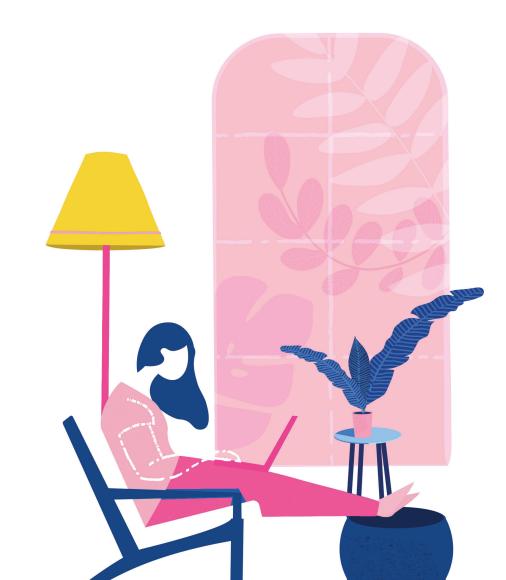
Putting the Human First in

The Future Home





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The Future Home

The smart home should make our lives easier, safer, and better. But instead it is stuck in project mode, suspended in early-adopter limbo, and without mass-market adoption.

The reason? Companies have taken a productfocused instead of a human-centric approach. They can build leading-edge devices but on a fundamental level they don't understand who the future home resident is and what they want.

This research is an entirely new way of looking at how people live in their homes today. It goes beyond typical segmentation based on income, gender, and age, and forms the foundation of a human-focused strategy that companies can use to build success in the future home.

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Imagine returning to your future home

and it's an effortless experience. As you enter the keyless door an AI assistant welcomes you and begins gently organizing your evening.

From the kitchen, a family member shouts a hello, where they are watching a film on a VR headset while eating dinner. Heading to the bedroom, an interface on your closet suggests an outfit to wear that night, based on its contents and your preferences. A small team of robots keep everything looking neat and tidy while your home environment is invisibly adjusted in response to its current occupants.

This vision of the future home is a sleek, utopian ideal of connected devices and seamless services – and it is far removed from the smart home of today.

We have the technology to build the future home but it remains stubbornly under construction.

Instead, we currently have a smart home that is a technological building site, strewn with unconnected devices, clunky apps that leak data and poorly designed products. While cost and maintenance are undoubtedly a factor (55percent of our research respondents say cost is a primary consideration when purchasing smart devices), at the root of the problem is this:

Companies are taking a productfocused rather than a human-centric approach. They can build neat techfirst devices but are less successful at answering more direct questions, such as: **Who are the customers for the future home? What do they really want? And how do we overcome strong concerns about how their data is collected and used?**

Traditional methods for segmenting customers fail to grasp the subtle interplay of motivations and behaviors that people display in the home. This, coupled with a tech-first approach to product design, leads to an opaque understanding of how people live and interact with the tech in their home and what they really want from smart home devices.

This is the space that our research aims to solve for, using extensive, original research that provides real human insights about the future home.

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A new look inside the future home

To help executives shift to a human-focused strategy, we have combined detailed qualitative research (in which we directly observed 40 people in their homes) with substantial quantitative research (involving 6,050 individuals across 13 geographies).

We dig into their behaviors, routines, and communication and how the influence of emerging technology impacts their identity and motivations—and the tensions that arise from that. We have tested our findings with more than 25 clients from relevant industries and sectors at The Dock, Accenture's flagship R&D and Global Innovation Centre. And we spoke to a variety of experts, including architects, anthropologist and futurologists, to refine and validate our human insights.

We developed a set of eight behavioral mindsets which go deeper than traditional segmentation, focusing on goals, needs, pain-points, behaviors, feelings, and beliefs that relate to the home.

We did this by focusing on two key segments: (1) people's underlying psychology and personality traits; and (2) people's relationship with technology and its impact on life at home, both emotionally and practically. Our findings give companies a new perspective from which to design and build products and services that transform the future home from a remote futuristic concept to a relevant human reality. Based on this work, we've reached three main conclusions:

The future home 1 is an attitude, not a technology.

With people spending more time at home than ever before, now is the time to act to better understand their behavior and the opportunities it presents.



With emerging tech comes emerging tensions.

The market has long been aware that people feel both more connected and more isolated thanks to smart-home technologies. But our research reveals how firmly rooted these tensions are, and draws fresh, surprising conclusions about what they mean for the smart-home market.

Typical customer archetypes are wrong.

For example, the group most positive and trusting of technology are aged 65 years or more-precisely the part of the market that many tech companies have been neglecting.



Eight mindsets that help explain behaviour in the future home



The fundamental question underpinning our research is this: What does "home" truly mean to people? And not just how the home reflects one's unique personality and identity, but how technology has changed the very definition of home. By answering this question, we believe companies will be better-equipped to engineer the future-home solutions that consumers really want.

What did we find?

In relation to personality traits, people fall between those who see their home as an opportunity to reflect their own personal "brand" (we call this group Showstoppers) and those who value privacy and comfort among their belongings (Nestlers).

On the issue of technology, people fall between being early adopters of the latest products and services (Explorers) and more tentative participants who need to find a real value or need in a product before going all in (Navigators).

From our in-depth, qualitative research of 40 individuals, we found that people tend to adopt one of eight mindsets in the home, which we've plotted across the above segments.

We use these mindsets to explain the central issues that affect what people actually do in their homes and how technology can help them accomplish these tasks. We've also divided these mindsets across two main life stages: people with and without children.

Our research indicates that the dynamics in the home change significantly when people have children.

6,050 individuals across 13 geographies [Quantitative]

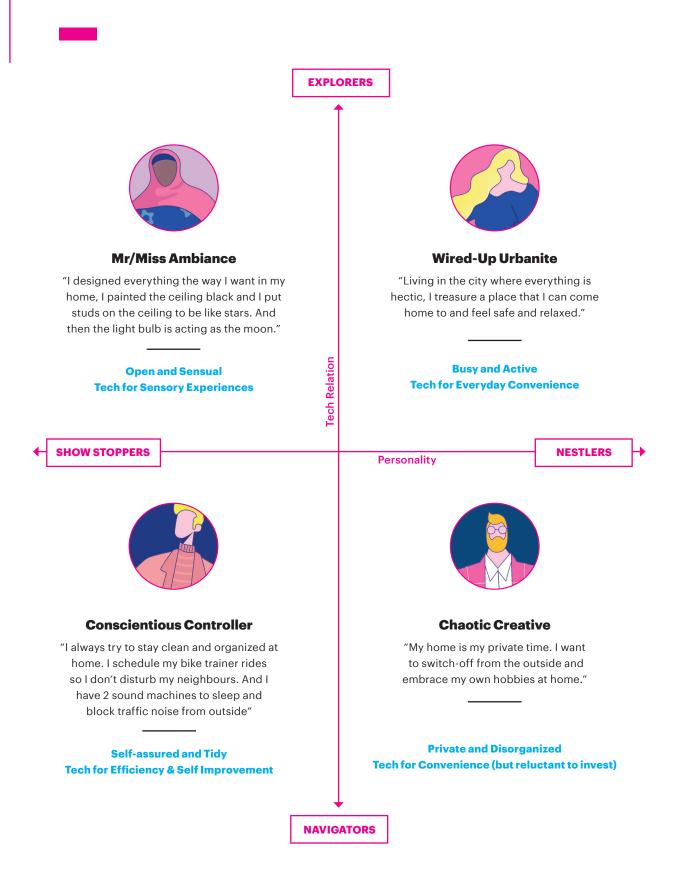
Relationship to Technology: Explorers and Navigators

40 people in their homes [Qualitative]

Personality Type: Showstoppers and Nestlers

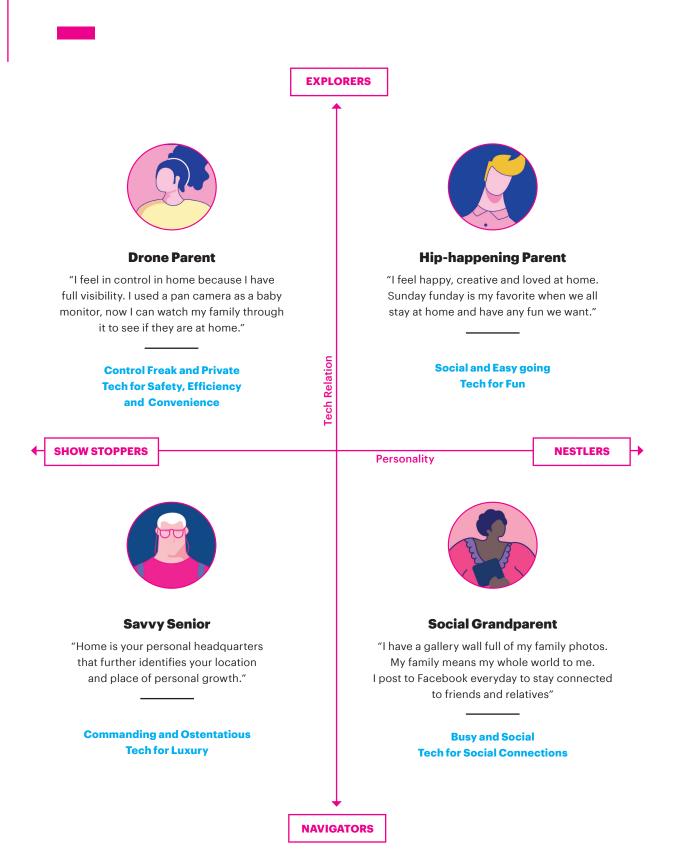
Mindsets Life Stage 1

Singles | Couples | House-Share



Mindsets Life Stage 2

Single Parents | Parents | Grandparents



The future home is an attitude, not a technology

The future home is not merely a collection of internet-connected gadgets and protocols. The future home is an attitude — which is why companies must understand the complex emotional motivations that are rooted in the home.

Coupled with this is the fact that we are spending more time at home.



of respondents now spend more time at home than they did five years ago

There has been a significant growth in the array of quality services that previously people would have needed to leave the home to access, from the latest releases on Netflix to fitness apps and expanded delivery services. For many people, there are now fewer essential reasons to leave the home.

When participants were asked which words they would use to describe home, the top three things they said



say they spend about the same amount of time as previously

they hold dear are **"comfort"**, **"safety", and "control."** But what those words mean goes far beyond traditional thinking about the smart home.

We took a deep dive into our mindsets to fully explore what it means to be comfortable, safe, and in control, what fundamentally makes a person feel **"at home",** and how the home reflects a person's identity.

The future home is an attitude not a technology **Comfort is a security blanket**

Smart-home technology typically aims to make life more efficient. Now it needs to make people comfortable.

In our research, participants describe home as a place of retreat, for "stepping back," "realizing your accomplishments," and "giving you time to appreciate what life is."

Drone Parents express a desire for a home that is clean, organized, private, and secure. But our Hip Happening Parents, Savvy Seniors, and Social Grandparents all talk about a space for rest, relaxation, and recharging. Smarthome technologies have been slow to meet these essential human demands.

These feelings of comfort have a direct impact on how people feel safe in the home. A typical technological approach to make people feel safer in the home, for example, may be to sell them an





alarm system. Yet people's feelings of safety are much more nuanced. For example, some of our respondents said that being surrounded by their personal items such as blankets and candles evoked a sense of safety more than security cameras. That said, more obvious security measures still have a part to play in the future home.

Although attitudes differ across geographies, **60%** of our Explorers feel safer in their home thanks to technology while just **27%** of Navigators identify tech with being safe.

This statistic is borne out by the number of users who have smartsecurity cameras, namely **18%** of Explorers and **4%** of Navigators. **60%** of Explorers also feel more in control at home thanks to technology, while only **29%** of Navigators share that feeling.

The future home is an attitude not a technology **Routines give control**

Life in the home is about routine: brushing teeth, taking out the garbage, getting the kids ready for school. How does technology change this, if at all?

We sought to find out. It turns out, people's routines change little. It's the tools they use to go about them that can alter significantly. People adapt their routines as technology becomes part of them: parents and children communicate via voice assistants; people shop for groceries from the couch; and they control alarm systems and thermostats from their phones.

Routines give people control over their lives in the home. So if companies design products that adapt to existing routines rather than trying to change routines with their products—they will help deliver on people's fundamental need for control.

Case study:

Learning from the success of voice assistants

While we've yet to see most smarthome products and services really gain traction in the home, the digital voice assistant (DVA) device has bucked this trend by becoming an increasingly relevant part of people's lives. According to Juniper Research, voice assistant device use is projected to grow 1,000 percent to reach 275 million by 2023.

This narrative played out during our research, as we saw many people starting to bring these devices into part of their daily routines through productivity, communication, and entertainment.

Some of our respondent families describe how they have bought a number of these devices and placed them in different rooms to act as intercoms or walkie-talkies. Some use them as a virtual sous-chef while cooking in the kitchen. And some use them to control their lighting, heating, and alarm systems.

(((_)))

Interestingly, it was surprising to see how more than any other group, our Explorers say that technology helps them to be more efficient. This group has the largest number of owners of stand-alone DVAs, and has the highest proportion of people using them for productivity at home (47 percent in comparison to 28 percent of Navigators). So there is a clear link in the minds of these customers between being efficient and owning a DVA. The question now is how do other products follow this narrative to become a relevant part of people's lives and routines?

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The future home is an attitude not a technology **A healthy approach**

Mention health in the home, and many tech providers will immediately think of smart tools such as fitness apps and monitoring devices. But our respondents also associate health with self-improvement and learning, particularly our Ambiance mindset.

These people are using their homes to adopt healthier lifestyle choices—and so far, technology is playing a limited role. Similarly, when we asked people what gives them a sense of home, technology is noticeable by its absence. Instead, they mention inspiration walls, trophies, and journals. A technological solution that can help inspire people to pro-actively make changes that will manifest their dreams could be a significant asset in the future home.

Opening the black box of home behavior

There is no single technological solution to the future

home. But to design smart-home products that will have longevity, companies need to better understand what's happening in the black box of their customers' behavior in the home. This means understanding customer attitudes throughout their various life stages, what the idea of home means to them, and developing a better appreciation of their behavior behind the front door. FUTURE HOME

2 With emerging tech comes emerging tensions

How do people feel about technology in the home? With emerging tech comes emerging tensions.

For example, while many of our respondents appreciate that technology makes their life easier, they worry that it will also make them lazier. And while many respondents feel more in control of their lives, this is tempered by a concern that they are overly dependent on this technology. Our research identified the following main tension polarities around technology in the home.

Positive	but	Negative
EASY		LAZY
SAFE		INTRUSIVE
CONNECTED		ISOLATED
IN CONTROL		DEPENDENT
FUN		ADDICTIVE
TRUSTFUL		FEARFUL

One of the most widely discussed tensions for technology users is that smart devices make us feel more connected but also more isolated.

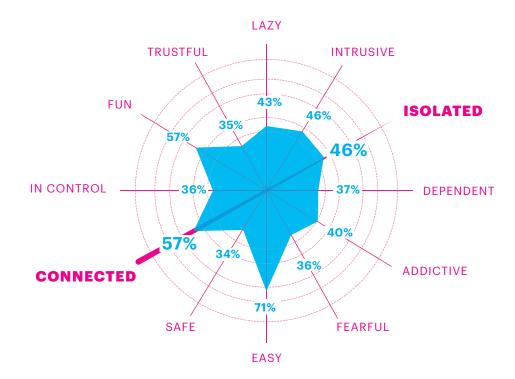
Today, we can use a plethora of home devices to connect in real time with people anywhere in the globe.

These same channels allow us to "visit" places that we might never be able to see in person, or to hear our favorite band live without physically going to a concert venue. Yet to some, these are not meaningful connections, cannot fully replace in-person experiences and, ultimately, make us feel more alone. Across geographies and demographic groups, we also observed that the trade-off between "easy" and "lazy" is consistently won by "easy."

More than 70 percent of people recognize that technology at home makes life easier, from preparing food and ordering groceries online, to controlling your home climate and environment.

However, for nearly half of respondents, technology at home can also make us lazy, as there is an overwhelming number of things we can do without leaving the comfort of our sofa.

Tensions for all respondents

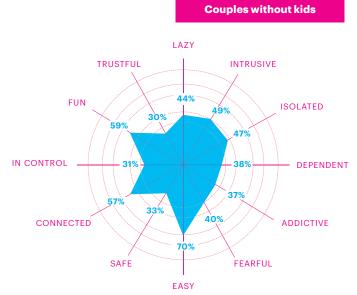


With emerging tech comes emerging tensions

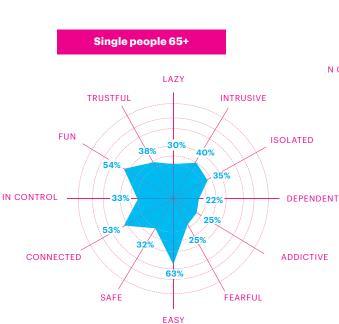
Does having children make you more anxious around technology?

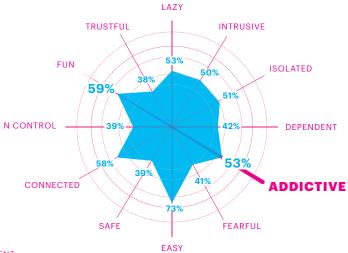
Our research shows that respondents who live with children appreciate the positive impact of technology at home but are more aware of its negative potential.

Drone Parents, for example, feel connected on one hand but worry about becoming addicted to their phones on the other. In fact, more than half of the respondents who live with children fear that technology has addictive qualities, and nearly half of families with children are concerned that they rely too heavily on technology.



Families with kids





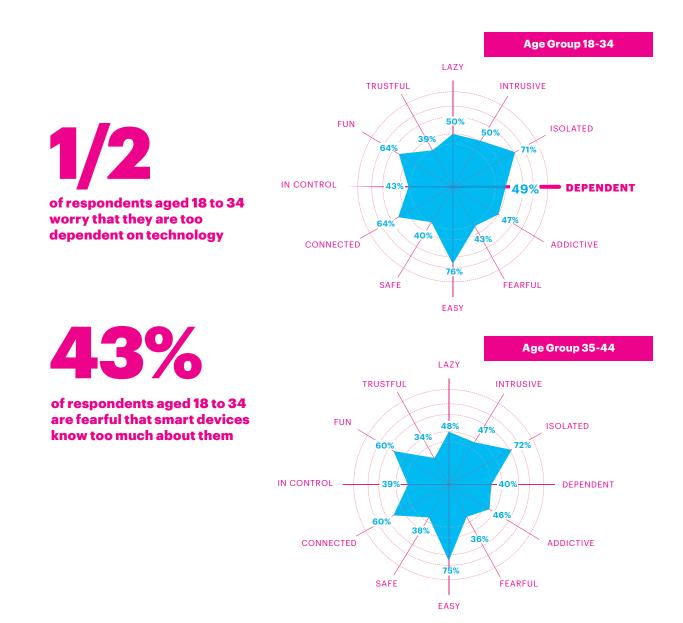


The anxious youth and the vintage trust fund

As future home owners and potential smart-home customers, younger generations are crucial markets. But companies' understanding of this group's anxieties around technology is limited.

Our youngest respondents were the most negative about the way technology is affecting their lives:





With emerging tech comes emerging tensions The anxious youth and the vintage trust fund

In the context of a rapidly aging population, one segment that stands out for their relatively positive perception of technology is the 65+ age group. Often a forgotten segment for technology, people in this age group largely agree that tech plays a positive role in their lives.



Age Group 45 -64

Although familiar with living in a world not dominated by technology, their fears around technology's isolating effects are lower than any other age group;

LAZY Just TRUSTFUL INTRUSIVE FUN ISOLATED 40% 45% 50% 679 of this sector perceive IN CONTROL 309 DEPENDENT technology as making them lazy. ADDICTIVE CONNECTED Only SAFE FEARFUL EASY Age Group 65+ of the respondents in this LAZY group are worried about TRUSTFUL INTRUSIVE the addictive nature of technology, the lowest FUN ISOLATED across all age groups. 40% 51% 53% IN CONTROL 209 DEPENDENT 30 This makes them an 25% 51% untapped vintage trust CONNECTED ADDICTIVE fund that companies have 62% largely been ignoring. SAFE FEARFUL EASY

Adjust your lens: Rethink your customer archetype

At the core of the problem around the future home is that most companies design products for a simplified customer archetype that gravitates around an upper-middle-class suburban mom or a young hipster urbanite.

The reality, as outlined above, is that there is no such archetypal future home customer. Everyone has a different conception of what home should be and should communicate to the outside world. Indeed, everyone's needs for their home vary depending on personal affinities, outlooks, interests, tastes, time, context, age, and geography.

Our research turns traditional assumptions about the customer archetype on its head: take, for example, respondents over 65 as outlined above.

They have the highest percentage of trust and the lowest percentage of negative feeling towards technology. They see tech aiding their health, well-being, and security.

Those with children can also differ in terms of their focus and needs in the home. While both Drone and Hip-Happening Parents fall into the range of Explorers, the former needs tech to fulfil their need for control and privacy, where the latter are early adopters of tech for fun and a social and easy-going home environment.

We can see from the tensions outlined above that finding value in a product is no longer enough.

Companies must also provide an outlet for customers to be able to rationalize the tensions created by their relationship with technology, especially around dependency, intrusiveness, and isolation.

For example, many companies can sell smart-home products that make people feel more connected, but the organizations that will deliver real value in the future home are the ones that produce connected products, which also allay their customers' concerns about feeling concurrently isolated in the modern technological environment.

Trust, control and relevance: Building for success in the future home

The future home should be built around people first. That requires business leaders to think differently about product design, customer segmenting, and targeting.



While compiling this report, we did not find clear evidence of companies doing this in an effective, cohesive manner in the smart-home industry. But a peoplefirst future home is on the horizon.

In partnership with Ikea, the Design Museum in London recently imagined a set of smart-home products as part of its **Home Futures** exhibition. These products illustrated the pressing needs of customers and were largely devices that give people control over their sensed behaviors.

The imagined products typically combined well-being and technology with a tactile, comforting design, directly aimed at improving home dwellers' quality of life. For example, one product included a smart bed and smart mattress that adapts to the user's biometrics to provide an optimal mattress density and selfcomforting temperature controls that are unique to each user. Crucially, these products also emphasized privacy and data control.

This future vision aligns closely with our findings that people seek comfort and control at home, and it points the way towards a new generation of products that marry this demand with the need to rationalize tensions around intrusiveness and trustfulness. These issues are now emerging as fundamental to any product design and marketing strategy for the smart home. Our research on tensions shows that people accept the fact that they need to share their personal data in order to use certain smart-home products and services: the companies that earn their trust will win out.

So how do you engender trust?

Beyond data protection, companies need to ensure their customers are getting the best experience and try to understand their needs in a transparent and non-intrusive way.

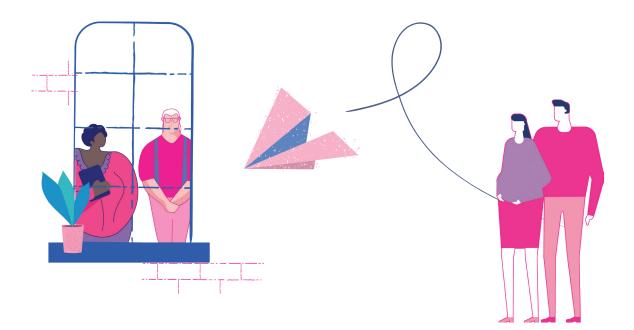
Companies build trust by providing a value exchange between them and the consumer. Imagine a product design strategy that used this value exchange to provide real relevance to the consumer.

For example, with the mattress described above, users may be more inclined to share their data if the mattress adapts to their needs as they sleep, adjusting the temperature in symbiosis with the individual consumer's sleep cycle to provide a better level of sleep and thus a more healthy feeling of wellness. To be a pioneer of trust in this space, companies need to understand how the home is sacred to their users, and be transparent about how they are using their customers' data to deliver a tangible, relevant, and immediate benefit. In addition, customer tensions in the home and the development of 5G technology present an ideal opportunity to develop the next generation of smarthome products, ones that speak directly to the attitudes of people.

Companies need to be mindful of the way they use this power and avoid a rush to design products without true human relevance.

Rather than develop new, gimmicky, products that are driven by speed, how about re-imagining items that people already use and love in the home?

Rather than create something entirely new, how about adapting furniture, lighting, appliances, and much more to create the next generation of efficient, comfortable, smart and trustworthy products that adjust to people's needs and behaviors throughout their life stages?



Decision points

There is a significant opportunity to develop a future home offering that's built to last, reinforced by the presence of several untapped markets in the space. As companies begin this journey, here are decision points to consider.

How does your smart-home customer fit in with the future home?

- If you recognize your customer in our **mindsets**, check that you're not falling into some of the pitfalls outlined in this report.
- Have you taken a tech-first approach to product design?
 Have you thought that if you build it, they will buy?
- Could minor changes to your existing offering open up new markets that you haven't previously considered? Is the **vintage trust fund** an open door for your business?

Does your marketing talent understand the complexities of the home customer?

- Consider using our mindsets as indicative of your customers. How would you **design and market** products to them?
- Do you know what home means to your customers?

Are you aware of the tensions and are you mitigating them?

- Can you design a product that appeals to **what people want from it,** while allaying their associated concerns with it?
- How much **do your customers trust you**—and have you stayed relevant to keep pace with their concerns?



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Contributors

This document would not have been possible without the generous participation of: Claire Carroll, Paul Barbagallo and David Light.

About this Research

Between July and August 2018, Fjord and The Dock carried out qualitative research consisting of two, week-long DScout studies with 40 participants in the United States, United Kingdom and Germany. Using a contextual enquiry approach, participants combined the use of video, photography and diary-style reportage to help us understand their approach to home life and their behaviors, needs and relationship with technology at home. It was from these insights that we developed our eight mindsets.

To challenge and validate the above research we partook in a robust quantitative analysis. Between November and December 2018, Accenture Research surveyed over 6,000 people, in 13 countries (United States, Brazil, United Kingdom, Sweden, Denmark, France, Germany, Italy, Spain, China, India, Japan and Australia). Respondents represented different age and demographic groups including single people, couples and families with children. The survey asked about what home means to them, the time they spend at home, their attitude towards devices, the importance of technology in performing different tasks at home, and the tensions created by their interaction with technology.

We also tested our evolving research and findings with 25+ clients who came to The Dock from a variety of industries, including CMT, retail and banking.

About The Dock

The Dock is Accenture's flagship R&D and global innovation centre. It is a diverse team of creative problem-solvers within Accenture – where design, business and technology meet under one roof. We're a meeting place where Accenture, clients and partners connect to pioneer new ways to fulfil human needs using emerging technology.

We believe future commercial success will come from businesses that are conscious of the intended and unintended consequences of their work. That's why we're passionate that true innovation must deliver value for Accenture, our clients and society.

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Accenture Research shapes trends and creates data driven insights about the most pressing issues global organizations face. Combining the power of innovative research techniques with a deep understanding of our clients' industries, our team of 300 researchers and analysts spans 20 countries and publishes hundreds of reports, articles and points of view every year. Our thought-provoking research-supported by proprietary data and partnerships with leading organizations, such as MIT and Harvard-guides our innovations and allows us to transform theories and fresh ideas into real-world solutions for our clients.

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Fjord, part of Accenture Interactive, is a design and innovation consultancy that reimagines people's relationships with the digital and physical world around them. We use the power of design to create services people love. By combining a human-centered approach with robust methodology, we work with some of the world's leading businesses to make complex systems simple and elegant. Founded in 2001, Fjord has a diverse team of 800+ design and innovation experts in 28 studios around the world.

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