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The Social Research and Corporate Reputation Specialists

Ipsos Global Energy Barometer: Attitudes towards Energy Sources

A comparison of US and Global Attitudes

February 2010 Washington DC



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Methodology and Analytical Framework



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Methodology: Ipsos Global Energy Barometer

- Poll conducted in 23 countries once per year
 - US and Global Benchmarks
 - Detailed country and demographic tables upon request

- Tracking of Energy Issues and the Reputation of Energy Sources

- Ipsos Energy Barometer run off of the Ipsos Global @dvisor Platform (*see slide 4 for more detail*)

- Eight (8) energy sources in total are tracked
 - Solar, Hydro, Wind, Bio-Fuels, Nuclear, Natural Gas, Oil/Petroleum, Coal



Ipsos Global @dvsior: Methodology

23,000 online surveys. 23 countries. Monthly

- Monthly Poll Global Poll
- N = 1,000 completes per country.
- 95% confidence level, +/- 3.1% margin of error.
- 75% of world's GDP covered:
 - US, Canada, Brazil, Mexico, Argentina, South Korea, China, Japan, Australia, Russia, India, Czech Republic, Poland, Hungary, Turkey, Sweden, Netherlands, Belgium, Germany, France, Italy, Spain, and Great Britain.
- Balanced by age, gender, city population, and education levels, with minor added weights applied.





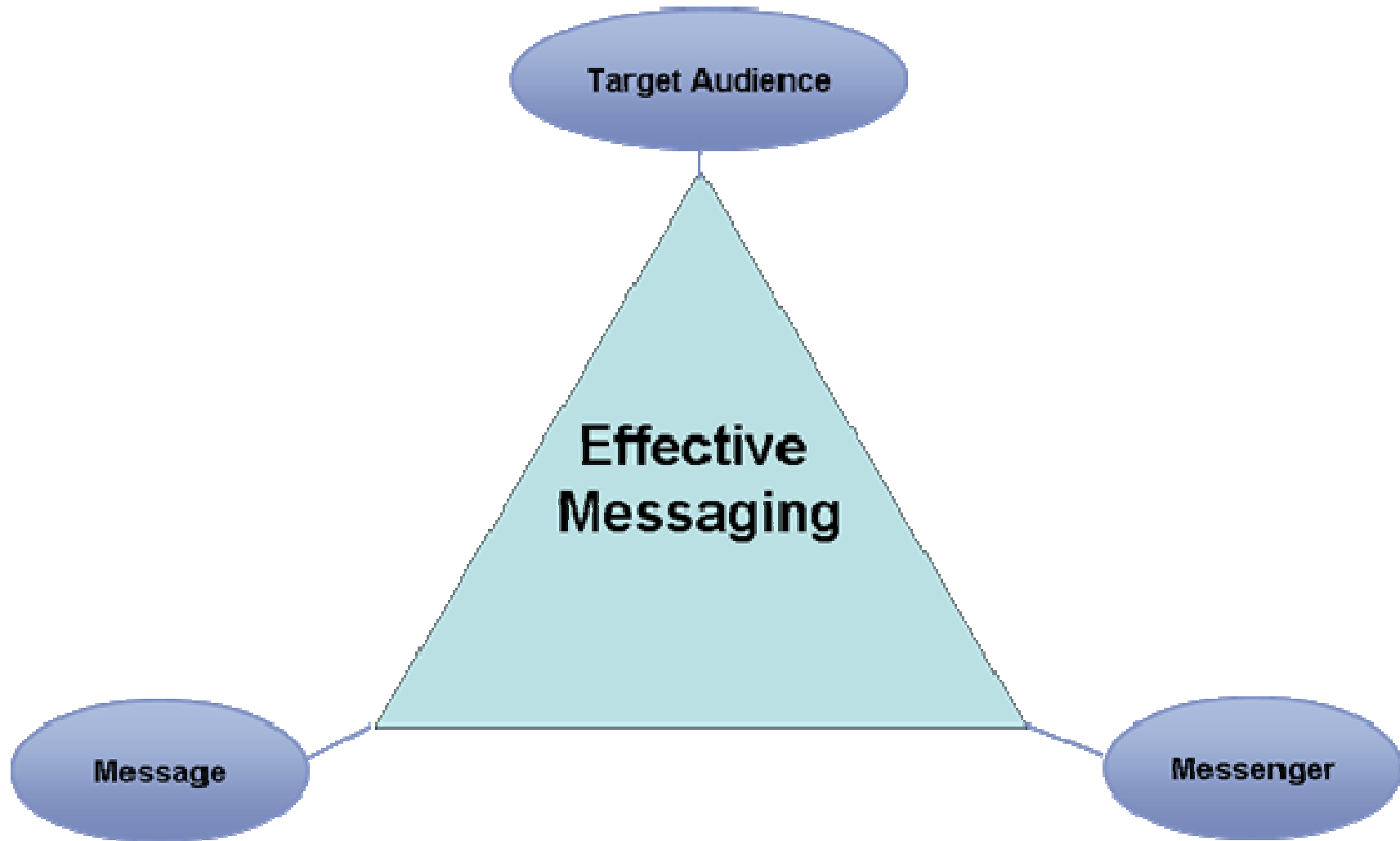
Analytical Framework: Ipsos Global Energy Barometer

- Ipsos Energy Barometer analyzes and tracks two sets of variables important for policy and decision makers
 - Public Opinion Priorities and Issues related to Energy →
What do people want
 - Communication Variables to optimize social marketing efforts

- Optimal Social Marketing is a function of three variables:
 - The Message (what should be said),
 - The Messenger (who is credible on the issue),
 - The Target Audience (who should it be you talk to)



Analytical Framework: Three Variable Optimal Communications Model





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Talking Points



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Talking Points

- The Public Opinion Agenda is changing. The Energy and Environmental Agendas, indeed, are merging into a larger meta-agenda. Policy makers can not talk about one without referring to the other.
- Global Public Opinion sees no one energy source as a solution to energy demands. There is a global consensus on this: mixed-energy solutions, as such, reign supreme around the world.
- In the US, concerns about “energy independence” and “costs” are standouts when compared to other countries. Sustainable energy policy is not possible in the US without addressing these two issues.



Talking Points

- The credibility of different energy sources is very consistent across countries
 - Renewable energy sources are more credible than traditional fossil fuels, with nuclear and natural gas somewhere in between
- Global public opinion sees renewable energy sources, including solar, wind, bio-fuels and hydro, as strong on “environmentally friendly” and “safety”, while relatively weaker on “reliability” and “affordability”.
- Traditional fossil fuels – oil/petroleum and coal – are seen as almost polar opposites to renewables. Strong on “affordability” and “reliability” but weak on “green” attributes.



Talking Points

- Both nuclear and natural gas fall somewhere between renewables and traditional fossil fuels in terms of their positioning.
 - Nuclear is strong on “reliability” but weak on “safety” and the “environment”.
 - Natural gas is strong on “reliability” as well, though is also relatively well positioned on the “environment”.

- A credibility gender gap exists across most energy sources: women, on average, are less likely to trust energy sources than men.

- The credibility gender gap is most pronounced for nuclear power, with Russia showing the greatest difference.



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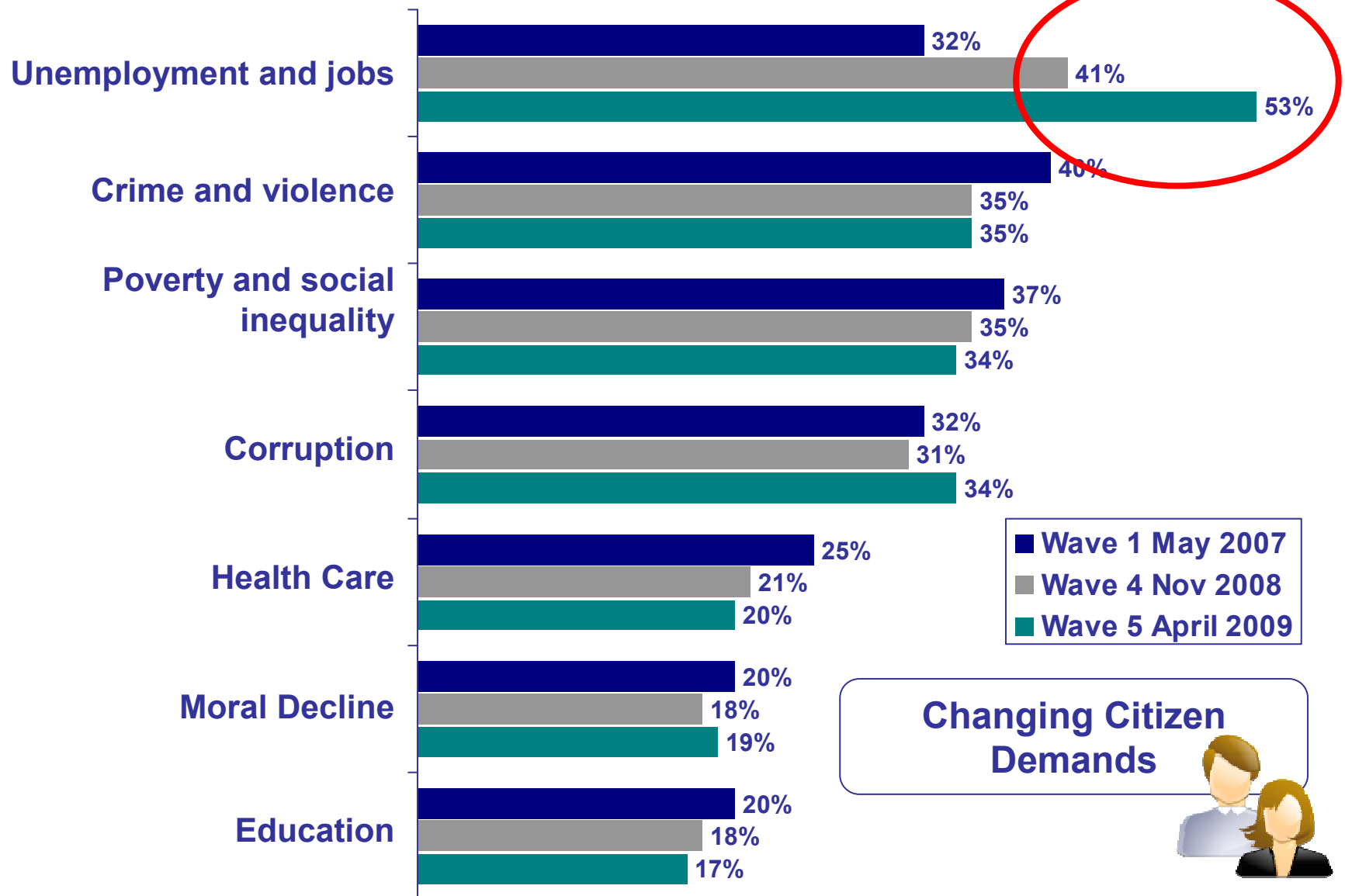
Changing Public Opinion Agenda

***Merging of Environmental and Energy
Agendas***



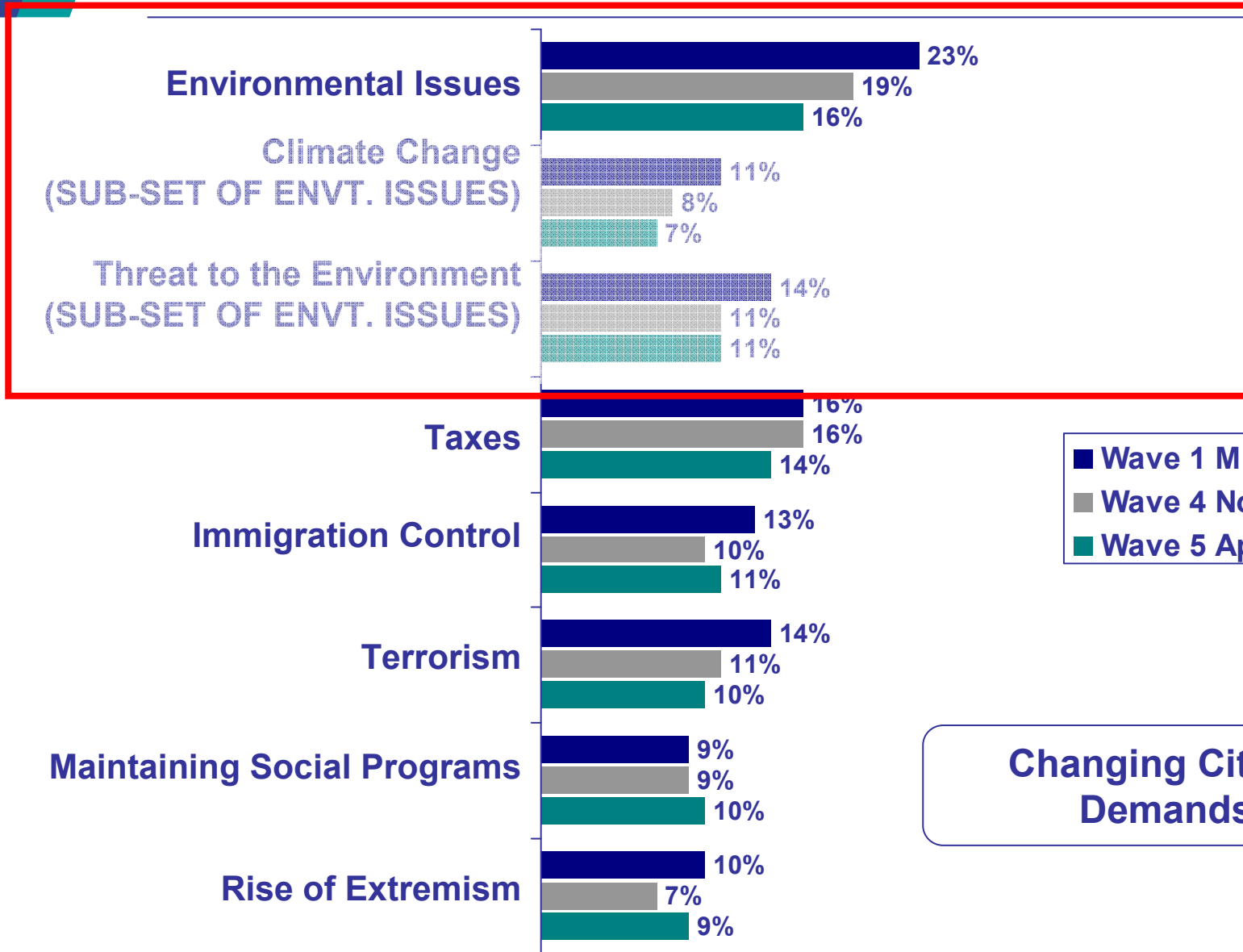
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Concern about jobs now dominates the global agenda



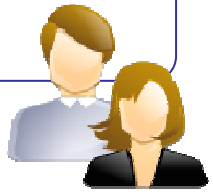
Which three of the following topics do you find the most worrying in your country?

... and environmental and terror concerns have dropped



■ Wave 1 May 2007
■ Wave 4 Nov 2008
■ Wave 5 April 2009

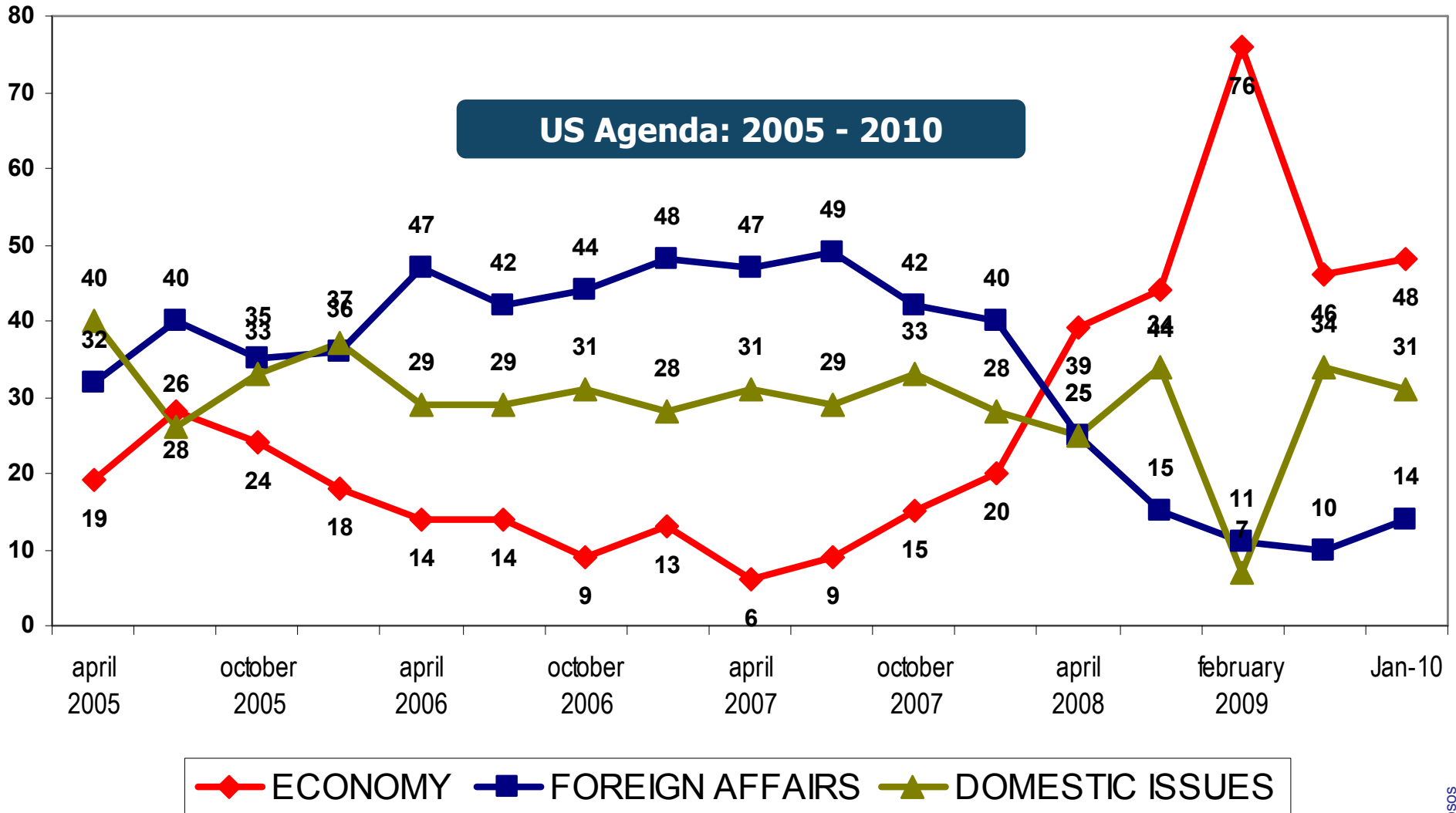
Changing Citizen Demands



Which three of the following topics do you find the most worrying in your country?



The Fall of the 'War on Terror' Agenda and rise of the Jobs Agenda

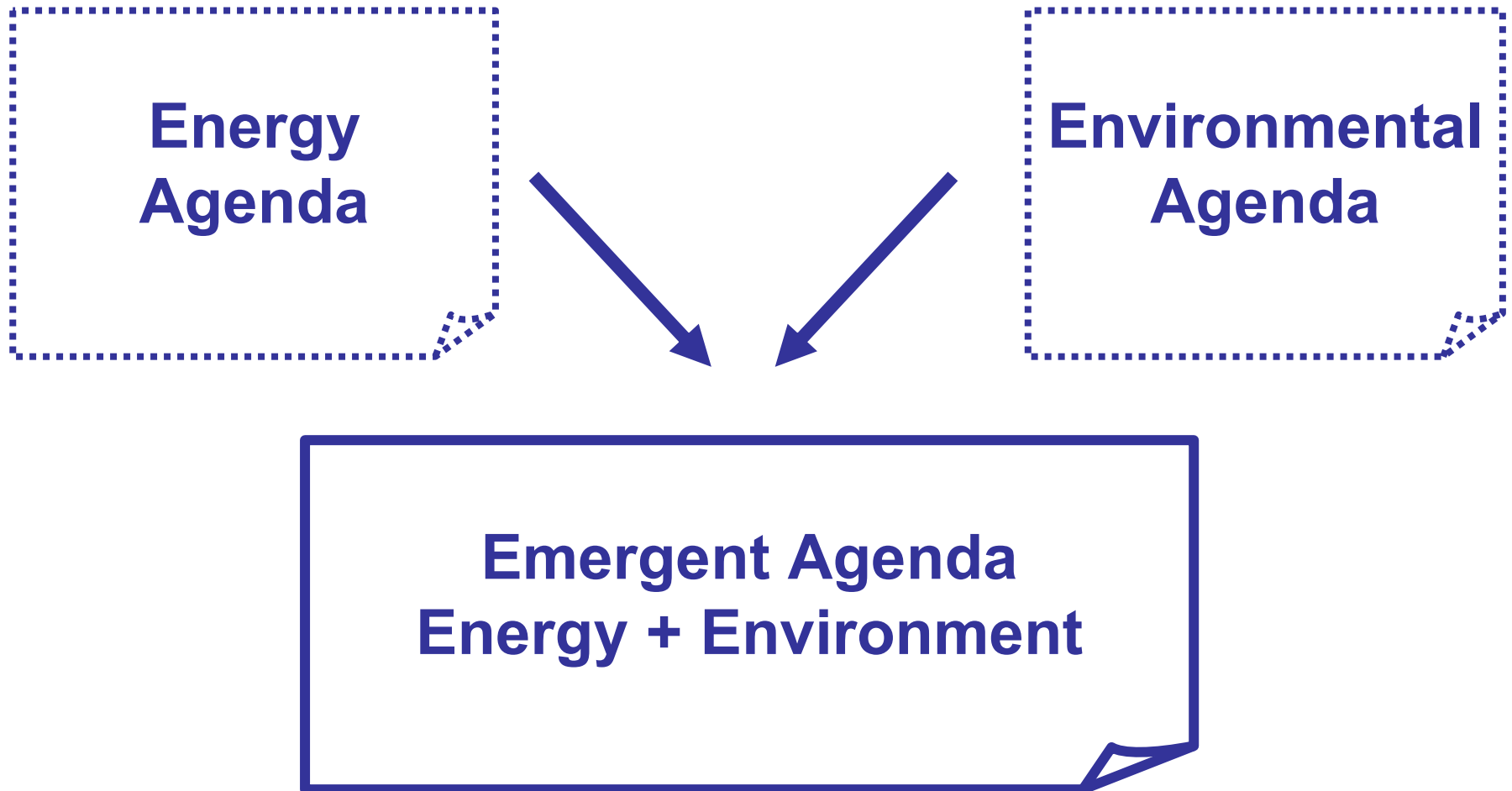




Merging Agendas

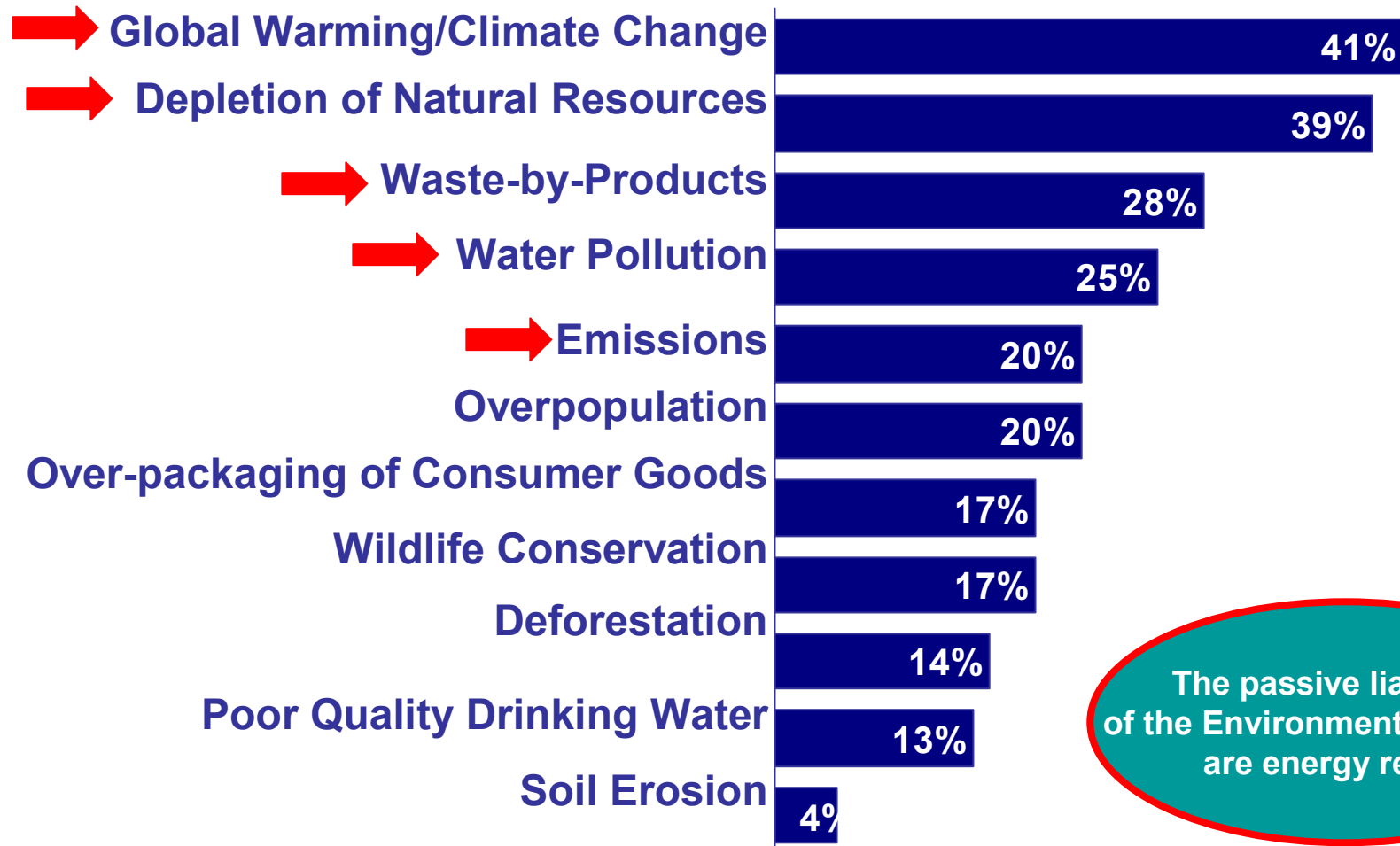


Convergence of Energy and Environmental Agendas





Environmental and Energy issues cannot practically be separated into two debates



The passive liabilities of the Environmental Agendas are energy related

In your view, what are the three most important environmental issue facing the U.S. today? That is, the top environmental issues you feel should receive the greatest attention from your local leaders?

Base: Random 50% n = 583



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Energy Sources: Context and Issues

Mixed Energy Solution, Cost Concerns, American Exceptionalism and Energy Independence

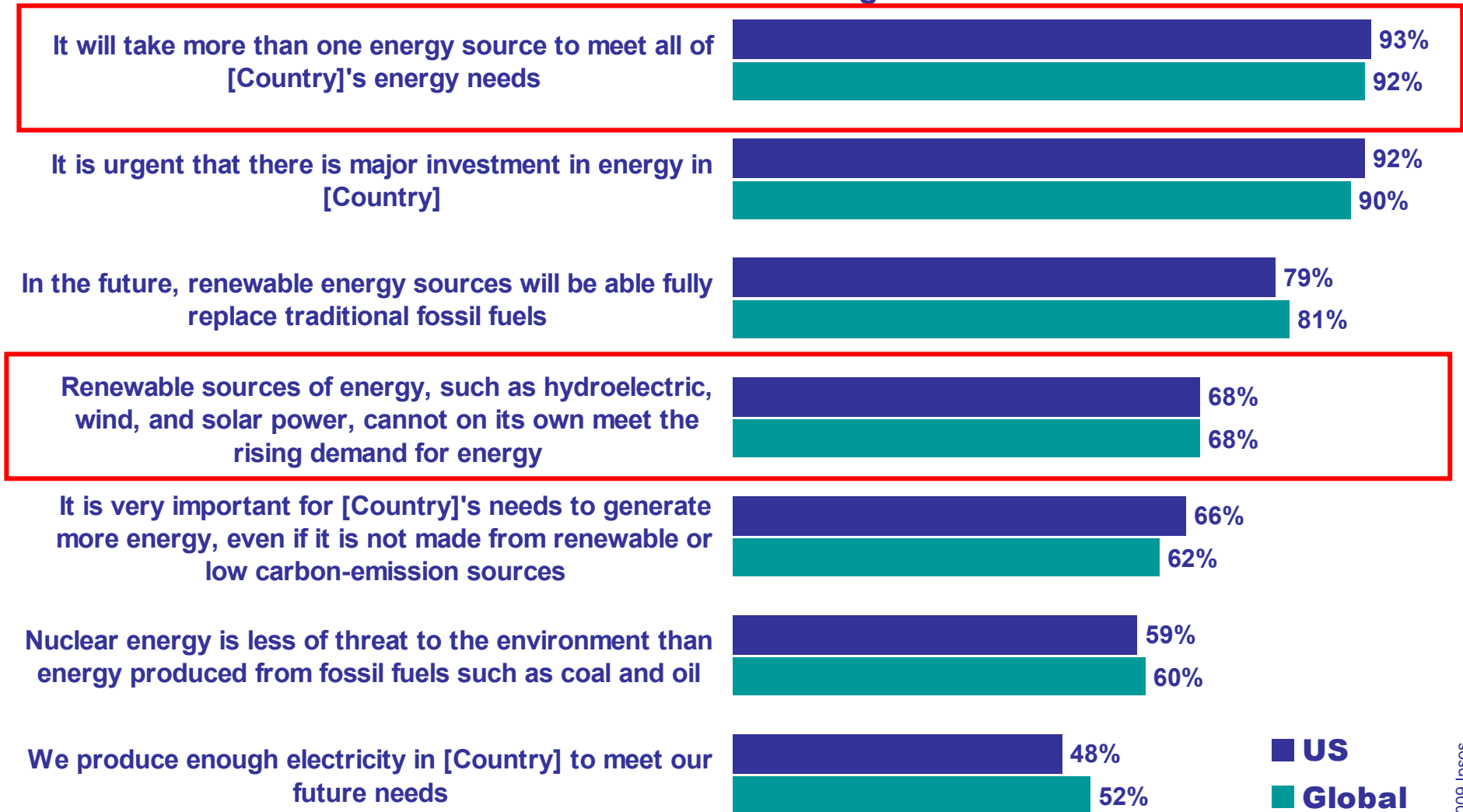


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A Global Consensus on Mixed Energy Solutions... No One Energy Source is the Magic Bullet

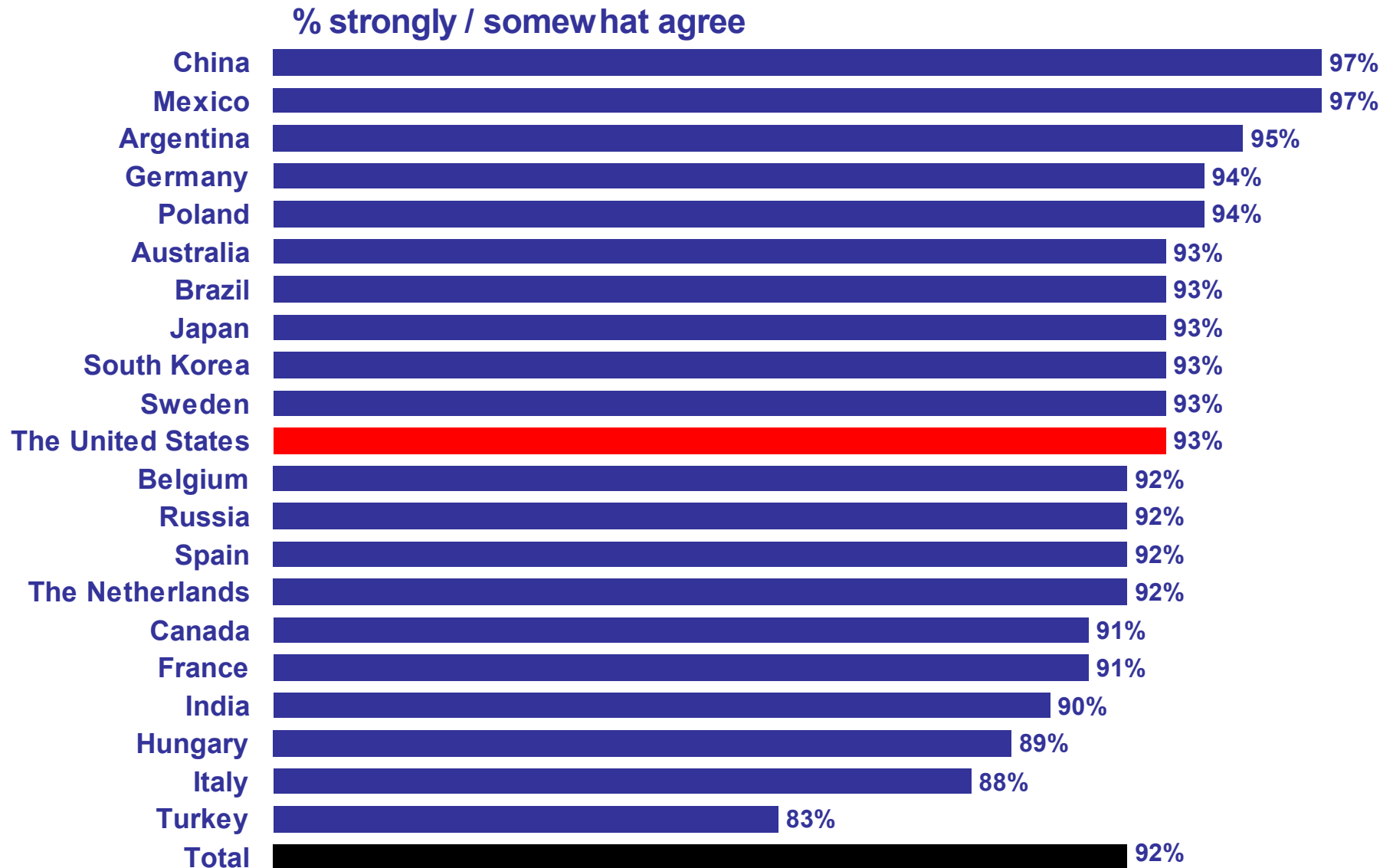
Total agree



For each statement, indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.



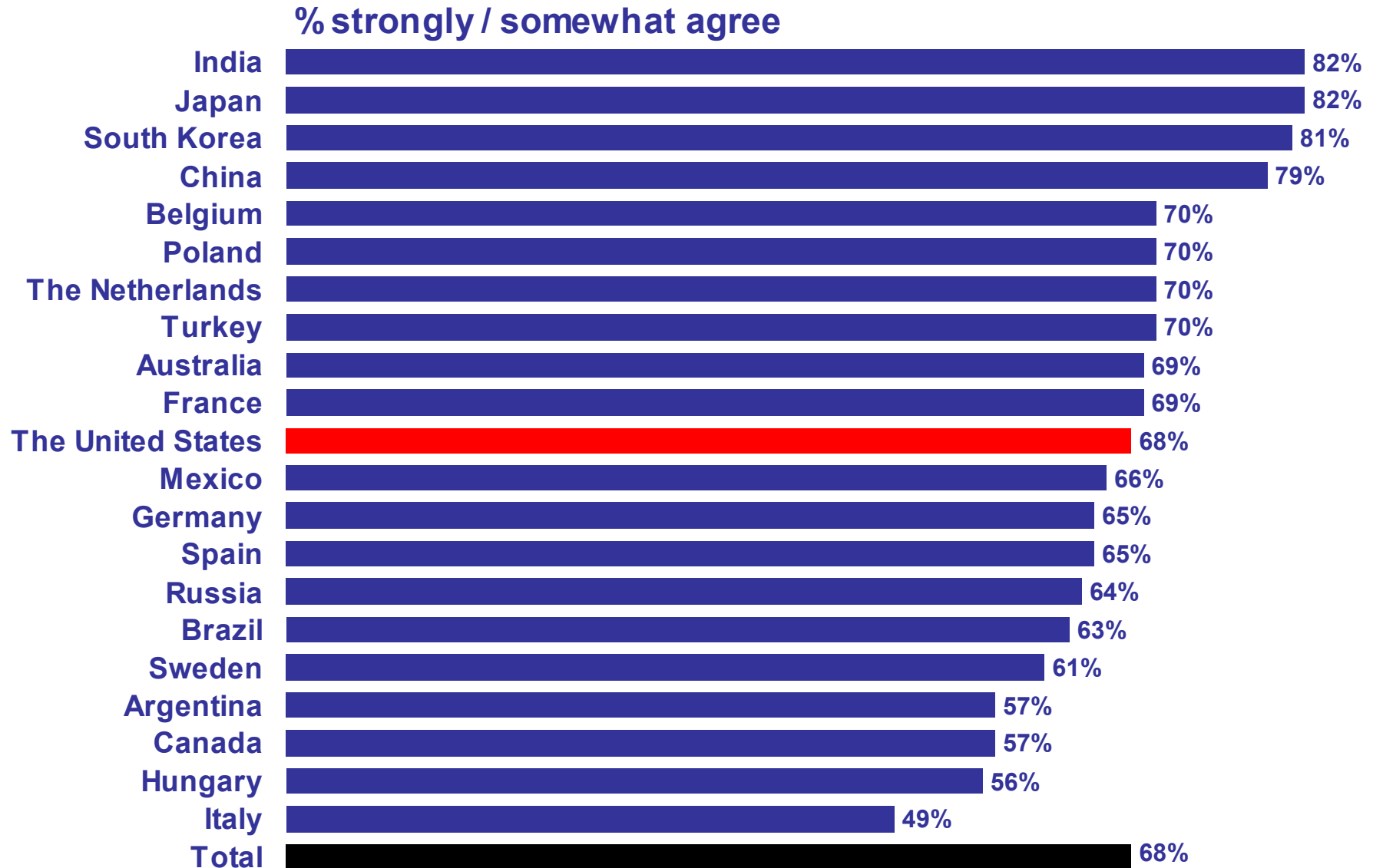
Agree that: “It will take more than one energy source to meet all of [Country]'s energy needs”



For each statement, indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.



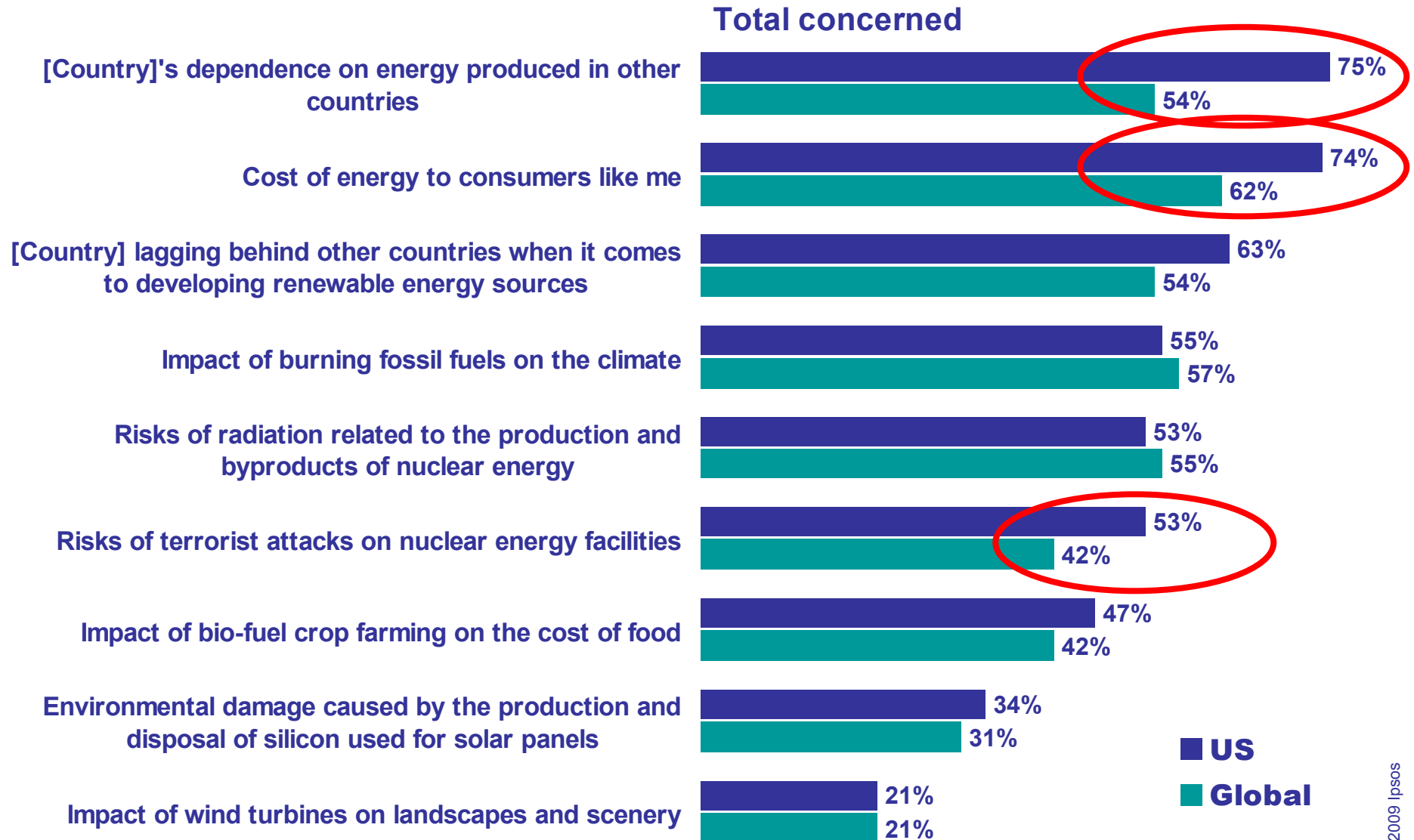
Agree that: “Renewable sources of energy, such as hydroelectric, wind, and solar power, cannot on its own meet the rising demand for energy”



For each statement, indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.



US puts premium on energy security & costs (when compared to global citizens in general)

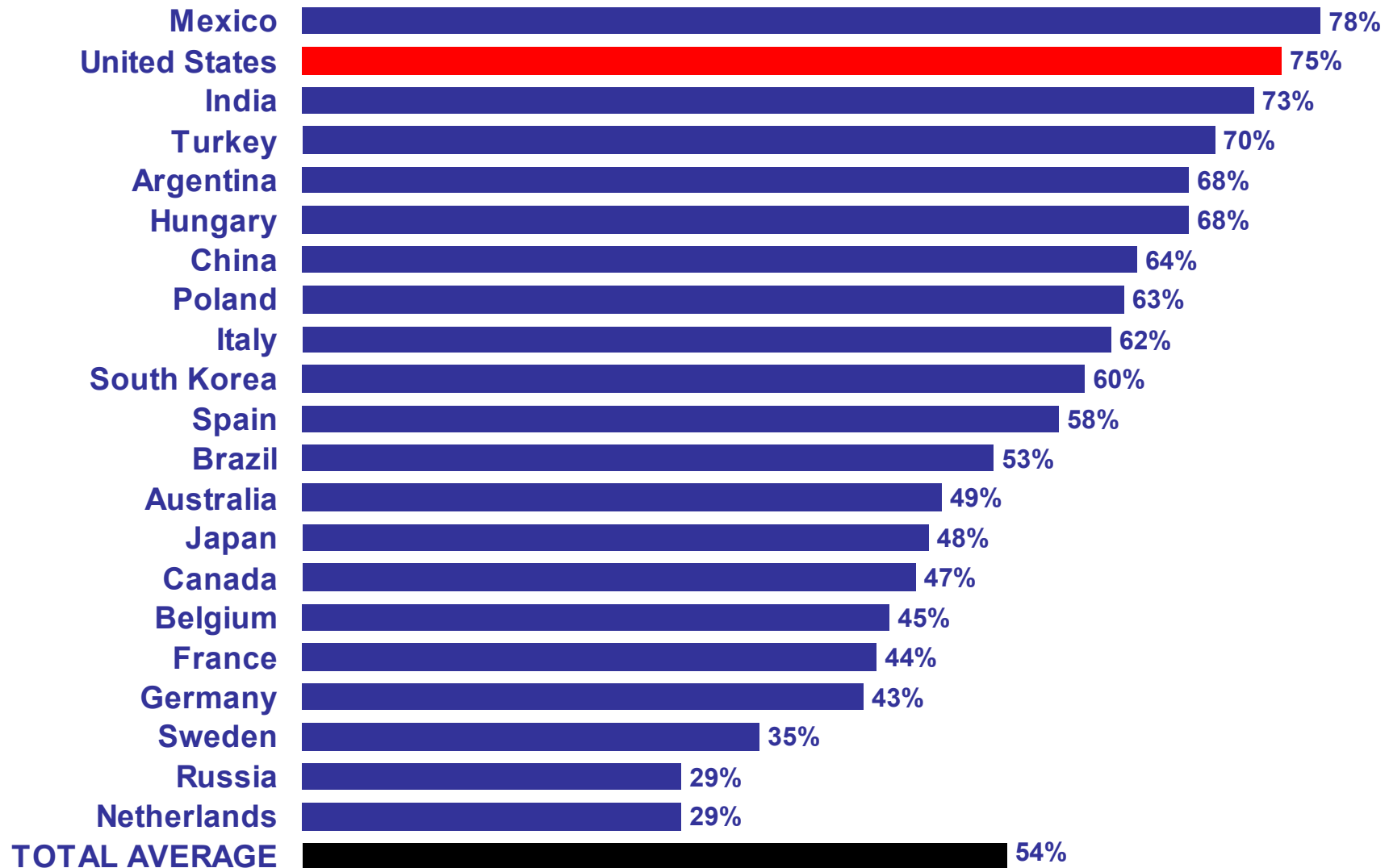


How concerned are you about each of the following?



Concern about: “[Country’s] dependence on energy produced in other countries”

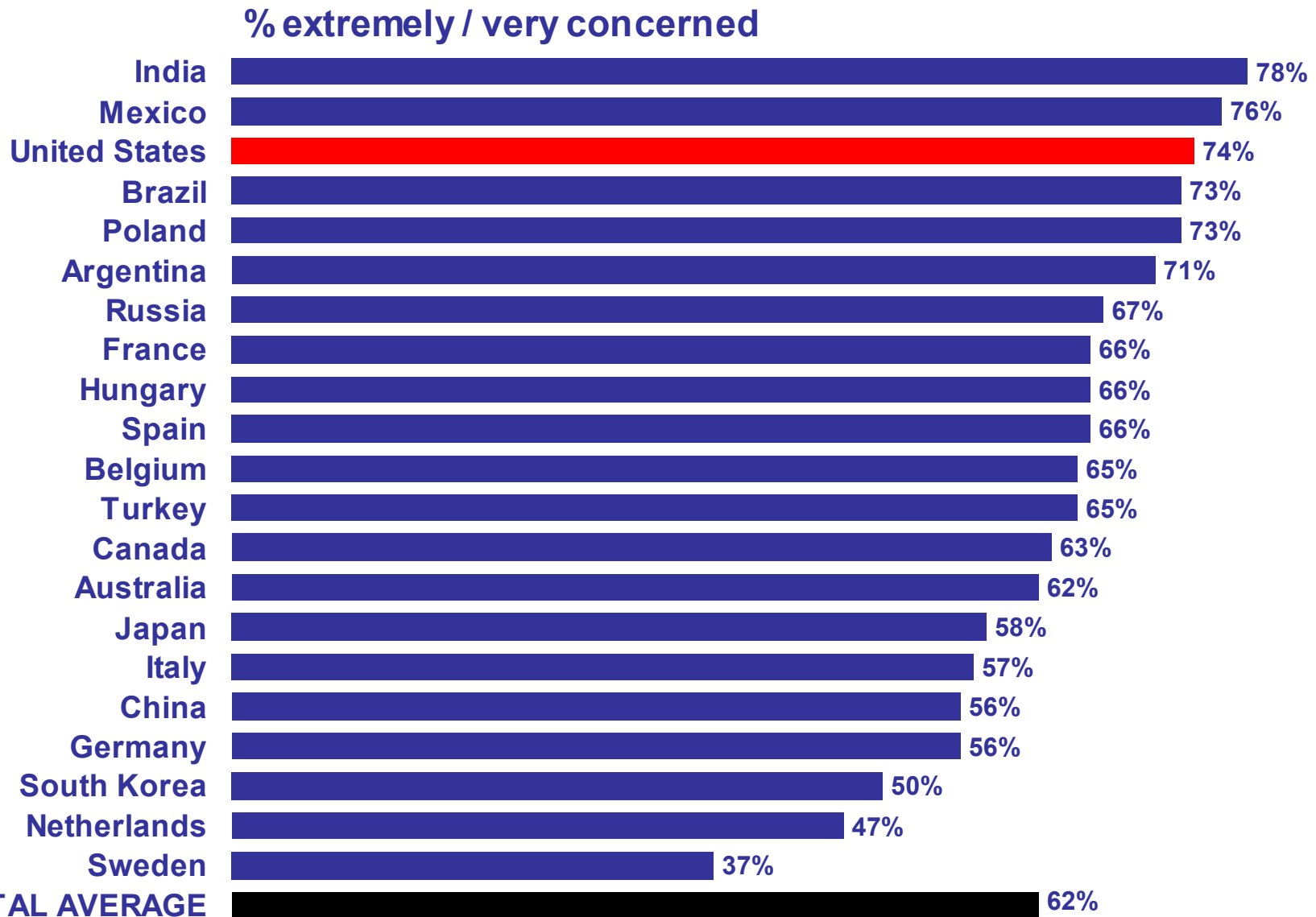
% extremely / very concerned



How concerned are you about each of the following?



Concern about: “Cost of energy to consumers like me”



How concerned are you about each of the following?



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Reputation of Energy Sources

***Credibility of the Messenger →
Renewables more Credible than Traditional
Fossil Fuels***



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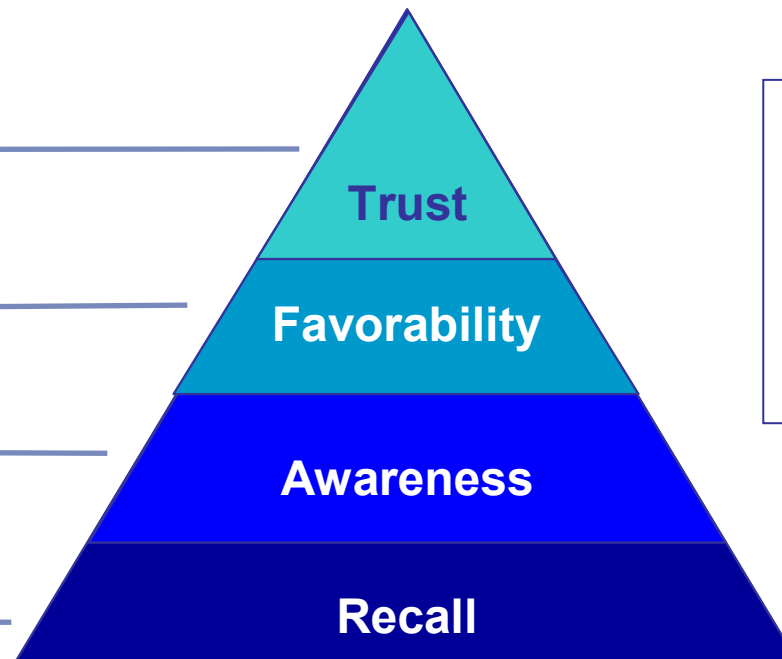
Building Blocks of Reputation (Credibility of the Messenger)

The first step is whether there is public recall of an energy source (if they've heard of it)

In order to have strong reputation, people must be aware of and familiar with a source

The next reputation hurdle is favorability

Trust follows favorability: It can only be built once overall favorable opinion has been achieved



Advocacy is a fifth metric which can be useful here; this survey is preliminary and did not measure it, but it will be important to measure this characteristic in future.



Attributes by energy type – global average

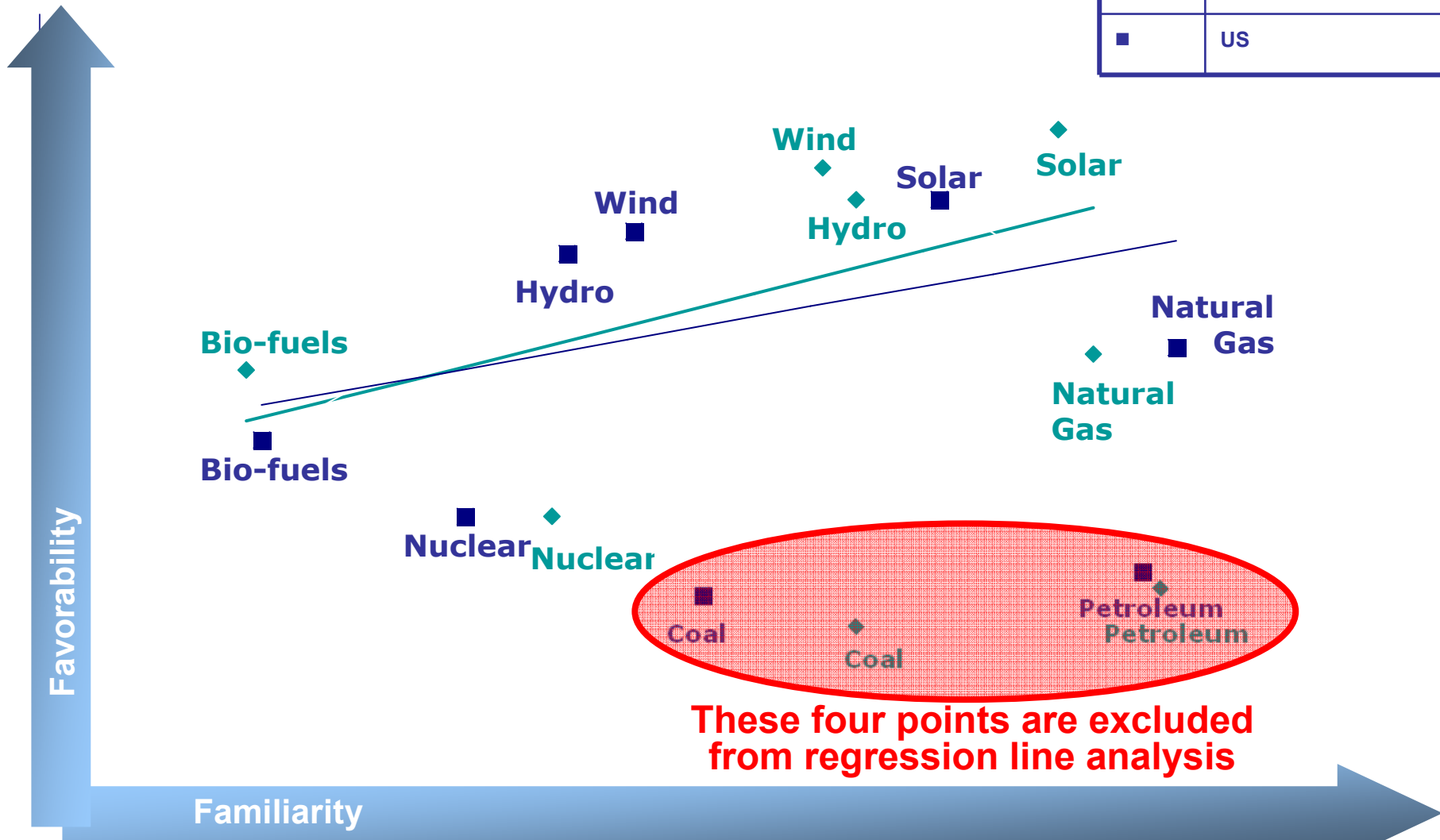
How does each energy source compare with other energy sources, based on the following attributes?
 (Scores for slightly and well above average)

		Oil / Petroleum	Coal	Bio-fuels (like ethanol)	Natural gas	Nuclear power	Solar power	Wind power	Hydroelectric power
USA	Trust	34%	29%	35%	53%	28%	67%	64%	61%
	Favorability	32%	29%	49%	61%	39%	80%	76%	73%
	Awareness	60%	47%	34%	61%	40%	54%	45%	43%
	Recall	98%	99%	96%	99%	98%	99%	98%	96%
GLOBAL	Trust	29%	23%	36%	47%	30%	70%	65%	64%
	Favorability	26%	21%	54%	56%	35%	85%	80%	76%
	Awareness	62%	52%	35%	60%	45%	59%	52%	52%
	Recall	99%	98%	96%	98%	98%	99%	98%	97%



Familiarity vs. Favorability: Global vs. US (Analysis **excludes** oil and coal)

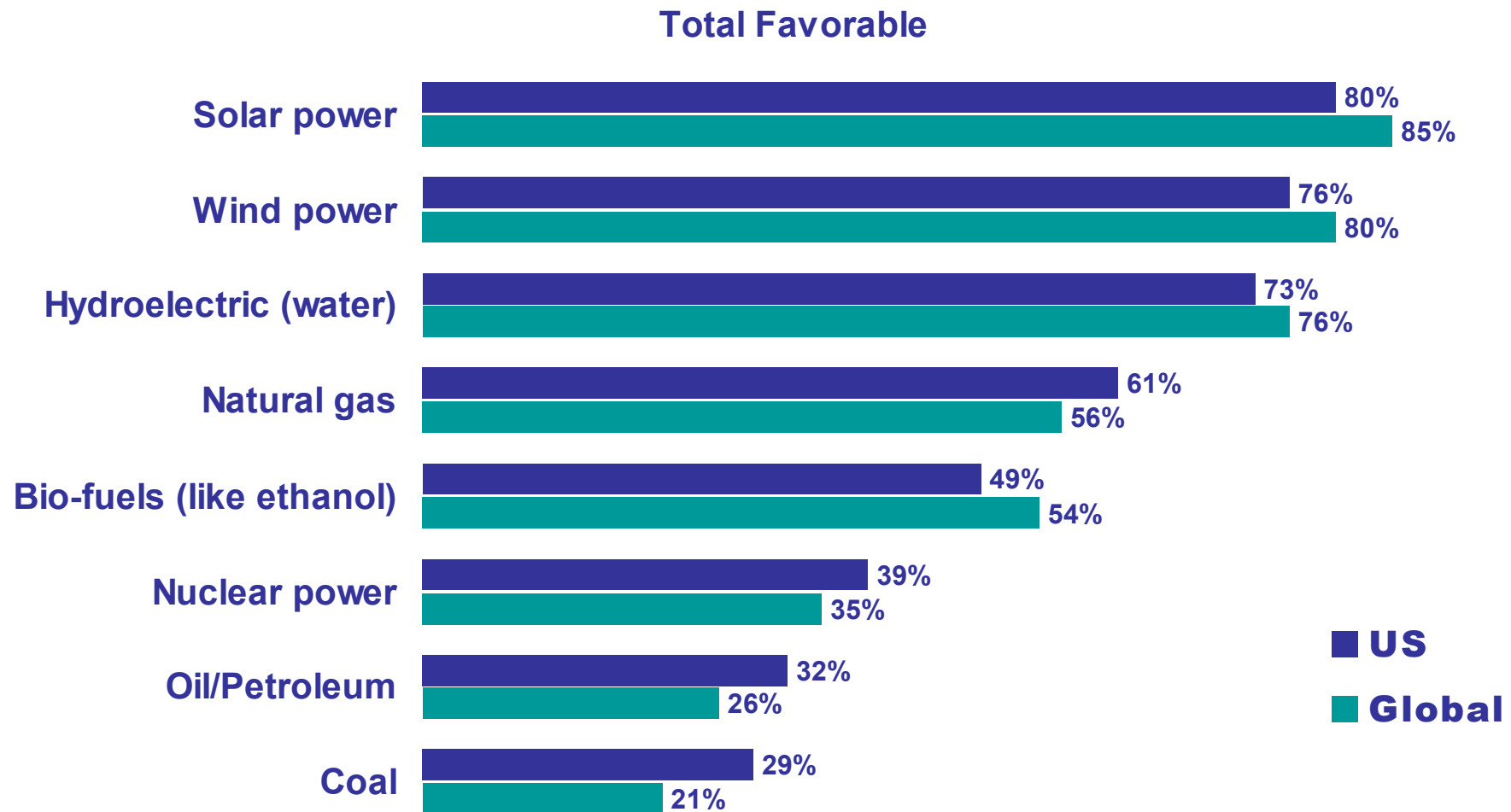
◆	Global
■	US



These four points are excluded from regression line analysis



Consistency in rank ordering of the credibility of the messenger (US and Globally)

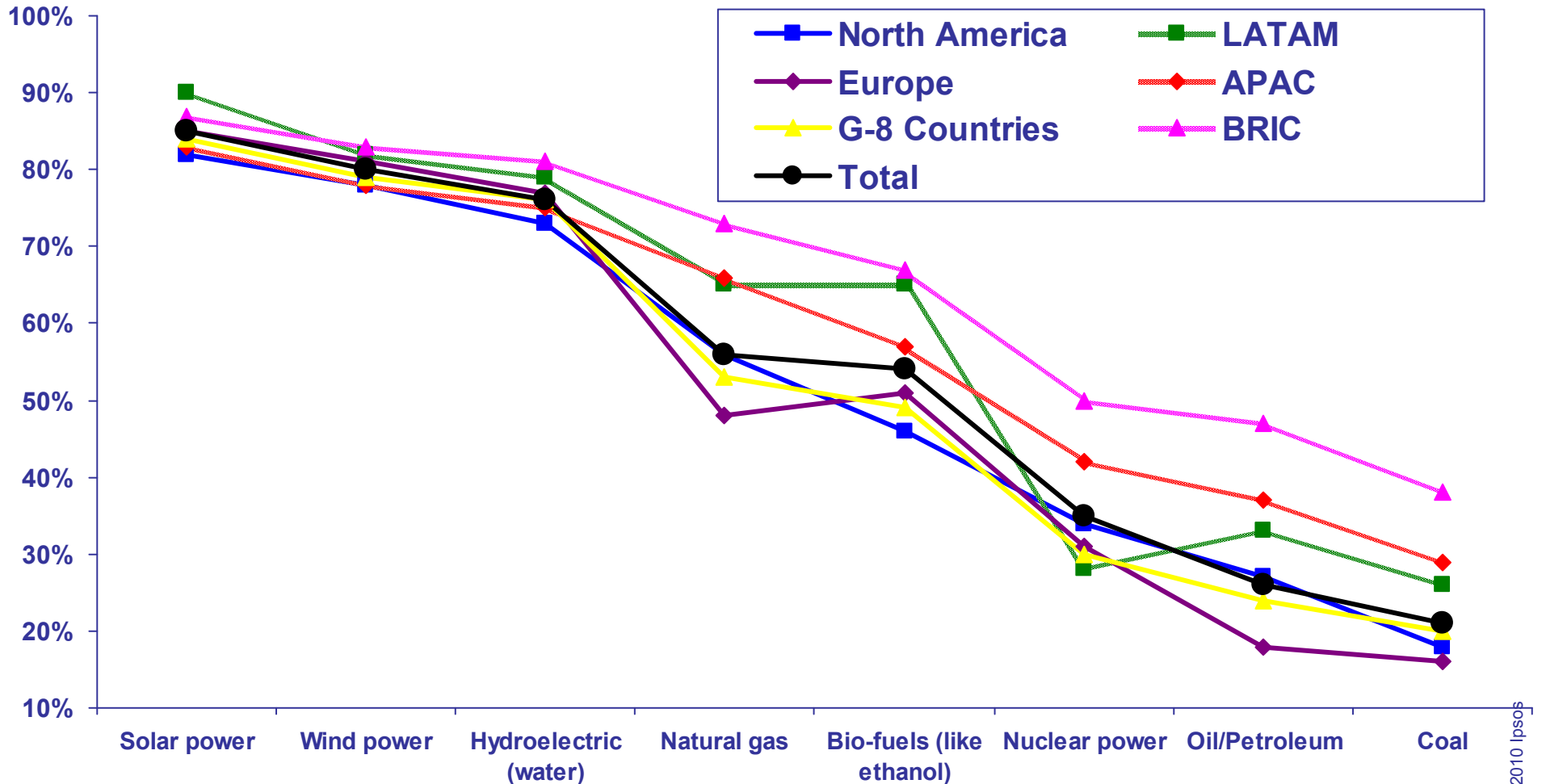


J2. Please indicate your overall opinion of the following energy sources...



Trust of Energy Sources → Consistency in rank order of energy across regions

Favorable (Very Favorable + Mainly Favorable)



J2. [Top2Box Summary (Favorable)] Please indicate your overall opinion of the following energy sources...



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Positing of Energy Sources

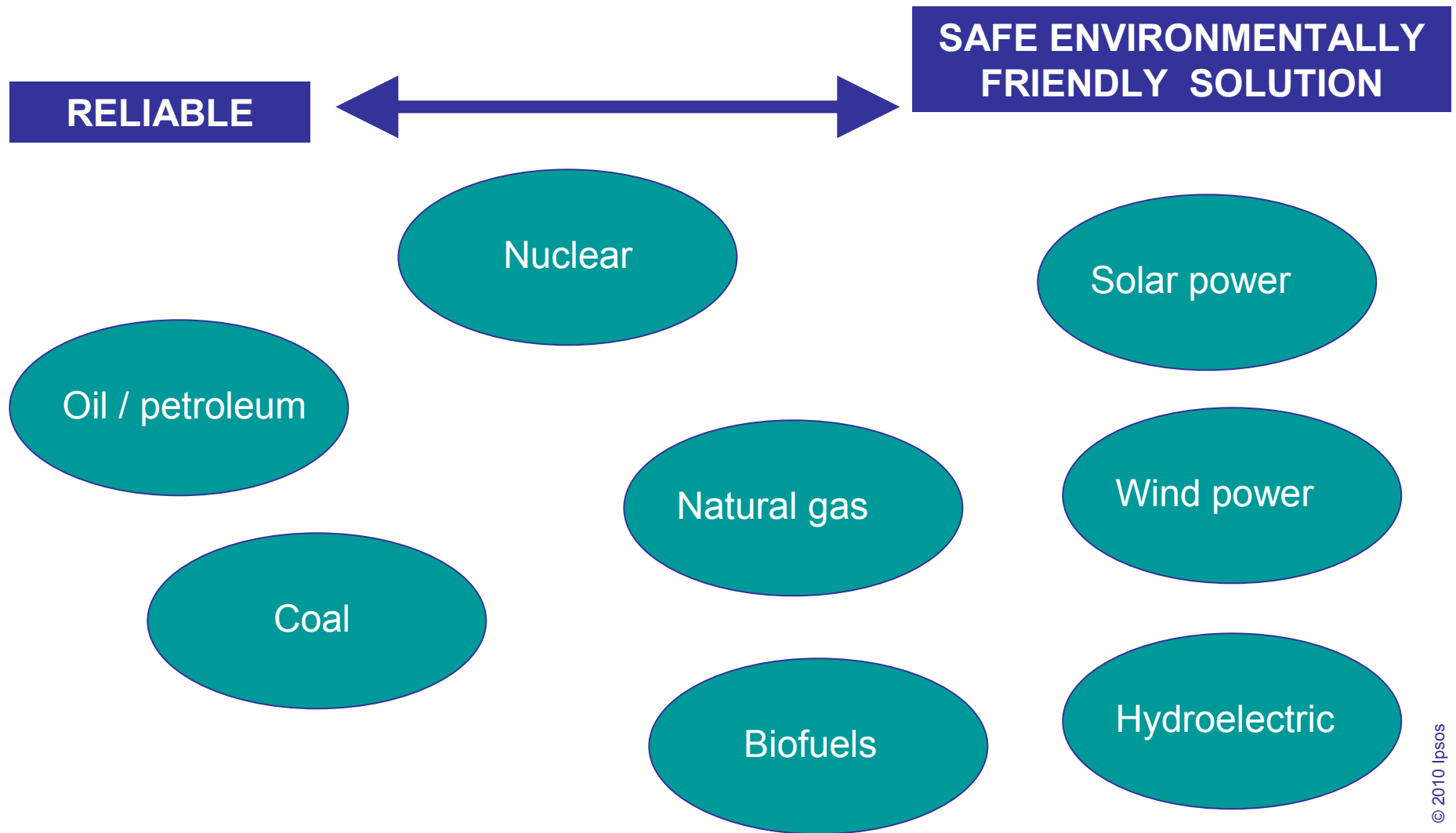
Optimal Messaging and Communications



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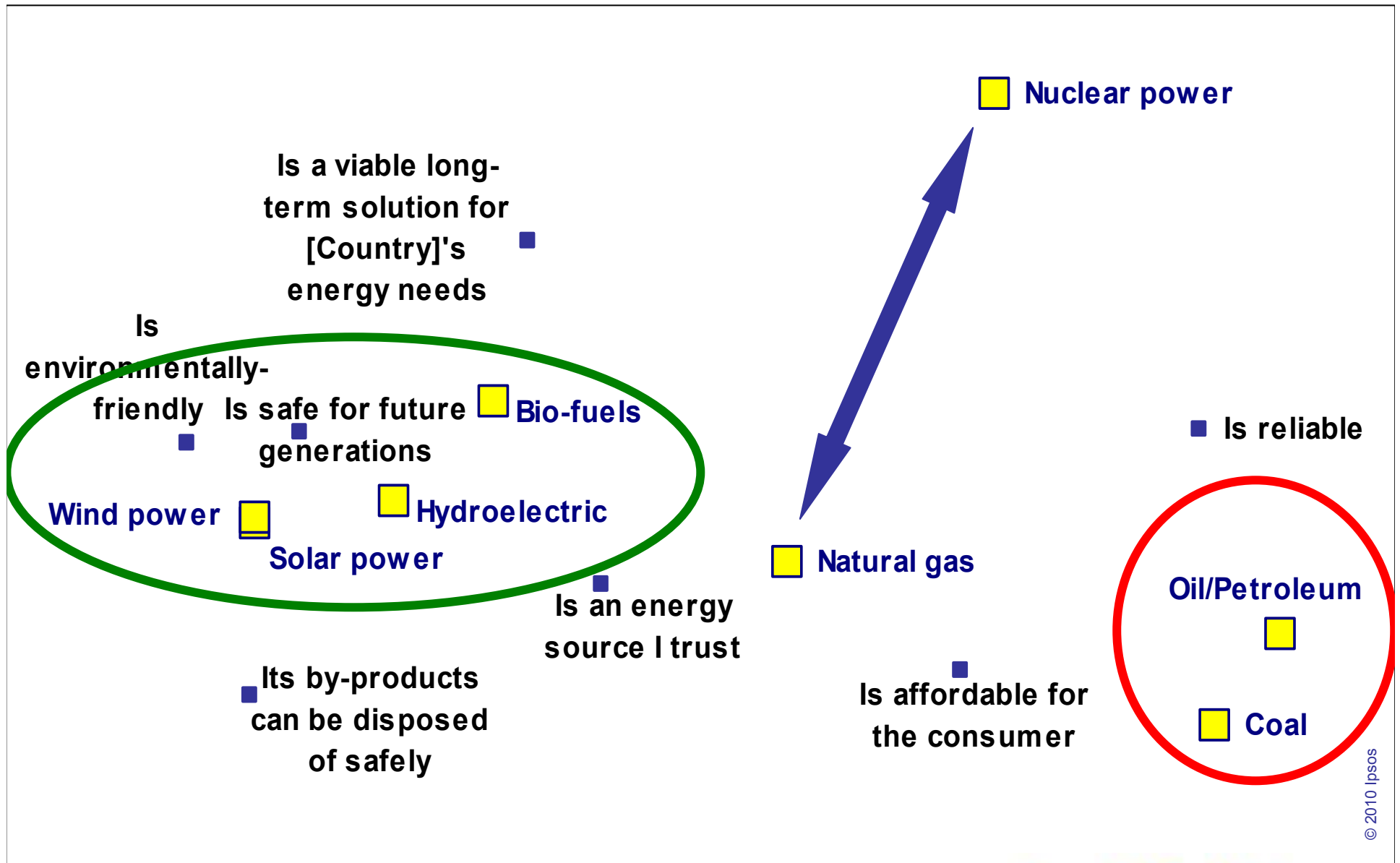


How do these fall out on a scale?





Positioning of Energy Sources: Renewable and Fossil Fuel Clusters



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Attributes by energy type – global average

How does each energy source compare with other energy sources, based on the following attributes?

	Oil / Petroleum	Coal	Bio-fuels (like ethanol)	Natural gas	Nuclear power	Solar power	Wind power	Hydroelectric power
Is reliable	50%	42%	42%	58%	55%	39%	40%	55%
Is environmentally friendly	10%	11%	44%	34%	22%	83%	81%	73%
Its by-products can be disposed of safely	14%	15%	39%	36%	14%	76%	75%	69%
Is an energy source I trust	29%	23%	36%	47%	30%	70%	65%	64%
Is affordable for the consumer	32%	31%	28%	39%	29%	43%	39%	40%
Is safe for future generations	15%	14%	46%	38%	27%	81%	79%	72%
Is a viable long-term solution for (country's energy needs)	21%	18%	43%	41%	41%	71%	68%	64%



Attributes by energy type – United States

How does each energy source compare with other energy sources, based on the following attributes?

	Oil / Petroleum	Coal	Bio-fuels (like ethanol)	Natural gas	Nuclear power	Solar power	Wind power	Hydroelectric power
Is reliable	58%	54%	46%	66%	57%	34%	34%	57%
Is environmentally friendly	11%	12%	40%	37%	22%	81%	80%	72%
Its by-products can be disposed of safely	13%	15%	34%	37%	13%	78%	79%	72%
Is an energy source I trust	34%	29%	35%	53%	28%	67%	64%	61%
Is affordable for the consumer	23%	28%	24%	36%	28%	41%	42%	42%
Is safe for future generations	19%	19%	43%	43%	27%	81%	79%	73%
Is a viable long-term solution for (country's energy needs)	20%	23%	43%	43%	41%	74%	70%	68%



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Target Audience

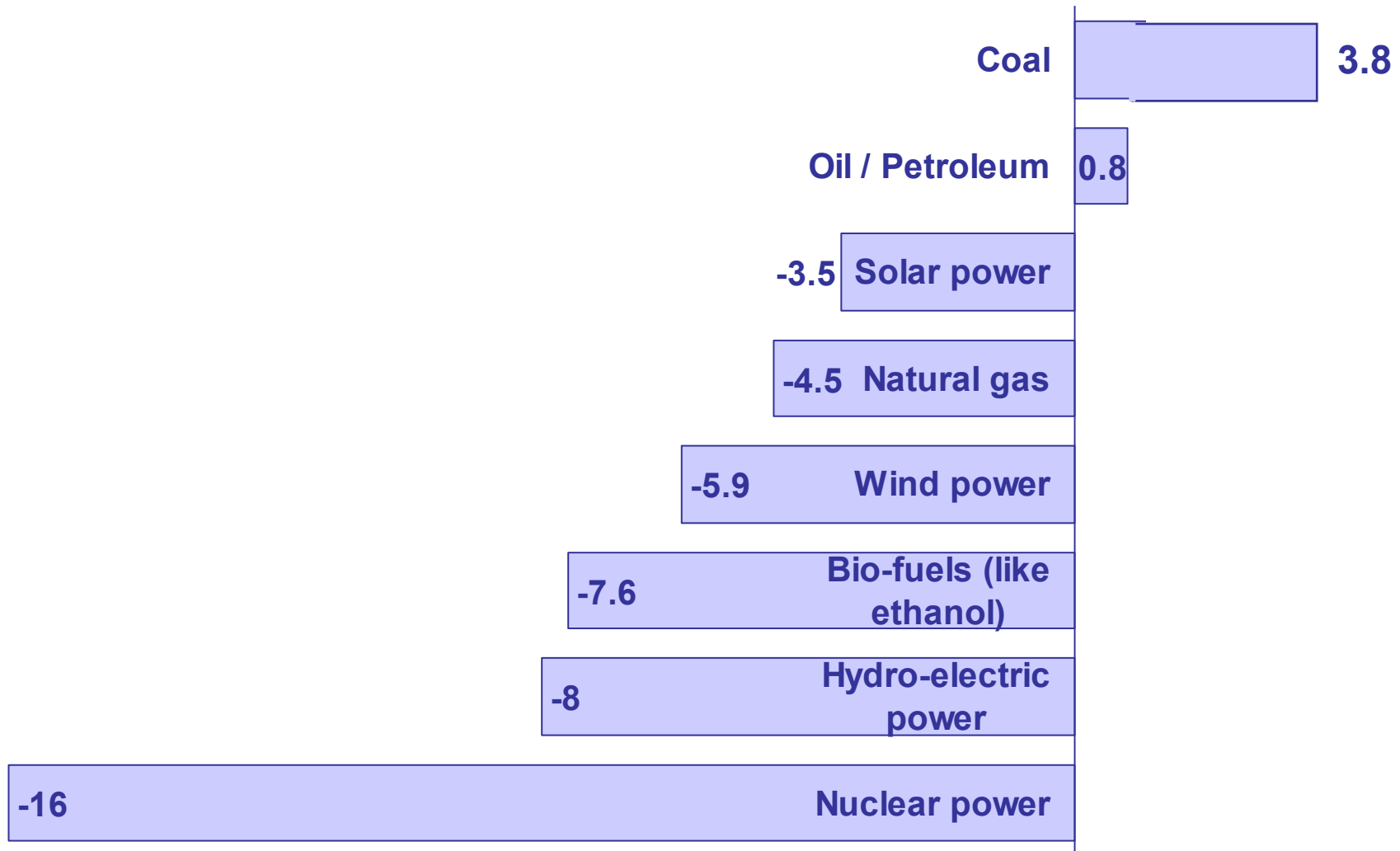
The Credibility Gender Gap: Energy Sources and Nuclear Energy



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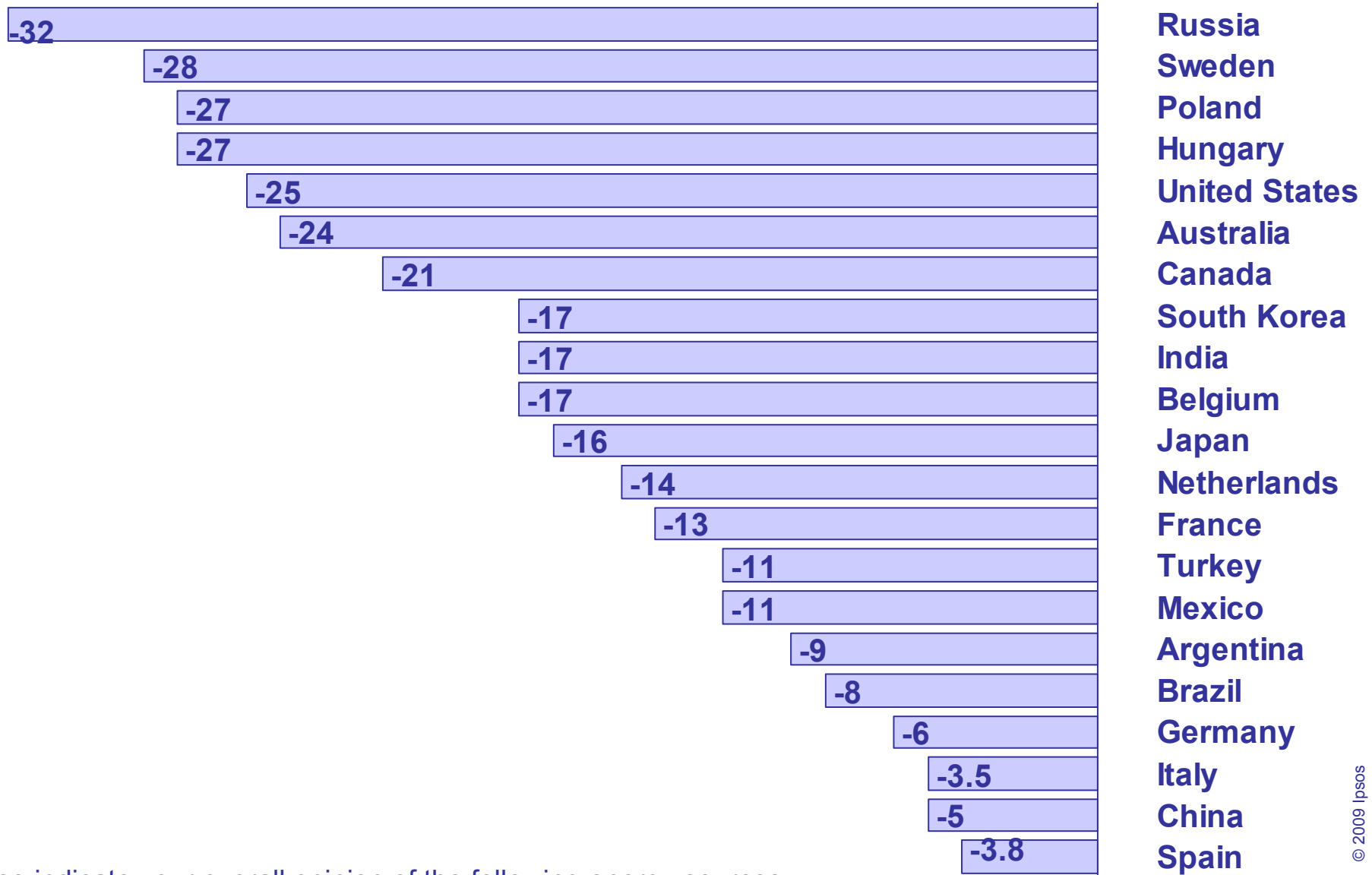
Gender Gap by Energy Source (23 country average)



Please indicate your overall opinion of the following energy sources...



Nuclear Energy Gender Gap by Country



Please indicate your overall opinion of the following energy sources...



Favorability: Gender differences by country (1)

% scores for very / mainly favorable

■ = diff of >20 points

■ = diff of <5 points

	Argentina		Australia		Belgium		Brazil		Canada		China		France		Germany		Hungary		India	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Oil / Petroleum	15	21	24	22	16	15	36	43	22	21	44	49	13	12	18	13	16	20	54	60
Coal	14	19	16	12	9	15	22	30	11	13	32	39	11	12	17	14	16	31	38	48
Bio-fuels (like ethanol)	67	51	54	39	52	51	79	74	45	40	66	57	48	44	45	43	67	72	73	66
Natural gas	66	48	62	59	57	55	70	75	56	47	71	78	46	46	43	34	37	40	78	74
Solar power	94	80	79	83	89	85	91	92	86	81	88	87	92	90	80	76	92	85	87	81
Nuclear power	32	23	38	14	39	22	30	22	40	19	62	57	37	24	19	13	59	32	66	49
Wind power	93	72	76	75	88	81	86	77	82	76	82	80	84	82	75	72	90	83	84	76
Hydro-electric power	91	70	71	62	82	73	79	77	81	66	82	79	86	79	76	72	88	80	80	76

©

Please indicate your overall opinion of the following energy sources...

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Familiarity: Gender differences by country (2)

% scores for very / mainly favorable

■ = diff of >20 points

■ = diff of <5 points

	Italy		Japan		Mexico		Poland		Russia		South Korea		Spain		Sweden		Netherlands		United States		Turkey	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Oil / Petroleum	18	23	21	19	31	35	28	24	41	47	21	24	18	23	11	4	24	20	35	29	47	46
Coal	17	28	14	16	20	29	22	33	40	48	16	14	16	22	5	3	8	9	32	25	41	37
Bio-fuels (like ethanol)	54	51	47	37	70	48	52	50	68	55	61	50	51	42	53	50	51	50	54	45	63	45
Natural gas	64	64	49	37	55	63	58	45	71	63	67	65	53	52	52	42	48	33	64	59	73	67
Solar power	86	87	82	82	94	92	91	78	90	82	83	79	81	82	90	84	86	82	81	79	79	80
Nuclear power	33	28	30	14	39	28	53	26	49	17	51	34	26	22	50	22	29	15	52	27	45	34
Wind power	82	84	72	74	90	82	87	68	91	76	80	73	78	78	86	84	84	81	77	75	76	71
Hydro-electric power	76	83	66	63	88	75	82	62	88	74	76	73	74	73	83	73	76	70	80	66	76	67

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Please indicate your overall opinion of the following energy sources...

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Perception of Energy Usage

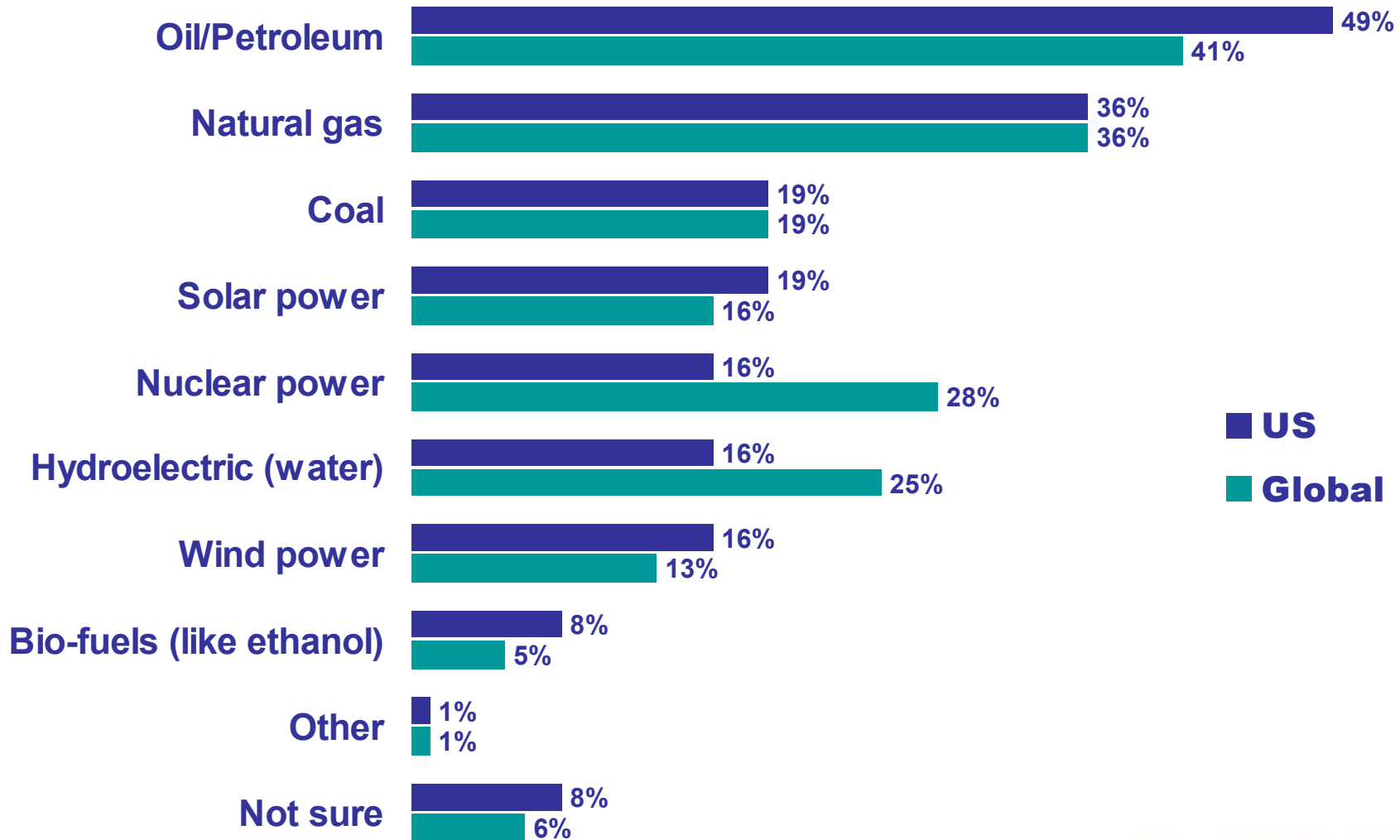


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First/Second Most Important Energy Source Used

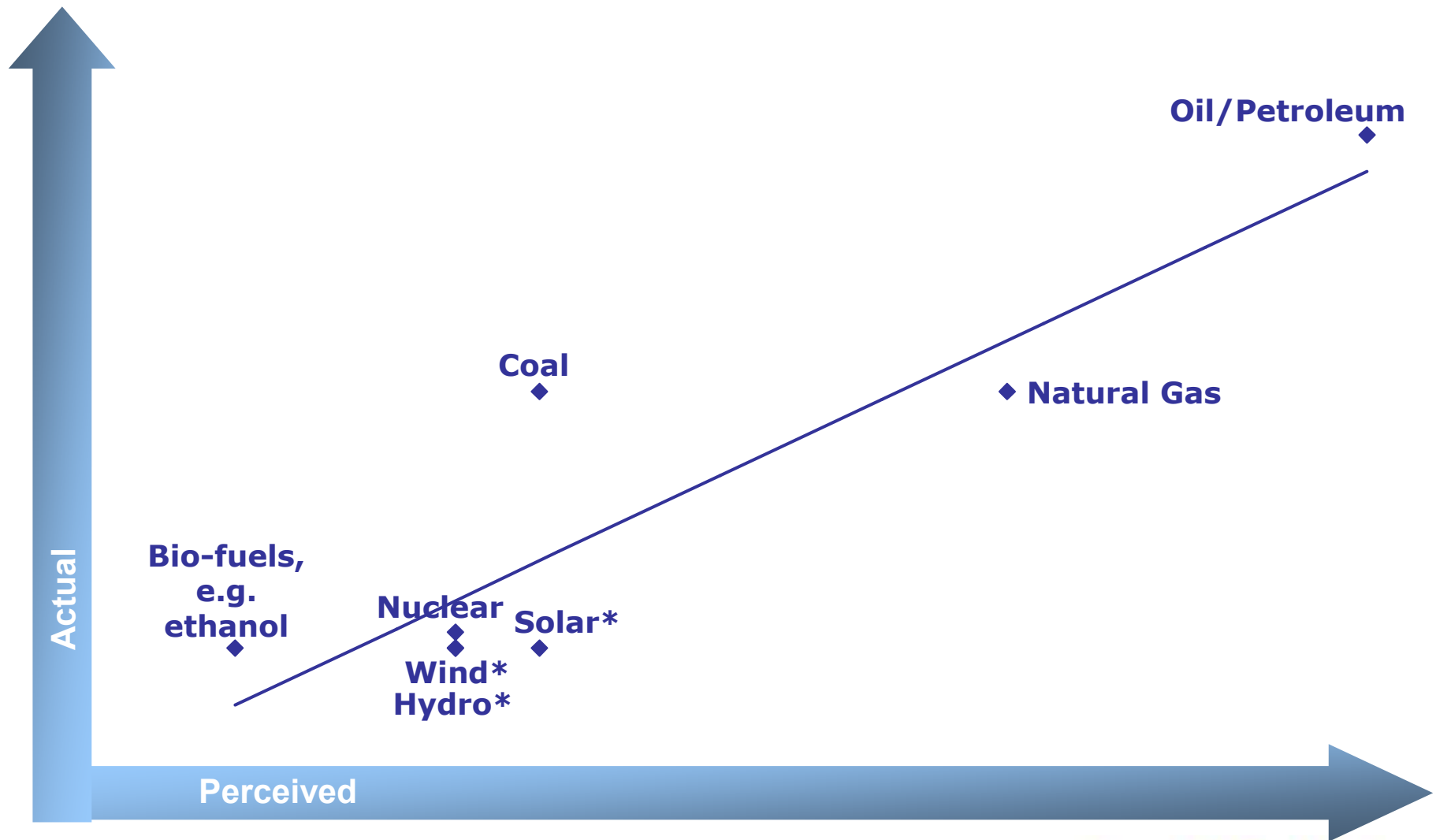
In your opinion, which of the following do you think is the most important source of energy produced in [Country]? And which is the second most important?





Perceived vs. Actual Energy Usage, US

In your opinion, which of the following do you think is the most important source of energy produced in [Country]? And which is the second most important?



* 7% for all sustainable sources



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Appendices

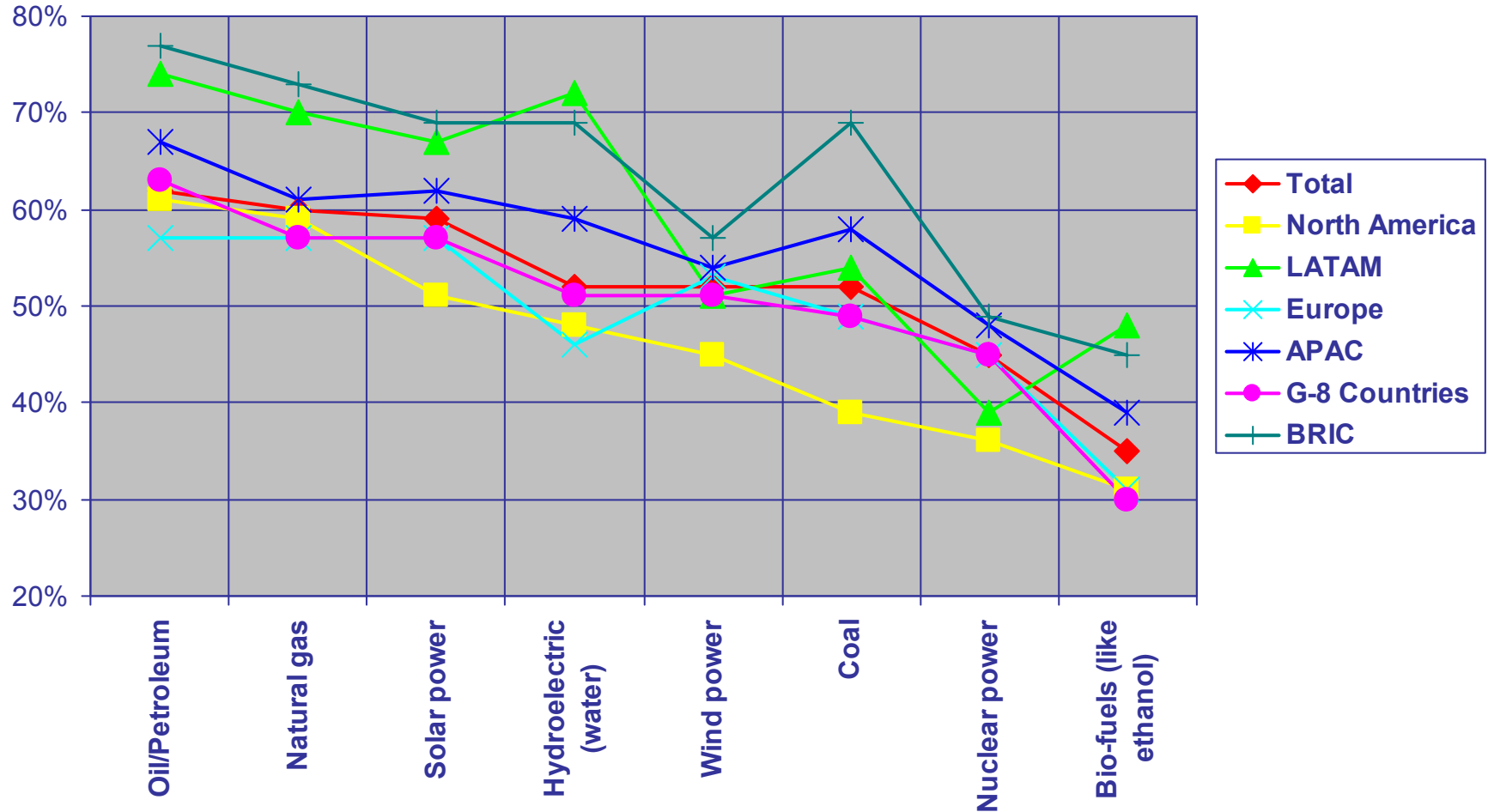


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Familiarity with Different Energy Sources - By Region

Know Well (Very Well + Somewhat Well)

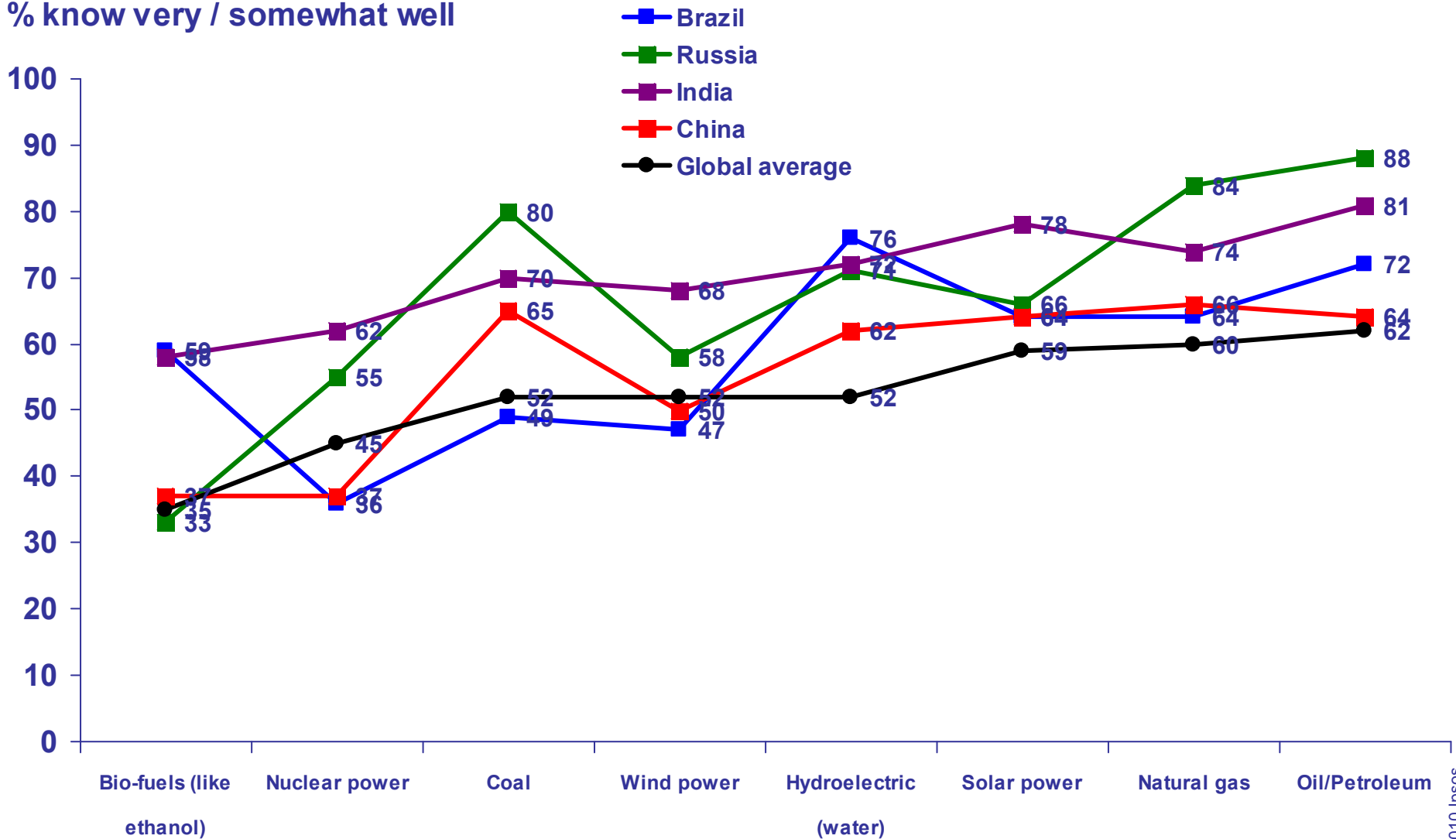


1. [Top2Box Summary (Very/ Somewhat well)] For each of the following energy sources, please indicate how well you feel you know each one, taking into account all the ways you have learned about or had contact with it.



Familiarity with Energy Sources: BRIC

% know very / somewhat well

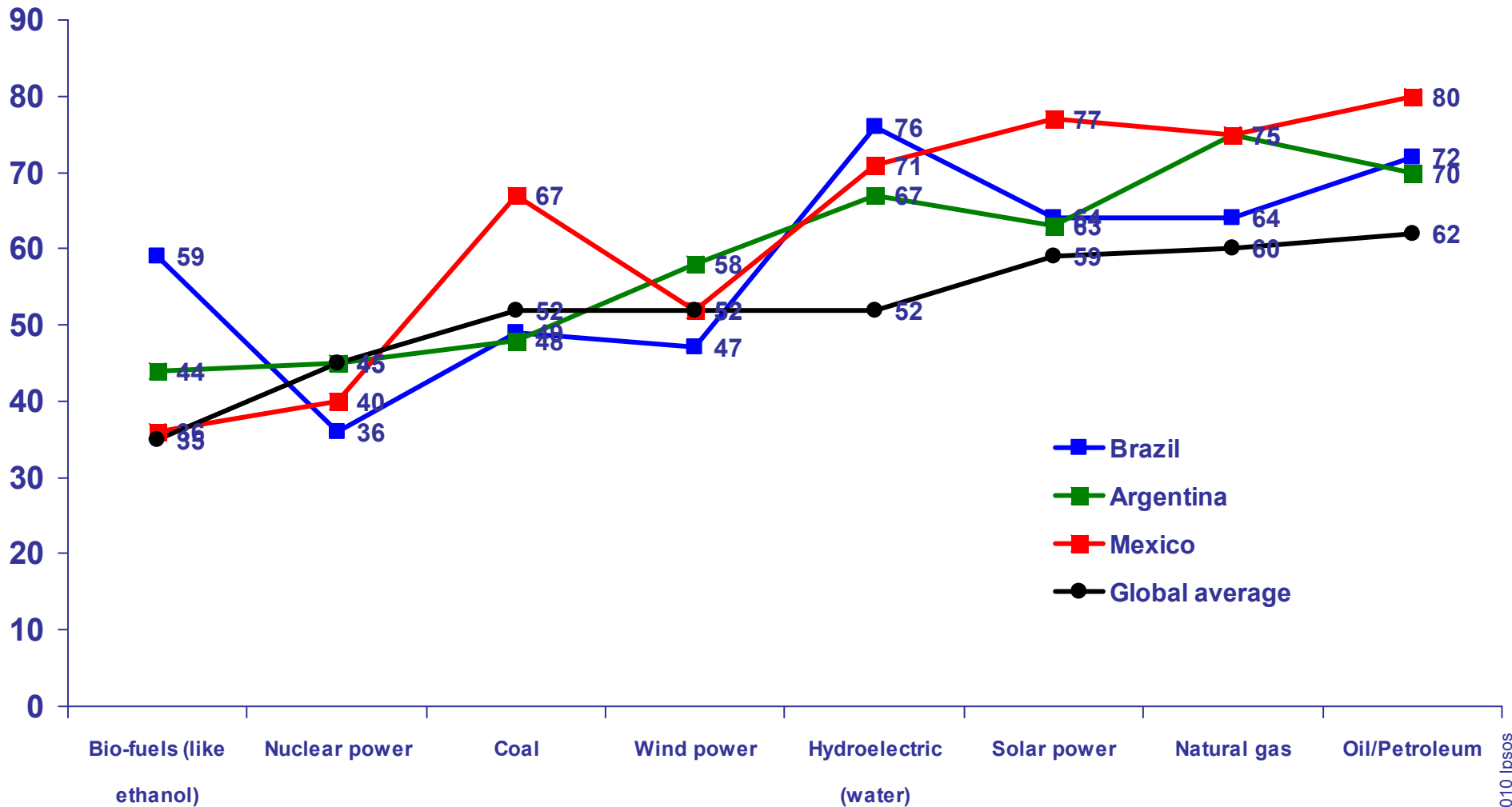


For each of the following energy sources, please indicate how well you feel you know each one, taking into account all the ways you have learned about or had contact with it.



Familiarity with Energy Sources: LATAM

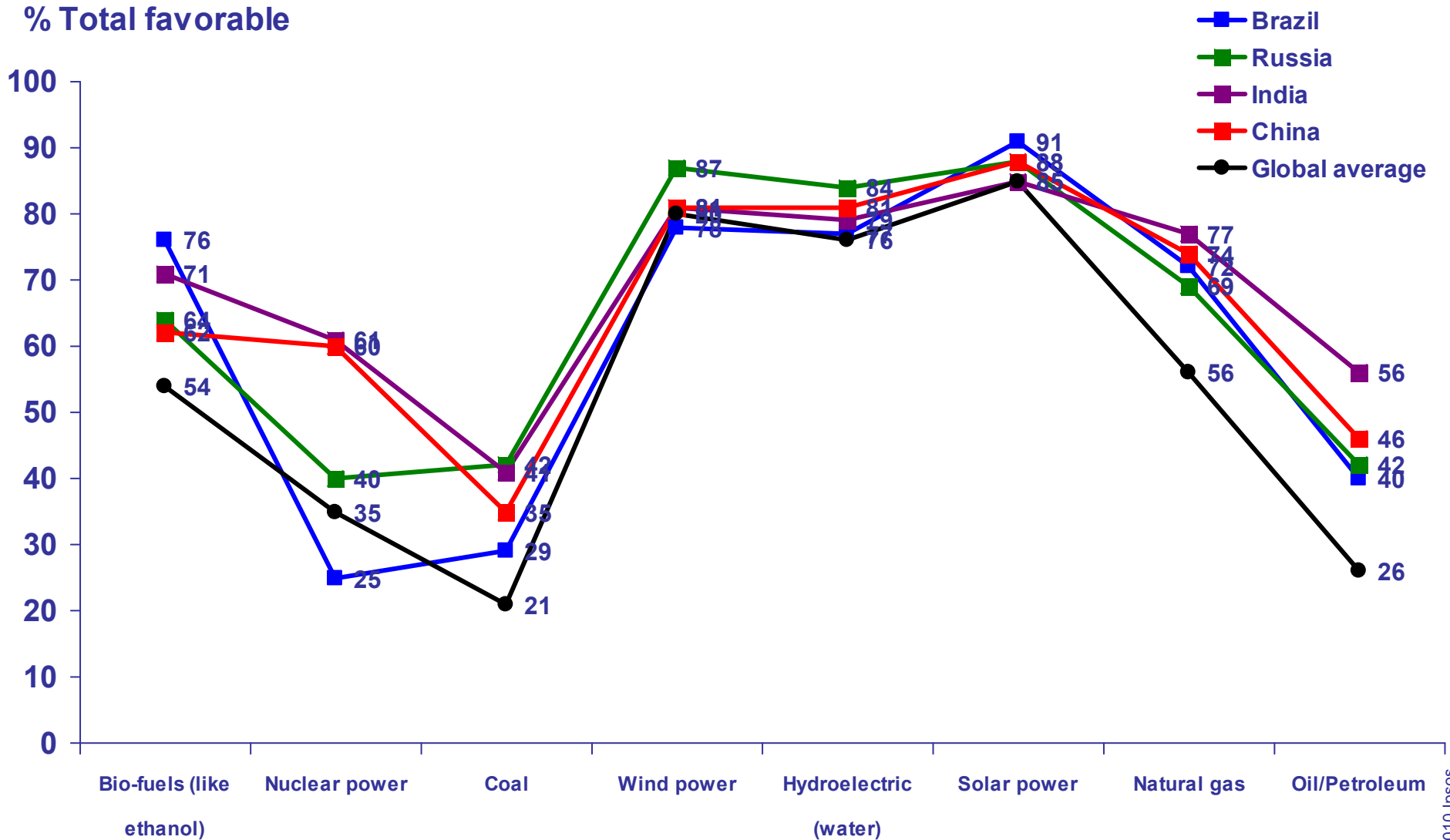
% know very / somewhat well



For each of the following energy sources, please indicate how well you feel you know each one, taking into account all the ways you have learned about or had contact with it.



Favorability towards Energy Sources: BRIC

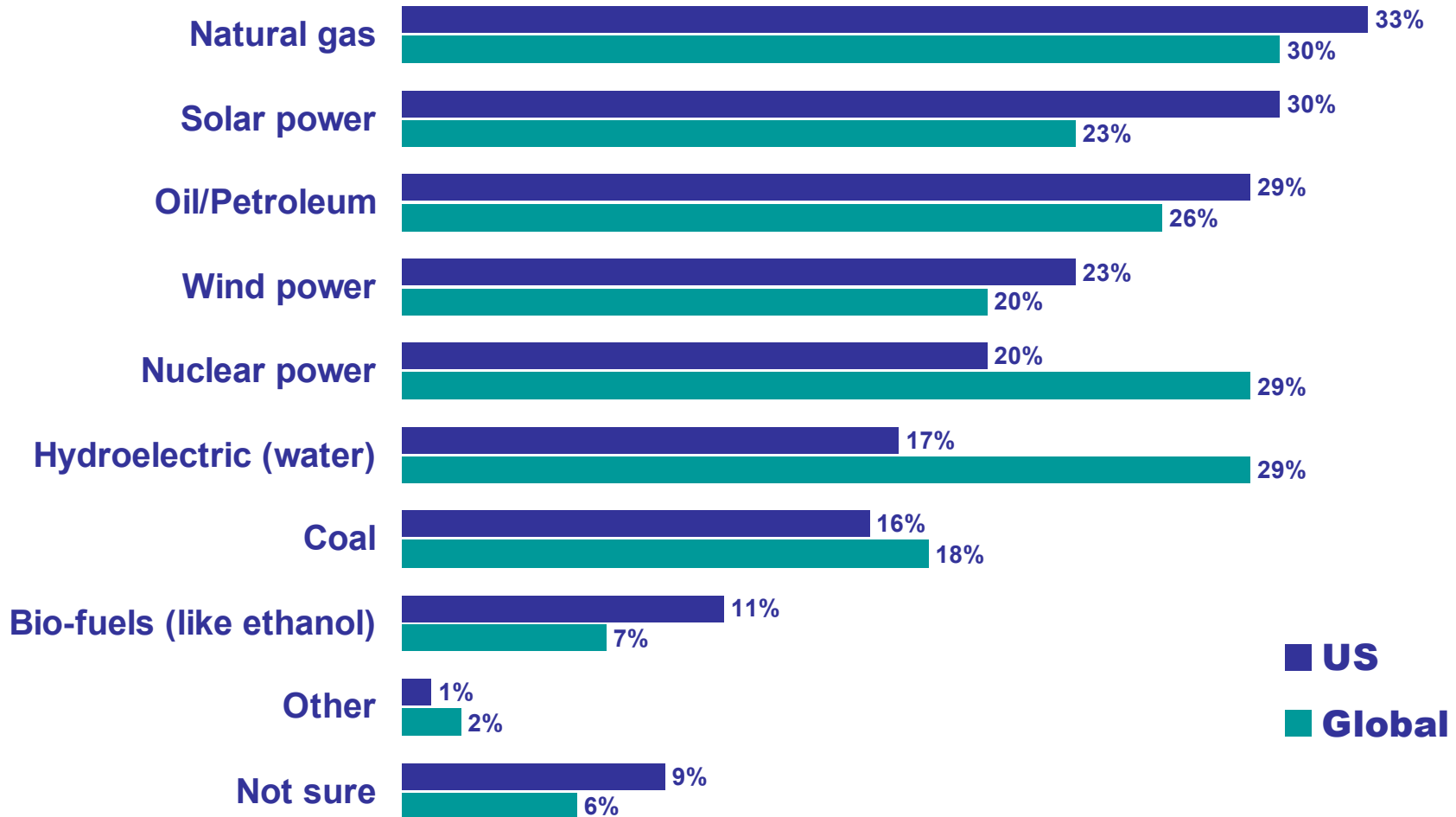


For each of the following energy sources, please indicate how well you feel you know each one, taking into account all the ways you have learned about or had contact with it.



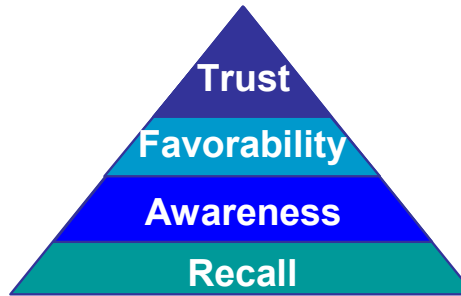
First/Second Most Important Energy Source Produced

In your opinion, which of the following do you think is the most important source of energy produced in [Country]? And which is the second most important?

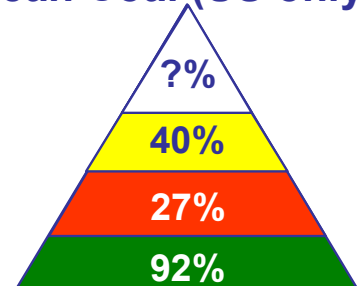




Energy Reputation Pyramid: Renewables are more credible than traditional fossil fuels

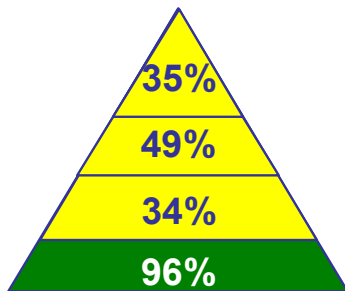


Clean Coal (US only)

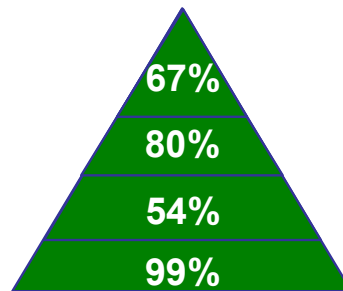


United States

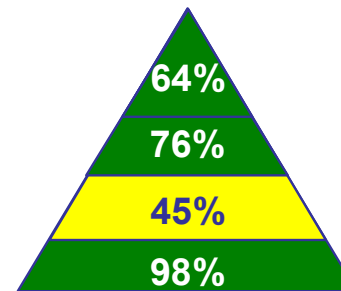
Bio-fuels (like ethanol)



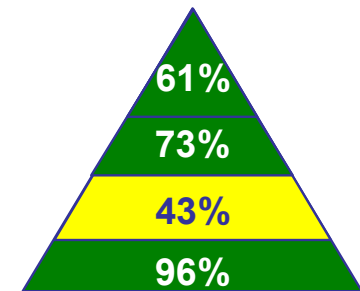
Solar power



Wind power

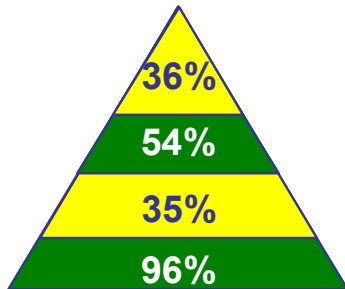


Hydroelectric (water)

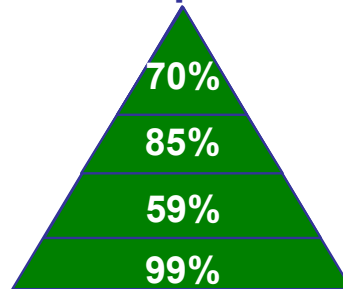


Global Average

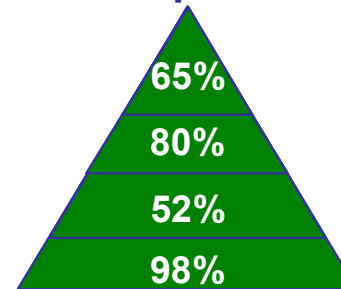
Bio-fuels (like ethanol)



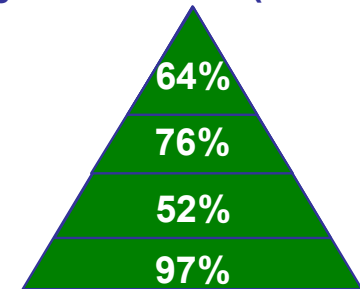
Solar power



Wind power



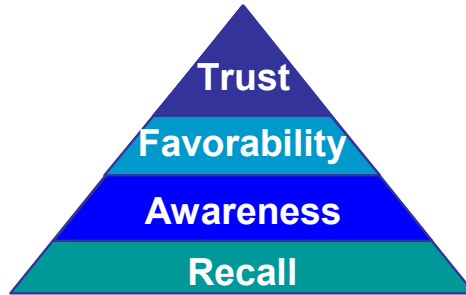
Hydroelectric (water)



(Scores and Net Scores for Recall, Awareness, Favorability, and Trust)

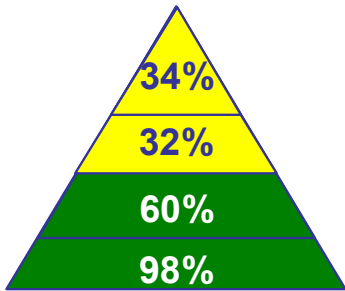


Energy Reputation Pyramid (1)

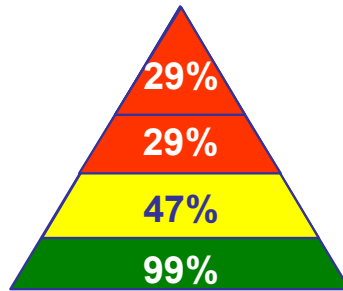


United States

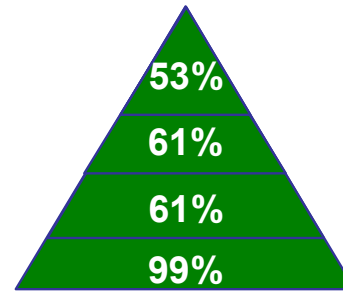
Oil / Petroleum



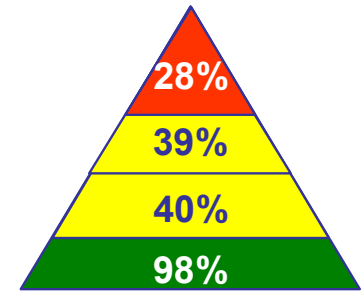
Coal



Natural gas

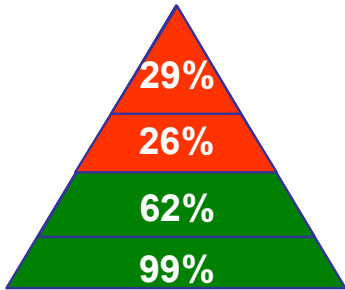


Nuclear

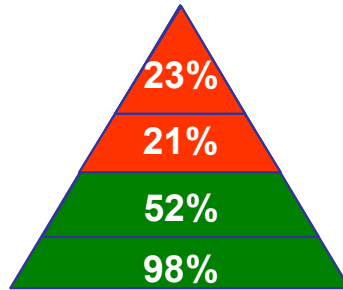


Global Average

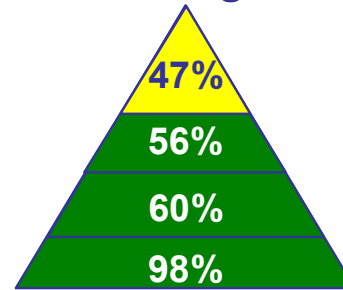
Oil / Petroleum



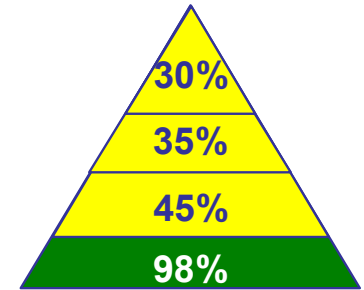
Coal



Natural gas



Nuclear



(Scores and Net Scores for Recall, Awareness, Favorability, and Trust)