

SAMSUNG

Hybrid living futures



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Report created in partnership with The Future Laboratory

The Future Laboratory is one of the world's foremost strategic foresight consultancies. Members of our trends intelligence service LSN:Global get exclusive access to the mindsets defining tomorrow and the early adopters driving global change across eight industry sectors.

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Executive summary

Across Europe, two thirds of consumers (63%) have adopted hybrid living - working and connecting with others both virtually and in real life - in the past 18 months.

At the epicentre of this shift is the home, which consumers have viewed as everything from a survival sanctuary to a flexibility-forging fort through the pandemic. Now, they're looking to optimise this new frontier - going beyond simply working from home to making the home work for them.

As we move beyond this seismic transformation in the way we live, work, socialise and sleep, consumers have an opportunity to apply a new DIY (design it yourself) attitude to their own routines. They are decentralising their lives on their own terms, demarcating their home spaces uniquely and choosing ways of living that work for them.

Craving a mix of flexible shifts, shorter days and core hours, a more agile workforce majority is rising to fill the gap left by the eight-hour working day. Meet the Flexperts, a new cohort who are making use of the full spectrum of working and living moments available to them. They're taking control after a period of flexperimentation - where they tried and tested new ways of working - emerging as experts on their own rhythms and routines.

In this report, we explore three major behavioural shifts being pioneered by Flexperts across Europe:

Circadian Workforce: the pursuit of new routines that chime with their unique circadian rhythms

Relationships, Remodelled: the reconfiguration and increased value of social connection

Home Sanctuary: the desire to combat burnout and actively pursue wellness

Through a series of expert interviews combined with quantitative research from key markets across Europe, we also investigate the trends that these behavioural shifts will inspire as brands begin to innovate to help Flexperts thrive.

As Sian Ware, senior lifestyle researcher at Samsung, states: 'There are decisions being made in households around Europe that look very different to before the pandemic - decisions about how we live and work, the functions of our spaces and the products that we need to live better. The usage of all products in the home is taking on a higher importance - and people are more protective of their homes and their lives than ever before.'

Experts

Annie Auerbach
Author of Flex and co-founder of Starling

Alice Britton
Director at Squint/Opera

Sir Cary Cooper
Professor of organisational psychology and health at the Manchester Business School, University of Manchester

Agnieszka Glowacka
Associate director at Haptic Architects

Rupinder Mann
Managing director of UnNamed Ventures

Jeremy Myerson
Co-founder of the Helen Hamlyn Centre for Design at the Royal College of Art, London

Meik Wiking
Author and founder of the Happiness Research Institute



There are decisions being made in households around Europe that look very different to before the pandemic - decisions about how we live and work, the functions of our spaces, and the products that we need to live better



*Sian Ware,
Senior Lifestyle Researcher
at Samsung*



Part one:

DIY LIVING From Doing It to Designing It Yourself

The rights to flexible working are shifting from an occasional employee benefit to an expectation, prompting a new wave of workers to transform their routines, their lives and their homes for optimum success.

Across Europe, two thirds of consumers (63%) have adopted hybrid living - working and connecting with others both virtually and in real life - in the past 18 months. This figure rises to almost three quarters (72% and 71%) in markets such as Italy and Spain, according to research from Samsung that surveyed more than 14,000 consumers in nine European countries.

At the epicentre of this shift is the home, which in the past 18 months consumers have viewed as everything from a survival sanctuary to a flexibility-forging fort. Now, they're looking to optimise this new frontier - going beyond simply working from home, to making the home work for them.

As we move beyond this seismic transformation in the way we live, work, socialise and sleep, this group of consumers has the first-in-a-generation opportunity to apply a new DIY (design it yourself) attitude to their own routines. They are decentralising their lives on their own terms, demarcating their home spaces uniquely and choosing ways of living that work for them. Across Europe, two in five consumers (38%) who have adopted hybrid living have made home improvements, while one third (30%) changed the purpose of existing rooms to suit their new needs.

It's an uncharted frontier, but one that technology can harness by facilitating choice, enabling connection and allowing for true autonomy. Data from Samsung shows this tech-powered potential, revealing that 74% of Brits say Covid-19 has changed the way they view their current living space, with three quarters (75%) viewing smart technology as the future of the home.

'There are decisions being made in households around Europe that look very different to before the pandemic,' says Sian Ware, senior lifestyle researcher at Samsung. 'The usage of all products in the home is taking on a higher importance - and people are more protective of their homes and their lives than ever before.'

Hybrid living adopters are at the centre of this drive, with research from Samsung's Futuresource Smart Homes survey indicating that over half (56%) of this group seek out advanced tech solutions that help them to live their lives seamlessly - compared to just a quarter of workplace-only workers.

In this report, strategic foresight consultancy The Future Laboratory, in partnership with Samsung, explores how the new frontier of hybrid living will inform key technology innovations within the home, helping the hybrid living adopters to be productive, create boundaries and be happy. Through a series of expert interviews, combined with quantitative research from key markets across Europe, we outline the key value shifts of tomorrow's workforce - uncovering the implications for the future of work, play and everything in between.

Part two:

The rise of the flexperts

By the end of the decade, DIY lives will be in full flow. As consumers embrace the opportunity to fully personalise their own routines, they'll seek technology that facilitates this new-found flexibility.

Across Europe, this kind of thinking is already on the rise, with 86% of hybrid living adopters no longer desiring the traditional nine-to-five working schedule. The figure clinging onto the outmoded routine shrinks lowest in Germany, Sweden and Poland, where just 7%, 11% and 12% of workers respectively prefer a traditional nine-to-five over the fluidity of hybrid living.

Craving a mix of flexible shifts, shorter days and core hours, a more agile workforce majority is rising to fill the gap left by the eight-hour working day. Meet the Flexperts - a new cohort who are making use of the full spectrum of working and living moments available to them. They're taking control after a period of flexperimentation - where they tried and tested new ways of working - emerging as experts on their own rhythms and routines.

The desire to customise, curate and cultivate new routines is evident in the myriad approaches Flexperts are taking when it comes to hybrid living. In Europe, 71% of hybrid living adopters are shunning tradition for alternative working patterns, preferring either shorter days with no breaks, fully flexible shifts, or core hours around which they can self-determine their own routines.

The challenge is not just for consumers but employers too, as they seek to provide Flexperts with the tools, support and frameworks required to succeed in a new working landscape. Samsung research reveals that across Europe, 83% of consumers say their employers have an opportunity to help them facilitate this new reality by providing them with help as they DIY their own routines.

Home-life jugglers, productivity seekers and wellness warriors, the Flexperts have a unique set of needs that will drive future-facing technological innovations across three key areas and lead us into this new era:

Circadian workforce

The pursuit of new routines that chime with their unique circadian rhythms

Relationships, remodelled

The reconfiguration and increased value of social connection

Home sanctuary

The desire to combat burnout and actively pursue wellness

Here, we investigate these three behavioural shifts in depth, exploring how they will evolve over the next five years and beyond, and uncovering the trends they will inspire as innovators help Flexperts thrive.

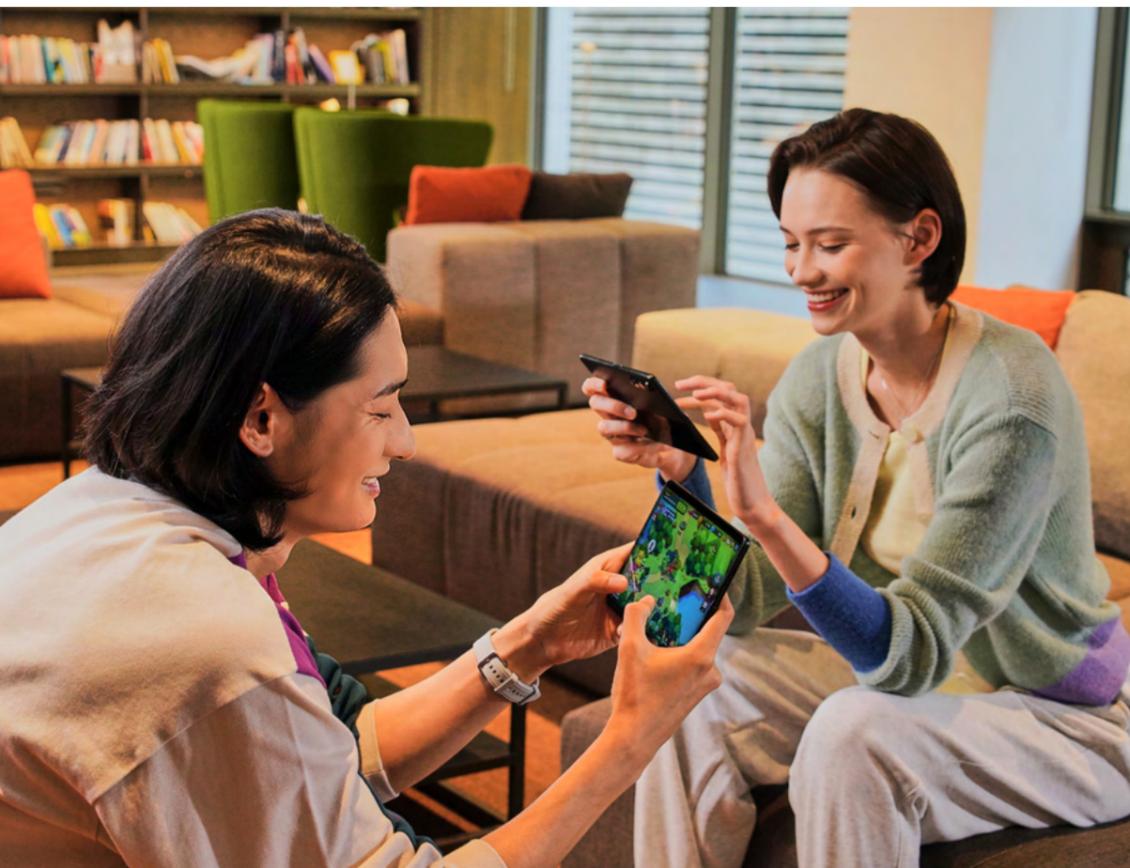
Chapter 1:

Circadian workforce

The pandemic transformed the values, intentions and expectations of European consumers. Now, having outgrown the one-size-fits-all working day, they're looking to unlock routines that chime with their own unique circadian rhythms.

Hybrid living once may have been all about surviving rather than thriving, but with consumers now granted the time to review the balance - or lack of it - between their work and personal lives, new routines are graduating from temporary solutions to fully fledged future ways of navigating hybrid living.

In the next decade, nine-to-five will still be a choice, but not one that many workers spring for. Unshackled by the demands of the traditional routine, consumers across Europe will retrofit the time freed up by commutes and workplace expectations with their own blends of productivity and rest, work and life, co-workers and friends. Across Europe, the Flexperts are already feeling the positive impacts of this new-found freedom. Almost half (47%) of Europeans feel that hybrid living has created more free time in their life, with 64% of this group noting an improvement in family time, 62% in leisure time and 60% in relaxation time.



"

We really need to start allowing for human uniqueness. Not everyone thrives on 8 hours of sleep per night and not everyone likes to do their most important meetings at 9:30 in the morning

Rupinder Mann, Director at UnNamed Ventures

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In Greece, over half (52%) of consumers list the flexibility to operate on their own schedule as the reason their productivity has improved since adopting a hybrid lifestyle. Across Europe, this freedom is important to 40% of consumers.

'Earlier, we'd been focusing on feeding our stomachs. Now we want to feed our hearts and our minds,' says Meik Wiking, founder and CEO of The Happiness Research Institute, speaking of the power of new routines. 'The pursuit of a better life is not necessarily just a richer life, but a life where we feel complete in the different domains that life consists of.'

In this new landscape, it's no longer about flicking between on or off but about hacking working routines to achieve more by doing less. Certain regions are already leading this charge: in Greece, a majority (53%) of consumers lists the ability to complete more tasks in a shorter time as one of the greatest benefits of hybrid living. Across Europe, the figure sits at a still impressive 40%.

'The pursuit of a better life is not necessarily just a richer life, but a life where we feel complete in the different domains that life consists of.'



Meik Wiking,
founder and CEO of
The Happiness Institute



For the Flexperts, this freedom could be unlocked by the achievement of different flow states - optimal mindsets for different kinds of work, rest and play. Rather than 'appearing online' between 9am and 5pm, or being 'absent-minded' at family dinner, Flexperts know exactly the when, what, why and where of tasks they need to complete. As Rupinder Mann, managing director at UnNamed Ventures, states: 'We really need to start allowing for human uniqueness. Not everyone thrives on eight hours of sleep per night and not everyone likes to do their most important meetings at 9:30 in the morning.'

By the end of the decade, workers will be able to curate their work by their chronotype - the natural inclination of our bodies to sleep at a certain time - prompting a future where a 24-hour workforce is a reality for a number of sectors, and morning lark and night owl Flexperts alike are able to DIY their own routines for success. Across Europe, Flexperts are already seeking this type of fluidity - while 35% generally stick to their contracted hours, one in five (19%) combine very productive stints of working with periods of downtimes.

These reconfigured values are pushing the Flexperts to seek technological innovations that allow them to get the most of their homes, and their routines, leading to the expansion of three trends: **Multi-Modal** products and spaces, the onset of **Subconscious Spaces** and the creation of **Deep Work Designs** that hack brain function and accelerate productivity.

Multi-modal living

As consumers look to their homes to facilitate different kinds of work, recuperation, rest and play, future spaces will develop physical and digital ecosystems that allow for ultimate customisation.

In Greece and Italy, 41% and 40% of workers respectively juggle the demands of home and work at the same time.

The increasing freedom of the circadian workforce will disrupt the boundaries of work and life forever, pointing to a future where our lives and homes will have to cater to multiple demands at once. Across Europe, consumers are already validating this increasing blur: in Greece and Italy, 41% and 40% of workers juggle the demands of home and work at the same time. In France and Denmark, 36% and 35% claim these obligations happen seamlessly in tandem, with French consumers the second most likely to have received employer support in separating home and work life, and Danish consumers the most likely to have created space in their homes to enforce boundaries.

Samsung is stepping up to help Flexperts across Europe achieve the perfect ecosystem within their homes. Samsung's SmartThings system, for example, uses integrated Internet of Things (IoT) solutions that allow smart appliances to adapt seamlessly depending on which mode the home's resident is in. SmartThings boasts an ultra-personalised home ecosystem,

which partners with various devices to make everything easier, from setting the mood with different lighting hues to scheduling washes, answering the door and even babysitting, from any room with the help of smart home security.

Take the smart washing machine which, along with AI features that customize the laundry process, can recommend the best cycle based on usage patterns and big data, and allows user to check and operate their laundry from their phones - wherever they are. Then, there's the smart doorbell, which connects seamlessly to the Family Hub refrigerator through Samsung's SmartThings app. Using the integrated screen, users are able to see who is at the door and let them in - all without interrupting their family or entertaining obligations.

Life is all about change, particularly in this new hybrid world. Samsung's Bespoke fridge-freezers also change alongside customers' evolving needs and tastes. The modular designs enable customers to change configurations to suit their ideal set-up - combining, upgrading or switching out modules to enable mix-and-match usage or simply more space.

When it comes to entertainment, Samsung's range of connected innovations empowers consumers to explore their emerging lifestyle needs, helping them to better manage and run their lives. Take the QLED TV, The Frame, which can be transformed from an entertainment system to a piece of art at the switch of a button, or the Jet Bot AI+, the first robot vacuum to come equipped with Intel® AI.

These smart innovations are helping to illustrate the future of a burgeoning market. In Europe, data from Statista indicates that the smart appliances market is set to double by 2025, making up a third of the smart tech industry and reaching a projected £12.6bn (€14.7bn, \$17bn).



The UK has overtaken the US in terms of smart home adoption, with almost half (47%) of consumers in the UK owning one to two devices and more than a quarter (27%) owning three to five. Consumers in Germany have almost doubled their smart tech usage since 2019, with 44% now owning one to two devices.

Source: Futuresource/Samsung Smart Homes Survey

Savvy designs are emerging that allow consumers to navigate their changing needs without large-scale home alterations. In Denmark, 63% of consumers have already, or are planning to, change the purpose of existing rooms in their homes, while in Italy 80% of consumers have plans to make, or have already made, home improvements. A majority (66%) across Europe plan to do the same.

Oslo-based design studio Bakken & Bæck has created a technical prototype to meet this kind of adaptability. Home Applications comprises a collection of apps that allow users to teach their old fittings new tricks. Think programming the sunrise and sunset to open and close your blinds; using a lightbulb to warn you of high air pollution; or taking images from NASA's photo archive and turning them into a lighting display.



Subconscious spaces

Enabled by AI, consumers will move beyond understanding their own circadian rhythms and the principles that enable them, and begin demanding the same of the spaces they inhabit.

With our routines increasingly in sync with smart devices, consumers have the potential to positively hack their homes. Cisco estimates that 500bn connected devices will exist around the world by 2030, pointing to a flexible yet seamless future where hyper-personalisation will be endemic.

Flexperts may seek flexibility from their routines, but from their homes they'll demand more, expecting not only the choice to alter their home environment, but also the ability to have a home that does this for them - no programming required. 'It can be difficult to schedule things like breaks in advance of a meeting. Sometimes, when people are in the flow, it's a bad time to stop for coffee,' says The Future Laboratory's Martin Raymond. 'By monitoring the activity of the people, a responsive room could allow users of the space to be more spontaneous according to real-time needs.'

Data will unlock these reactive home potentials. As innovation evolves, work calendars will sync with speakers, lighting and home appliances to ensure consumers get the most out of routines. Last meeting at 6pm? Ambient lighting kicks in at 6:30pm. Extended meeting at 1pm? The coffee machine whips up a latte to get you through.

'Users want tech to mimic their own personal lifestyle hacks, so that they can create pre-sets of what they need from spaces depending on their mood or task at any given time.'

Annie Auerbach, Author of Flex and co-founder of Starling

As we move into the future, these omniscient spaces will go one-step further, unlocking the potential for homes that sync with our intrinsic health needs and emotional requirements. Mediated Atmosphere, a project by the Responsive Environments group at the MIT Media Lab, is already pointing to these kinds of realities. The prototype uses modular, real-time control infrastructure combined with biosignal sensors to track heart rates and facial expressions, allowing the creation of immersive environments through controllable lighting, projection and sound designed to help users work and play to their own specific needs and wants.

Samsung's SmartThings Air - which gives users important information about air quality in each part of their home - is another case in point. Real-time air quality monitoring can be combined with automated settings to activate synced air conditioners, air purifiers, air sensors and window sensors to seamlessly manage surrounding air quality

Deep Work Designs

As Flexperts look to hack their working routines for ultimate optimisation, smart design will facilitate moments of intense concentration, creativity and problem-solving.

Deep Work Designs - distraction-free spaces that use silence and isolation to help residents achieve full immersion - will become commonplace by the end of the decade. Consumers will be looking to future-facing tech to help them unlock states of 'flow' - a mindset in which a person performing an activity is fully immersed in a feeling of energised focus.

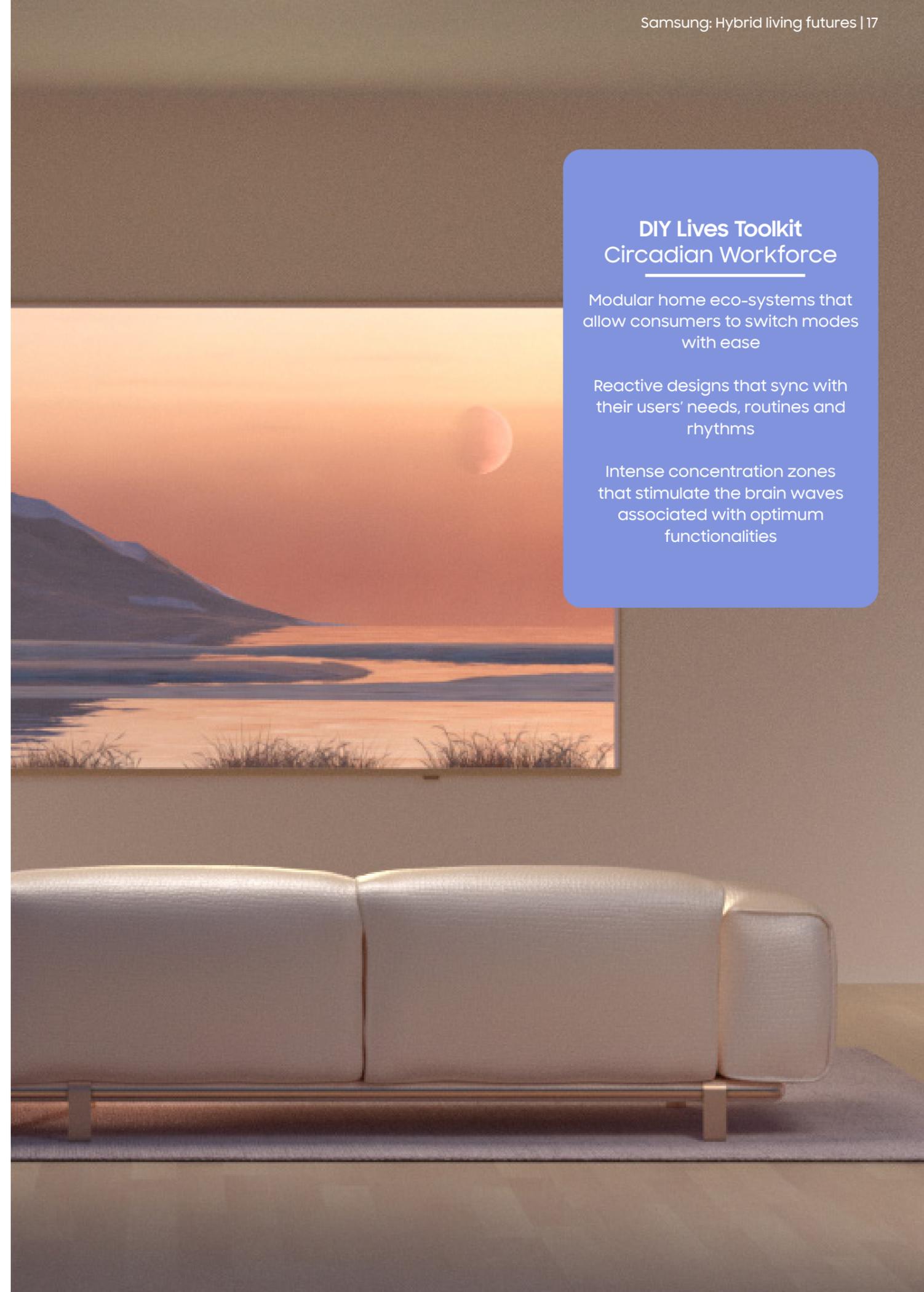
Flexperts' dining rooms are being used like Michelin-starred restaurants and also as part-time year-five classrooms. So smart technology has stepped up to mark out the invisible walls that physical homes can't provide, giving subconscious borders to our newly borderless routines.

Towards the end of the decade, these designs will push the envelope of productivity, performance and inspiration through a focus on psychology, neurobiology and tech. Cues for this are taken from the 'super performers' of Silicon Valley, who are experimenting with meditation, mindfulness, experimental diets and immersive technologies in order to hack their consciousness and boost performance.

'As our working practices become more ideas orientated and those challenges we face less linear and familiar, a growing number of people are considering new ways to induce flow, or ecstasis - that liminal state world-class athletes, research scientists and committed leaders talk about when they are lost in the moment and highly creative, intuitive and at one with challenge and solution,' says The Future Laboratory's Martin Raymond. 'Now people are using mindfulness, breath classes, periods of silence and sensory isolation to achieve this end result.'

The impact of silence and isolation on work can prove significant: creative tech company Milanote reported a 23% increase in productivity across its business after implementing scheduled periods of silence across the day.

To encourage moments of creativity, however, smart innovations could move one step further, creating pod-like spaces that use immersive visual technologies and binaural beats - two different audio frequencies in each ear - to stimulate sought-after gamma brainwaves for ultimate cognitive functioning. Early iterations of these pods can already be found today from manufacturers such as Into the Nordic Silence, which has created a number of pod-like products to encourage concentration.



DIY Lives Toolkit Circadian Workforce

Modular home eco-systems that allow consumers to switch modes with ease

Reactive designs that sync with their users' needs, routines and rhythms

Intense concentration zones that stimulate the brain waves associated with optimum functionalities



It's important that employers incorporate choice architecture into work processes to combat feelings of powerlessness

Sir Cary Cooper, Professor of Organizational Psychology and Health at the Manchester Business School, University of Manchester



Chapter 2:

RELATIONSHIPS, REMODELLED

It wasn't just the routines of the Flexperts that underwent the hybrid living transition, but their relationships too. Now, Flexperts are demanding responsive, agile, human-first tech that facilitates social connections post-pandemic.

'It's all about trust,' says Samsung senior lifestyle researcher Sian Ware. 'It's been so easy for relationships to break down, not only from the enforced distance but also because of the time we had to reflect and reevaluate. We all just want to be able to trust the things we rely on everyday - to work when and how they say they will - to enable to us to properly connect.'

As they move on from the necessity of social deceleration, consumers across Europe are experiencing a crisis of communication. In Greece, almost half (42%) of hybrid living adopters who feel negatively about the transition list their friendships suffering as a key drawback. An equally hefty 39% in Poland and Germany cite the same, with an average of one third (32%) of this group across Europe in agreement.

At the same time, colleague relationships appear forever changed, with at-home video calls and 24/7 instant messaging transforming the arenas of colleague connection from conference room to kitchen, and from lunchtime to all the time. As Rupinder Mann states: 'While we've all been locked in our houses and doing remote work, all of a sudden our work has actually taken centre stage and so have our relationships within that world of work.'

But being online is not enough to instantaneously drive connections. In the UK, the Mental Health Foundation reports that during the first lockdown 35% of young people felt lonely often or most of the time despite spending three hours a day on social media, while research from Poly indicates that over half (53%) of 18 to 24-year-olds worry that remote working has made them less confident in their ability to communicate with colleagues, and 50% fear they have lost the art of small talk.

With the Flexperts DIYing their new routines for efficiency, they will increasingly look to tech to facilitate the lost social connection needed for optimum work and wellbeing. As Meik Wiking, founder and CEO at The Happiness Research Institute, explains: 'The main challenges organisations face from hybrid working are two-fold - and they're both social. There's the fostering of team spirit, the social dynamic that keeps the team together - the water cooler moments - and there's the seamless knowledge sharing that occurs in a physical space.'

A wave of smart tech is already rushing to fill the gap, using new interfaces and haptic technologies to explore what it means to stay connected in the physically disconnected world, leading to the rise of **The Metaverse Office** and the disconnection desire of **New Anti-Socials**.

The Metaverse Office

The Flexperts will demand next-generation immersive technology, ushering in a new wave of connected and creative virtual workspaces that reimagine the metaverse as a bonafide - and in some cases enhanced - alternative to the physical office.

The next decade will see the rise of the Metaverse Office, as legislation around hybrid living sets a standard and consumers demand that the future of work is equitable, accessible and enhanced for all. Next-generation immersive technology, combined with haptic innovation, will see the creation of experiential virtual workplaces that move offices into the cloud and facilitate collaboration, cross-pollination and teamwork regardless of geography.

For tech-first brands and human-first employers, the opportunity to embrace remote-work-enhancing technologies speaks for itself. Data from Apps Run The World indicates that market revenue from collaboration software is forecast to reach almost £9.8bn (€11.4bn, \$13.2bn) in 2024 - pointing to a future where the relationships needs of Flexperts make human sense and business sense.

Fully immersive virtual workspaces have the added bonus of granting workers a perceived distance from their home surroundings - allowing them to be fully engrossed in their tasks and fully connected to their colleagues. As Agnieszka Glowacka, associate director at Haptic Architects, explains: 'Employers need to curate and create digital experiences for employees. Something that breaks them away from conformity and the depressing monotony of constant multitasking, not asking for help and not engaging socially. Anything which incites curiosity, which is actually linked to creating agility in the mind.'

'People are keen to hold on to the increased freedoms and enhanced family values afforded by hybrid living. They're protective of that time now, and it's driving employers and employees alike to try and enable positive disconnection'

Sian Ware, Senior Lifestyle Researcher at Samsung

A number of platforms are already building this future of virtual water-cooler moments, with networking through CGI and digital client dinners. Gather is just one example. The collaboration platform takes cues from video games to replicate real-life working environments and experiences of businesses and their employees. Companies can build a lo-fi digital replica of their office layout, and users' avatars can 'bump' into colleagues in virtual workrooms or linger in common areas to show they are happy for a catch-up.

Wonder is a platform similarly designed to facilitate colleague connections. Each user is represented in a bubble displaying their photograph, and can use their mouse to move closer to colleagues or other guests virtually. This allows them to tune into live audio conversations, mimicking how people navigate workspace conversations or network in real life, rather than the one-way broadcast format of many current workspace platforms.

'Employers need to curate and create digital experiences for employees. Something that breaks them away from conformity and the depressing monotony of constant multitasking, not asking for help and not engaging socially.'

Agnieszka Glowacka

'Technology has a real opportunity to mimic social interactions, so we don't feel like we're missing out,' says Samsung senior lifestyle researcher Sian Ware. 'When people aren't going out and having those instantaneous connections, feeling those social cues, it's up to tech to fill the gaps.'

According to data from Research and Markets, the global haptic technology market - covering devices that simulate the sense of touch through vibrations, motions and force - is set to reach £23.6bn (€27.6bn, \$31.8bn) by 2025, bringing potential game-changing enhancements to the world of virtual work.

In future, this industry will work to bring unprecedented capabilities to the Flexperts, from enabling colleagues to shake hands across continents to offering haptic commutes that signal the end of the day. With geography no longer a barrier to connection, by the end of the decade newly diverse teams will thrive as employees work together seamlessly across the globe.



The global haptic technology market - which simulates the sense of touch through vibrations, motions and force - is set to expand at an annual growth rate of 17.6% over the next decade

Source: Research and Markets

New Anti-Socials

With hybrid living seeing people set their statuses to permanently 'on', a backlash will see the Flexperts seek a new social frontier defined by elective, instead of constant, reachability.

Consumers who feel negatively about their new lifestyles unanimously list the creation of an 'always-on culture' as the biggest drawback to their new hybrid routines. In France and Italy, 54% and 51% of this cohort respectively see these new demands as hybrid living's biggest flaw, while over half (57%) of these respondents across Europe are actively looking for ways to separate their personal and professional lives.

As we navigate these new expectations around connection, employees are looking for the ability to meaningfully disconnect on their own terms. 'It's important that employers incorporate choice architecture into work processes to combat feelings of powerlessness,' says Sir Cary Cooper, professor of organisational psychology and health at the Manchester Business School, University of Manchester. 'It's not about prompting blackout emails that someone else controls, but where the individual themselves can decide.'

Technology is already evolving to promote the wellness needs of the constantly connected Flexperts. Misü is a desktop app that tracks and analyses the impact different apps and computer processes have on consumers' moods. Working with the built-in camera on users' computers, the app analyses micro-facial expressions and uses an algorithm to suggest which functions have a positive or negative impact.

It's this kind of monitoring technology that will ensure an equitable future for new hybrid workers, providing concrete data around the mood-affecting faults of connectivity and actively alerting users to increased screen time or out-of-hours use. The Flexperts are already utilising the freedom of disconnection - with 60% across Europe finding it easy to switch off from work.

'Work commitments may have caused family systems to appear fractured for a long time now,' says Samsung senior lifestyle researcher Sian Ware. 'But people are keen to hold on to the increased freedoms and enhanced family values afforded by hybrid living. They're protective of that time now and it's driving employers and employees alike to try and enable positive disconnection.'

Research at the University of Illinois is already validating the benefits to boundary-setting futures, with a recent study indicating that the participants who set boundaries between their work and personal lives, such as simply turning off work email alerts on their smartphones, were also less likely to negatively ruminate. On the other hand, those who experienced a high work intrusion showed significantly more weekly strain including negative rumination, negative emotions and insomnia.

DIY Lives Toolkit Relationships Remodelled

Immersive digital offices that permit colleague creativity, camaraderie and connection

Embedded choice architecture that promotes connection on our own terms

Chapter 3:

Home Sanctuary

As the 2020 novelty of flexibility is swapped out for the 2021 reality of presenteeism and blurred, undefined boundaries, Flexperts will look to take back control of the home and strike the perfect balance between productivity and wellness.

Based on time spent logged in to business virtual private networks (VPNs), remote workers in Europe are working up to 11 hours a day. In the Netherlands, remote employees are working 10% longer now than pre-Covid, with many working until 8pm. In the UK, employees are working 25% longer hours than they were before any national lockdowns.

Research from Hudson Weir confirms this new reality, showing that half (54%) of people take fewer breaks than they would if they were in the office, while 85% of employees say they have taken fewer sick days while working from home. Similarly, data from Airtasker reveals that flexible workers on average work 1.4 more days every month than traditional office workers, without even realising it.

'Companies that tracked productivity among their workers have seen an increase in productivity, in work hours, in workload, but also in burnout,' says Meik Wiking. 'It's the opposite to what anyone expected, but people seem to be putting in more hours just because they can.'

Across Europe, 57% of Flexperts say they have become more productive as a result of hybrid living, with a more efficient use of time credited as the biggest reason (49%) behind the improvement.

Should boundaries collapse unchecked, it will be easier than ever for the productive Flexperts to switch over to a world of never switching off, thanks to out-of-hours emails, late-night calls and last-minute meetings transforming their freedom to work any hours they choose, and the reality of working all of them. Hybrid living adopters are already feeling the effects of these new realities - with over a quarter (26%) feeling they work all hours or late into the night.

In response, the Flexperts are seeking to reclaim the home battleground with routine-hacking technologies and digital wellness-scapes, driving a future of the **Biophilic Home**, the dawn of **Cyber Care** and the emergence of **Superpowered Siestas**.



Biophilic Home

As the recuperative properties of biophilic design become coveted, Flexperts will seek smart technologies that replicate the soothing and healing effects of nature.

Across Europe, 66% of consumers have made - or are planning to make - home improvements, with 33% listing improving the ambience of their space as the top reason for doing so. As consumers seek to aesthetically improve the vibe of their homes, biophilic design - mimicking the environments we find in nature - is growing in popularity.

Major healthcare institutes are heavily investing in green social prescribing, with the benefits of exposure to nature ranging from higher levels of life satisfaction and fewer stress hormones to lower blood pressure and heart rate. Research from The Joy Of Plants confirms these merits, noting that more than half of UK consumers claim they feel more productive when surrounded by greenery.

When nature isn't readily available, smart technology is bridging the gap between time spent inside and outside the home, with augmented reality (AR) and virtual reality (VR) advancements enabling sensorial, hyper-personalised, phygital experiences that facilitate the Flexperts' desire to decompress and switch off to emerge.

As Rupinder Mann explains: 'Increasing our connection to nature and enabling ways to bring that into the home will have a profound impact on our brains.

Not only does it reduce anxiety and stress, but it also increases our capacity for creativity. Even synthetic nature has shown the ability to lower stress by activating our parasympathetic nervous system, which controls rest states.'

Ushering in this new wave of nature-tech is HomeForest - a digital toolkit that works with perception and sensory stimulation to give users a sense of boundaryless nature in the home. Working with existing technologies, like speakers, headphones and smartphones, HomeForest provides users with a 360-degree sensorial experience, combining birdsong, the smell of rain and projected imagery of a forest canopy to support wellbeing and aid relaxation.

For Agnieszka Glowacka and Alice Britton, part of the team behind the project, HomeForest is about providing healthy boundaries for what technology should and should not do. 'We weren't trying to obliterate the need to go outside, or go far beyond what we feel technology should enhance,' says Britton. 'It was all about the idea of the technology growing around you and knowing what you need at what time. How amazing would it be to have a home space that can be responsive to you in that way, regardless of one's access to parks or green spaces?'



Cyber Care

A widespread focus on physical and mental wellbeing is taking hold as Flexperts look for hyper-personal cyber-care solutions to supplement their DIY routines.

Combining machine learning and IoT devices, and powered by 5G, a new data-rich era of predictive and preventative healthcare is unfolding – and just in time. Across Europe, workers feeling the negative effects of hybrid living list the impact on their wellbeing as the second most profound drawback – with consumers in Poland, Greece and Sweden viewing this as the most detrimental impact at 51%, 48% and 44% respectively.

'The point is not to take yourself to the point of burnout and then take rest. But instead implement brake systems and wellness facilitators before you reach that point'

Rupinder Mann, Director at UnNamed Ventures

Covid-era living has accelerated our understanding of our own personal health and wellbeing, prompting us to take charge of our own solutions. For the DIYing Flexperts this autonomy is chiming with the new-found control of working routines generally, prompting them to search for smart tech that takes care of them – before they need to take care of themselves. 'The point is not to take yourself to the point of burnout and then take rest,' says Rupinder Mann. 'But instead implement brake systems and wellness facilitators before you reach that point.'

Samsung is already pioneering this type of preventive cyber care. The Samsung Health app transforms Galaxy devices into 24-hour assistants, with wearables tracking user's health and fitness status and the mobile app displaying detailed results of this tracked data, encouraging people to form healthy habits.



The latest iteration – Galaxy Watch4 – is equipped with the ground-breaking BioActive Sensor, which enables three powerful health metrics – Optical Heart Rate Sensor (PPG), Electrical Heart Sensor (ECG) and Bioelectrical Impedance Analysis Sensor (BIA) – to run on just one chipset. This means that Galaxy Watch4 users can monitor their blood pressure, detect an irregular heartbeat, measure their blood oxygen level, and even calculate their body composition – anytime, anywhere.

It's this kind of data that is leading the future of predictive and proactive digital-care solutions. 'We have seen an incredible amount of growth for the Galaxy Watch series as consumers have discovered the health benefits and convenience of wearables,' says Dr TM Roh, president and head of mobile communications business at Samsung Electronics. 'We understand the path to wellness is different for everyone, so we have built a robust suite of health and wellness features to give people a deeper and more helpful understanding of their overall fitness.'

Towards the end of decade, truly revolutionary solutions will see the Flexperts in charge of their own healthcare, from diagnosis to treatment. '5 to 10 years from now, our phones will be ultra-receptive and able to use and analyse data from our various synced devices,' says Meik Wiking. 'They'll be able to pick up cues towards stress, depression, any mental challenges and steer us towards the right care accordingly.'

Extended reality (XR) has already been ticketed as a key means of at-home treatment, with the immersive experience often being shown to reduce activity in the five regions of the brain associated with pain. XRHealth offers these kinds of XR therapeutics, equipping patients with pre-installed headsets suited to their various needs.

Superpowered Siestas

In full control of their schedules, the Flexperts will harness sleep and its superpower properties to boost productivity and cognitive functioning.

Smart sleep technologies will utilise properties of light, temperature and sound to allow consumers to optimise their sleep schedules for their own unique rhythms. With a recent study in the Journal of Interior Design showing that the more irregular the sleep schedule of an individual, the more their cognitive abilities decline during the week, the routine-hacking Flexperts will seek tech that promotes optimal rest and recovery.

Across Denmark, Greece and Spain over half (56%) of consumers claim their sleep has improved after adopting a hybrid lifestyle.

Mattress brand Casper is already evolving to meet these demands, expanding its product line-up with smart nightlight Glow, which is designed to support better sleep. The wireless LED lamp is primarily controlled by a series of simple gestures, emitting warm light to counter the stimulating effects of blue light that interrupts circadian rhythms.

Samsung's SmartHealth functionality is allowing the health conscious Flexperts to take control of their own sleeping patterns too. Galaxy Watch Active2, Watch3 and Watch4 wearables both have the ability to track a user's sleep stages - including REM sleep and sleep quality on a nightly basis.

These tech-based concepts will soon be combined with other sensorial methods to deliver holistic Superpowered Siesta solutions. Independent fragrance label Scent by Six, for example, is launching a scent collection to promote enhanced sleep quality, developed in partnership with aroma technology company Takasago.

By the end of the decade, the sleep aids market is forecast to reach £120.3bn (€140.6bn, \$162.5bn) in value, according to P&S Intelligence - and it won't stop there. 'A new focus on sleep across markets could see a fully fledged sleep economy boom by 2030,' says The Future Laboratory's Martin Raymond. 'As Flexperts tap into the power of naps, the economy as a whole will be impacted too, with increased night-time activity and more evenly dispersed demand throughout the day.'

DIY Lives Toolkit Home Sanctuary

All-accessible digital nature that promotes rest and recuperation

Data-driven care solutions that prioritise prevention over cure

Sleep super-hackers that drive optimum performance and optimum rest



There's a whole set of skills that go with somebody who works flexibly - able to care, able to negotiate, able to be intuitive and able to be efficient. It's time we start attaching those amazing skills and qualities to the status of flexible working rather than seeing it as just a compromise

Annie Auerbach, Author of Flex and co-founder of Starling



Conclusion

As the Flexperts approach the end of the decade - DIY toolkits in tow - their homes, in design and function, will be transformed. Facilitating their blended routines of work, rest and play, technological innovation will step up to allow the Flexperts to achieve ultimate balance, creating a new workforce where optimisation, connection and happiness are at the centre.

The ability to meet the Flexperts' evolving values will be integral to smart home design, driving innovation that helps people live their lives better and easier. Research from Samsung is already confirming this reality, with the majority of beginner, intermediate and advanced smart-technology adopters describing themselves as 'Convenience Lovers'.

Moving through the next decade, smart design will go one step further, not only quickly responding to the Flexperts' routines but also proving integral to their abilities to DIY them. As this group seeks to realise the full potential of every aspect of their lives, smart home technology will:

- Be designed and built to satisfy the multifaceted identities of tomorrow's Flexperts, enabling them to achieve myriad different flow states, from deep work through to creative collaboration
- Be responsive and personalised, tracking and automatically altering to the moods, emotions and working rhythms of the Flexperts
- Facilitate organic and serendipitous connections with others, boosting creativity and collaboration through technology and social design
- Use predictive and preventative data to allow the Flexperts to reclaim the home as a space of rest and recuperation

The Flexperts' new values, and new routines, will extend beyond the home to impact the way people and businesses work, ushering in new rules, new standards and more inclusive outlooks. As we move beyond the mandate of hybrid living, workers will look to their employers not just to facilitate what they need to work better, but also what they want to live better. Towards the end of the decade, businesses will promote policies that support a progressive future workforce, enabling:

- **Cross-Continent Colleagues**, where, thanks to the unprecedented capabilities of haptic technologies, geography is no longer a barrier to employability or connection
- **The Night-Time Economy**, where workers who can curate their working hours by their chronotype, shift demands to accommodate a more evenly dispersed day
- **Closing the Care Gap**, where the reality of one parent staying at home is swapped for equitable parent models

While pre-pandemic, the hybrid living model may have been theorised as a 'problem' to be dealt with by those who worked or lived outside accepted norms, as the Flexperts' influences take hold, this thinking will be more than outmoded, it will be unacceptable.

As Annie Auerbach explains: 'Businesses and employers need to deal with the status attached to flexibility - where these workers were seen as a burden or less committed - and see flexible workers as the innovators and the people who have created brand new templates. There's a whole set of skills that go with somebody who works flexibly - able to care, able to negotiate, able to be intuitive and able to be efficient. It's time we start attaching those amazing skills and qualities to the status of flexible working rather than seeing them as just a compromise.'



It's all about trust. It's been so easy for relationships to break down, not only from the enforced distance but because of the time we had to reflect and reevaluate. We all just want to be able to trust the things we rely on everyday - to work when and how they say they will - to enable us to properly connect

Sian Ware, Senior Lifestyle Researcher at Samsung



Part four:

Methodology

Opinium interviewed a total sample of 14,000 workers aged 18-plus in the United Kingdom, France, Italy, Spain, Sweden, Denmark, Greece, Poland and Germany. The survey was conducted in nine countries using an online Opinium methodology. Fieldwork has been conducted between 8 and 19 October 2021, depending on the country.