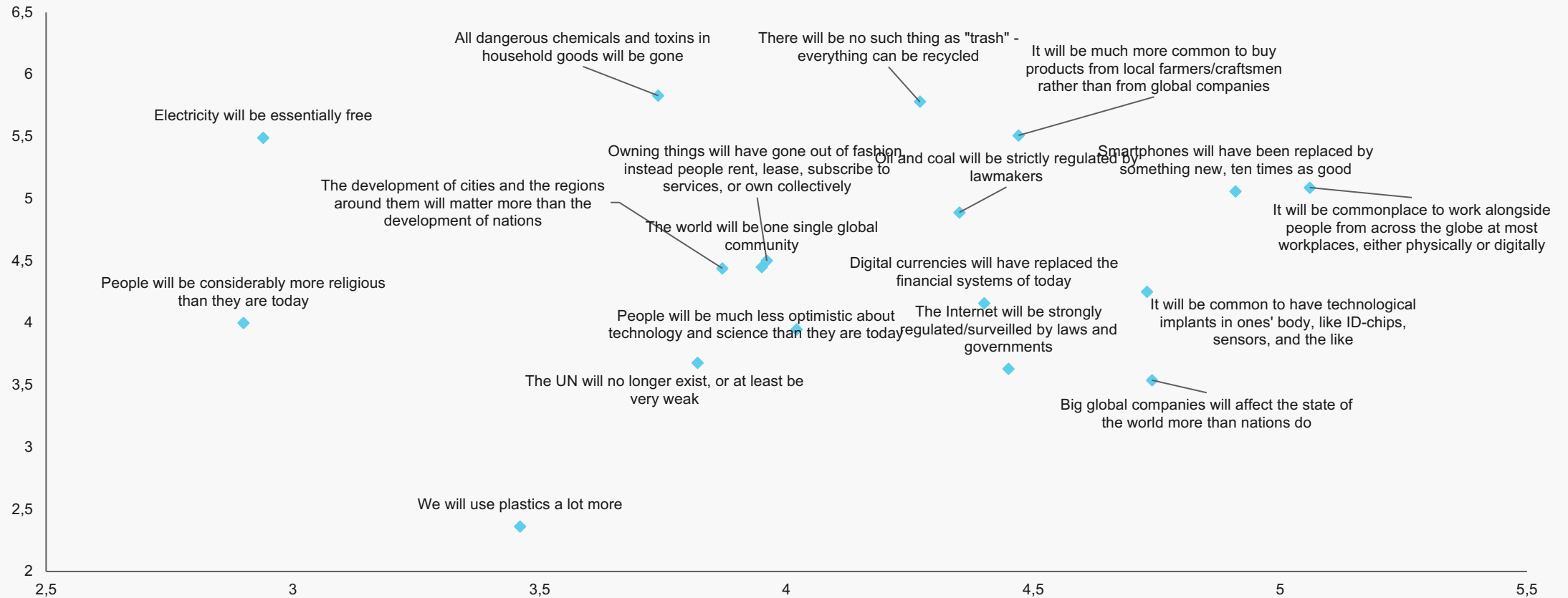
# Brazil maps the future

(Vertical axis shows desirability, horizontal axis shows how probable this future is)



# Italy maps the future

(Vertical axis shows desirability, horizontal axis shows how probable this future is)



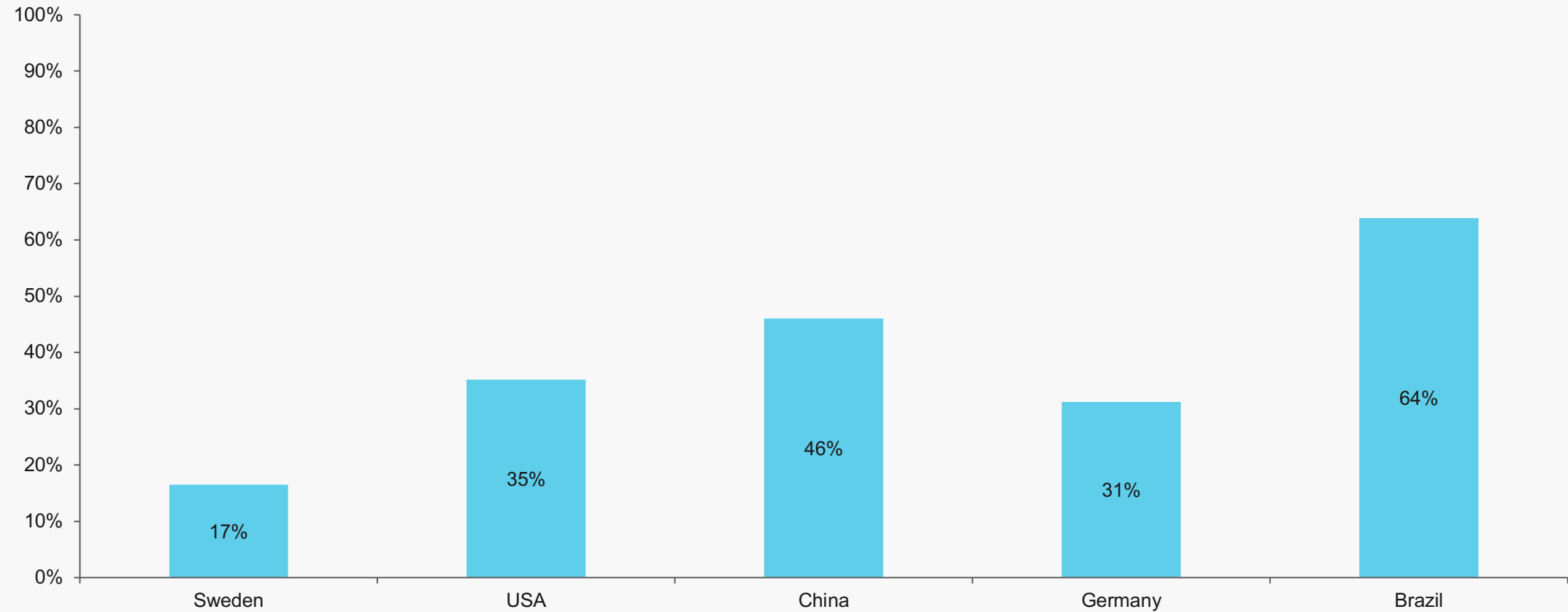


# Slovakia maps the future

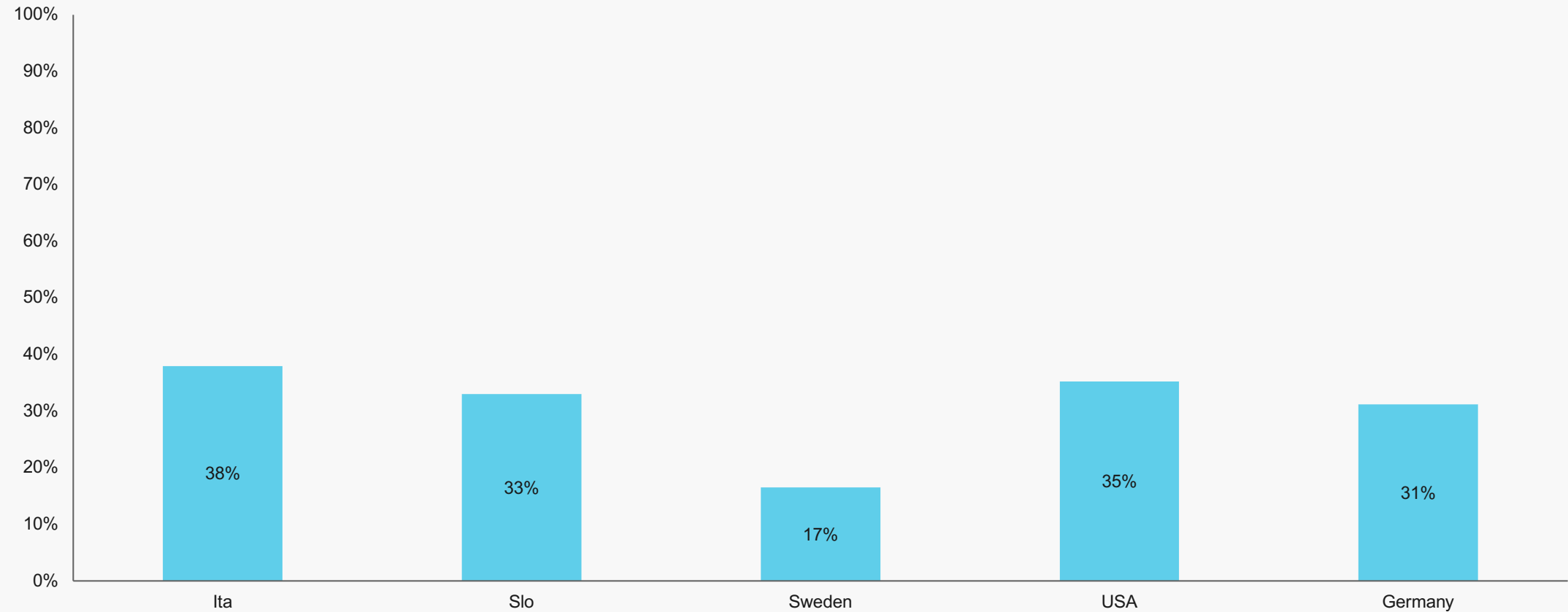
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# Percent who state they “care very much” about environmental issues

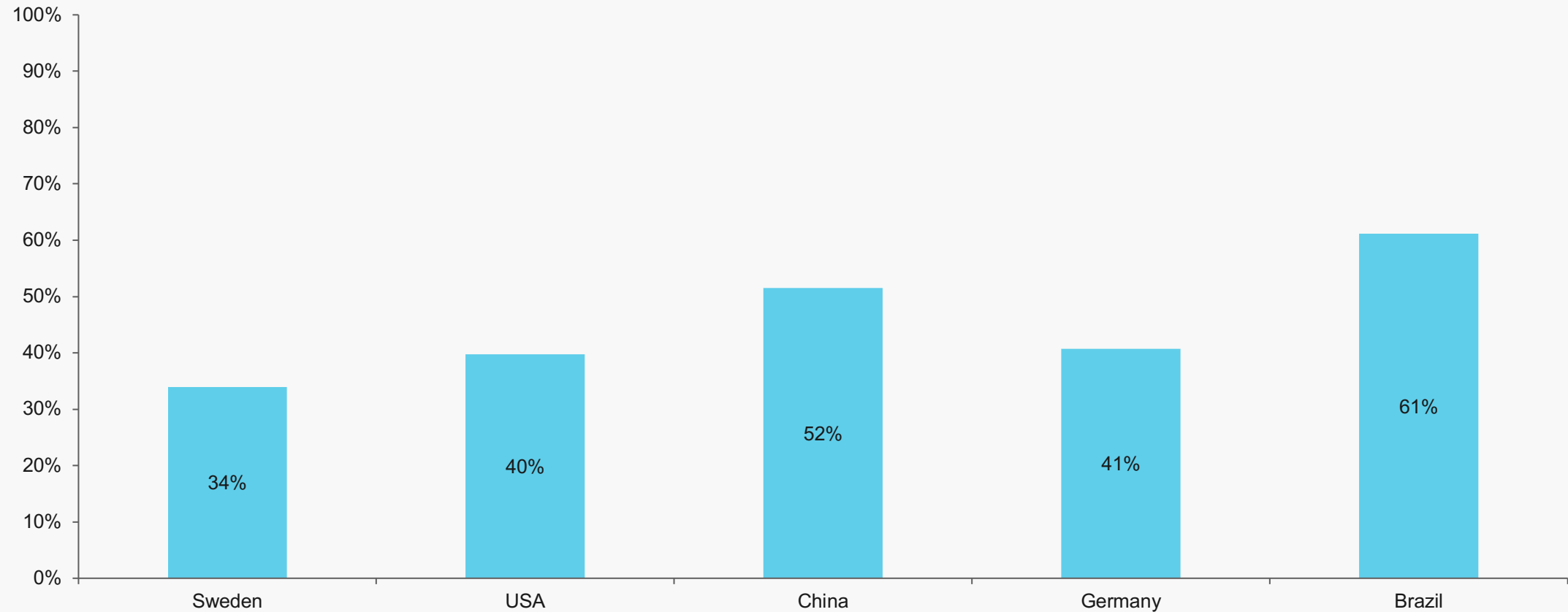


# Percent who state they “care very much” about environmental issues



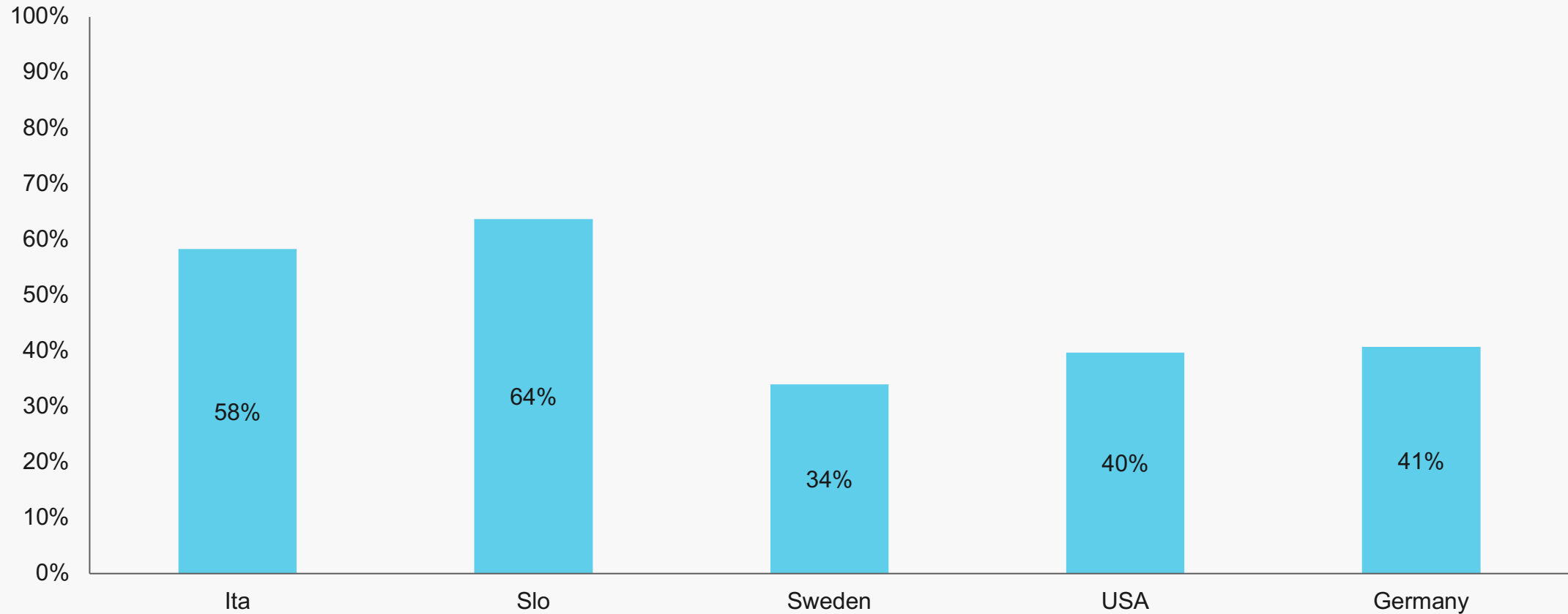
# Percent who considered “more effective materials recycling systems” the best environmental strategy

(of 12 alternatives, including “none of the above”.)



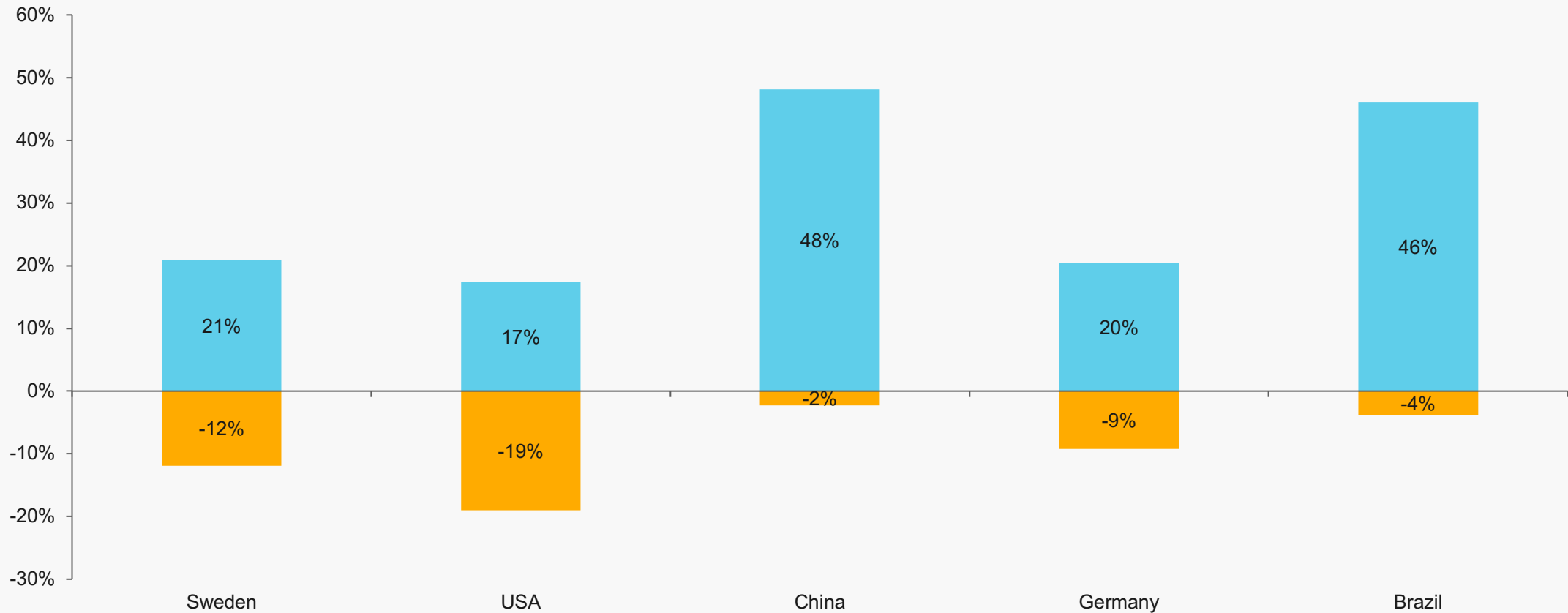
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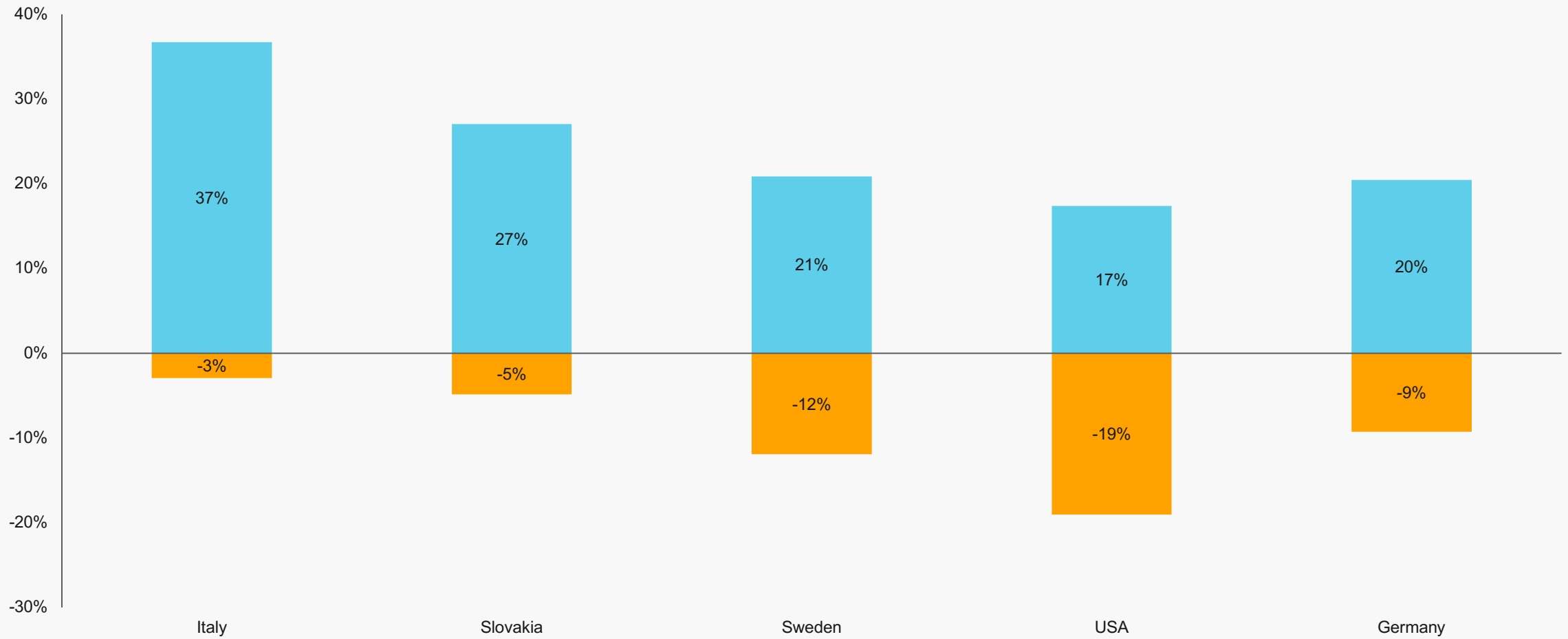
# How often do you buy eco-friendly alternatives?

(Percent always or almost always above the axis, percent never or almost never below the axis)



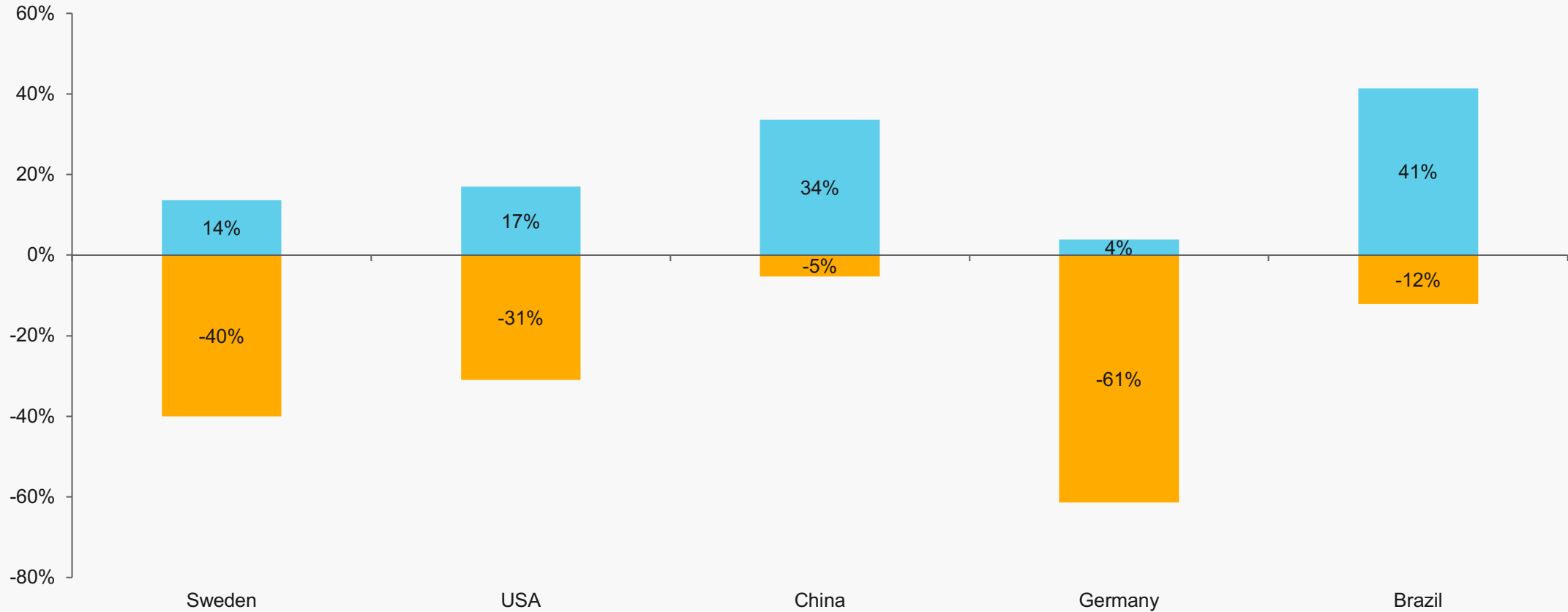
# How often do you buy eco-friendly alternatives?

(Percent always or almost always above the axis, percent never or almost never below the axis)



# How often do you feel guilty for not buying eco-friendly alternatives?

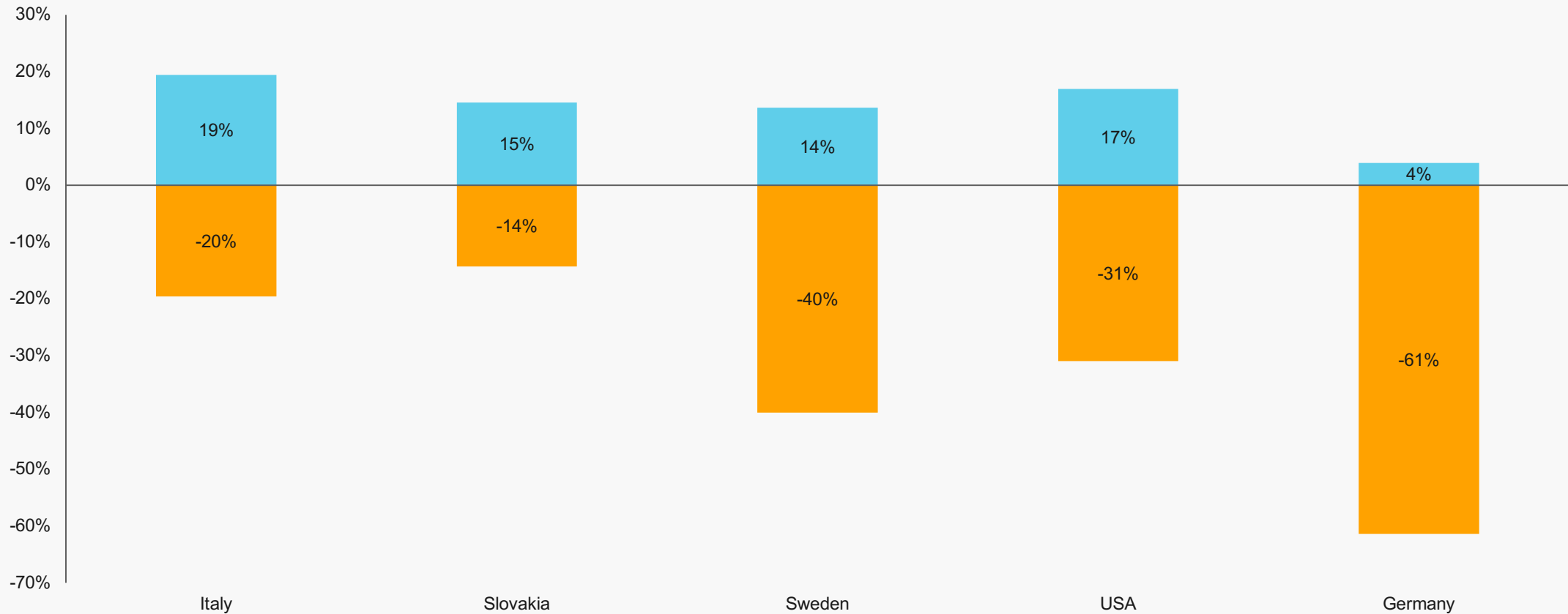
(Percent always or almost always above the axis, percent never or almost never below the axis)





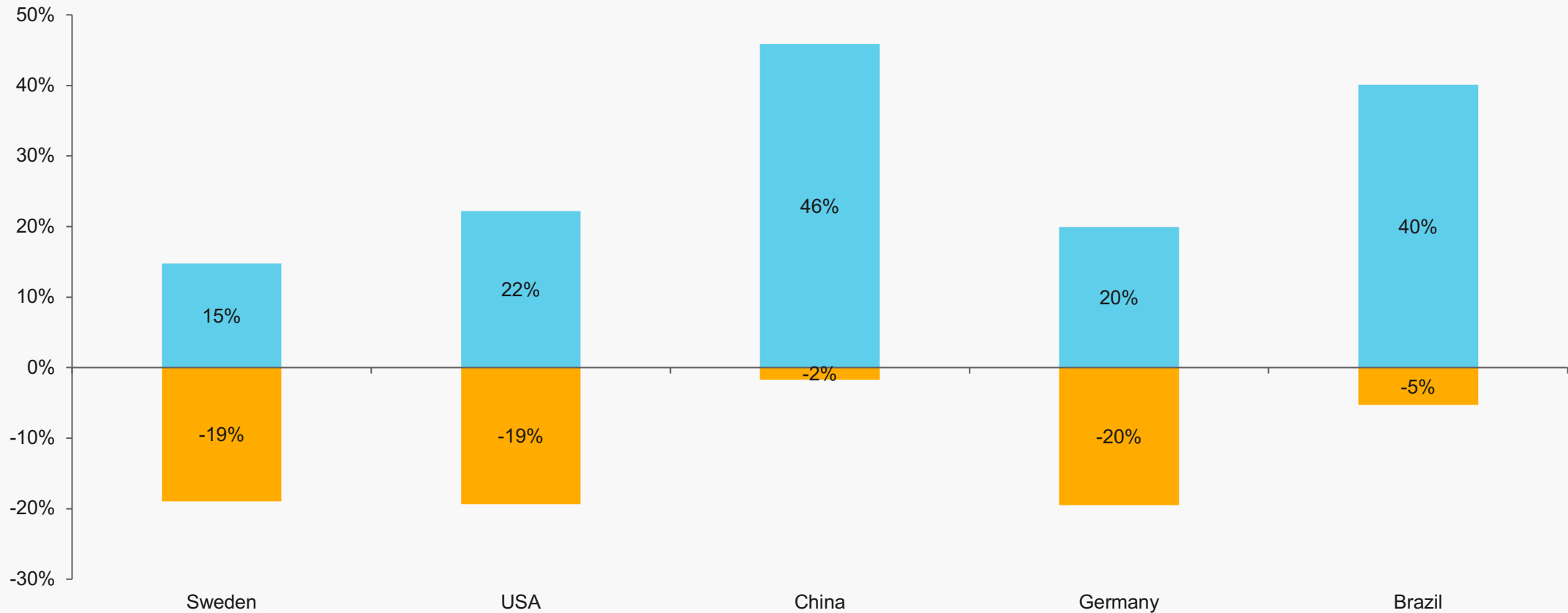
# How often do you feel guilty for not buying eco-friendly alternatives?

(Percent always or almost always above the axis, percent never or almost never below the axis)



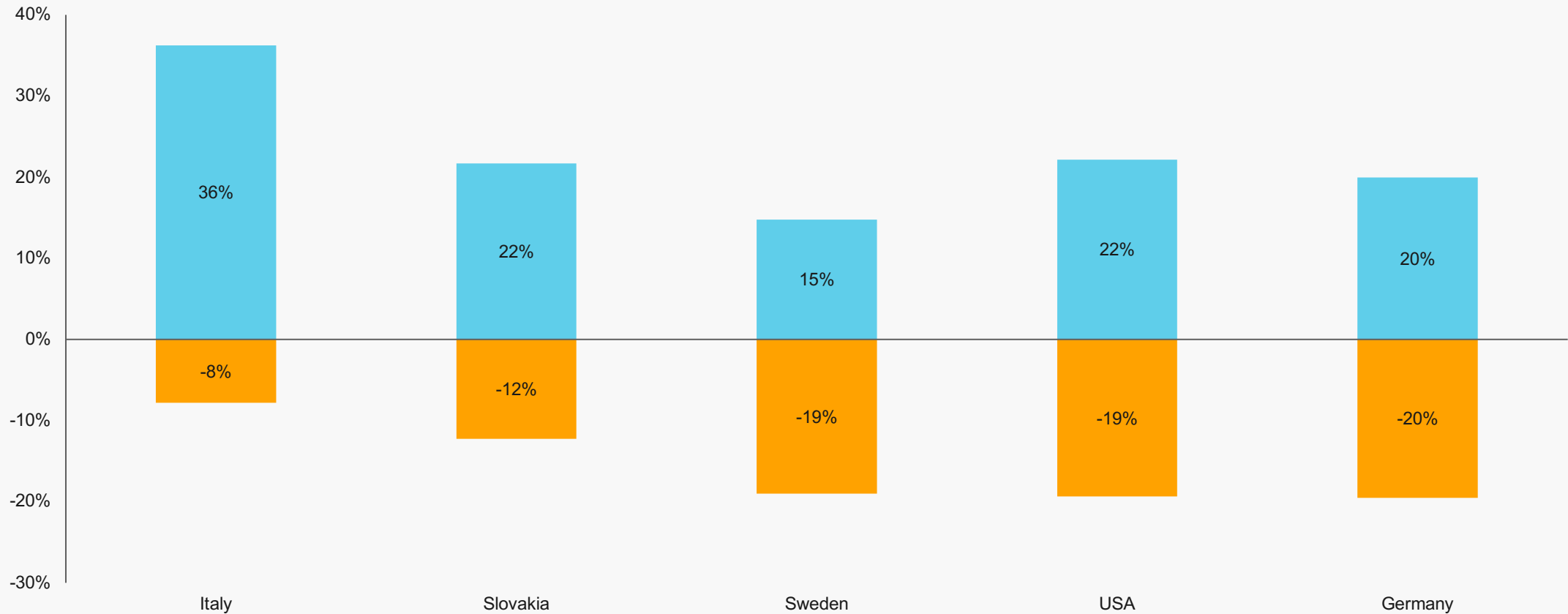
# I place high ethical demands on the companies I buy my products from

(Percent who agrees strongly above the axis, disagree strongly below.)

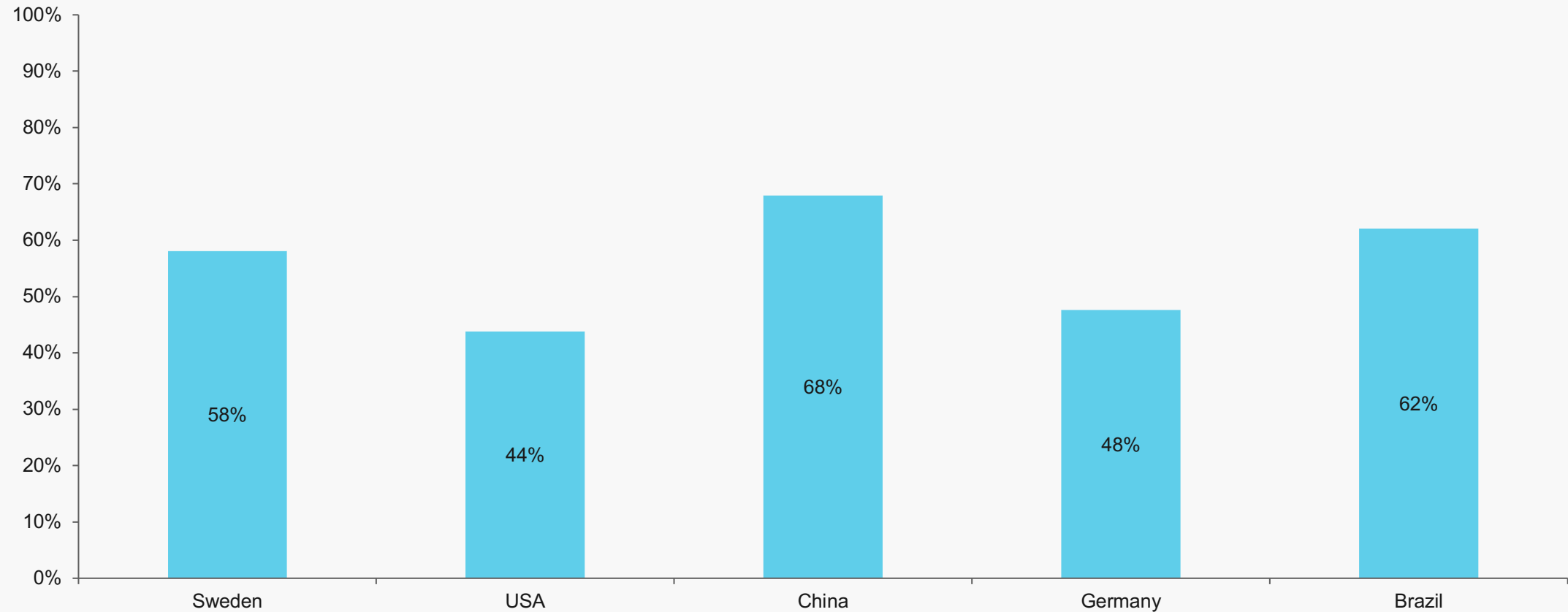


# I place high ethical demands on the companies I buy my products from

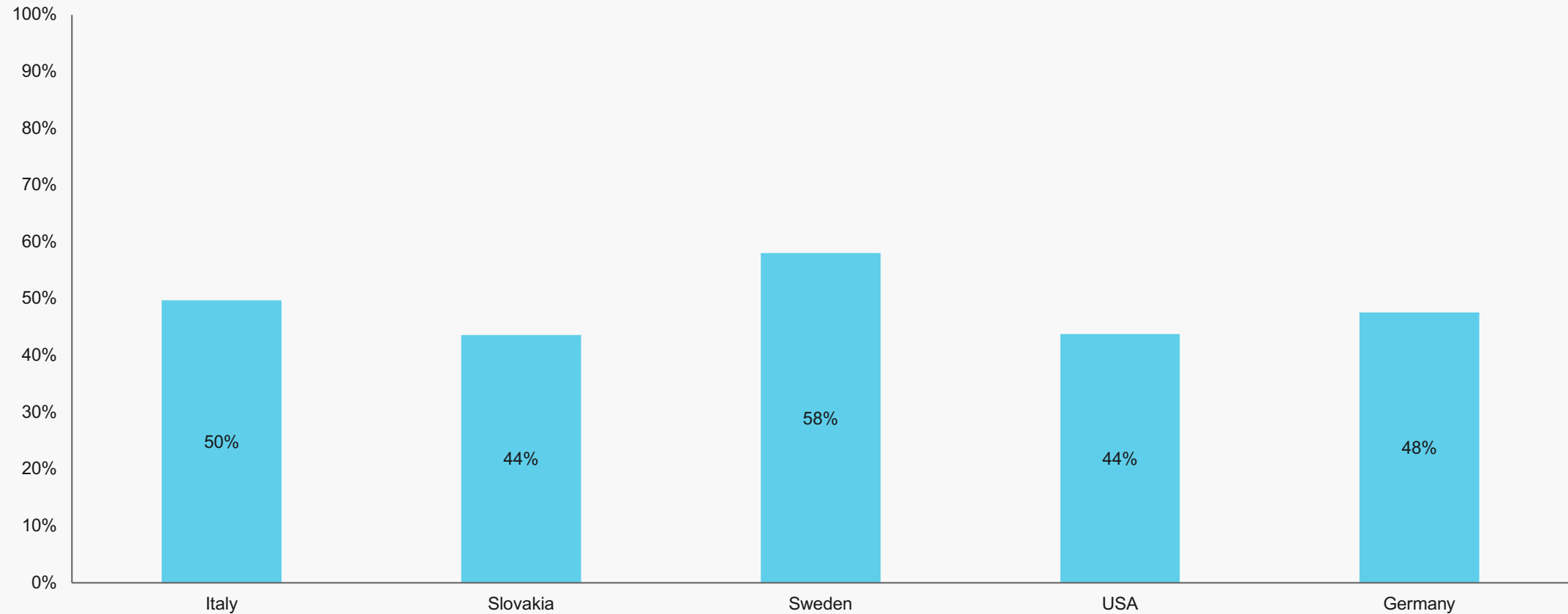
(Percent who agrees strongly above the axis, disagree strongly below.)



# Percent who have at least once abandoned a brand or company for behaving unethically



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# All care for the environment – but in slightly different ways

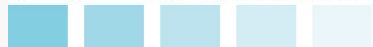
(Environmental strategies that were more popular in the country than among other countries)

## Personal habits

Sweden	USA	China	Germany	Brazil
Buy used products instead of new ones	Buy used products instead of new ones	Buy environmentally certified products	Limit my air travel	Limit my consumption
Buy locally produced goods	Share things with my friends instead of buying my own	Avoid products that are harmful/toxic to the environment	Buy locally produced goods	Fix things instead of throwing them away

## Collective strategies

Sweden	USA	China	Germany	Brazil
Outlaw more environmentally harmful substances in products	None favored	Tax CO2 (Carbon dioxide)-release harder	Regulate and inspect dangerous substances/chemicals more harshly	Educate students on environmental issues
Research and develop more eco-friendly materials		Tax consumers harder	Research and develop more eco-friendly materials	Educate and inform the public on environmental issues



# All care for the environment – but in slightly different ways

(Environmental strategies that were more popular in the country than among other countries. All compared to the 2016 average of five countries.)

## Personal habits

Italy	Slovakia	Sweden	USA	Germany
Sort recyclables and recycle trash	Sort recyclables and recycle trash	Buy used products instead of new ones	Buy used products instead of new ones	Limit my air travel
Buy locally produced goods	Avoid products that are harmful/toxic to the environment	Buy locally produced goods	Share things with my friends instead of buying my own	Buy locally produced goods

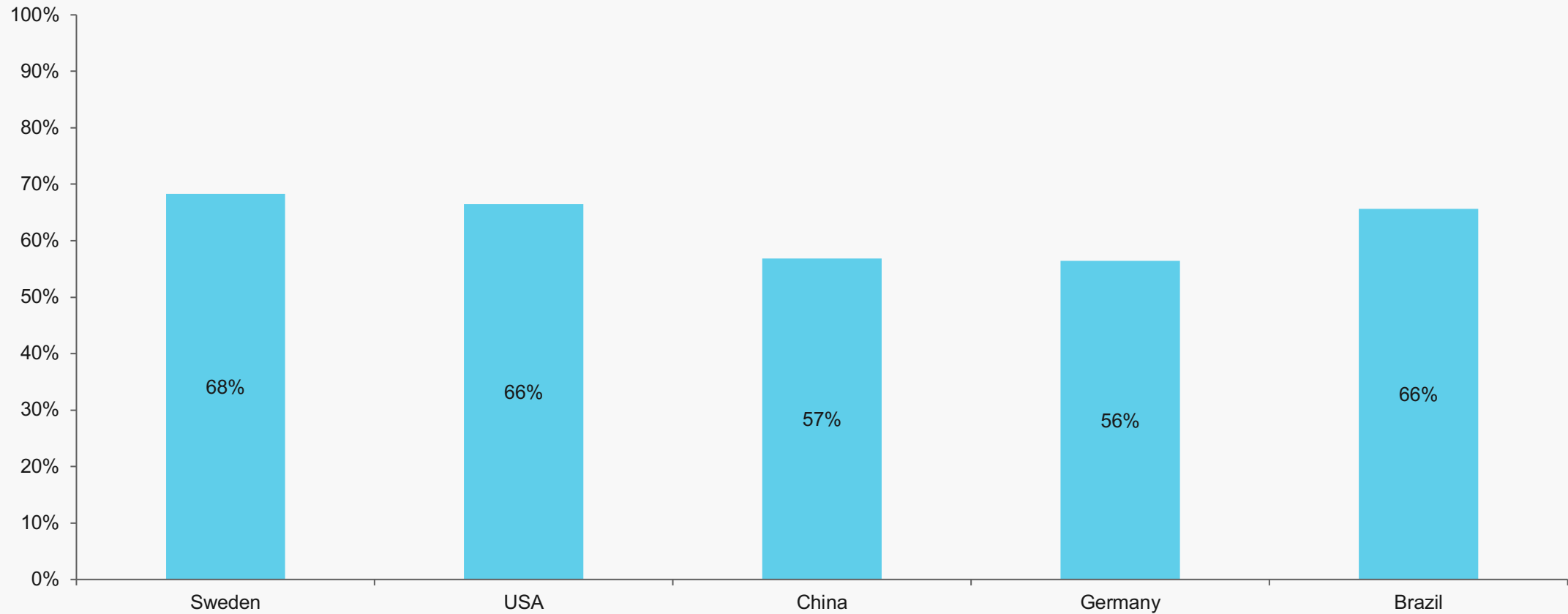
## Collective strategies

Italy	Slovakia	Sweden	USA	Germany
Create more effective systems for recycling materials	Force companies to recycle to a greater degree	Outlaw more environmentally harmful substances in products	None favored	Regulate and inspect dangerous substances/chemicals more harshly
Force companies to recycle to a greater degree	Regulate and inspect dangerous substances/chemicals more harshly	Research and develop more eco-friendly materials		Research and develop more eco-friendly materials



# Do you have a lot of stuff you would prefer to get rid of?

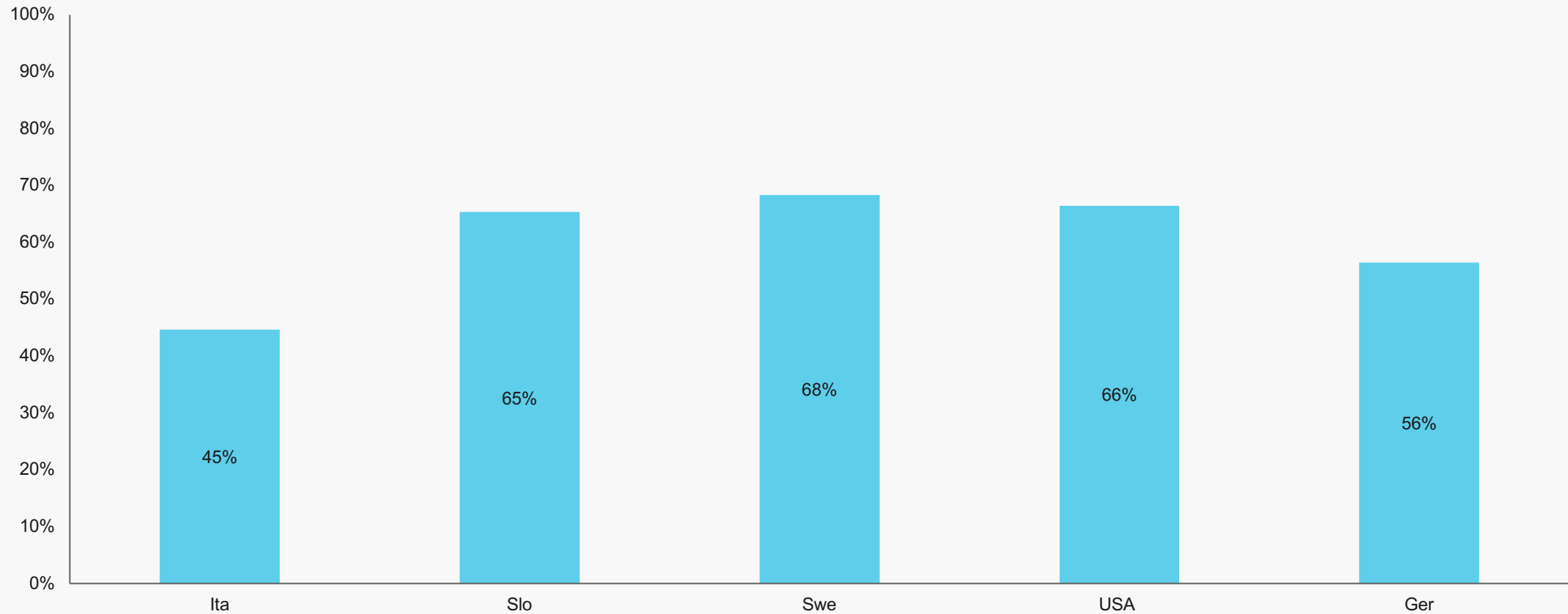
(Dark green shows positive answers)





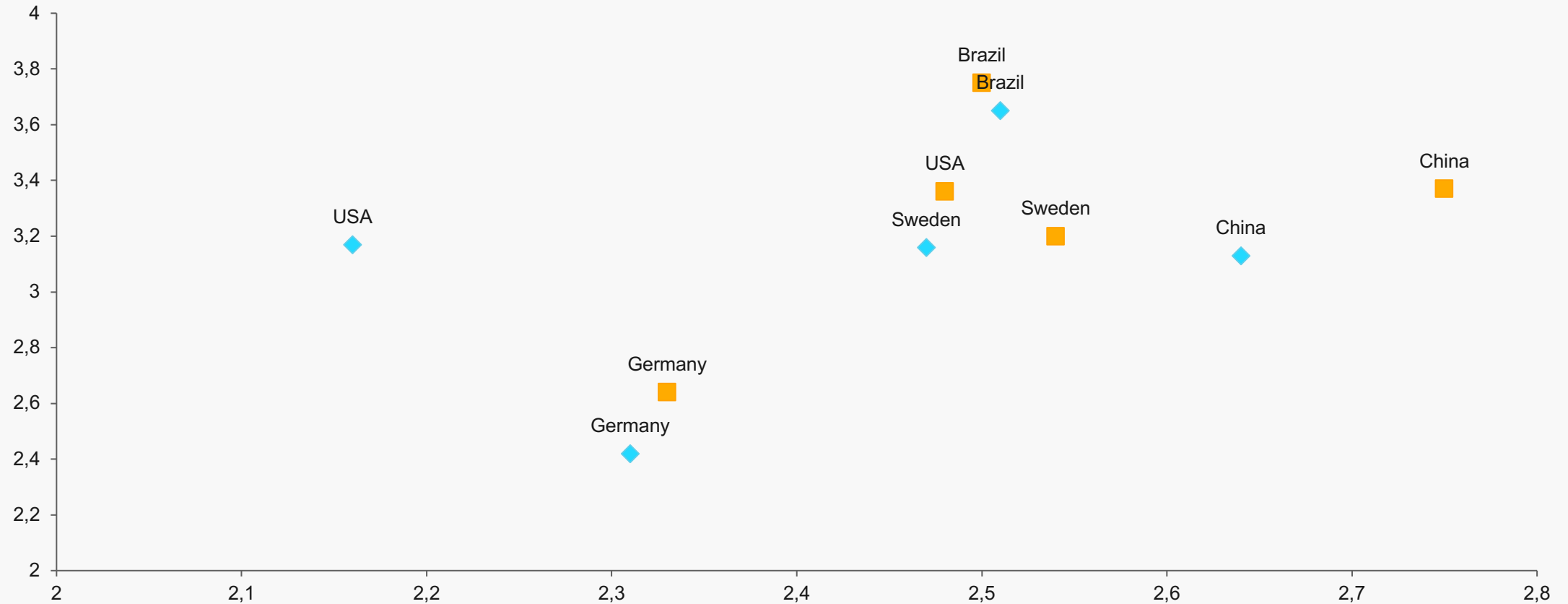
# Do you have a lot of stuff you would prefer to get rid of?

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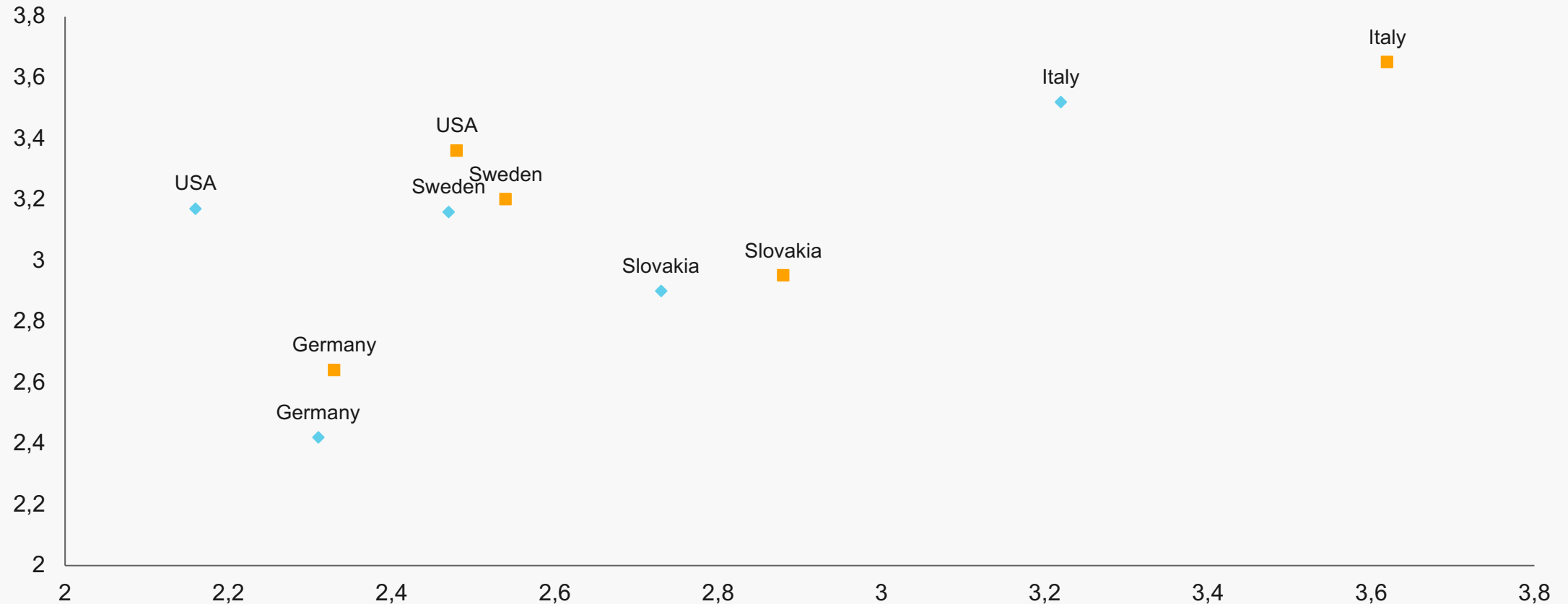
# Attitudes to possessions

Vertical axis – preference for sharing with others. Horizontal axis – preference for renting or hiring over owning. Note that all countries show a preference for exclusive access, and a strong preference for owning. Light squares represent young respondents (18-29), dark diamonds population total.



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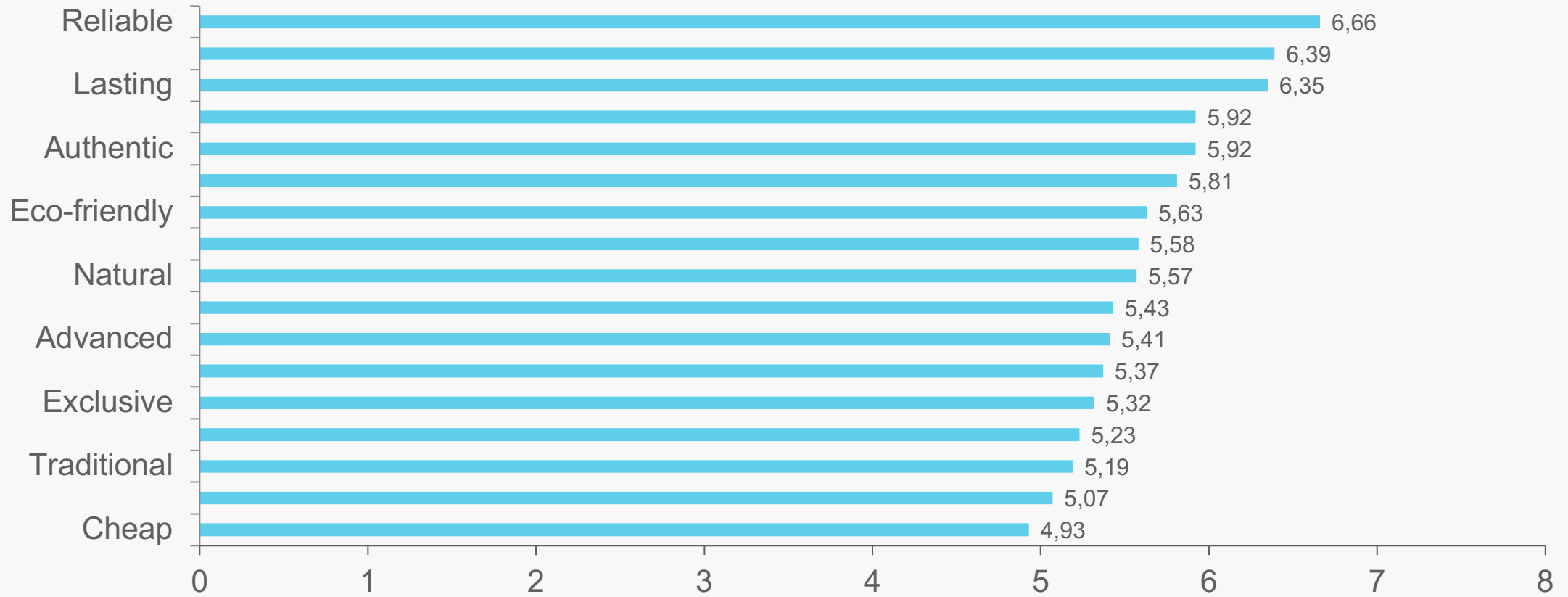
# Cellulose-Based Society Follow-up study 2018

MATERIALS



# What is important in a material?

(Average of ratings from 1-8, where 8 is absolutely essential. 2016 data.)



# Qualities favored more in the five countries, compared to the 2016 average

<b>Italy</b>	<b>Slovakia</b>	<b>Sweden</b>	<b>USA</b>	<b>Germany</b>
Cheap	Cheap	Reliable	Traditional	Beautiful
Eco-friendly	Traditional	Qualitative	Lasting	Natural
Natural	Modern	Lasting	Fun	Timeless



# Qualities are divided into two factors, wherein the qualities co-vary

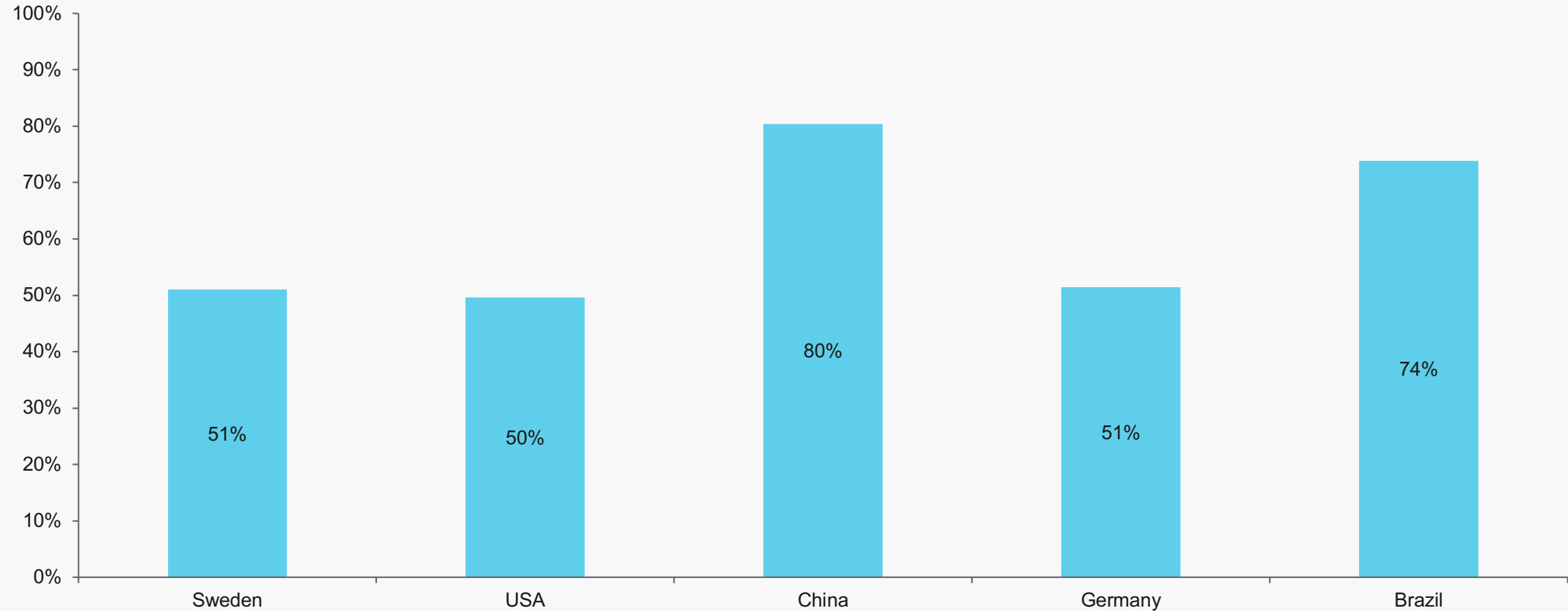
(I.e. any material perceived as “reliable” or “exclusive” likely also has the other attributes in its column)

Reliable	Exclusive
Qualitative	Modern
Lasting	Fun
Authentic	Exciting
Pleasant	Advanced
Timeless	Formal
Eco-friendly	Traditional
	Beautiful



# Percent who state the material of the product influenced their last major purchase

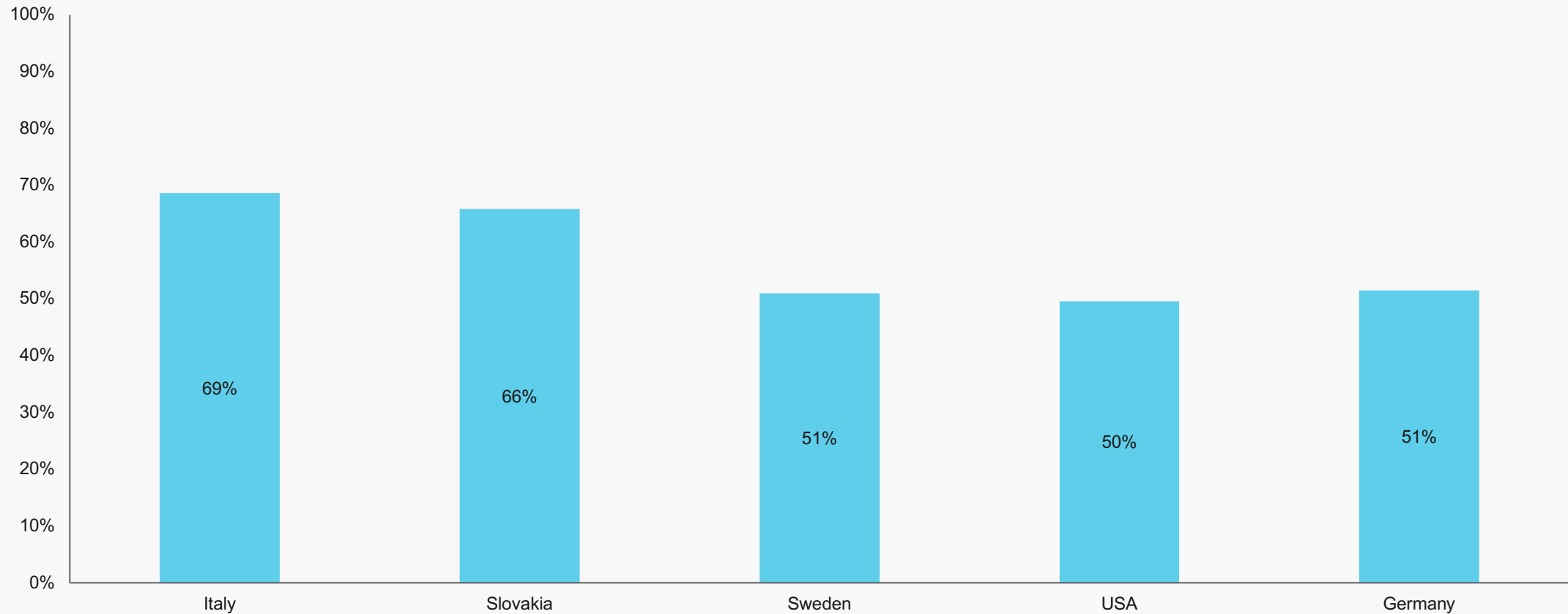
(Defined as a larger purchase of some product meant to be used for a long period of time, such as clothing, electronics, furniture, etc. Dark green “agree”)





# Percent who state the material of the product influenced their last major purchase

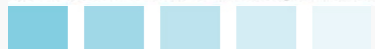
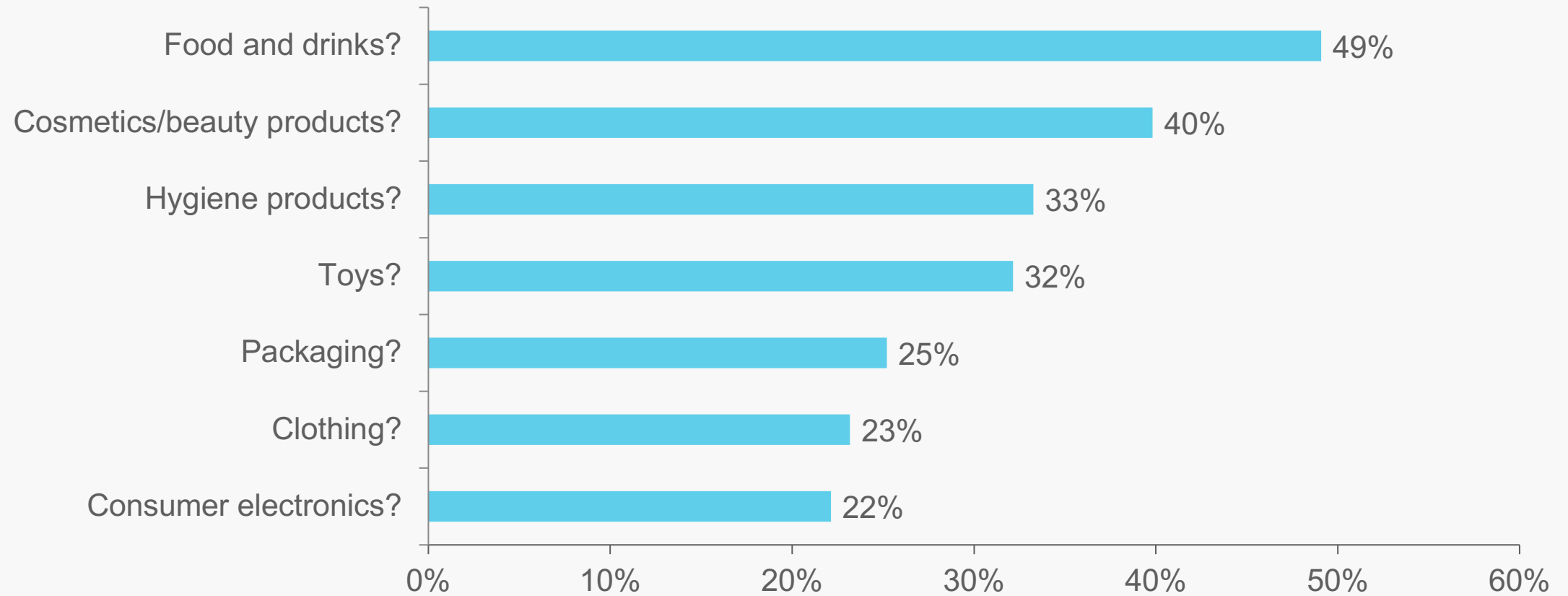
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# Are you worried about dangerous chemicals in...?

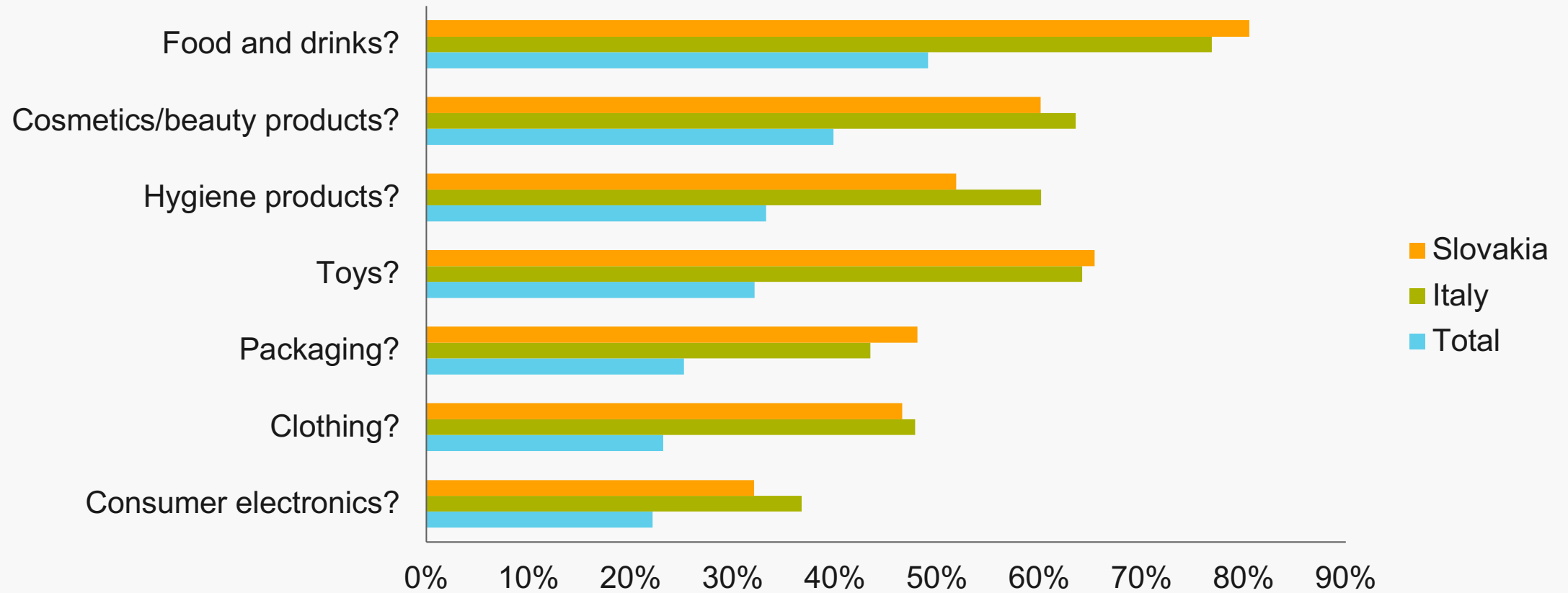
(Percent "very worried")

Conclusion: The closer to the body, the greater the concern.



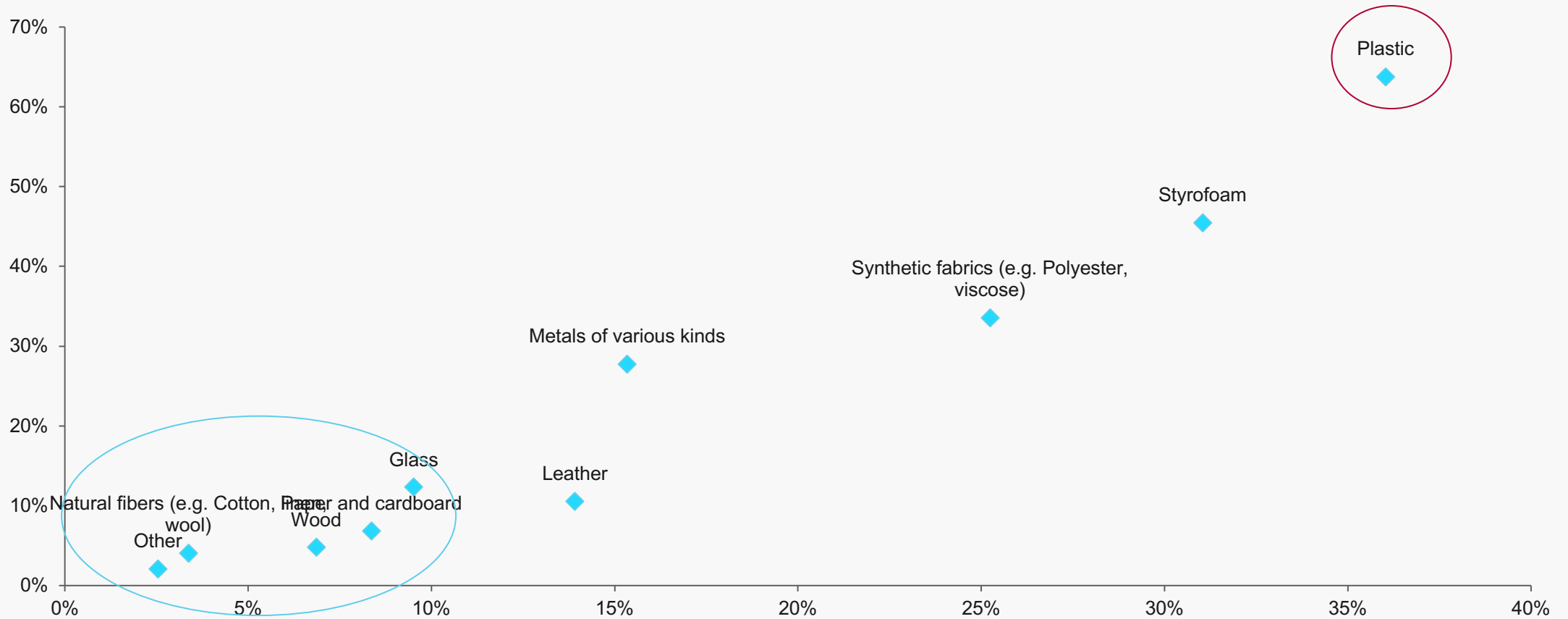
# Are you worried about dangerous chemicals in...?

(Percent “very worried” in Italy and Slovakia compared to the total)



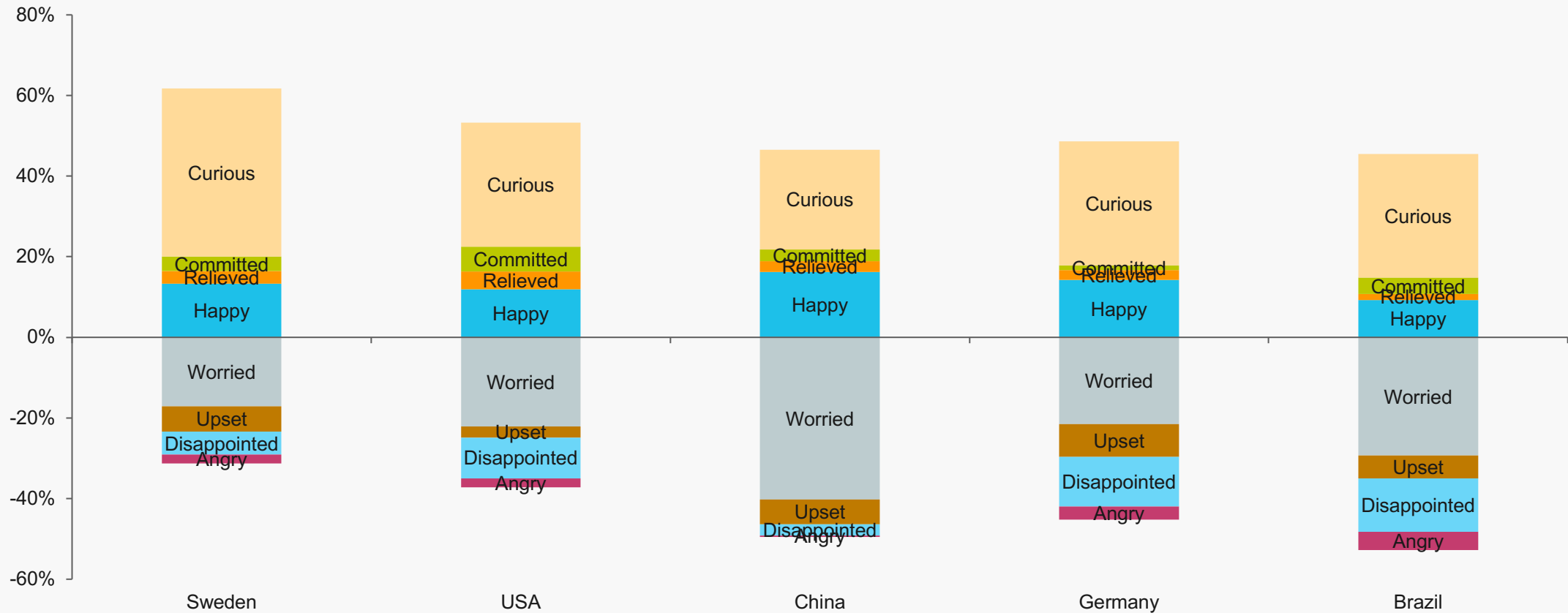
# Materials that harm the environment, and that consumers try to avoid

(Horizontal axis: Percent of consumers who avoid this material. Vertical axis: Percent of consumers who believe this material harms the environment.)

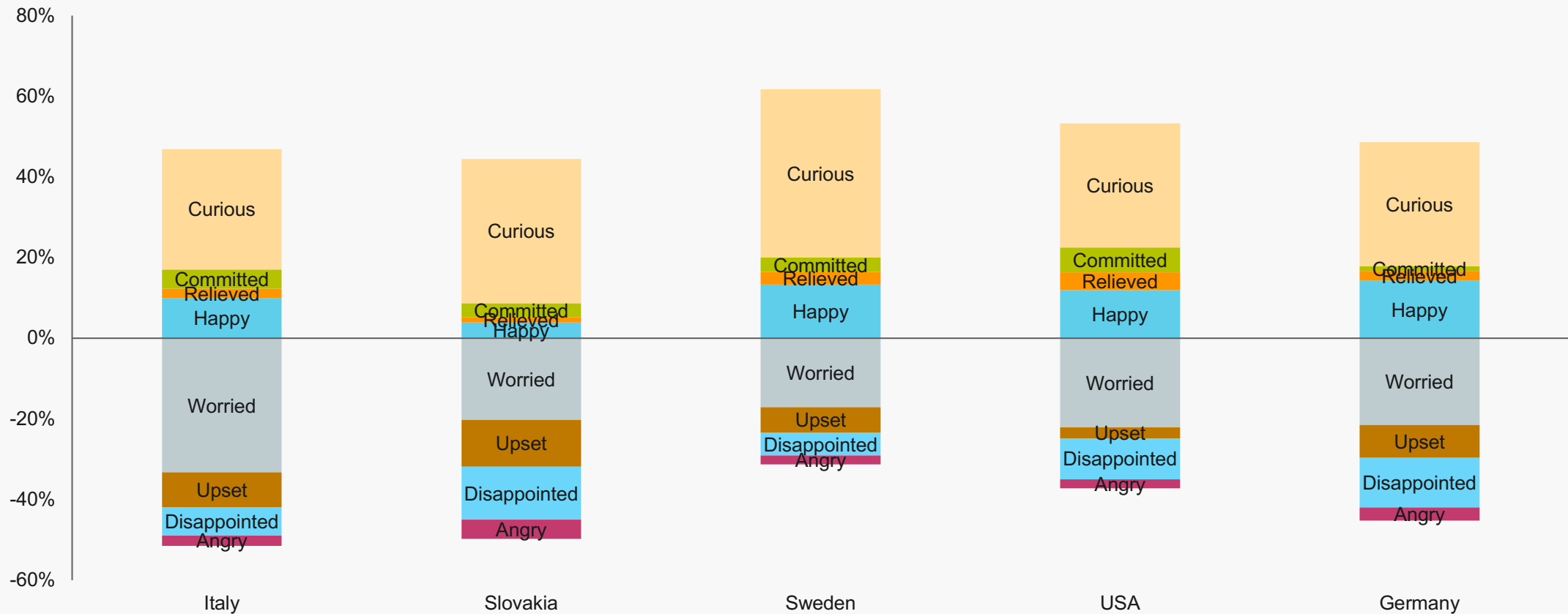


Imagine a future in which resources from forests are used to create an array of products.

Which of the following best describes your reaction in this scenario?

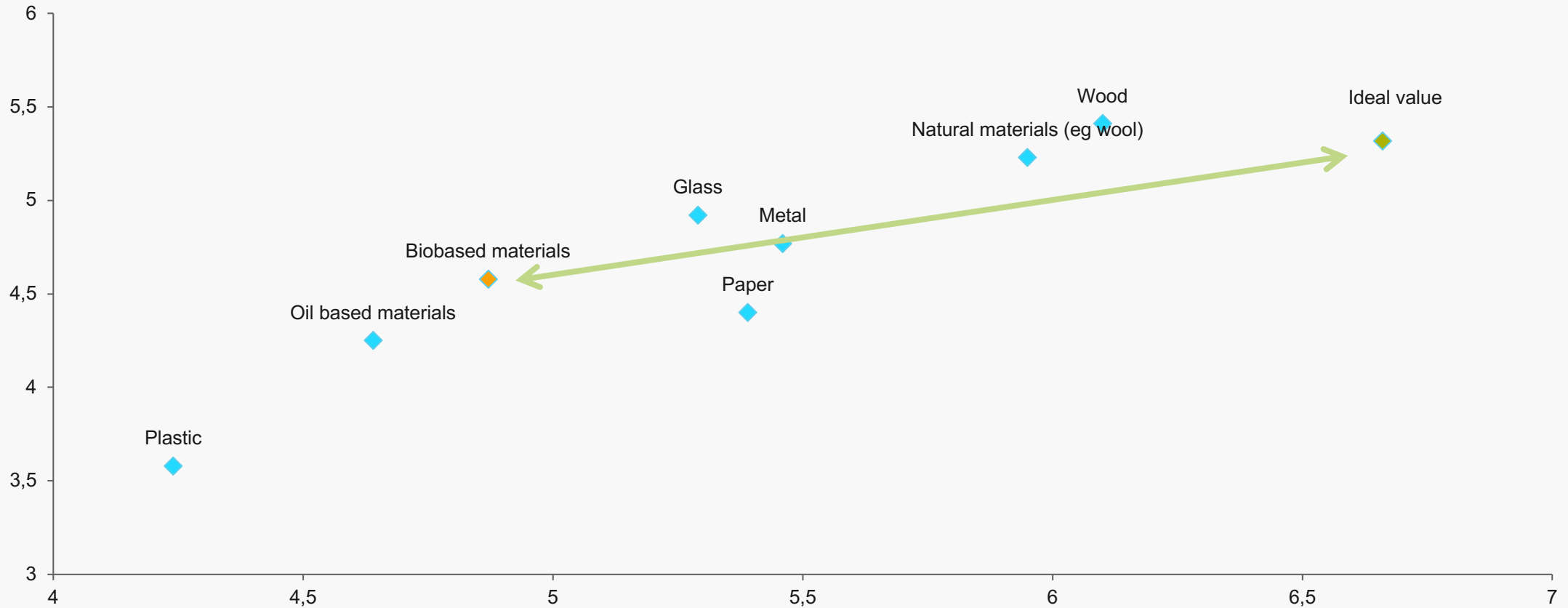


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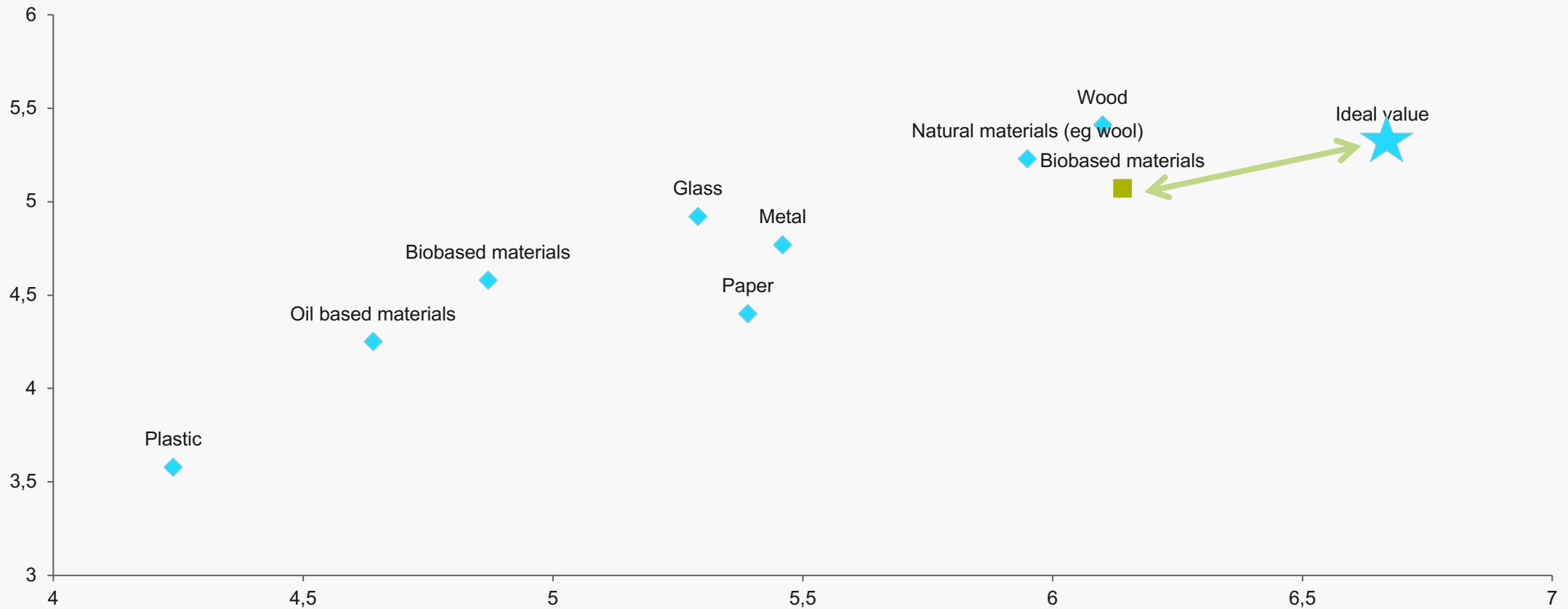
# Biobased materials are perceived as relatively luxurious, but not nearly as reliable as natural materials!

(Vertical axis: Average “Exclusive” score. Horizontal axis: Average “Reliable” score. Ideal value is the average of how important these qualities were rated.)



# Those who always choose eco-friendly alternatives have a more favorable view of biobased materials

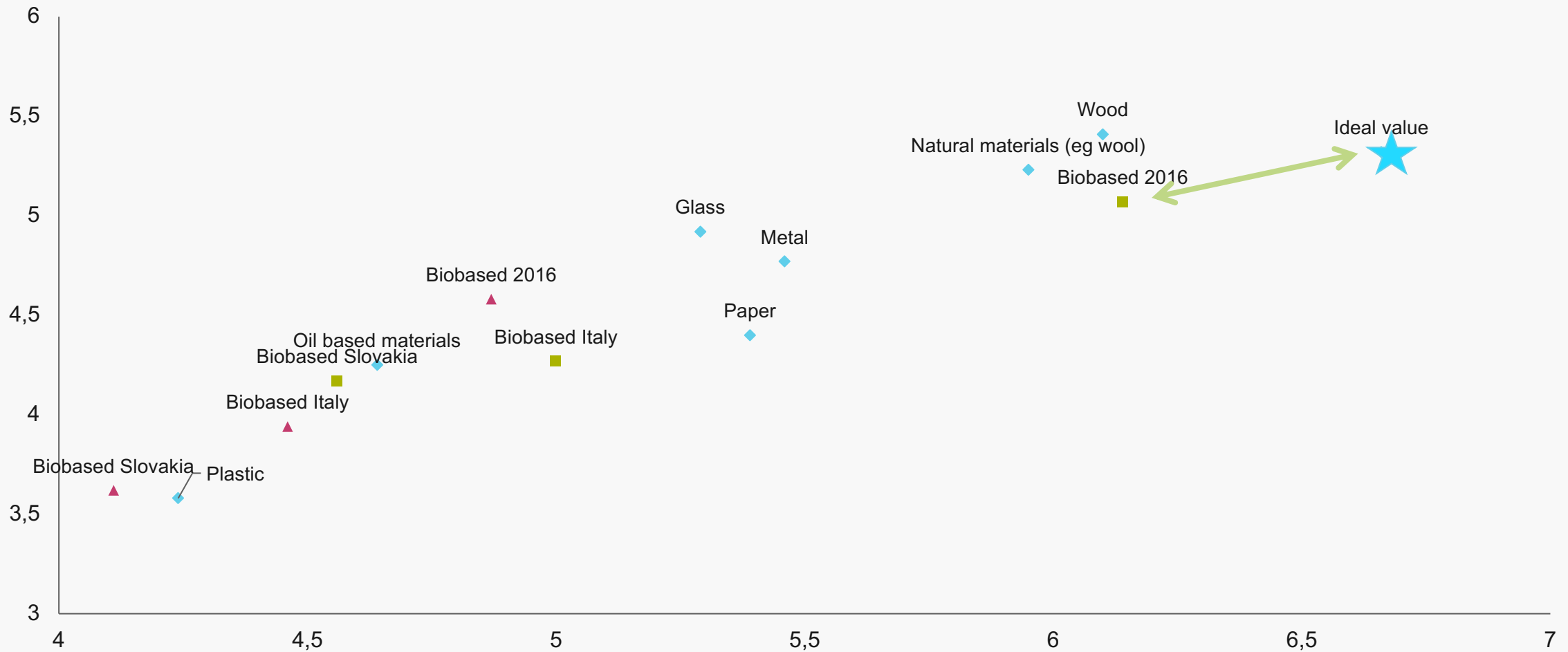
(Vertical axis: Average “Exclusive” score. Horizontal axis: Average “Reliable” score. Ideal value is the average of how important these qualities were rated. Green square shows value of those who always choose eco-friendly alternatives. Note that these individuals’ ideal value is also somewhat higher in both categories.)





# Less favorable impressions in Slovakia and Italy, even among eco-conscious consumers

(Vertical axis: Average “Exclusive” score. Horizontal axis: Average “Reliable” score. Ideal value is the average of how important these qualities were rated. Green squares show value of those who always choose eco-friendly alternatives. Purple triangles show bio-based among 2016 market, Italy, and Slovakia.)



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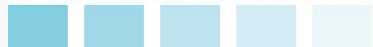
# Cellulose-Based Society Follow-up study 2018

ASSOCIATION TO THE FOREST



# Sweden on forests

"Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?"



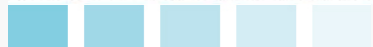
# USA on forests

“Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?”



# China on forests

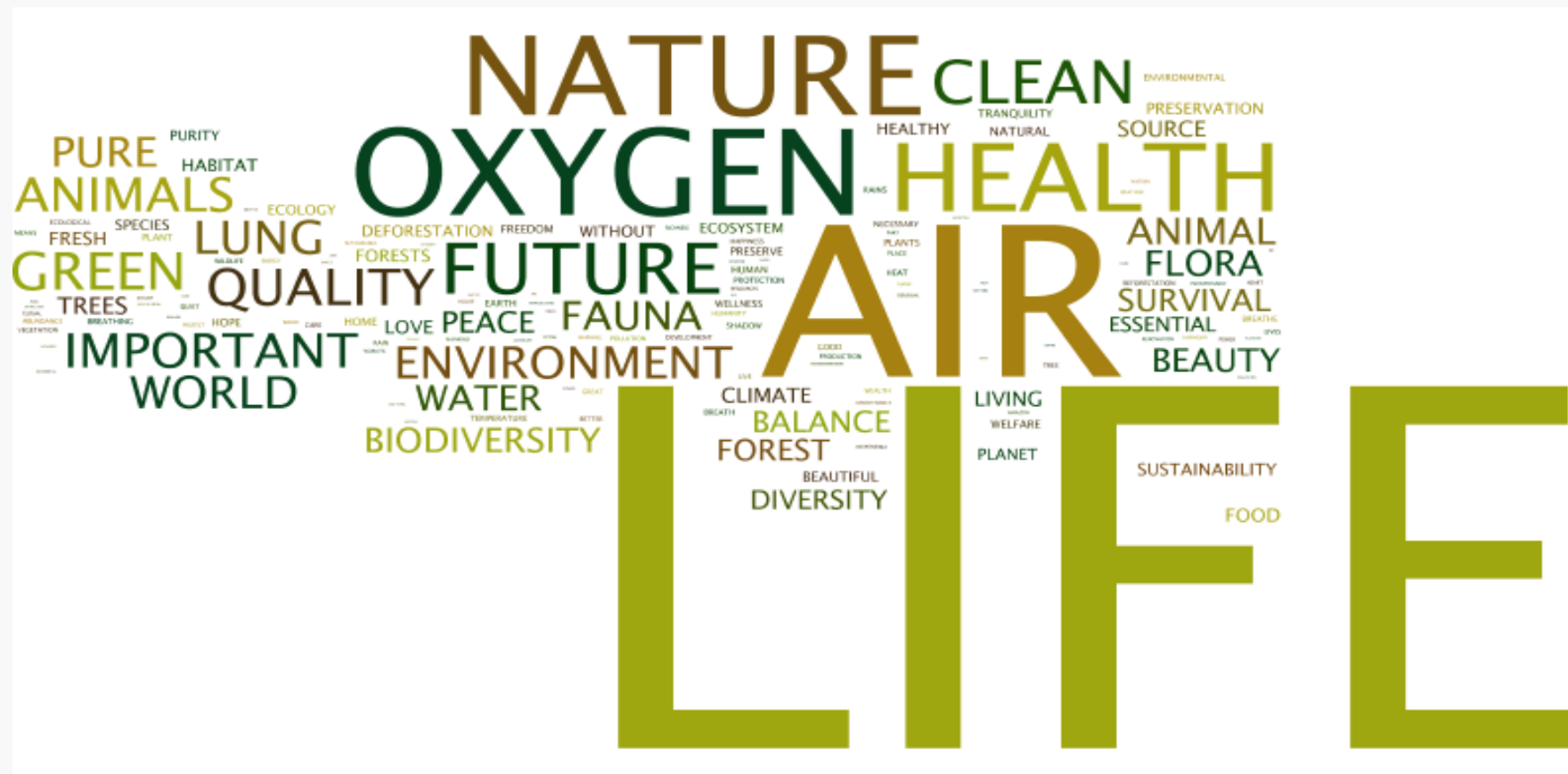
”Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?”





# Brazil on forests

”Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?”



# Italy on forests

”Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?”





# Slovakia on forests

"Please describe in three words, or three short sentences, what the forest means to you, or what you associate with forests?"

