



Influences, Perceptions, Knowledge, and Expectations of the New Energy Consumer

New views from the 2011 IBM Global Utility Consumer Survey
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In our first two Global Utility Consumer Surveys (2007 and 2009), we assessed the future wants and needs of residential customers

- We surveyed about 2000 customers in six countries in 2007 and over 5000 in 2009, each with a focus on future wants and needs of consumers
- The context for the questions in the prior surveys was that of a dramatically different future for energy consumers: better information, more control, better reliability and power quality, more participation, greener
- Since early 2009, many other surveys have come out with a similar focus on what consumers will look for in the future
- The consensus among these has been that many consumers are eager for the enhanced reliability, control, and new programs and services that these changes will bring

But in some parts of the world, issues have emerged in 2009-present that compete with those expectations





In our third survey, we reset our focus to the most current attitudes, opinions, and needs that are driving such future expectations

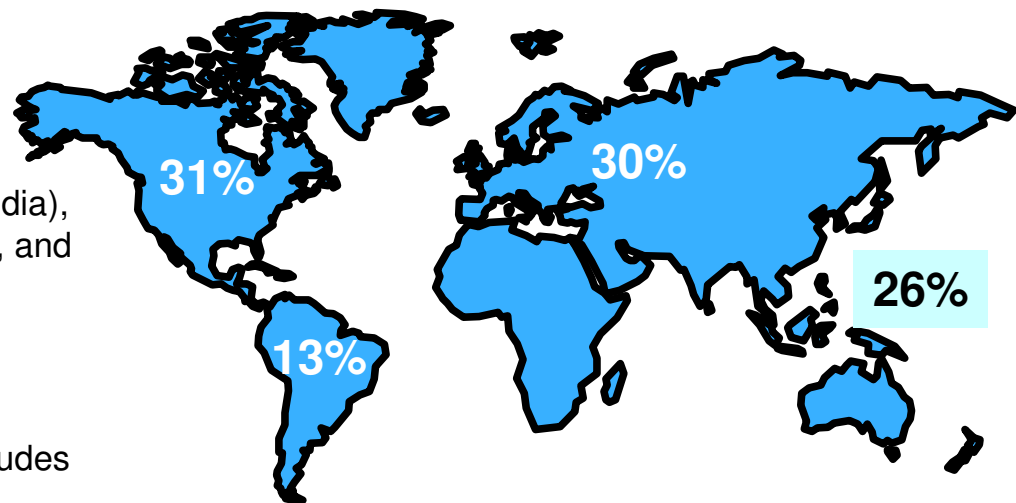
Survey respondents

Nearly 10,000 responses from households in **seventeen countries** – eight in Europe (France, Germany, Netherlands, UK, Ireland, Denmark, Belgium, Poland), five in Asia-Pac (Japan, Australia, New Zealand, China, and India), two in North America (United States, Canada), and two in South America (Brazil, Chile).

Questionnaire structure

30-35 multi-part questions in **nine languages** covering a wide variety of topics including attitudes towards smart grid perceptions and understanding, interest in green power, and energy costs. Certain targeted questions were only asked in one or more specific countries.

The survey was conducted during September 2010 - February, 2011. The surveys conducted during the summer of 2007 and late 2008 to early 2009 are used for comparison where possible.



The population of the countries represented in this year's survey is over half the total global population.



Our objectives for the 2011 survey can be summarized in four lines of inquiry about energy consumers today



What are their most important **influences** on knowledge gained, opinions, and attitudes toward behavioral change?

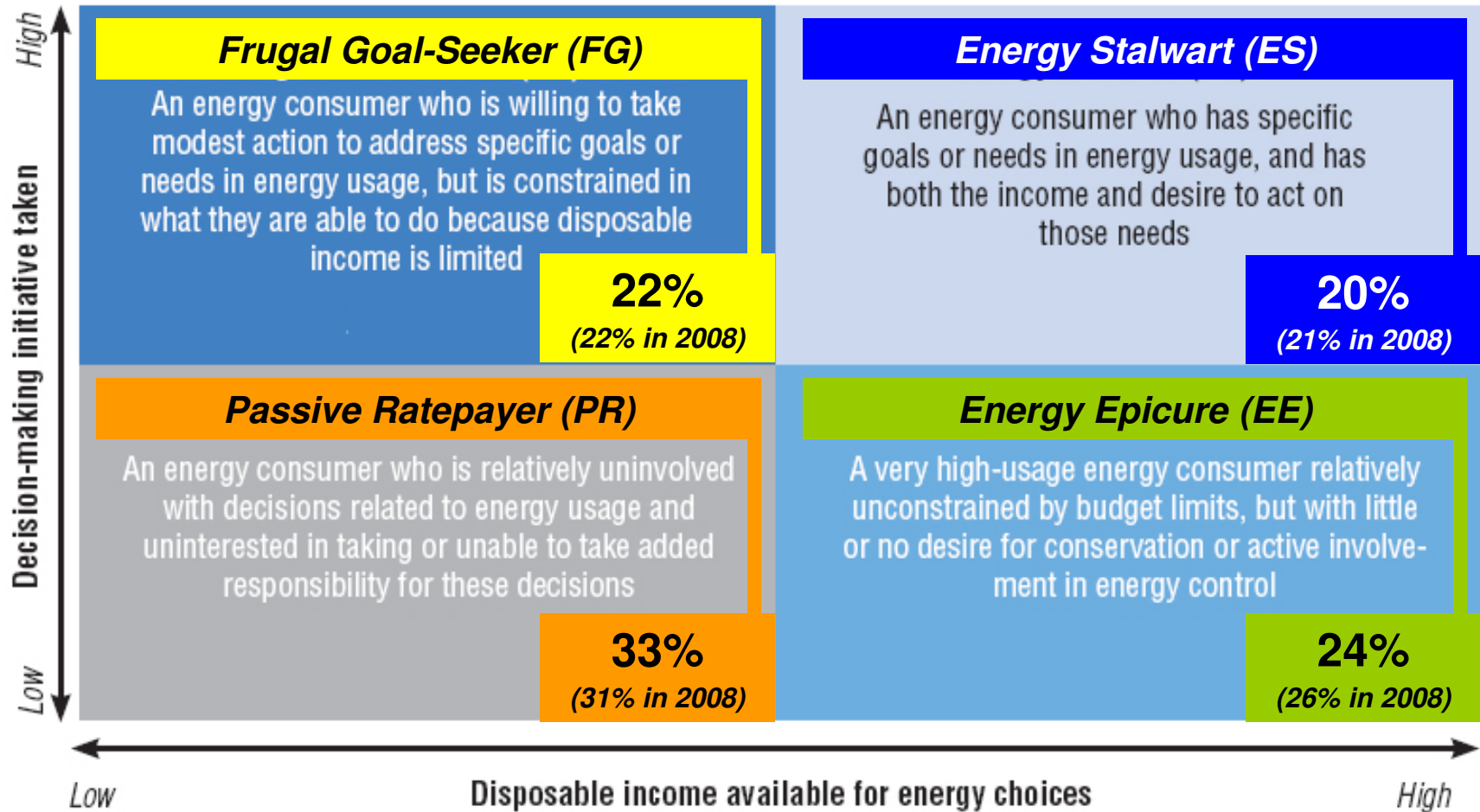
How do **perceptions** of providers and technological change shape consumers' expectations?

What levels of **knowledge** do they have on critical elements that drive their perceptions and expectations?

What **expectations** do consumers have for energy service and providers in the future – and what sets these expectations?



In comparison with our 2009 survey, much of the consumer landscape has remained remarkably stable

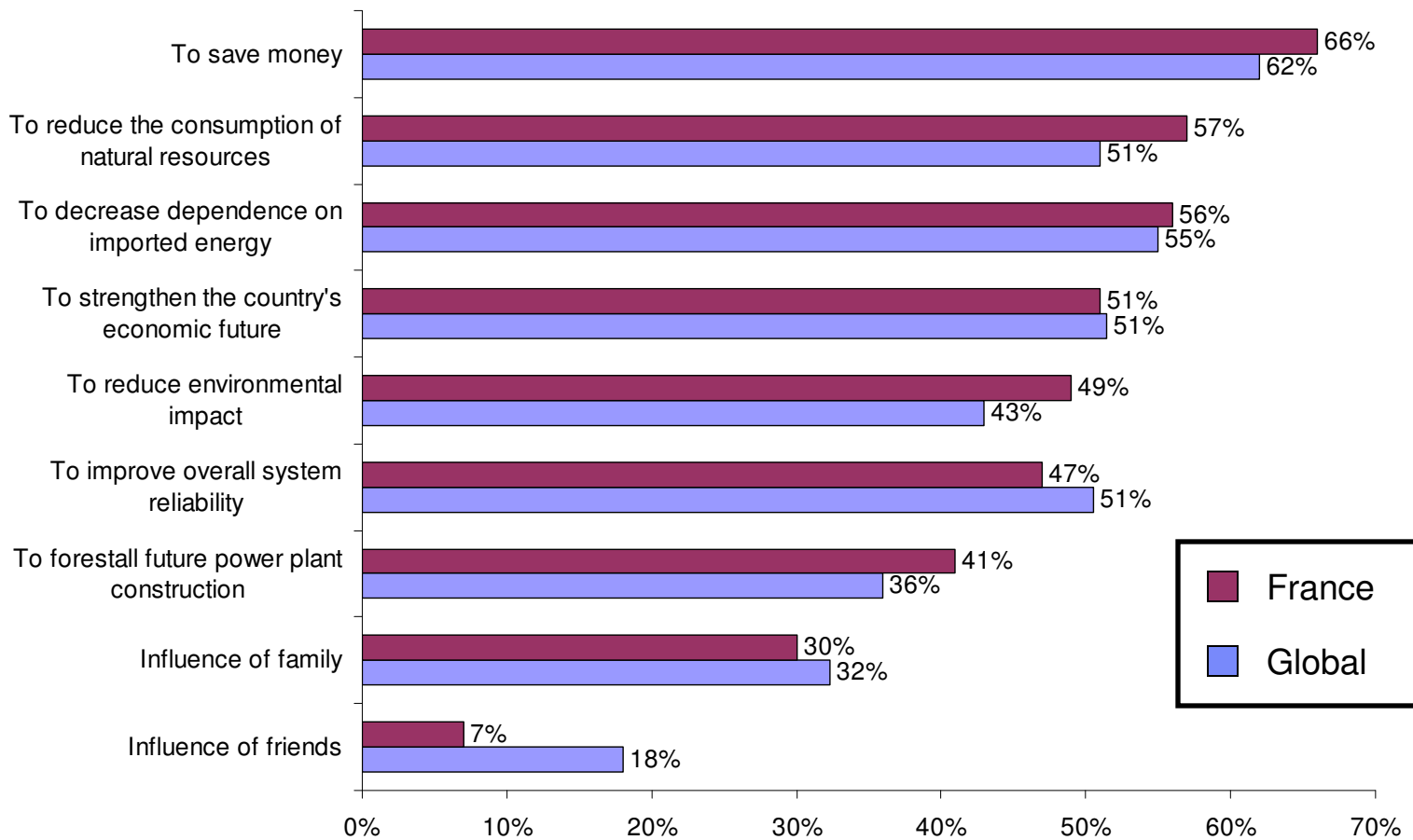


Sources: Valocchi, M, A. Schurr, J. Juliano, and E. Nelson, Plugging in the consumer: Innovating utility business models for the future, IBM Institute for Business Value, 2007; IBM Global Utility Consumer Surveys 2009, 2011.



As with the previous two surveys, cost is the most significant change influencer overall – but other factors are growing in importance

Percent of respondents that would be likely to change their energy usage patterns based on specific influences “to a large extent”



Source: IBM 2011 Global Utility Consumer Survey



The highest and lowest ranked influences are common across Europe, but there is a lot of variation between the endpoints

	UK	IRL	FRA	BEL	NL	GER	DEN	POL
Saving money	1	3	1	1	1	1	1	1
Conserving natural resources	2	6	5	3	5	5	4	2
Lessening environmental impact	3	1	2	5	3	2	3	4
Improving the national economy	4	2	6	3	2	7	7	6
Achieving energy independence for nation	5	4	2	2	5	4	2	5
Improving reliability for self, neighbors	6	4	4	6	3	3	5	3
Avoiding/deferring new plant construction	7	7	7	7	7	6	6	7
Family doing it	8	8	8	8	8	8	8	8
Friends doing it	9	9	9	9	9	9	9	9

Countries that ranked this influence highest among EU countries

Countries that ranked this influence lowest among EU countries

Note: Highlighting shown above only done when three or fewer countries have the same rank .

Source: IBM 2011 Global Utility Consumer Survey



There is a lot of similarity across North America and Australia, but the ranking of influences varies widely elsewhere (especially China)

	US	CAN	AUS	NZ	JPN	CHN	IND	BRZ	CHL
Saving money	1	1	1	1	1	7	5	4	2
Achieving energy independence for nation	2	6	4	5	3	1	1	1	5
Improving reliability for self, neighbors	3	3	3	6	7	4	4	6	6
Conserving natural resources	4	4	2	2	5	2	3	2	1
Improving the national economy	5	5	5	2	2	3	2	5	4
Lessening environmental impact	6	2	6	2	4	6	6	3	3
Avoiding/deferring new plant construction	7	7	7	7	8	9	7	7	7
Family doing it	8	8	8	8	6	5	8	8	8
Friends doing it	9	9	9	9	9	8	9	9	9

Countries that ranked this influence highest among countries outside EU

Countries that ranked this influence lowest among countries outside EU

Note: Highlighting shown above only done when three or fewer countries have the same rank .

Source: IBM 2011 Global Utility Consumer Survey



What's important to consumers is very similar across North America, Europe, ANZ, and Japan

Ranking of seven key priorities for providers from the consumers' perspective

Global	North America	Japan	Aus-NZ	Europe
Provides energy to me reliably	Provides energy to me reliably	Provides energy to me reliably	Provides energy to me reliably	<i>Provides energy to me reliably</i>
Restores service quickly after outages	Restores service quickly after outages	Restores service quickly after outages	<i>Helps me manage my energy usage and reduce my overall bill</i>	<i>Treats me as a valued customer</i>
Works to supply cleaner energy	<i>Works to supply cleaner energy</i>	Works to supply cleaner energy	<i>Restores service quickly after outages</i>	<i>Restores service quickly after outages</i>
<i>Helps me manage my energy usage and reduce my overall bill</i>	<i>Treats me as a valued customer</i>	Invests in advanced technologies	Works to supply cleaner energy	<i>Works to supply cleaner energy</i>
<i>Treats me as a valued customer</i>	<i>Helps me manage my energy usage and reduce my overall bill</i>	<i>Helps me manage my energy usage and reduce my overall bill</i>	<i>Treats me as a valued customer</i>	<i>Helps me manage my energy usage and reduce my overall bill</i>
Invests in advanced technologies	Invests in advanced technologies	Rapidly adopts new technologies and ways of doing business	Invests in advanced technologies	Invests in advanced technologies
Rapidly adopts new technologies and ways of doing business	Rapidly adopts new technologies and ways of doing business		Rapidly adopts new technologies and ways of doing business	Rapidly adopts new technologies and ways of doing business

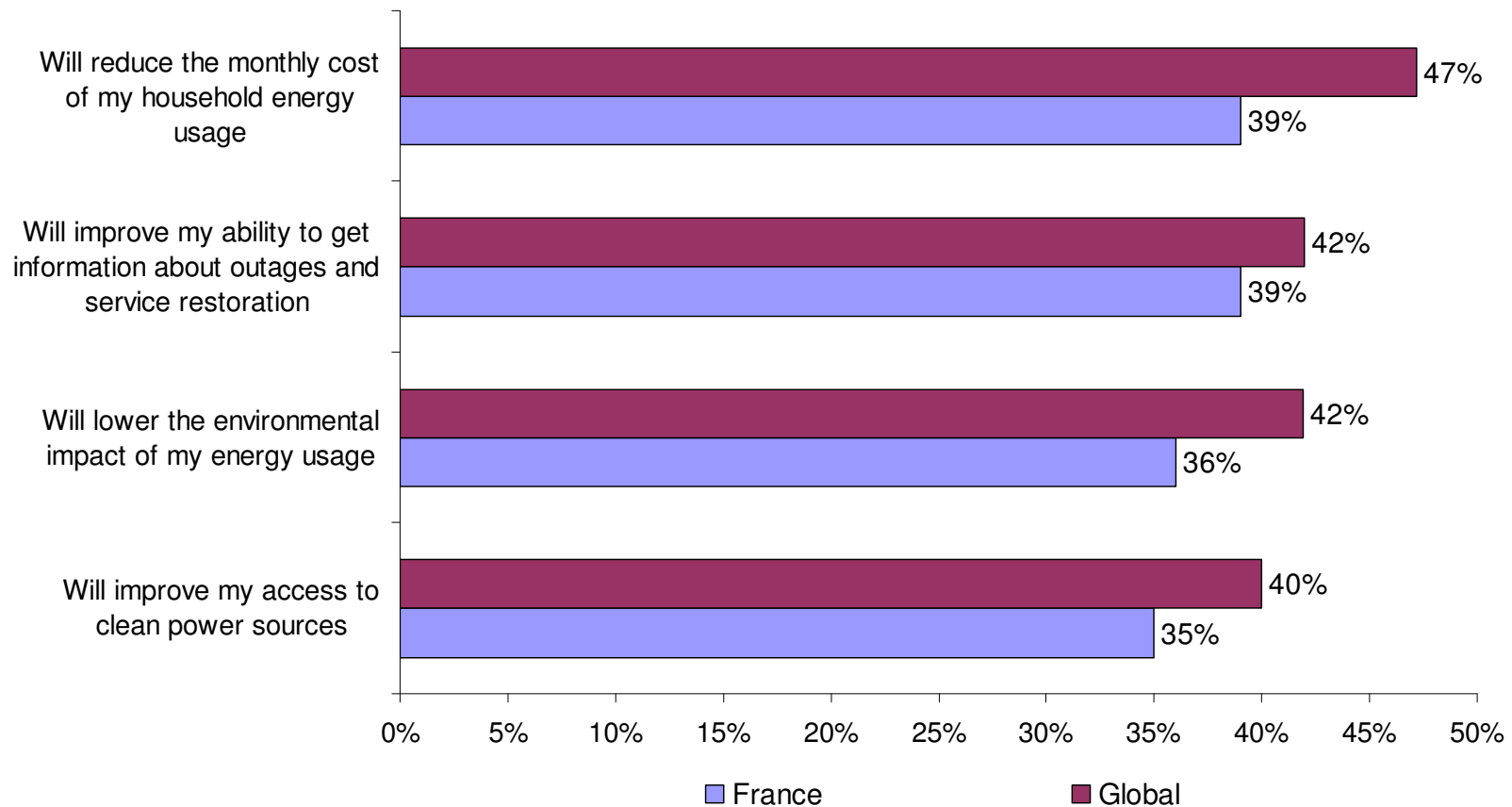
Notes: **Groups shown in italic text within delineated boxes are not different to a statistically significant degree.**
 The "valued consumer" question was not included for Japan and France.

Source: IBM 2011 Global Utility Consumer Survey



The perceptions of what new energy technologies will bring them are positive in many ways...

Percent of respondents that believe smart grid and smart meter deployment will have specific benefits

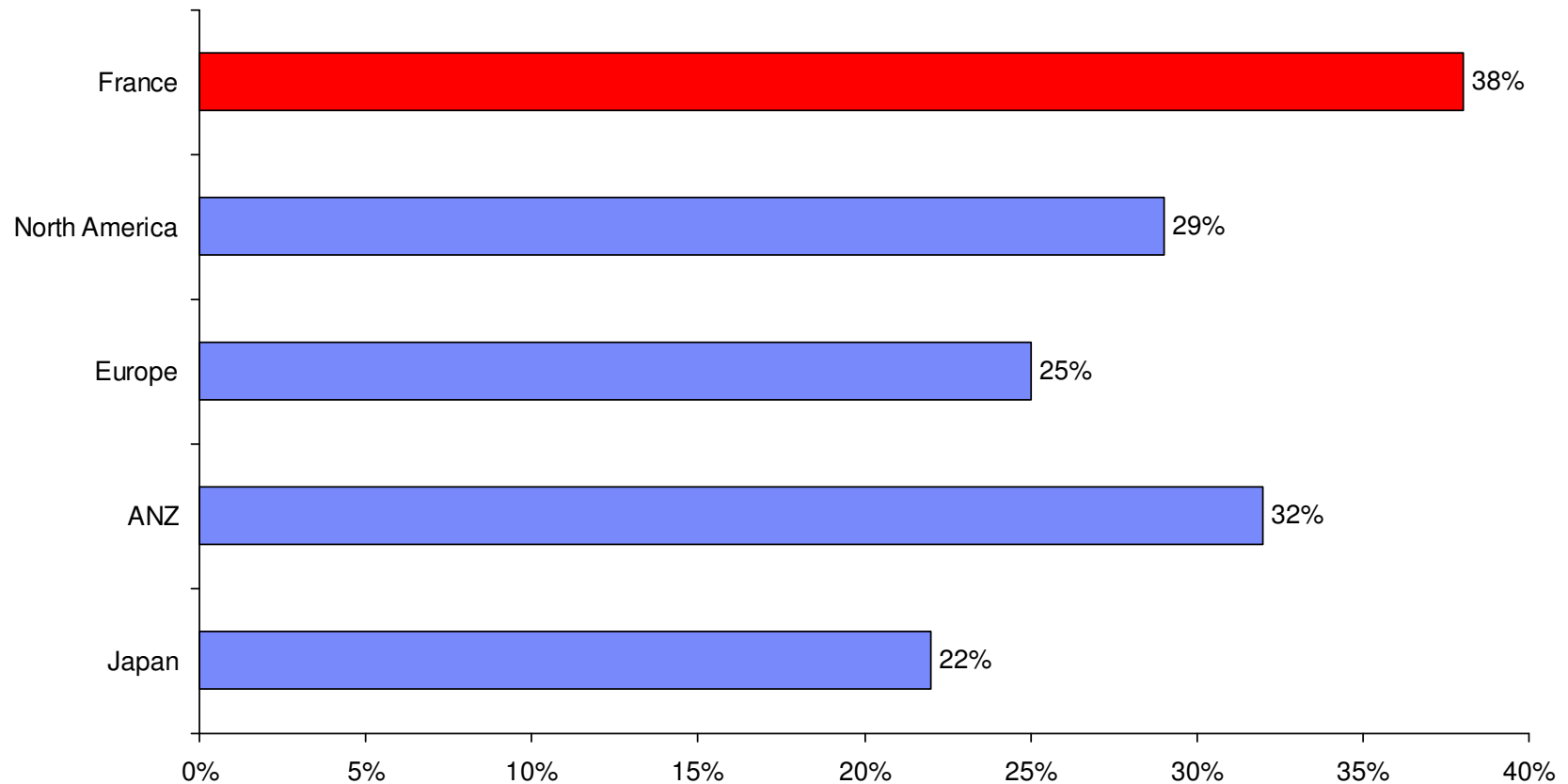


Source: IBM 2011 Global Utility Consumer Survey



...but for about a quarter of respondents, a key concern relates to privacy impacts smart grid and smart meter programs will have

Percent who believe that smart grid and smart meter technologies pose a risk to privacy



Source: IBM 2011 Global Utility Consumer Survey



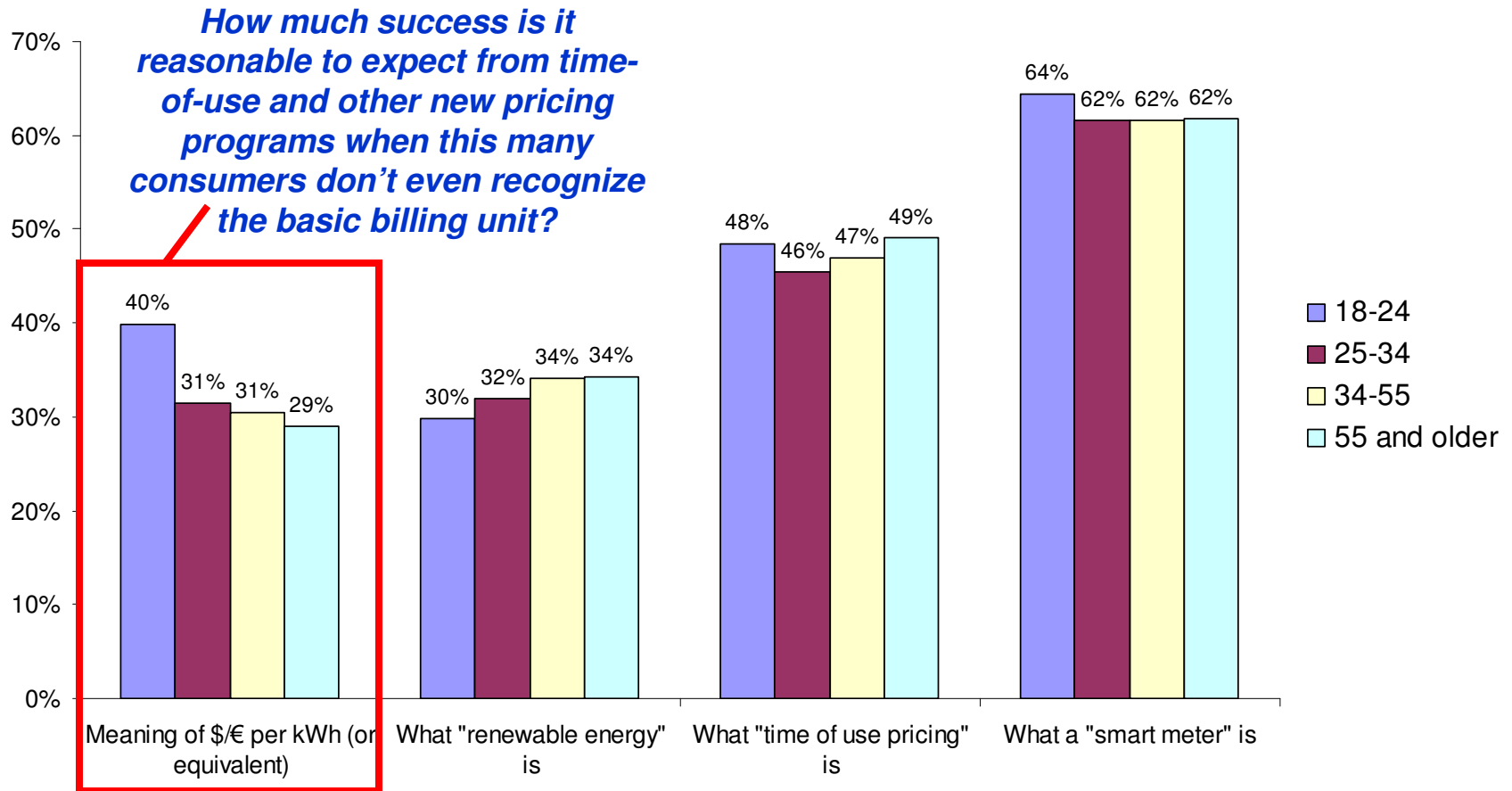
Insufficient knowledge to understand the changes underway and form opinions about them is widespread

- **Over two-thirds** of respondents admit that they **do not know** whether their local providers or governments have smart meter or smart grid deployment plans in place – and that does not even count those who “know”, but are wrong
- **Over half** of the respondents **do not know** if their energy provider has a green energy program that is available to them, a recurring theme over the past three surveys
- **Almost a quarter** of those who participate in green energy programs **have no idea** if they pay a premium for that power, or how much more they pay
- **Thirty-five percent** of respondents are not yet sure whether they will consent to share data on their household energy use
- When asked about specific benefits or concerns about smart meter and smart grid programs, **40-50% do not yet have an opinion** of whether those benefits or concerns are in store for them
- Even basic knowledge is surprisingly absent – about **one-third** of respondents **do not recognize** the basic billing unit for power consumption, and **at least five percent do not know** who their provider is



With a few exceptions, different age groups did not show deviations in knowledge gaps or areas of uncertainty

Percent of respondents that did not know the answer to the specified question or statement

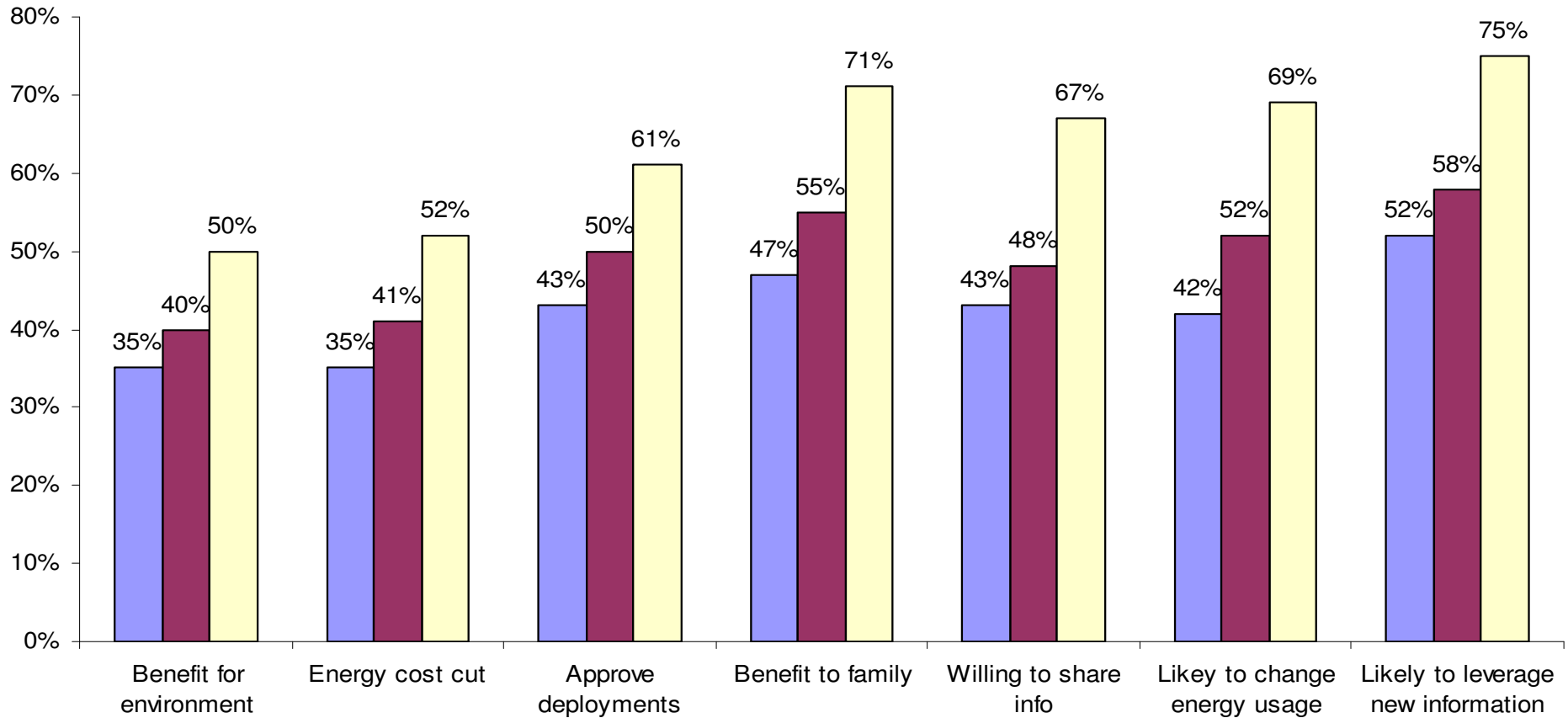


Source: IBM 2011 Global Utility Consumer Survey



Higher levels of knowledge strongly correlated with increased belief in resulting benefits and new behaviors adoption

■ No or minimal knowledge ■ Moderate knowledge ■ Strong knowledge

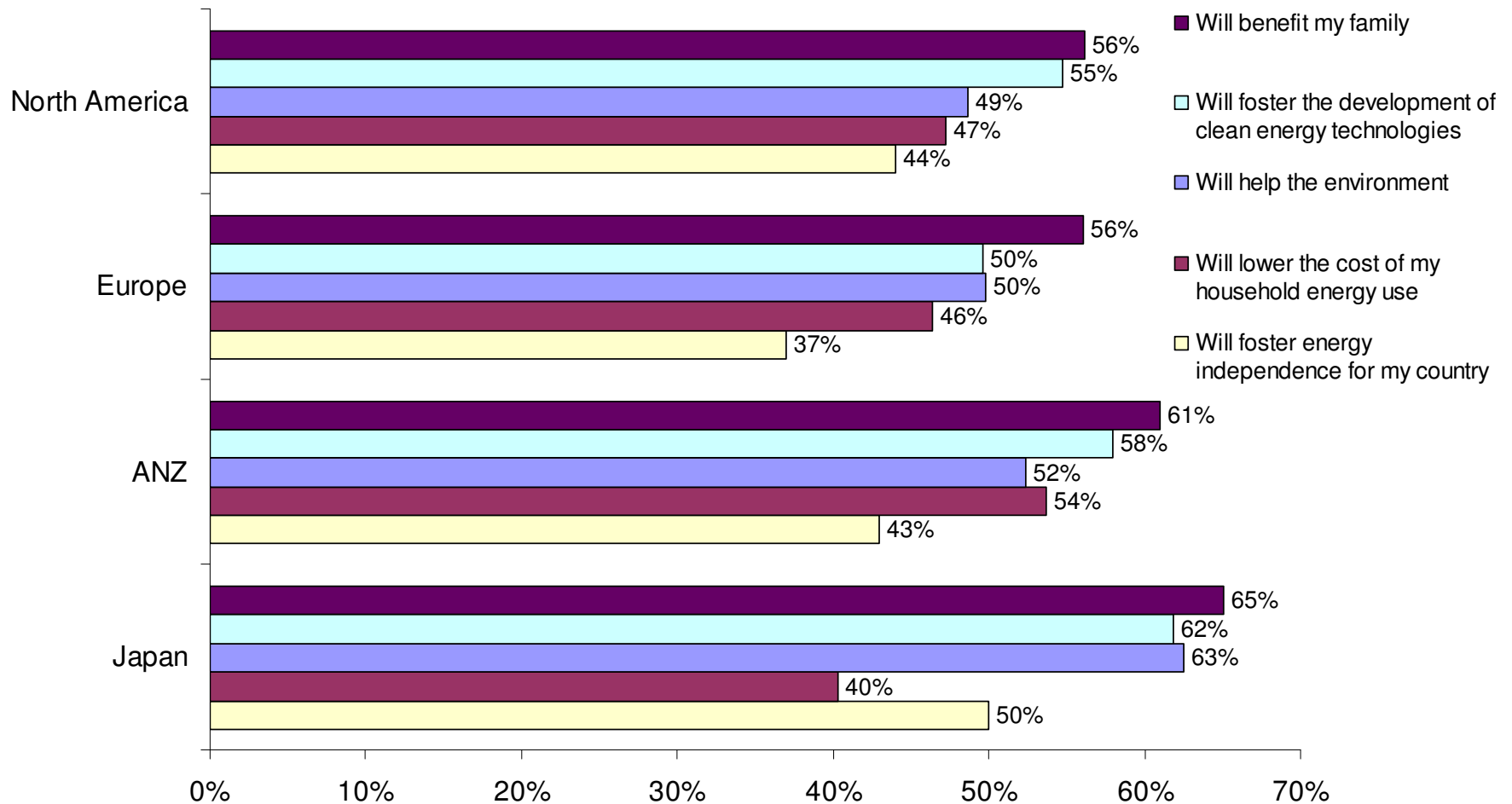


The only exception is privacy – the more knowledgeable the consumer, the more concerns they have about smart meter data privacy (though this underscores a realistic view)

Source: IBM 2011 Global Utility Consumer Survey



Consumers, having had a bountiful smart grid-enabled energy future laid out before them, are expecting that promise to be fulfilled



Sample Size = 8118; GI/GII population-weighted.

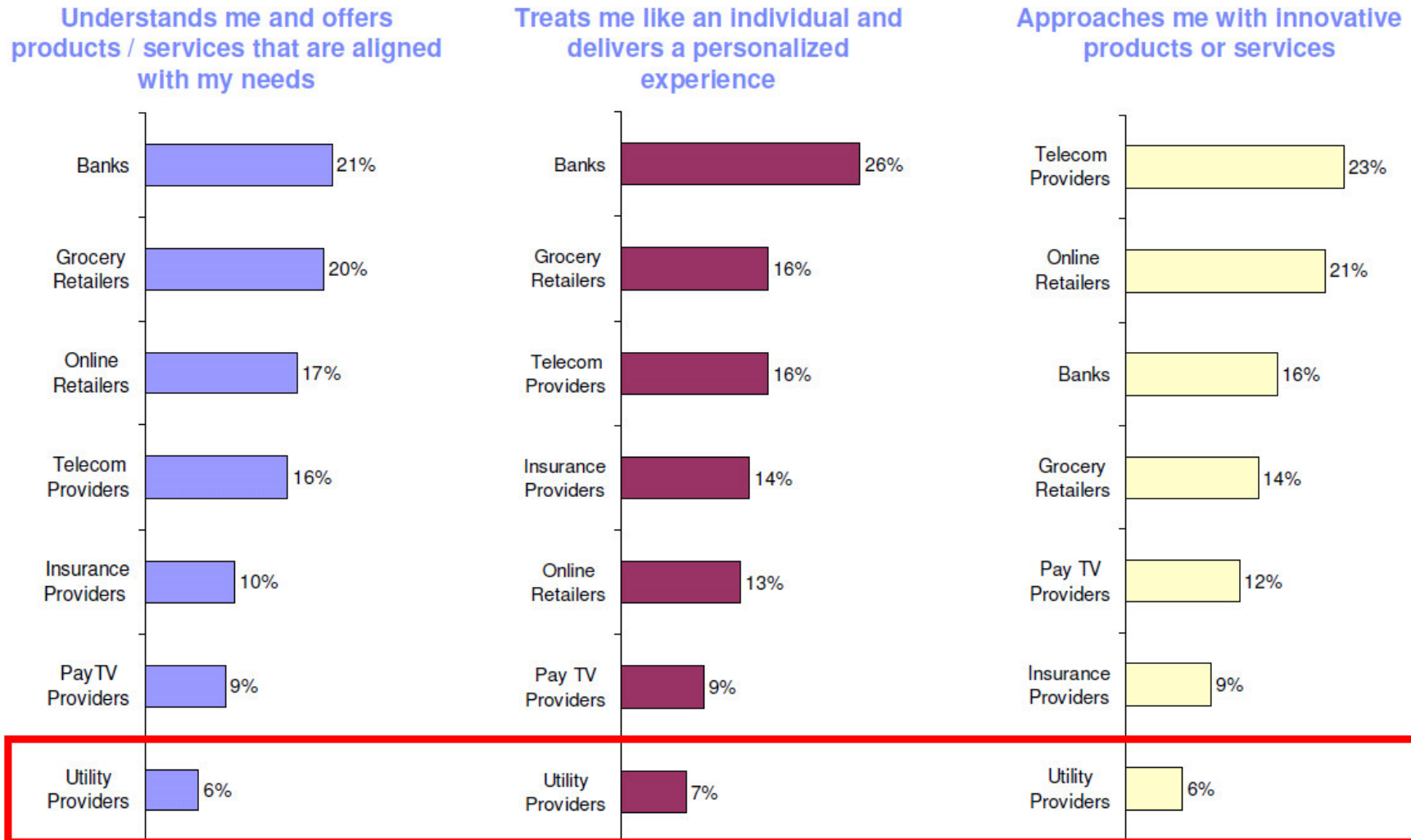
Source: IBM 2011 Global Utility Consumer Survey

IBM Institute for Business Value

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Other industries are often viewed as offering more personalization and innovation around consumers' specific needs.





How consumers feel about the evolution of their providers today speaks to a need to refine, personalize, and target communications



Their **influences** are still skewed toward the traditional – but increasingly these are sources that are from places where utilities have no control over the tone or accuracy of the messages

Consumers have mixed **perceptions** of their current providers and what they will be able to do in the future – and where there are negative perceptions, more negative reactions are likely

For customer buy-in to smart grid and smart meter plans, providing **knowledge** is an absolute necessity – the more consumers learn about what is occurring, the more favorable they are toward it

They have been promised – explicitly or implicitly – great benefits from the smart grid revolution, and their **expectations** are that those promises will be fulfilled

What can be done to keep perceptions (positive and negative) aligned with reality? How can expectations be shaped by providing more and better knowledge in the context of the most effective influences?



Consumers have been promised a lot with respect to the “new world of the smart grid”. And they want what’s been promised to them.



ÉCONOMIE

La nouvelle arme économique : LE COMPTEUR INTELLIGENT !

D'apparence, cela n'a vraiment rien d'extraordinaire. Remplacer la roue crantée qui tourne derrière une petite fenêtre par un compteur numérique comme celui qu'on trouve sur nos radio-nivel ou tour à micro-onde ne semble pas relever d'une percée technologique révolutionnaire. On pourrait même se demander comment ce vestige des années 1900 a pu traverser un siècle entier sans changer. Mais attention ! Le compteur électrique est désormais un maillon essentiel au cœur d'enjeux énormes.

La loi n° 14, le compteur électrique intelligent est programmé pour le début 2010 en France. Il sera donc le premier compteur intelligent à être installé en France. Cette nouvelle génération de compteurs est conçue pour être installée sur les compteurs à induction et sur les compteurs à aimant. Elle est conçue pour être installée sur les compteurs à aimant. Elle est conçue pour être installée sur les compteurs à aimant.

Google

Google a annoncé la mise en œuvre de son service de comptage intelligent pour les consommateurs. Ce service permettra aux consommateurs de suivre leur consommation d'énergie en temps réel et de recevoir des conseils personnalisés pour réduire leur consommation.

Le gaz naturel et l'eau

Les compteurs intelligents pour le gaz et l'eau sont également en cours de développement. Ils permettront aux consommateurs de suivre leur consommation et de recevoir des conseils personnalisés.

Home Electricity Use

Un consommateur actif

Un consommateur actif est un consommateur qui utilise son compteur intelligent pour suivre sa consommation d'énergie et pour recevoir des conseils personnalisés.



For questions and additional information, please contact:

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