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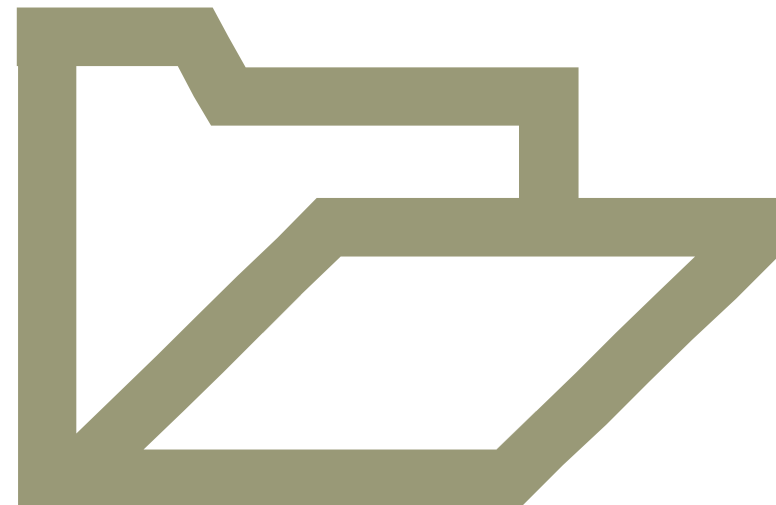
**Embedded Software Consumer Pulse Survey**  
Detailed US and UK survey results

Accenture Research, January 2011



## Agenda

- **Research methodology**
- Key findings
- Detailed survey results
- Appendix





## Survey Methodology

- **2006** individuals in **2 countries** surveyed during November and December 2010
- Quantitative survey with a sample representative of the general population in every country
- Approx. 15 minutes survey, conducted online in English
- Data collection completed for Accenture by an external market research agency
- The report is presenting the detailed survey results for each country. Overall results are presented in a separate report.

### Interviews by country

COUNTRIES	
US	1005
UK	1001
Total sample	2006

### Repartition by gender, age, income

AGE	Total sample	US	UK
18-24 years	12%	13%	11%
25-34 years	17%	18%	17%
35-44 years	20%	20%	20%
45-54 years	18%	19%	17%
> 55 years	33%	30%	36%

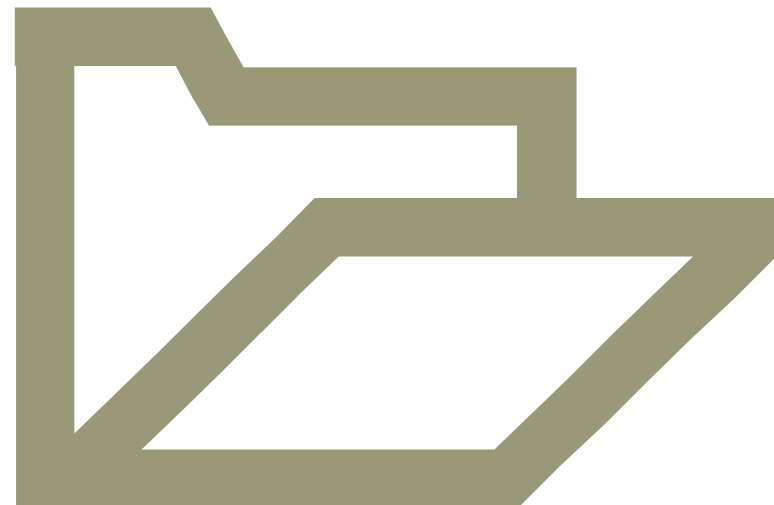
GENDER	Total sample	US	UK
Men	49%	49%	48%
Women	51%	51%	52%

INCOME	Total sample	US	UK
Low	53%	54%	53%
High	47%	46%	47%



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## Key findings

- **Consumers in the US and UK are experiencing embedded software related frustrations with devices/appliances/machines they use frequently**
  - Overall, half of the respondents experienced some frustration with at least one of their more frequently used device/appliance/machine in the last 6 months
  - Device crashing (i.e. device freezing, not responding, and needing to be restarted) is by far the most important cause of frustration across devices for 39% of respondents (that is twice as much as other causes) and 49% of 18-24 years. Among those who experienced device crashing, the majority (58%) indicated they faced this situation frequently in the last 6 months
  - Over one quarter of respondents feel frustrated when using their mobile phone applications (whish it could do more things automatically)
- **Consumers in the US and UK are experiencing frustrations in their every day life that could be eased with innovative solutions**
  - A large share of respondents are experiencing frustrations in their every day life:
    - They feel they pay too much for electricity compared to their consumption (76% completely/somewhat agree)
    - They feel that what they pay for car insurance could be optimized compared to how and when they drive every month (73% completely/somewhat agree)
    - They are frustrated by public transportation lack of information about traffic and potential delays (62% completely/somewhat agree)
    - They feel unsafe or stressed while driving on the road when they are tired (56% completely/somewhat agree)
    - They feel that whenever they need maintenance or repair services for their household appliances, it's too late and the appliances cannot be repaired (e.g. TV, washing machine) (48% completely/somewhat agree)



## Key findings

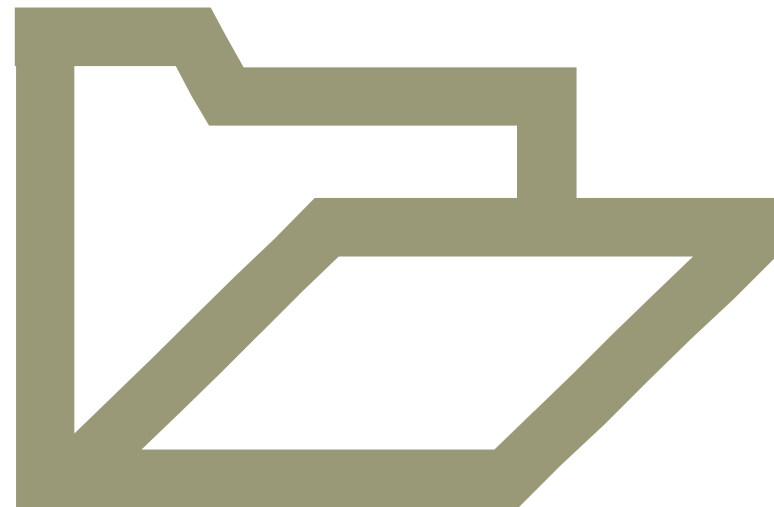
- **Consumers in the US and UK are looking for simple, smarter devices**
  - If they could give some advice to engineers who designed their devices/appliances/machines, a large proportion of consumers would ask them to keep it simple (53%) with a limited number of useful functionalities/applications in their devices (43%).
  - However, a large proportion of respondents would just wait for the next great generation of device (53%), especially younger generations (59% of 18-24 and 57% of 25-34)
- **In uncertain times, consumers in the US and UK are showing appetite in using new innovative solutions with tangible benefits (such as cost saving)**
  - There is a high interest in using innovative solutions such as :
    - Energy efficiency solutions: would allow electricity utility to regulate/limit the use of some major appliances at specific time of the day to help pay less for electricity (73% of very/somewhat interested to use, with 31% of very interested)
    - Smart home appliances : e.g. washing machine/TV set than can be diagnosed remotely and periodically to prevent maintenance and repair with a field technician (66% of very/somewhat interested to use)
    - A car sensor that would record the distance travelled during the month and driving quality to optimize car insurance premium (63% of very/somewhat interested to use)
    - A car sensor/device able to monitor one's level of concentration and to automatically take evasive action when accidents are about to happen (62% of very/somewhat interested to use)
  - Almost half of the respondents indicated they would be comfortable using a driverless car (i.e. autonomous computer-driven vehicles where you just get in, say your destination and the vehicle gets you there without any other action needed from you).
- **Half of respondents would be ready to pay extra to get smarter devices/appliances/machines i.e. which could do more things automatically & autonomously**
  - On average, 20% of respondents would be ready to pay up to 5% and 17% up to 10% of the price to get smarter devices/appliances/machines

Accenture Consumer pulse survey on embedded software, 2010



## Agenda

- Research methodology
- Key findings
- **Detailed survey results**
- Appendix

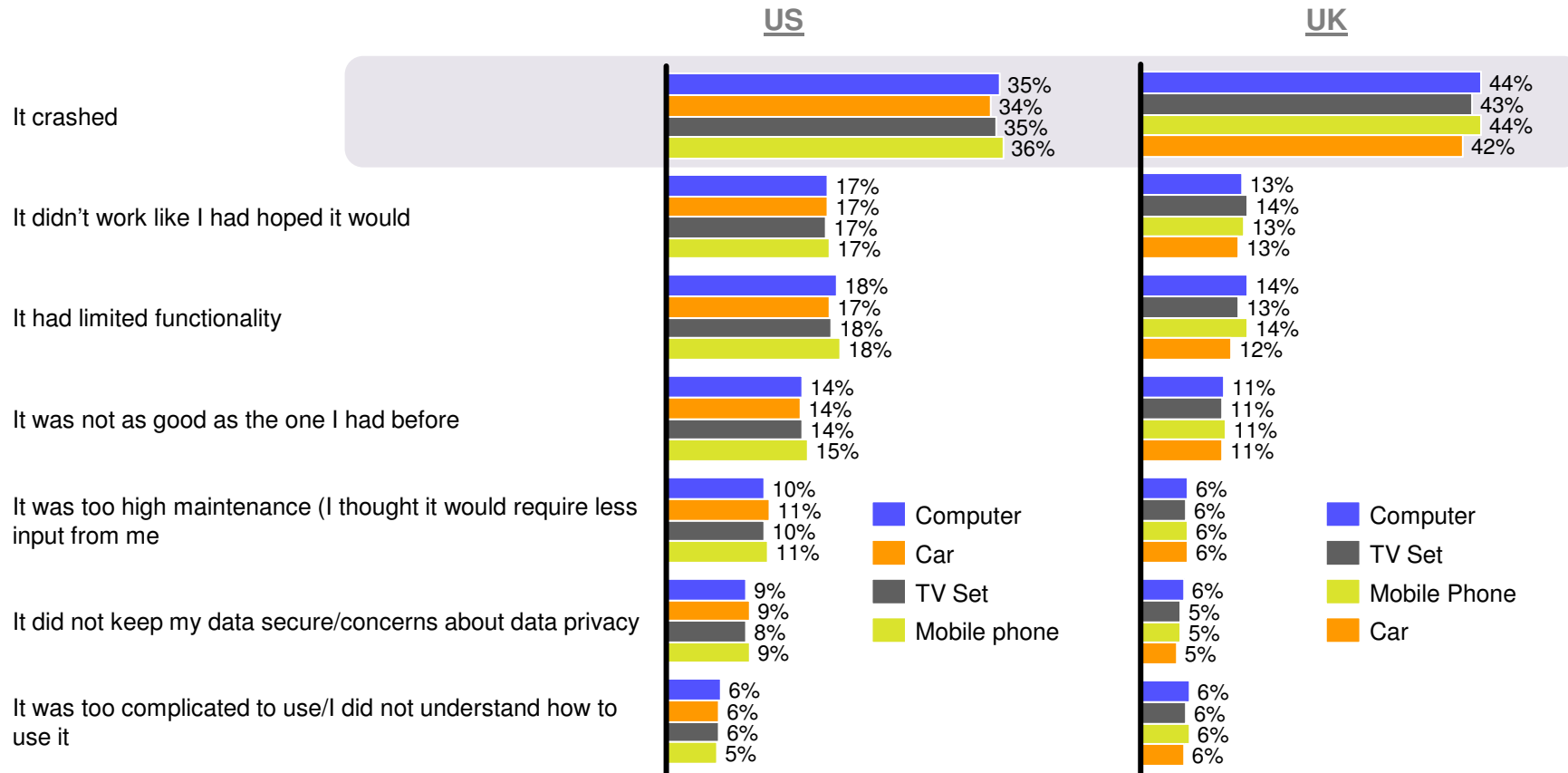




This is also true across more frequently used devices

What main frustration/problem have you encountered while using these devices/appliances/machines in the last 6 months? Multiple answers

US & UK results



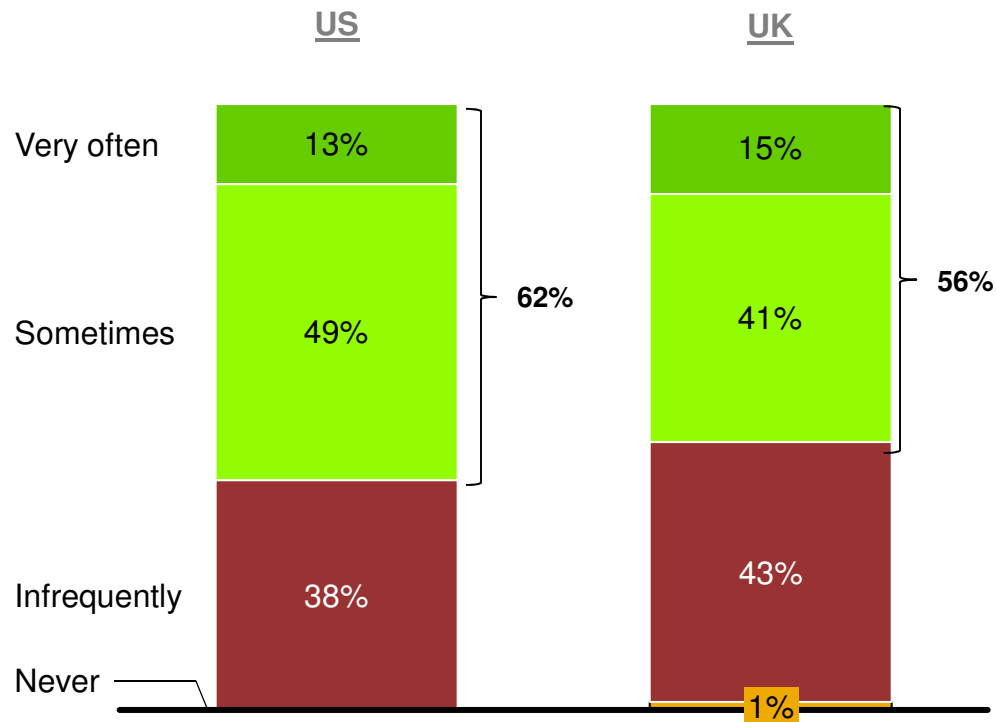


Generally, US respondents have indicated slightly higher instances where devices crashed very often, when compared to the UK respondents



US & UK results

How many times have you faced a situation where some of your devices/appliances/machines have “crashed” (i.e. device froze, stopped responding, and needed restarting) in the last 6 months?

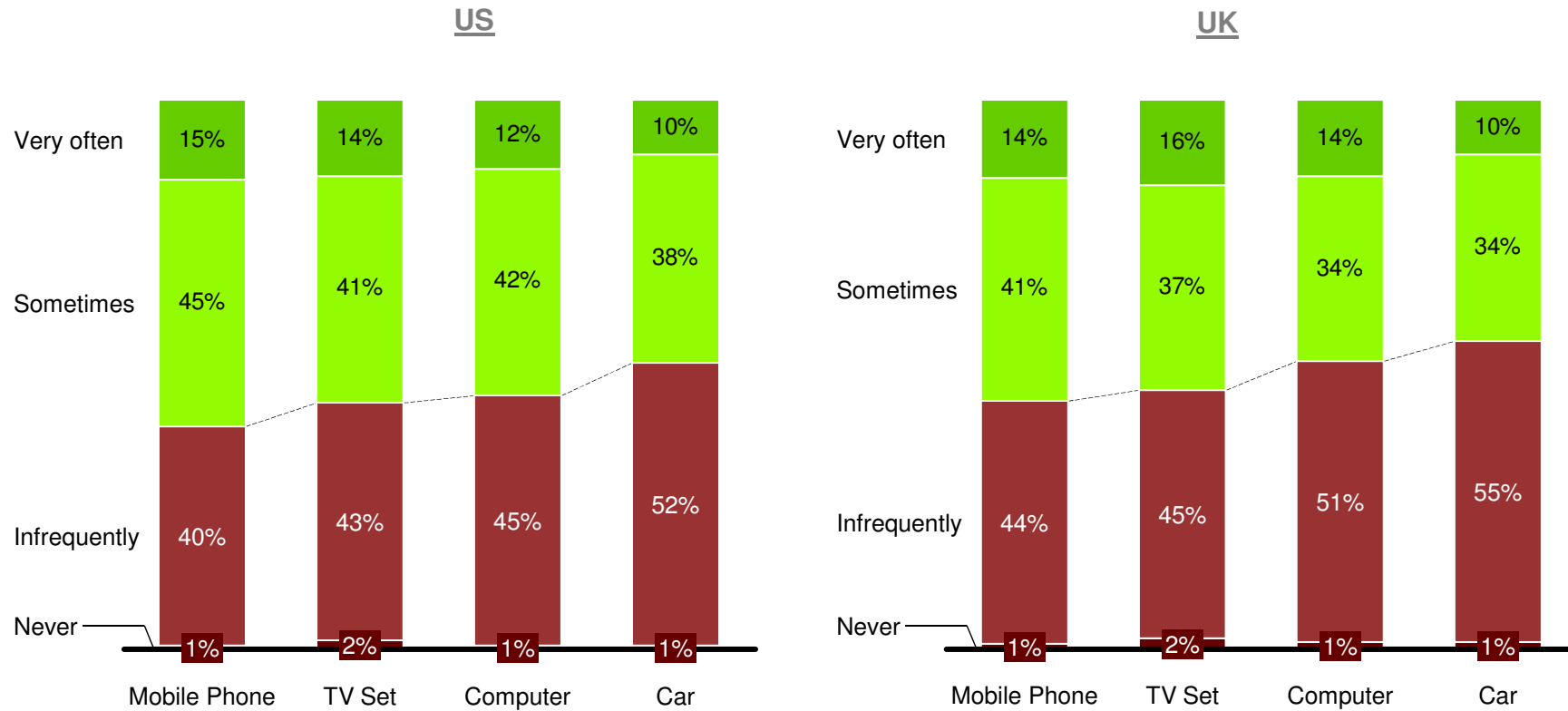


## Respondents experienced device crashing more often with mobile phones and TVs when compared to computers and cars



US & UK results

How many times have you faced a situation where some of your devices/appliances/machines have “crashed” (i.e. device froze, stopped responding, and needed restarting) in the last 6 months?

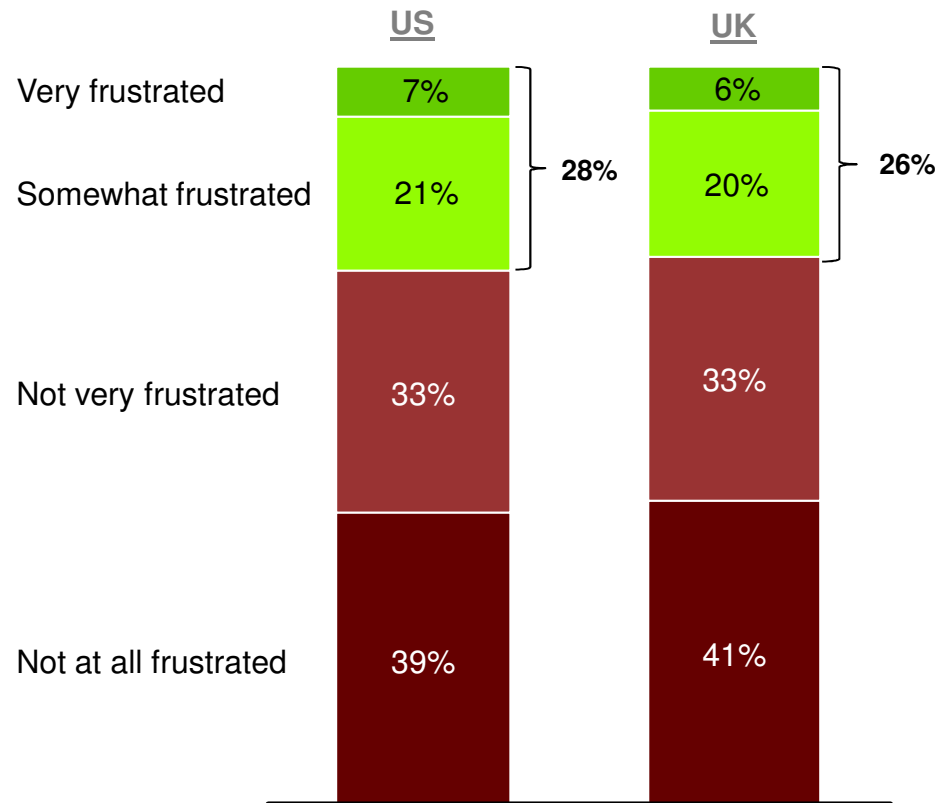


Around one quarter of respondents in the US and UK are feeling frustrated when using their mobile phone applications (i.e. wish they could do more things automatically)



US & UK results

More specifically about your mobile phone, how frustrated do you feel in using applications (i.e. you wish it could do more things automatically)?



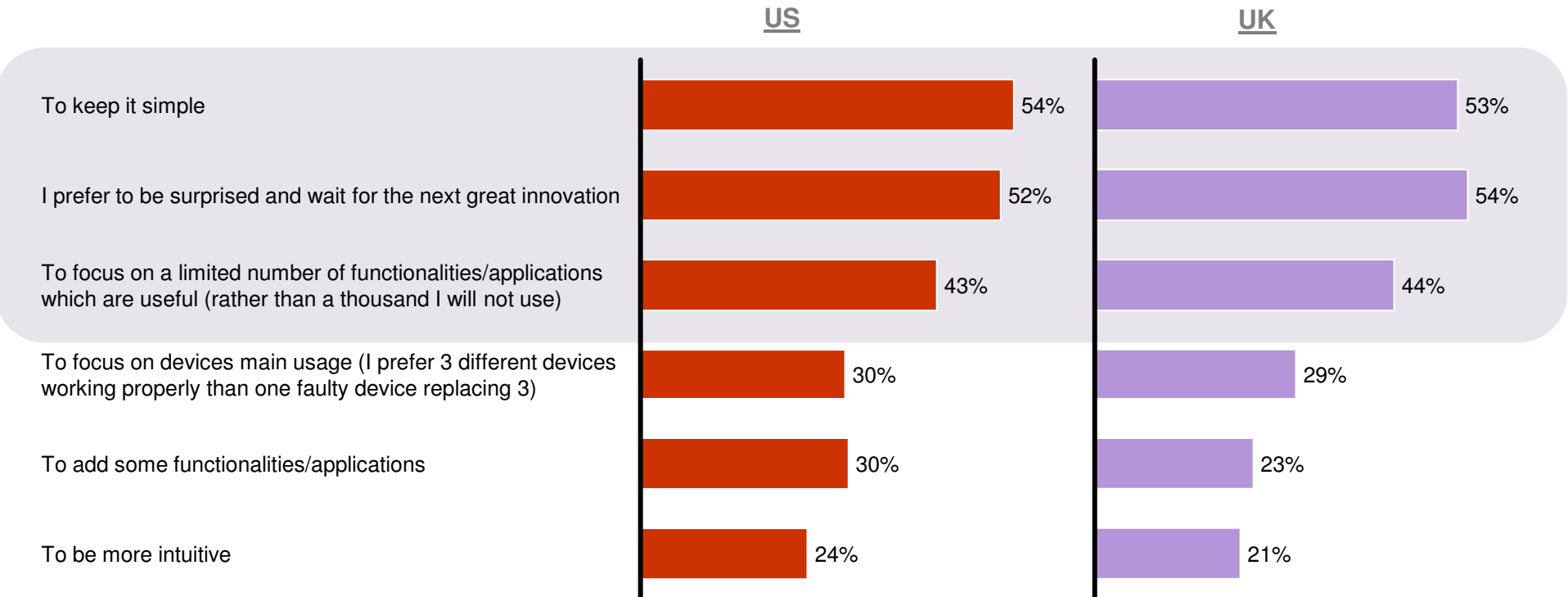
The majority of consumers are asking for simplicity and a limited number of useful functionalities/applications in their devices. Respondents are also open for the next great generation of device



US & UK results

What would be the top 3 advices you would give to engineers who designed your devices/appliances/machines if you could?

Select for each of the following devices what you would tell them



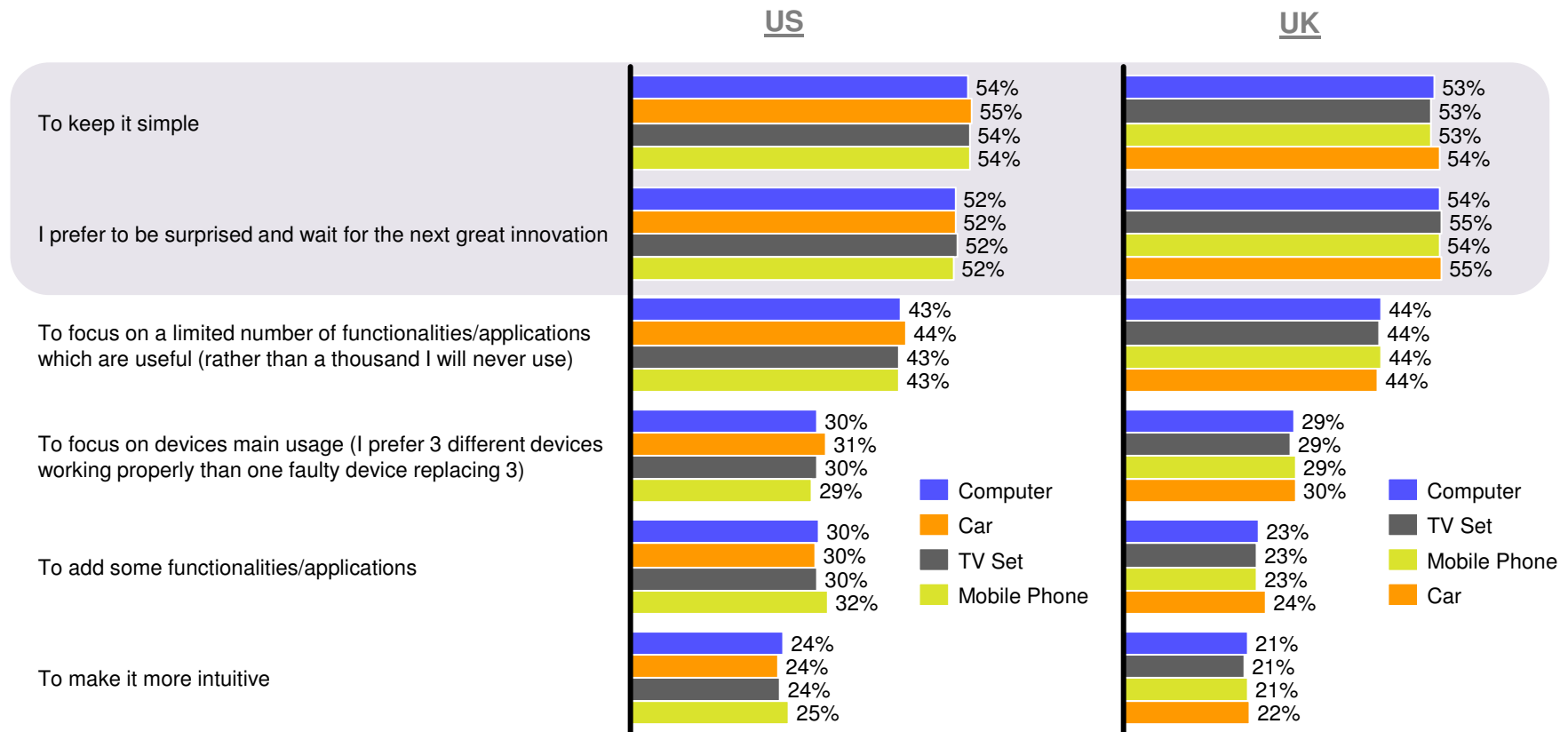


## This is true across more frequently used devices

What would be the top 3 advices you would give to engineers who designed your devices/appliances/machines if you could?

US & UK results

Select for each of the following devices what you would tell them

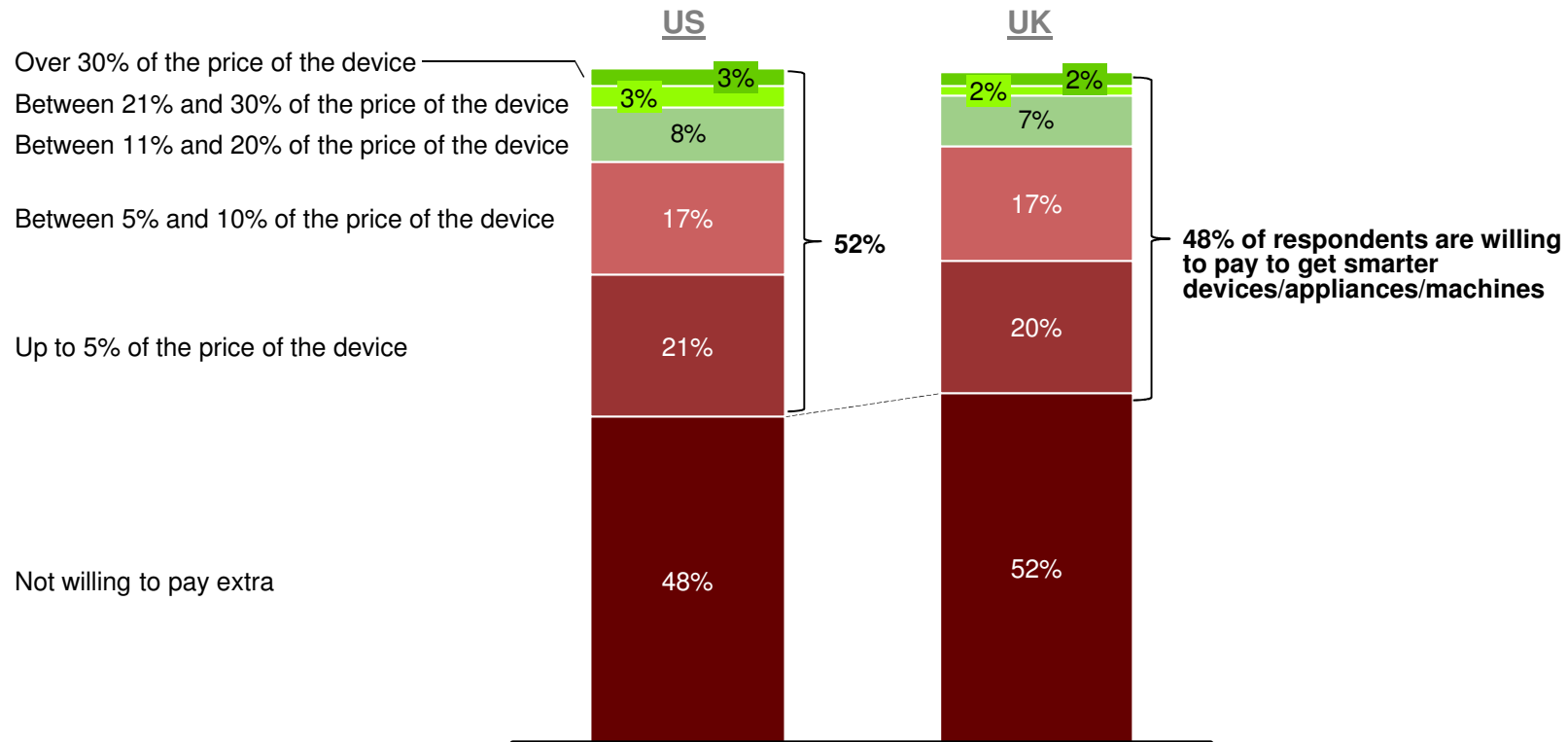


In general, US respondents appear slightly more willing to pay extra to get smarter devices/appliances/machines (i.e. which could do more things automatically & autonomously)



US & UK results

How much would you be willing to pay to get smarter devices/appliances/machines (i.e. which could do more things automatically & autonomously)?

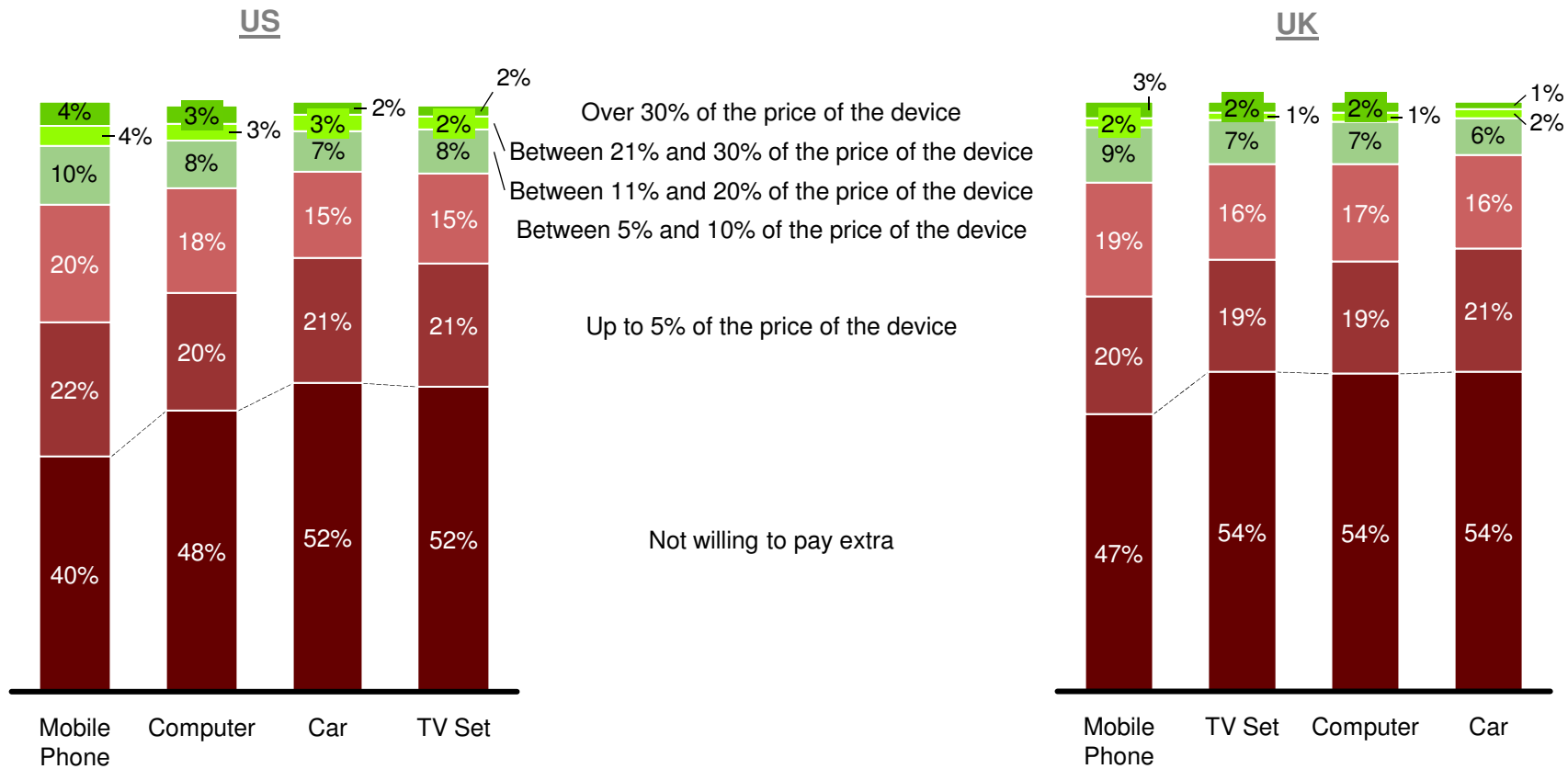




This is especially true for mobile phones and computers

How much would you be willing to pay to get smarter devices/appliances/machines (i.e. which could do more things automatically & autonomously)?

US & UK results

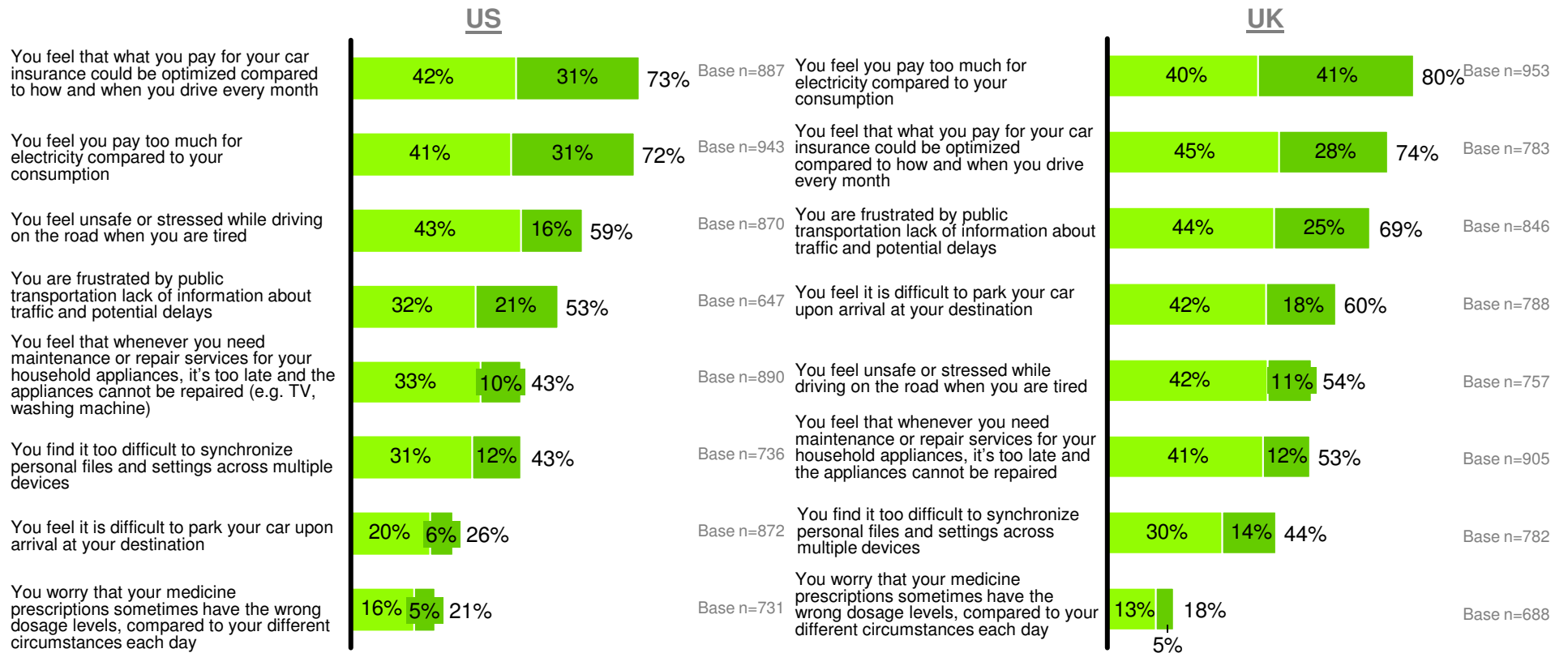


Overall, a higher share of respondents in the UK are experiencing frustrations in their every day life



Please indicate to what extent you agree or disagree with the following statements about your everyday life:

US & UK results



Somewhat agree Completely agree

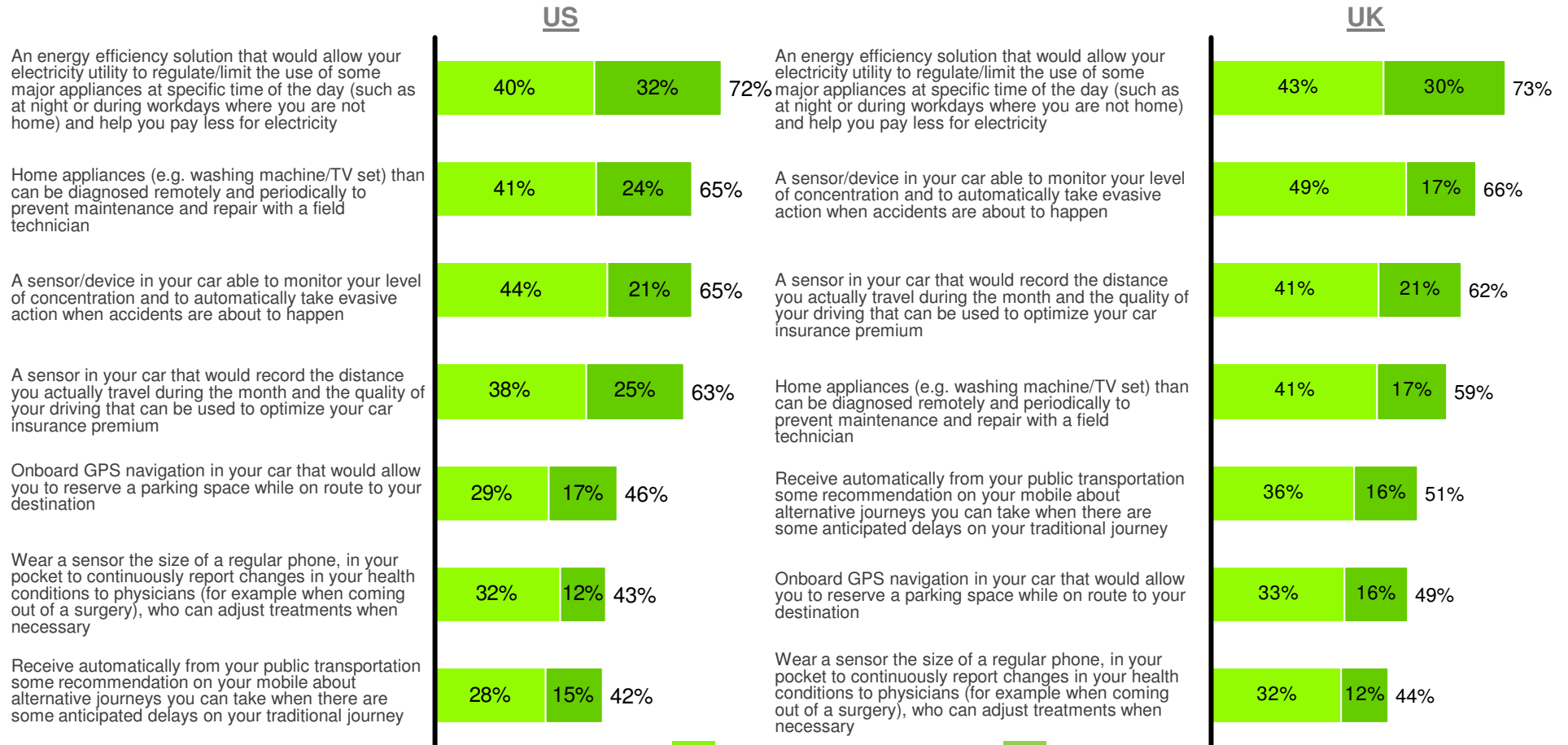


# The level of interest in using innovative solutions is high in both countries



US & UK results

Please indicate your level of interest in using each of the following innovative solutions:



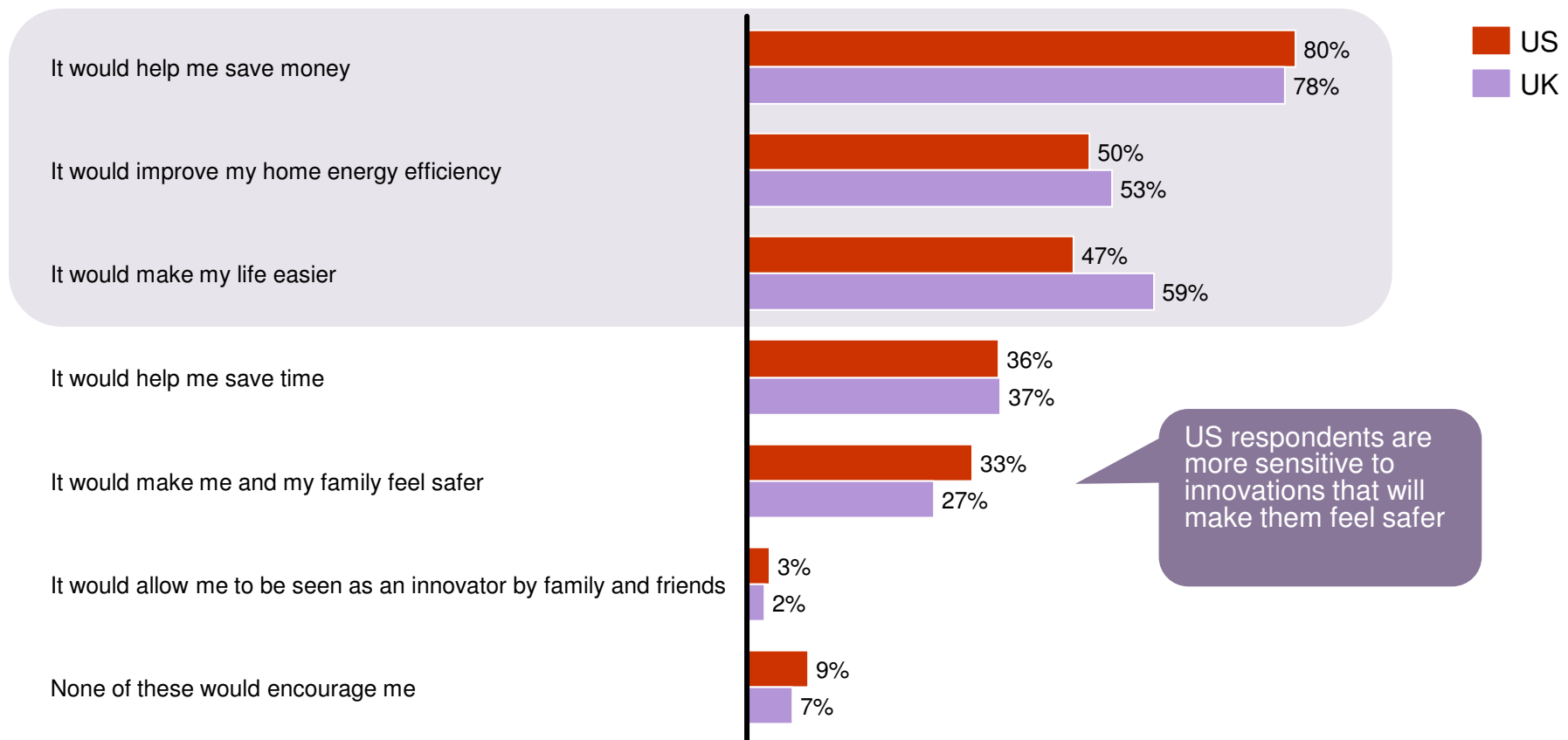
Accenture Consumer pulse survey on embedded software, 2010 Somewhat interested to use Very interested to use

# Respondents would be encouraged to use these innovations if the solutions would help them save money, make their life easier and if it would improve their home energy efficiency



US & UK results

Which factor would most encourage you to get and use one or more of the innovative solutions above? Please check the top 3 most important factors

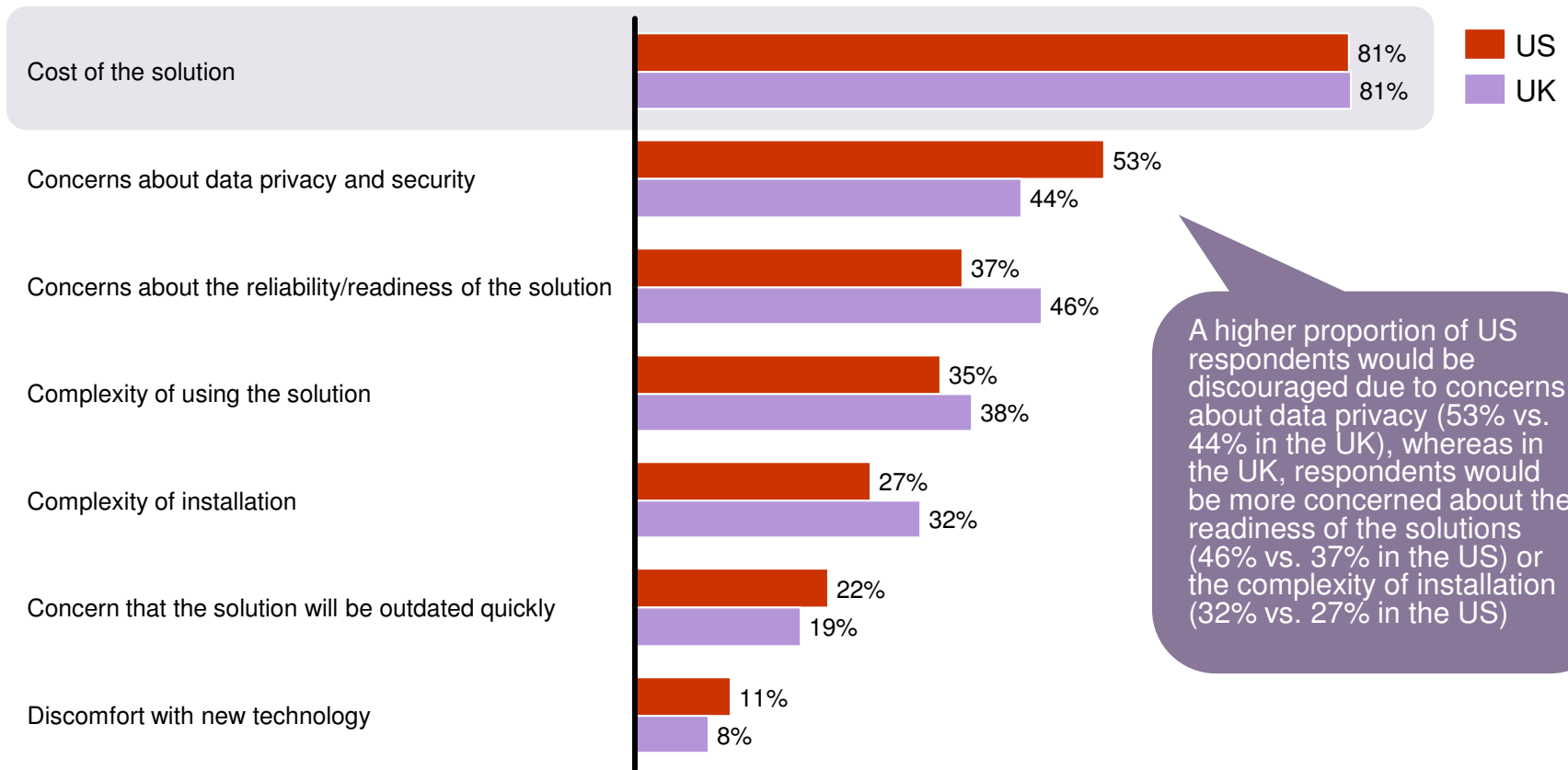


# The cost of these innovative solutions is the biggest deterrent for respondents both in the US and the UK when deciding to use these solutions



US & UK results

Which factors would discourage you from getting and using one or more of these innovative solutions? Please check the top 3 most important factors



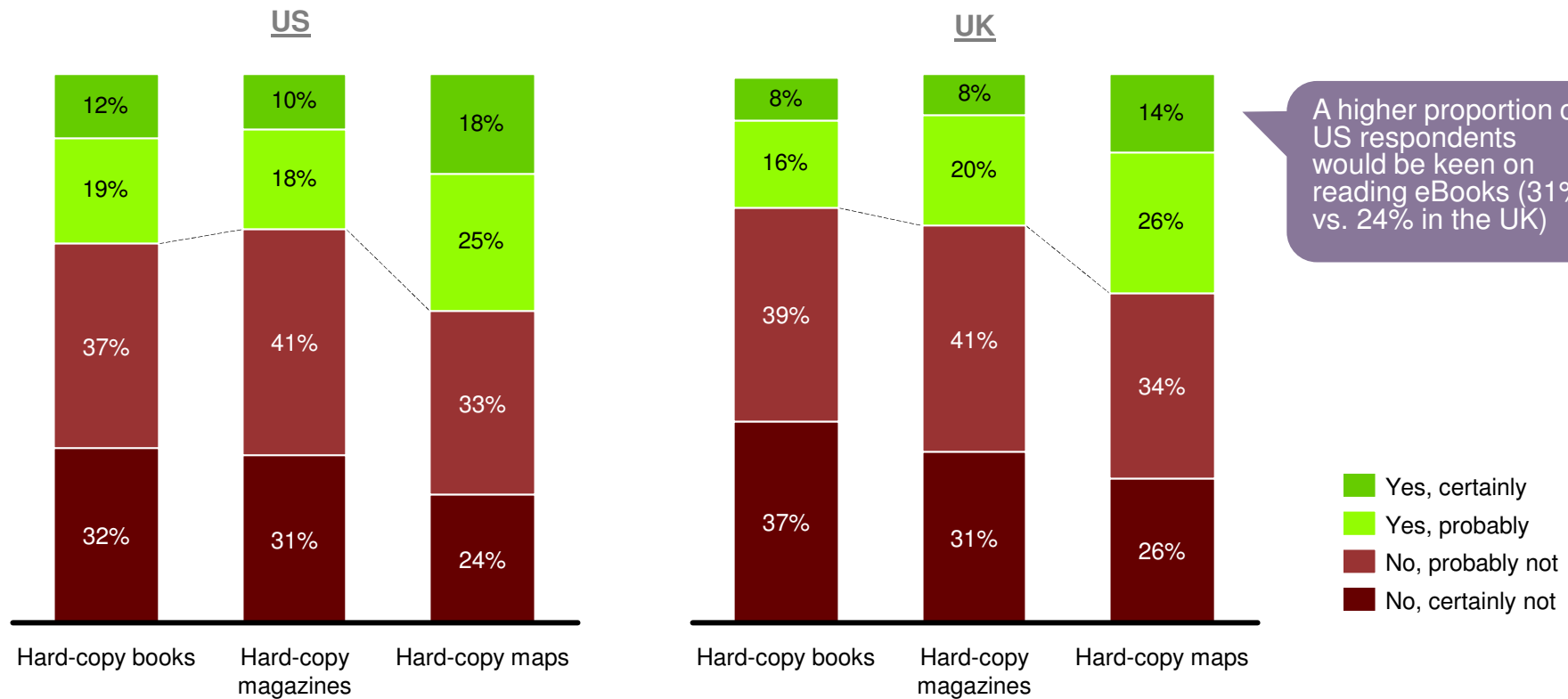
A higher proportion of US respondents would be discouraged due to concerns about data privacy (53% vs. 44% in the UK), whereas in the UK, respondents would be more concerned about the readiness of the solutions (46% vs. 37% in the US) or the complexity of installation (32% vs. 27% in the US)

In the wake of the emergence of devices such as eBook readers or tablet PC, a higher proportion of respondents expect reading fewer hard copy maps than magazines or books



US & UK results

In the wake of the emergence of devices such as eBook readers or tablet PC (e.g iPad), do you expect reading fewer hard-copy books, magazines and maps in the next 2-3 years?



# Accenture Research

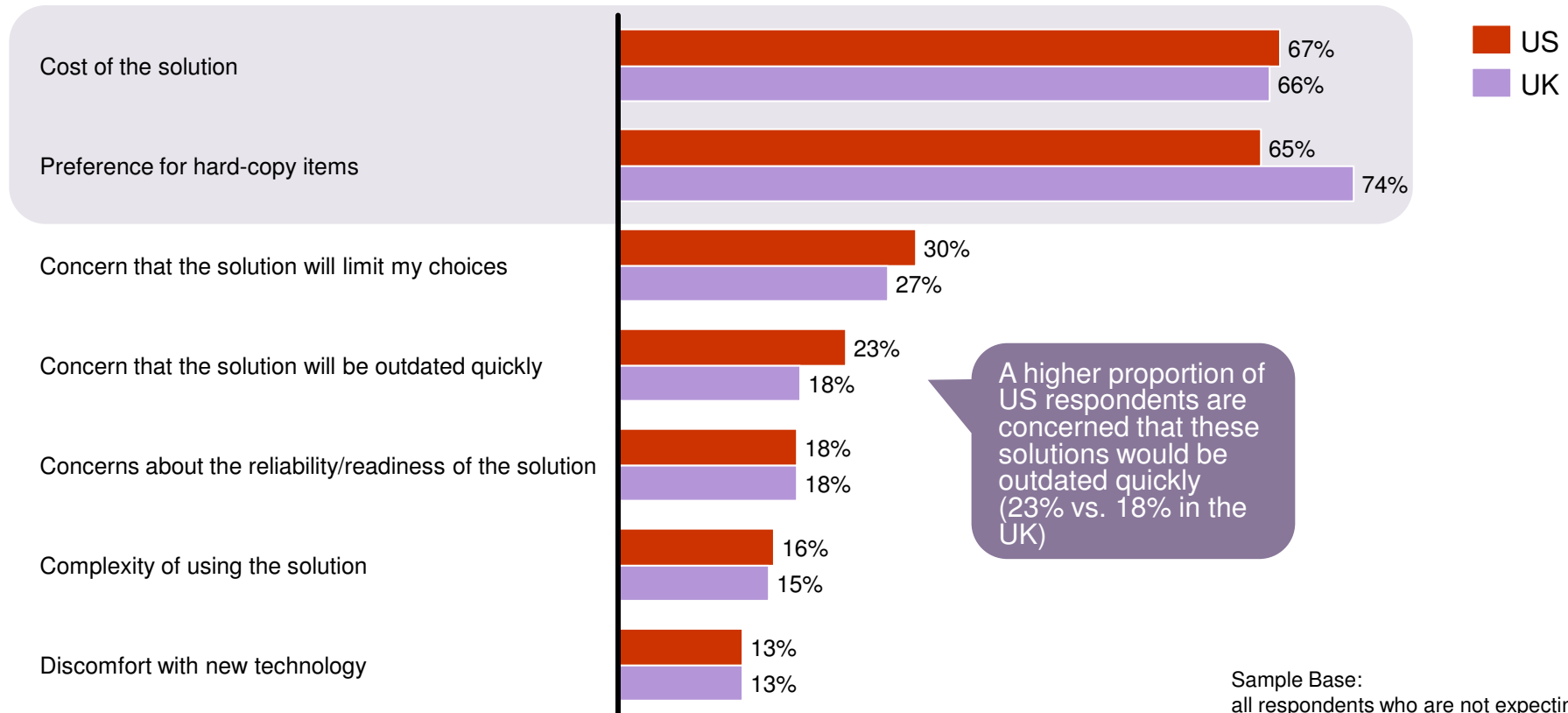
Intelligence. Insight. Impact.

Main reasons for not using such devices to read books, magazines or maps lie in the fact that there is still a large preference for hard-copy items, especially in the UK, and that respondents feel the cost of these new devices is a barrier



US & UK results

What are the top 3 reasons why you do not expect using eBook readers or Tablet PCs to read books, magazines or maps in the next 2-3 years? Please check the top 3 reasons



Accenture Consumer pulse survey on embedded software, 2010

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Embedded Software: Q12

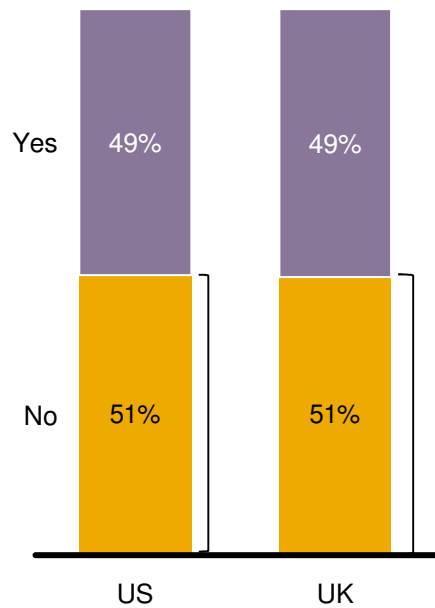
Sample Base:  
all respondents who are not expecting to read fewer hard copies  
US n=821  
UK n=861

Almost half of the respondents indicated they would be comfortable using a driverless car. The other half would more likely use this solution if they could take back control if needed



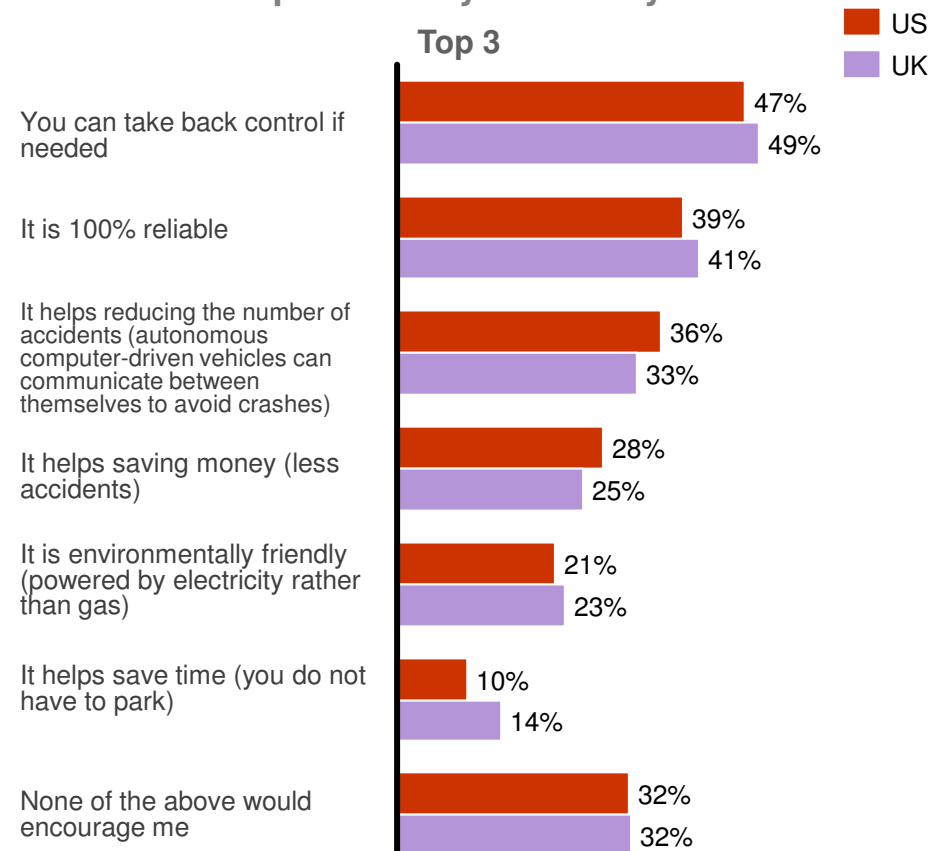
US & UK results

In the near future, using driverless cars/autonomous computer-driven vehicles powered by electricity might be possible (i.e. a vehicle where you just get in, say your destination and the vehicle gets you there without any other action needed from you); would you be comfortable using this type of vehicle?



Sample Base:  
US n=1005  
UK n=1001

What would encourage you using driverless cars/autonomous computer-driven vehicles powered by electricity?

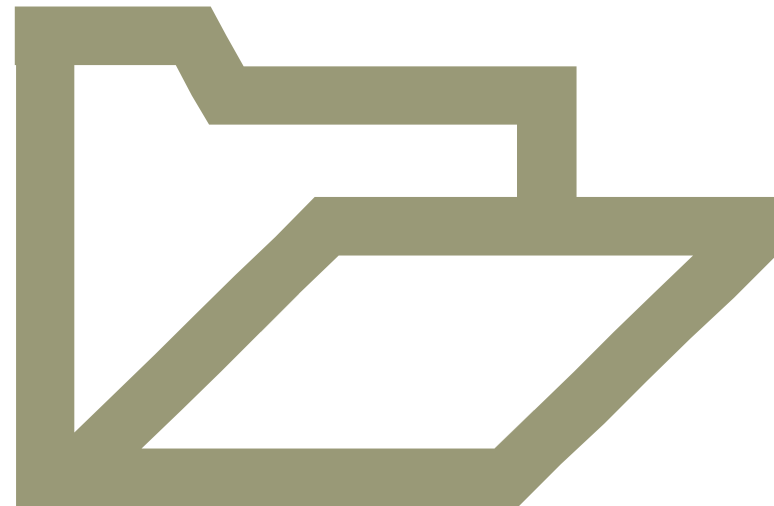


Sample Base: all respondents who would not be comfortable using a driverless vehicle  
US n=514  
UK n=509



## Agenda

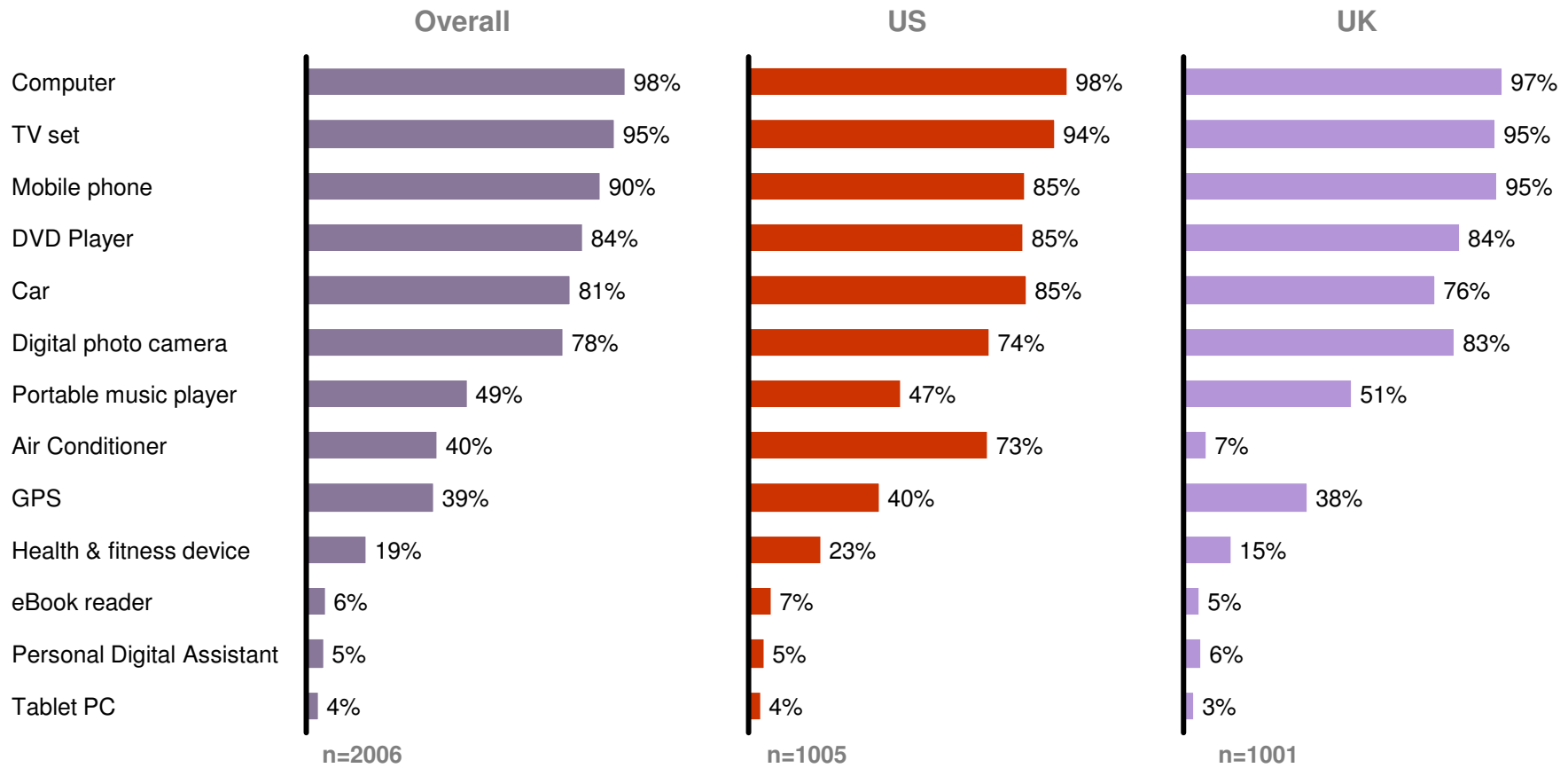
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## Device usage by country

Which of these devices/appliances/machines do you currently use?



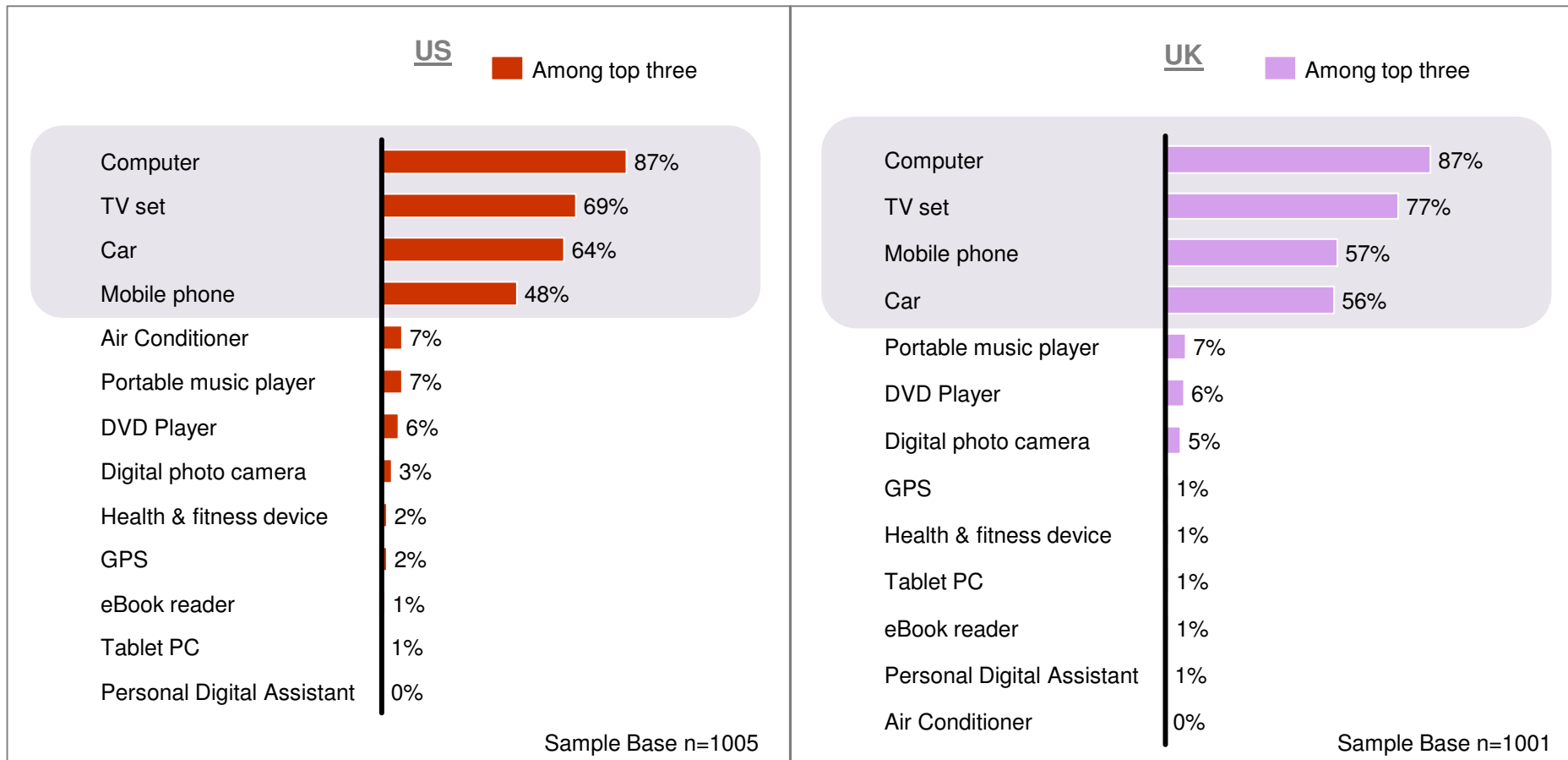




## More frequently used devices by country

US & UK results

Please rank the Top 3 devices/appliances/machines you use more frequently (i.e. at least once a month)



Accenture Consumer pulse survey on embedded software, 2010

Respondents in the UK generally experienced more device crashes than respondents in the US. However, US respondents felt that more of their devices had limited functionality



US & UK results

What main frustration/problem have you encountered while using these devices/appliances/machines in the last 6 months? Multiple answers

