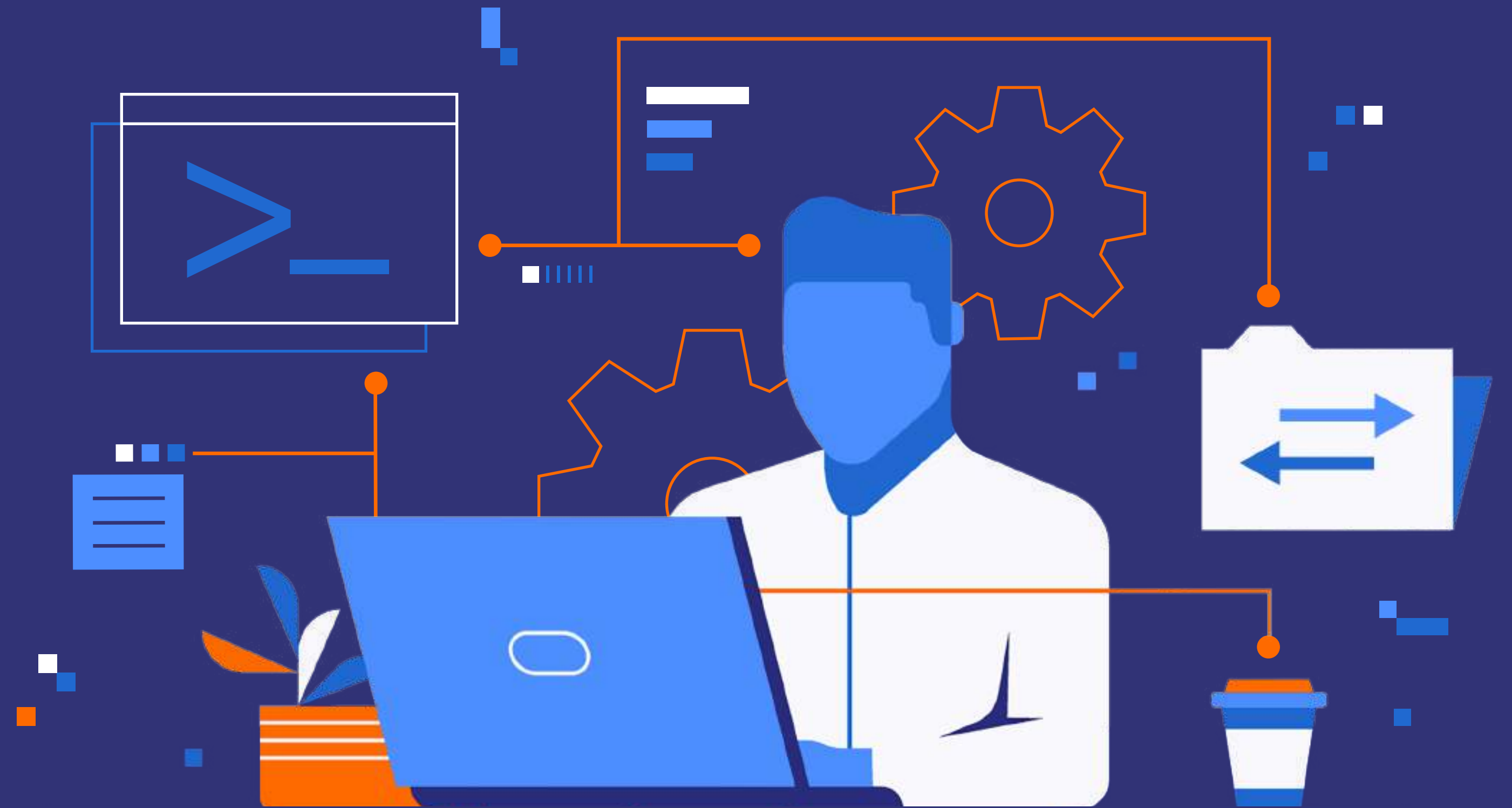


# THE FUTURES OF WORKFORCE 2035



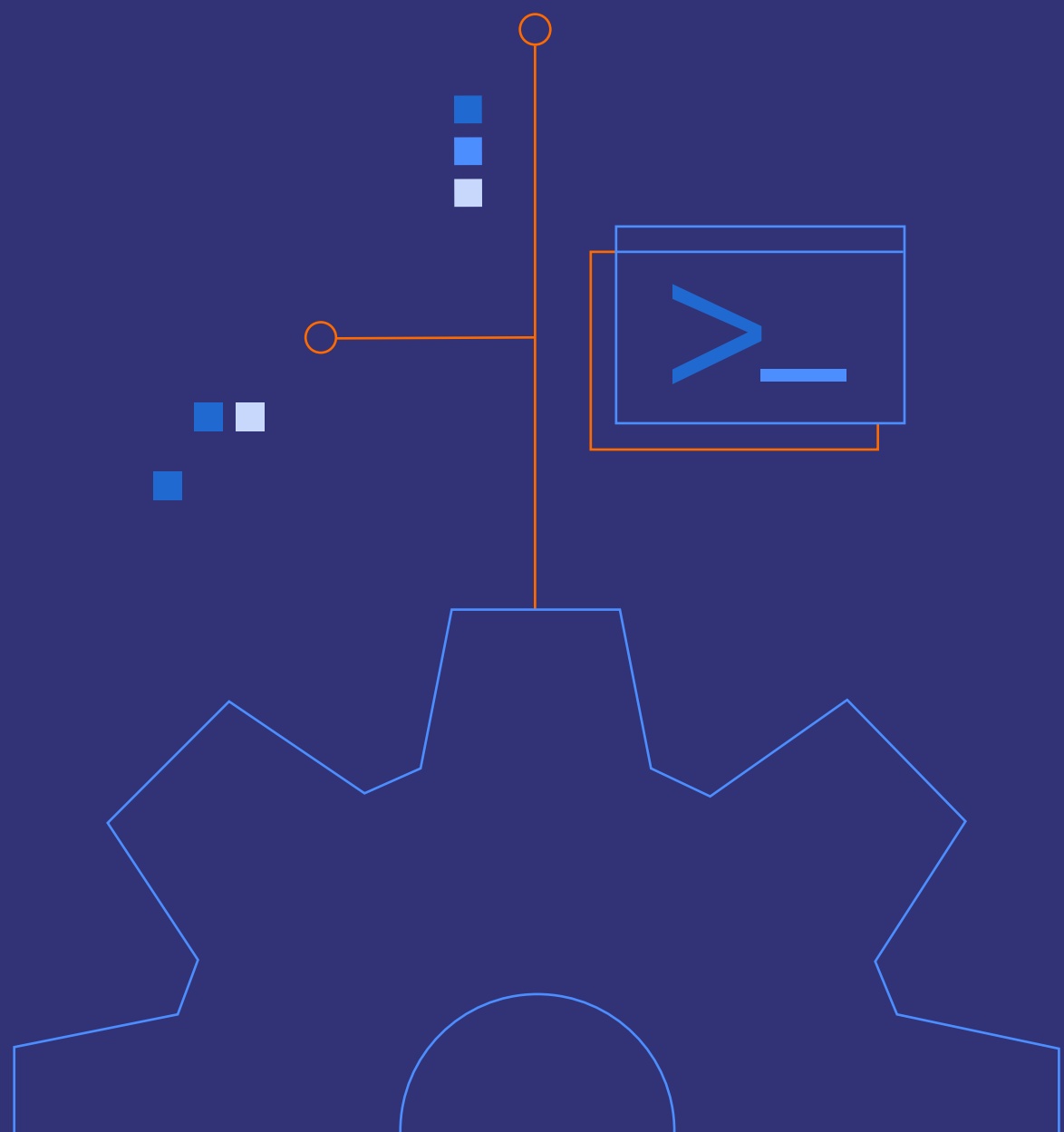


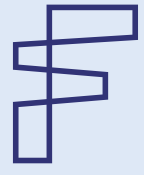
# FOREWORD

by Dr. Tuomo Kuosa



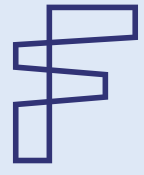
The ‘Futures of Workforce’ report is an experiential and innovative probe into alternative ways the working life may take. Perhaps the best takeaway from the report is the quite thorough stories of the days of the persons who actually are living in these future realities and the detailed guides to action for the government, organizations and workforce. The macro-analysis of the 100+ most impactful trends into nine megatrends and further into five scenarios is also a precious takeaway for anyone interested in how the future of the workforce and working life may play out. I have participated in this macro-analysis and megatrends definition work together with commenting on the scenario storylines and the guide to the action part. The horizon scanning work done at the beginning of the research to collect the most impactful trends and change factors is based largely on the futures phenomena database produced by the Futures Platform. I’ve been in charge of this foresight content production for that database for years, so I can verify that the trends and phenomena used as this report’s research material is a relevant set. It has been appropriately utilized to produce the five valuable futures scenarios and the practical action guide.





# WHY WORKFORCE'

This foresight research focuses on the **'Futures of Workforce'** to investigate not only changes in work processes and organizational approaches in the future, but also one of the most important factors driving the future of work: human resources. This research on the 'Futures of Workforce' goes beyond work to focus on the workforce's characteristics, skills, and expectations, as well as what the workforce will require from organizations to become the best versions of themselves and make a great contribution in return.



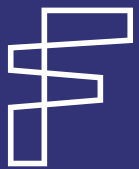
# THE WORKFORCE OF THE FUTURE

Imagine going to work in ten years and finding it drastically different from how things are today.

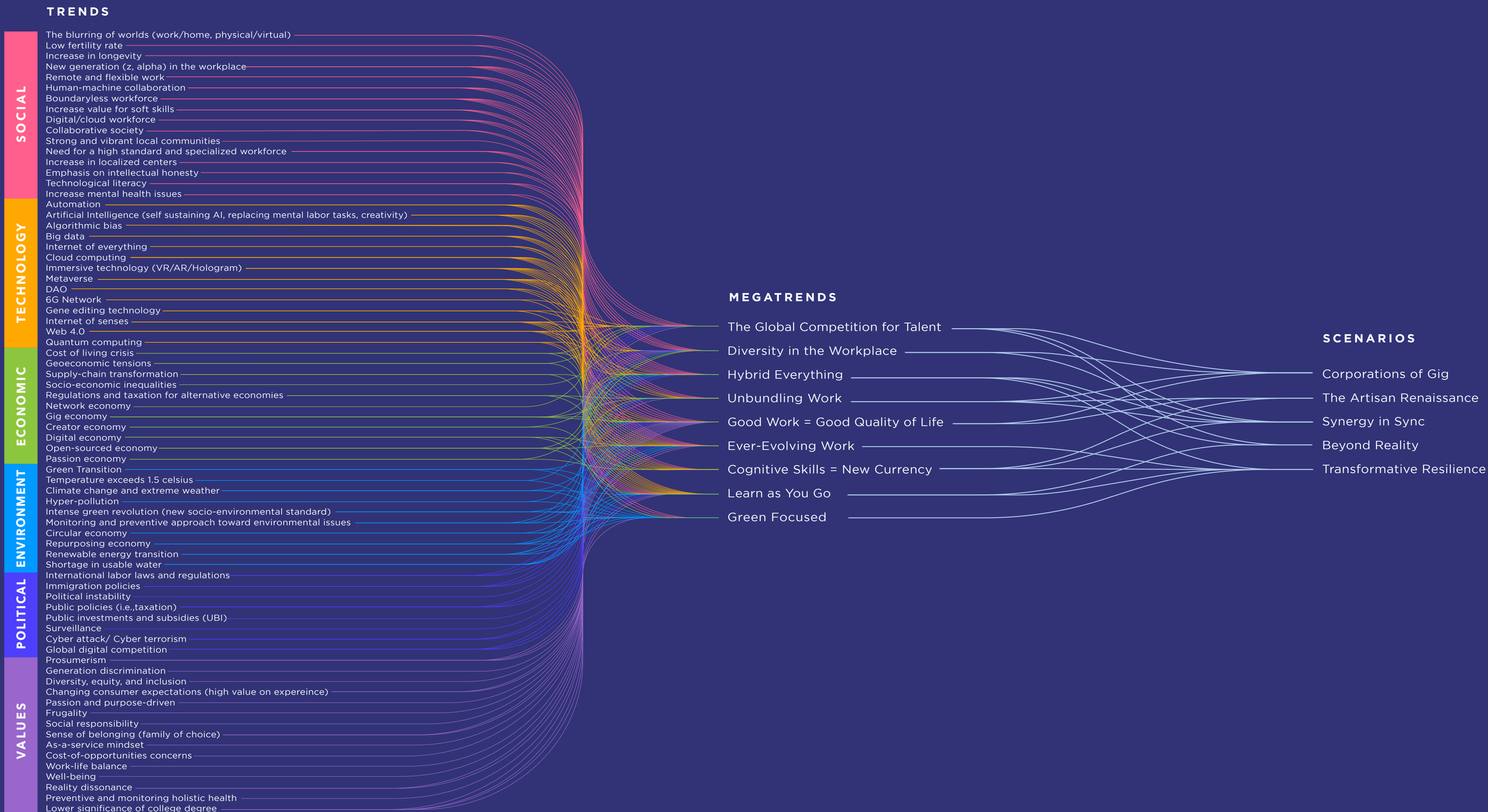
Thanks to technological advances such as virtual reality and immersive technologies, getting up and immersing oneself in the working environment is nearly effortless. Working with talents from all over the world with varied backgrounds, abilities, and ages certainly provides future workers with eye-opening possibilities to discover new perspectives and knowledge on a daily basis. AI and automation have already taken over many mundane activities, allowing workers to maximize their talents to the greatest extent possible. Continuous learning will be truly incorporated into work. Future workers will enjoy discovering something fresh and their work will have a special meaning aligned with their values.

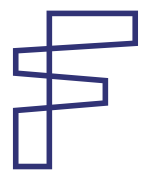
As we progress through this foresight research project, we will learn about the current workforce arena, as well as the macro trends that drive work in general, leading to megatrends for the workforce's future. Then, we'll look at numerous scenarios of how the 'Future of Workforce' might play out, as well as personas who will work in each. Finally, this research will provide a proposal for how governments, companies, and the workforce could proceed going into the future.





# FORESIGHT METHODOLOGY AND PROCESS





# CURRENT SITUATION GLOBALLY

Work used to be static and secure, except during economic instability. Work has now evolved very quickly and is becoming ever-changing. Many rapid shifts and changes around the world, such as the 4th industrial revolution, quick-paced technological advances, and changes in employee expectations, are making the work environment more dynamic.

In 2022, the global workforce totaled **3.3 billion employees,** up from 2.27 billion in 1991.

Dynamic changes in society and work itself will drive these employees to be resilient and agile.

**People over 50 made up 37%** of the population in OECD countries in 2020. By 2050, however, this proportion will grow to 45%.

The growing silver wave will bring a lot of disruption, increasing the dependency ratio, extending retirement age, and bringing a talent shortage and a multi-generation workforce.

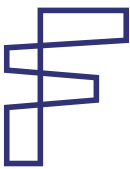
Shortage of talent has affected many countries around the world. Many countries have issued special talent visas to attract the best and the brightest globally.

**Many companies have also begun to focus on skill-based hiring, dropping the requirements for a bachelor's degree.** Also, with a more diverse environment, there is a rising trend of promoting diversity, equity, and inclusion in the workplace. **93% of companies globally have leadership support for Diversity, Equity, and Inclusion (DE&I) initiatives.**

The pandemic also altered people's priorities. Many people have stated that they realized that life is too short to stay in a job that they are not passionate about, leading to a worldwide wave of resignation beginning in early 2021. As more individuals seek the 'meaning of life', the characteristics of work that satisfy them will also shift dramatically.

Finally, as technology advances at an unprecedented rate, particularly in AI and the Internet of Things, work will become much more efficient and effective. But this will also necessitate the workforce catching up and remaining relevant in skills and competency.





# MACRO TRENDS ANALYSIS

To fully understand the change that will affect the 'Futures of Workforce' it is critical to first investigate signals of change and identify high-impact trends that will affect the future of work. Work is a foundation for how the landscape and requirements of the workforce will evolve. We examine these shifting high-impact trends from macro perspectives, ranging from society, technology, the economy, the environment, and politics to changes in human values.

## MACRO ANALYSIS: 2035

THE RANGE OF FACTORS AND TRENDS DRIVING THE FUTURE OF WORK

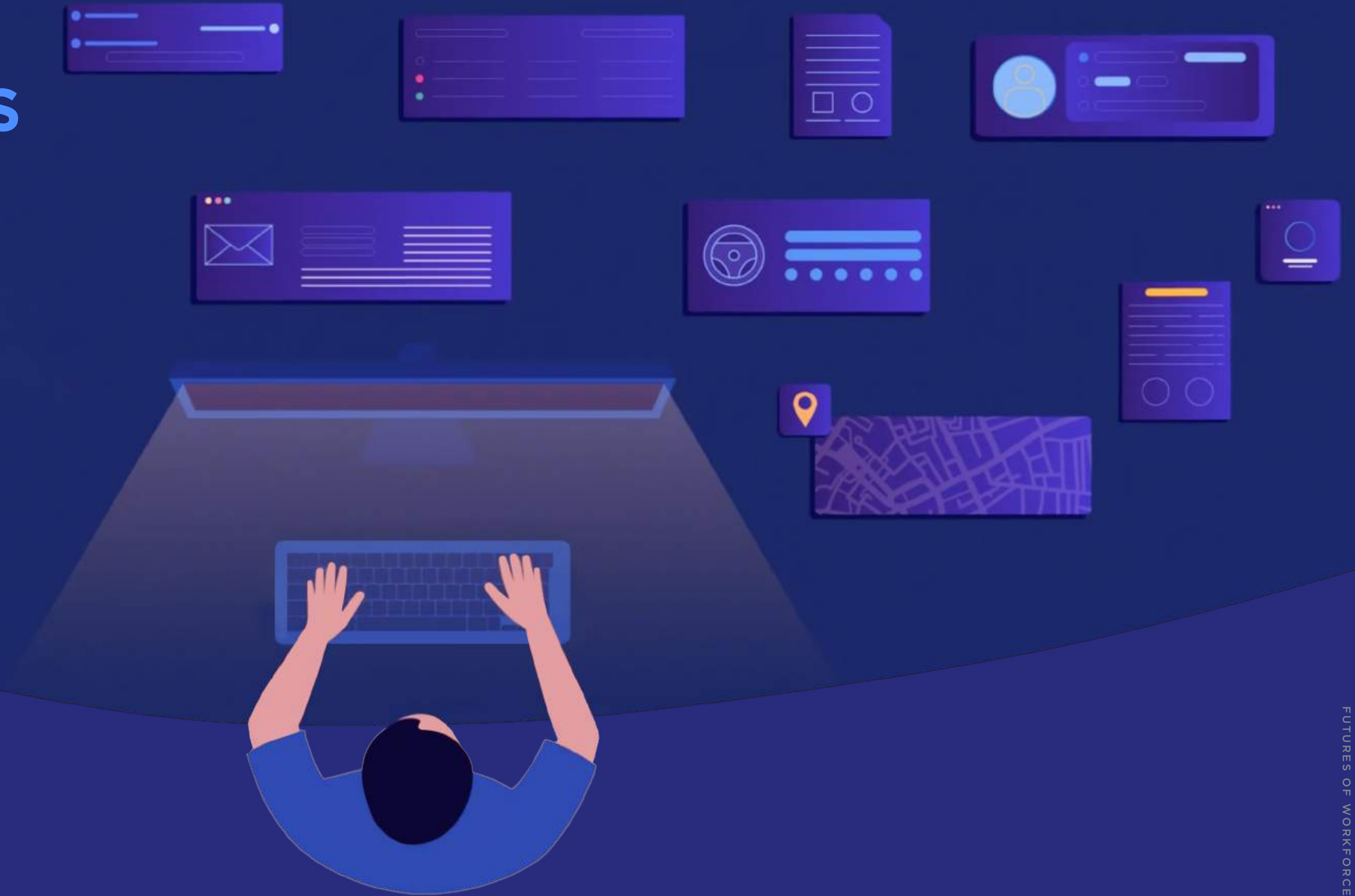
SOCIAL	TECHNOLOGY	ECONOMY	ENVIRONMENT	POLITICS	VALUE
<ul style="list-style-type: none"><li>• The blurring of worlds (work/home, physical/virtual)</li><li>• Low fertility rate</li><li>• Increase in longevity</li><li>• New generation (Z, Alpha) in the workplace</li><li>• Remote and flexible work</li><li>• Human-machine collaboration</li><li>• Boundaryless workforce</li><li>• Increase value for soft skills</li><li>• Lifelong learning</li><li>• Adaptive design</li><li>• Digital/cloud workforce</li><li>• Collaborative society</li><li>• Strong and vibrant local communities</li><li>• Need for a high standard and specialized workforce</li><li>• Increase in localized centers</li><li>• Emphasis on intellectual honesty</li><li>• Technological literacy Increase mental health issues</li></ul>	<ul style="list-style-type: none"><li>• Automation</li><li>• Artificial intelligence (self-sustaining AI, replacing mental labor tasks, creativity)</li><li>• Algorithmic bias</li><li>• Big data</li><li>• Internet of everything</li><li>• Cloud computing</li><li>• Immersive technology (VR/AR/Hologram)</li><li>• Metaverse</li><li>• DAO</li><li>• 6G network</li><li>• Health tech</li><li>• Gene editing technology</li><li>• Internet of Senses</li><li>• Web 4.0</li><li>• Quantum computing</li><li>• Smart cities</li><li>• Cyber security risk</li></ul>	<ul style="list-style-type: none"><li>• Cost of living crisis</li><li>• Geoeconomic tensions</li><li>• Supply-chain transformations</li><li>• Socio-economic inequalities</li><li>• Regulations and taxation for alternative economies</li><li>• Advanced knowledge economy</li><li>• Network economy</li><li>• Gig economy</li><li>• Creator economy</li><li>• Digital economy</li><li>• Open-sourced economy</li><li>• Passion economy</li></ul>	<ul style="list-style-type: none"><li>• Green Transition</li><li>• Temperature exceeds 1.5 Celsius</li><li>• Climate change and extreme weather</li><li>• Hyper-pollution</li><li>• Biodiversity loss</li><li>• Intense green revolution (new socio-environmental standard)</li><li>• Monitoring and preventive approach toward environmental issues</li><li>• Waste crisis</li><li>• Circular economy</li><li>• Repurposing economy</li><li>• Renewable energy transition</li><li>• Shortage in usable water</li></ul>	<ul style="list-style-type: none"><li>• International labor laws and regulations</li><li>• Immigration policies</li><li>• Political instability</li><li>• Regional tensions</li><li>• Protest movements</li><li>• Public policies (i.e., education, labor rights)</li><li>• Public investments and subsidies (UBI)</li><li>• Desire for decentralization</li><li>• Surveillance</li><li>• Urban big data</li><li>• Cyber attack/Cyber terrorism</li><li>• Global digital competition</li><li>• Government transparency</li></ul>	<ul style="list-style-type: none"><li>• Prosumerism</li><li>• Generation discrimination</li><li>• Diversity, equity, and inclusion</li><li>• Inclusive design</li><li>• Changing consumer expectations (high value on experience)</li><li>• Passion and purpose-driven</li><li>• Frugality</li><li>• Social responsibility</li><li>• Sense of belonging (family of choice)</li><li>• As-a-service mindset</li><li>• Cost-of-opportunities concerns</li><li>• Work-life balance</li><li>• Focus on health and well-being</li><li>• Reality dissonance</li><li>• Preventive and monitoring holistic health</li><li>• Lower significance of college degree</li></ul>





# MEGATRENDS

From the previously explored high-impact trends affecting the future of work, 'Megatrends' have been extracted which will determine the direction of the 'Futures of Workforce', how it will transform and how the workforce will be influenced going forward.







In 2023,

**82%**  
of countries  
globally

face a skilled  
labor shortage

As 2030 approaches,

**47**  
million roles

in Southeast Asia are  
expected to remain unfilled  
due to a skills shortage

## The Competition for Global Talents

As the world embraces the silver wave and countries see their populations getting older, a significant challenge emerges on a global scale: lack of talent. Developed countries, in particular, face a skilled labor shortage, a situation experienced by 82% of countries globally as of 2023. As a result, countries around the world are using the power of attractive visas to invite global talent to their shores. Governments are reaching out to attract and keep talent from all over the world, from the O-1 visa in the United States to Australia's Distinguished Talent Visa and China's Talent R Visa. As 2030 approaches, Southeast Asia faces a worrisome future in which 47 million roles are expected to remain unfilled due to a skills shortage, while the threat of a growing global super-aged society gets bigger, with 56 countries globally becoming full-fledged super-aged societies. The race to capture and develop global talent has taken on immense importance in this transformational period, crafting a narrative of creativity and cooperation to bridge the global talent demand and supply gap. However, it is important to closely monitor the escalating geopolitical tensions among many nations and the potential for global economic challenges, as these factors could significantly alter current trends and the strategic approach to global talent acquisition and management.





Organizations with diverse leadership teams generate

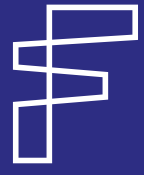
**73%** **more income**  
from innovation

while those with diverse boards and leadership have

**33%** **higher profit**

## Diversity in the Workplace

The issues of workplace diversity, equity, and inclusion are transforming as we move toward the future. Apart from global workforce and disability issues that we are all familiar with, diversity will expand into multidimensional aspects that include societal, occupational, relational, cognitive, physical, and value diversity. Organizations have to dive deeper into diversity issues to understand their actual impacts on businesses. For example, what effect does DE&I have on creativity, profitability, and overall success? According to studies, organizations with diverse leadership teams generate 73% more income from innovation, while those with diverse boards and leadership have 33% higher profit. Embracing diversity will not only improve business culture but also uncover untapped potential, producing an inclusive workplace that encourages growth and drives ROI. Despite the established benefits of diversity, equity, and inclusion, obtaining consistent alignment across organizations remains a challenge. Disparities exist between business leaders and employees, with 54% of leaders citing diversity as a priority, while only 39% of employees agree that organizations have done so.



## Hybrid Everything

As the world rapidly evolves, the work landscape will also change dynamically, moving beyond hybrid work toward a new standard of working 'anywhere, anytime, and anyhow'. While hybrid work became a norm in the previous decade, employee expectations are changing. An expectation for greater flexibility in deciding when, where, and how one works is becoming more common. Organizations are recognizing that establishing a flexible work culture based on clear communication, trust, effective planning, and efficient technological infrastructure is critical to the success of this new era of 'Hybrid Everything'. Advanced workplace management systems will become the most important factor in driving work toward becoming truly asynchronous, autonomous, and remote. These systems will empower workers to achieve their full potential in the workplace by assisting them to work seamlessly and effectively regardless of their diverse needs and preferences.





Organizations that use the unbundled approach, for example, HCL Technologies achieving a

**15%**  
cost reduction  
and a  
**30%**  
increase in  
productivity.

## Unbundling Work

As the global talent shortage continues to raise issues for businesses, unbundled work emerges and redefines how organizations worldwide operate. Companies across the world are dividing their work processes into smaller, more specialized activities that can be outsourced to freelance third parties or experts. This strategy not only enables businesses to tap into a larger talent pool but also mitigates the effects of talent shortages, ensuring that projects are executed efficiently and effectively. The benefits of unbundling work can go beyond talent access. Case studies have demonstrated that organizations that use this approach save money and boost productivity. For example, HCL Technologies successfully used the unbundled approach in software development, achieving a 15% cost reduction and a 30% increase in productivity. Unbundled work, however, can be more than just task allocation. It also includes a variety of purposes that motivate people to work, such as financial well-being, a sense of belonging, purpose, and educational advancement. This has redefined the work landscape by making work more adaptive, innovative, and responsive to the shifting demands of the workforce. It is also important to note, however, that not all job functions can be unbundled to the same extent. Work in the technology sector may be more flexible and less complex to unbundle than work in more human-centric professions such as medical professionals, where the need for direct human interaction and oversight is greater.





In the view of

**51%**

**of employees surveyed by McKinsey,**

the absence of a supportive work atmosphere with a meaningful sense of belonging is an important reason to leave a job

**97%**

**of respondents in a survey**

reported that their engagement increased when their work aligned with a greater life purpose.

### **Good Work = Good Quality of Life**

Workers' beliefs about what makes 'good work' are changing. They are no longer attracted only to huge paychecks, but increasingly seek fulfillment in many other aspects as well. It is a megatrend in which a meaningful job is seamlessly integrated with well-being and mental health to create a meaningful career. The tremendous impact of a global pandemic resonates deeply with people's sense of self, bringing an important realization that life is too short to settle for careers that aren't fulfilling, as 92% of respondents in an Indeed survey agreed. The desire for purposeful life becomes important as more and more people seek meaning in life. Limeade Institute found 97% of respondents in a survey reported that their engagement increased when their work aligned with a greater life purpose. Moreover, the absence of a supportive work atmosphere with a meaningful sense of belonging is an important reason to leave a job, in the view of 51% of employees surveyed by McKinsey. Nonetheless, the economic environment is a significant factor; a strong economy empowers people to seek better work-life balance, whereas a weak economy may force them to stay in unsatisfying jobs for financial stability.



in less than 10 years,  
approximately

**80%**

**of jobs will be  
impacted by AI,**

while 19% of workers  
may have at least half their  
responsibilities automated.

## Ever-Evolving Work

With 85% of jobs in 2030 yet to be created, the future offers limitless opportunities for new career paths. As technology continues to evolve at a rapid pace, many workers will experience significant skill changes in years to come, with technology-related careers dominating the fastest-growing employment market. Amid these enormous transformations, however, the rise of AI presents both challenges and opportunities. Research has shown that in less than 10 years, approximately 80% of jobs will be impacted by AI, while 19% of workers may have at least half their responsibilities automated. Ethics and economic inequality will have a significant impact on the direction of the development and deployment of AI and automation. As we move through this ever-changing world, equitable technology integration will be critical to ensuring a sustainable and inclusive future for the workforce.





**40%**  
**of companies worldwide**  
are focusing their efforts on developing skills such as resilience, flexibility, and agility,

**32%**  
prioritize curiosity and lifelong learning to foster a future-ready workforce

### Cognitive Skills = New Currency

Cognitive skills are on their way to becoming the new currency, emphasizing their growing importance for establishing the modern workplace. Analytical thinking and creative thinking have been highlighted as the most critical skills for workers in 2023, and they are projected to maintain dominance until 2027, with complex problem-solving taking center stage. As organizations prepare for work transformation, the emphasis on skills training will be primarily on initiatives aimed at strengthening analytical thinking, with 10% of training efforts allocated to this area. Furthermore, upskilling activities aimed at developing innovative thinking will account for 8% of the workforce development agenda. Recognizing the value of leadership and social influence, 40% of companies worldwide are focusing their efforts on developing skills such as resilience, flexibility, and agility, while 32% prioritize curiosity and lifelong learning to foster a future-ready workforce that thrives in an ever-changing landscape. Additionally, proficiency in leveraging technology to enhance human productivity and creativity is becoming crucial. Acquiring the ability to skillfully engage with advanced computing systems, prompting AI systems, and using these programs to increase creativity is becoming an essential component of the skill set required for the future.



# 60%

**of workers**

will require additional training by 2027, emphasizing the importance of upskilling and reskilling efforts.

# only half

**of the global workforce**

will have enough training by 2023.

## Learn as You Go

The failure of many well-known organizations has driven businesses worldwide to explore innovative strategies for survival, resulting in a new work environment in which adaptation and embracing change are key. This transition has put a strong emphasis on learning and development, with 47% of 2,500 HR leaders expressing concerns about the workforce's capability and future skills. According to the World Economic Forum (WEF), 60% of workers will require additional training by 2027, emphasizing the importance of upskilling and reskilling efforts. However, the WEF observes a basic challenge: only half of the global workforce will have enough training by 2023. As a result, it is critical for the global workforce to have a growth mindset, understanding the need to constantly learn and unlearn, and knowing that skills obtained today may become obsolete in a matter of years.





## Green Focused

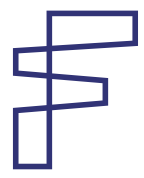
According to the International Labor Organization (ILO), the green economy could create up to 24 million jobs worldwide by 2030. LinkedIn has already reported a 38.5% increase in green talent from 2015 to 2021. Businesses recognize the potential of the green transition and the broader application of Environmental, Social, and Governance (ESG) standards to produce a net job-creation effect. Climate change adaptation and the demographic dividend in developing and emerging economies are also significant contributors to an increase in job opportunities. The shift towards employees' preference for environmentally responsible companies is evident in a survey by Yale School of Management, where 51% of global students would willingly accept lower salaries to work for such organizations.

The green economy could create up to

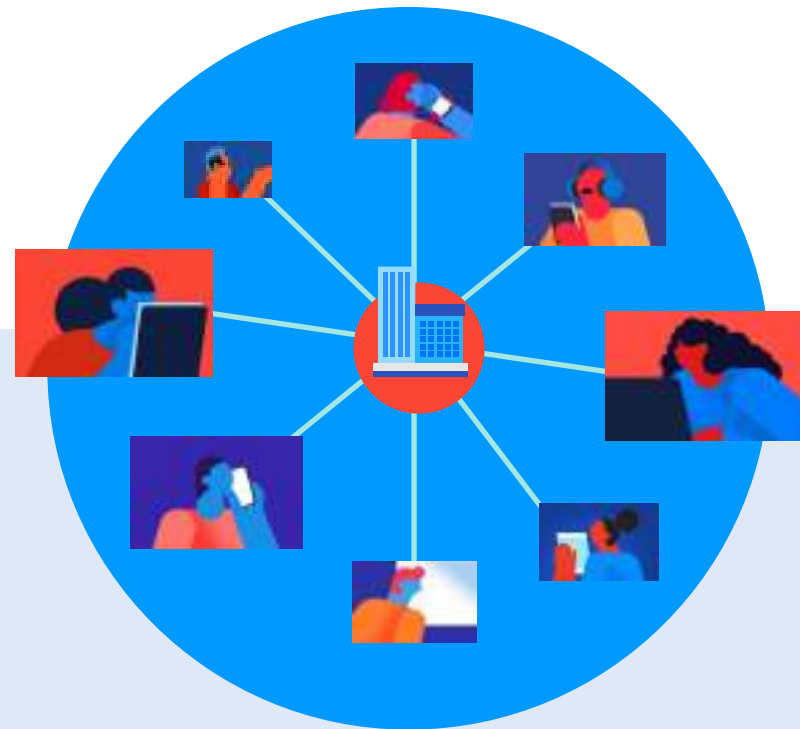
**24** million jobs worldwide by 2030.

LinkedIn has reported a

**38.5%** increase in green talent from 2015 to 2021.



# FUTURE SCENARIOS



SCENARIO 1

**CORPORATIONS  
OF GIG**



SCENARIO 2

**THE ARTISAN  
RENAISSANCE**



SCENARIO 3

**SYNERGY  
IN SYNC**



SCENARIO 4

**BEYOND  
REALITY**



SCENARIO 5

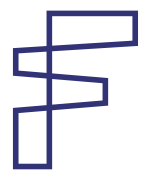
**TRANSFORMATIVE  
RESILIENCE**



# 1 CORPORATIONS OF GIG







In 2035 the world witnesses an astounding shift in labor relations. Employees become more demanding, seeking fulfillment not simply at work but in all aspects of their lives. They seek a suitable income, a decent work-life balance, scheduling flexibility, opportunities for skill advancement, and employment that resonates with their deepest purposes. The definition of a job expands into something far more comprehensive, including all areas of their existence.

These increased expectations result in a significant rise in turnover rates across industries. Highly skilled and competent workers are in high demand, and employees have an abundance of opportunities. If any of their desired areas of fulfillment are not realized, they look for work elsewhere, keeping firms in a perpetual state of change.

This new reality makes the hiring process longer and more complex. Companies recognize the need to thoroughly understand their potential employees. Organizations go to considerable lengths to dive into individuals' thoughts, attitudes, beliefs, and life goals, in addition to reviewing previous employment and experiences. To get a better knowledge of each individual, highly trained human psychologists and cutting-edge technology such as human-machine interfaces are also used.

Furthermore, worker discontent and upheavals in the previous decade have driven the creation of restrictive laws and regulations governing employer-employee relationships. These preventive and proactive measures intend to ensure that the population has pleasant working conditions. As a result, organizations are skeptical of hiring contract workers since legal implications and the potential backlash pose tremendous risks.

Given the challenges in obtaining full-time employees, organizations take an innovative approach by breaking down job activities into smaller functions. These job components are delegated to professional suppliers or freelancers. While these temporary workers lack the protection of full-time employees, legislative and regulatory changes attempt to safeguard their rights to some extent. This option of gig employment appeals to many individuals seeking variety, flexibility, and overall well-being in their professional lives.

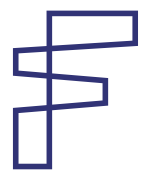
Furthermore, the global job market has witnessed a substantial rise in the global labor force, particularly from African and South Asian countries such as Ethiopia, India, and Indonesia. Companies realize the benefits of hiring international workers since they are not subject to strict national employer-employee relationship laws and regulations. Furthermore, the lower wage requirements of these international workers appeal to organizations looking for cost-effective solutions.





# 2 THE ARTISAN RENAISSANCE





By 2035, the world has undergone a dramatic transition, fueled by advances in technology especially in the realm of artificial intelligence. AI development has progressed to the point where it can completely replace repetitive tasks and even manage most creative endeavors. As automation becomes more common, workers find themselves at a crossroads, wrestling with the necessity to upskill and reskill to adapt to this new technological reality.

A remarkable renaissance has developed amid this paradigm shift—a renewed interest in artisan work. People turn to artisan crafts to express their creativity and reconnect with traditional forms of craftsmanship as they seek meaning and purpose in their lives beyond the world of automated activities. In this changing scene, artisans are at the forefront, infusing their creations with authenticity, craftsmanship, and a touch of the human spirit. Customers seek out these distinctive items, valuing the tangible connection to history and personality they provide.

The desire for personalized products and services has become essential in this age of fluid identities. While technology enables some degree of mass customization, customers desire more than simply generic products tailored to their preferences. They yearn for products made in a traditional, non-commercial manner. Hand-crafted bakeries, beautifully produced leather products, and one-of-a-kind jewelry become increasingly popular, commanding higher prices.

As the world becomes increasingly interconnected through global connection and the digital economy, artisan workers from all over the world develop communities and networks based on common interests, goals, and purposes. These groups not only provide unique artisan works derived from their members' diverse backgrounds and cultures. They also provide security and greater bargaining power for all members of their community.

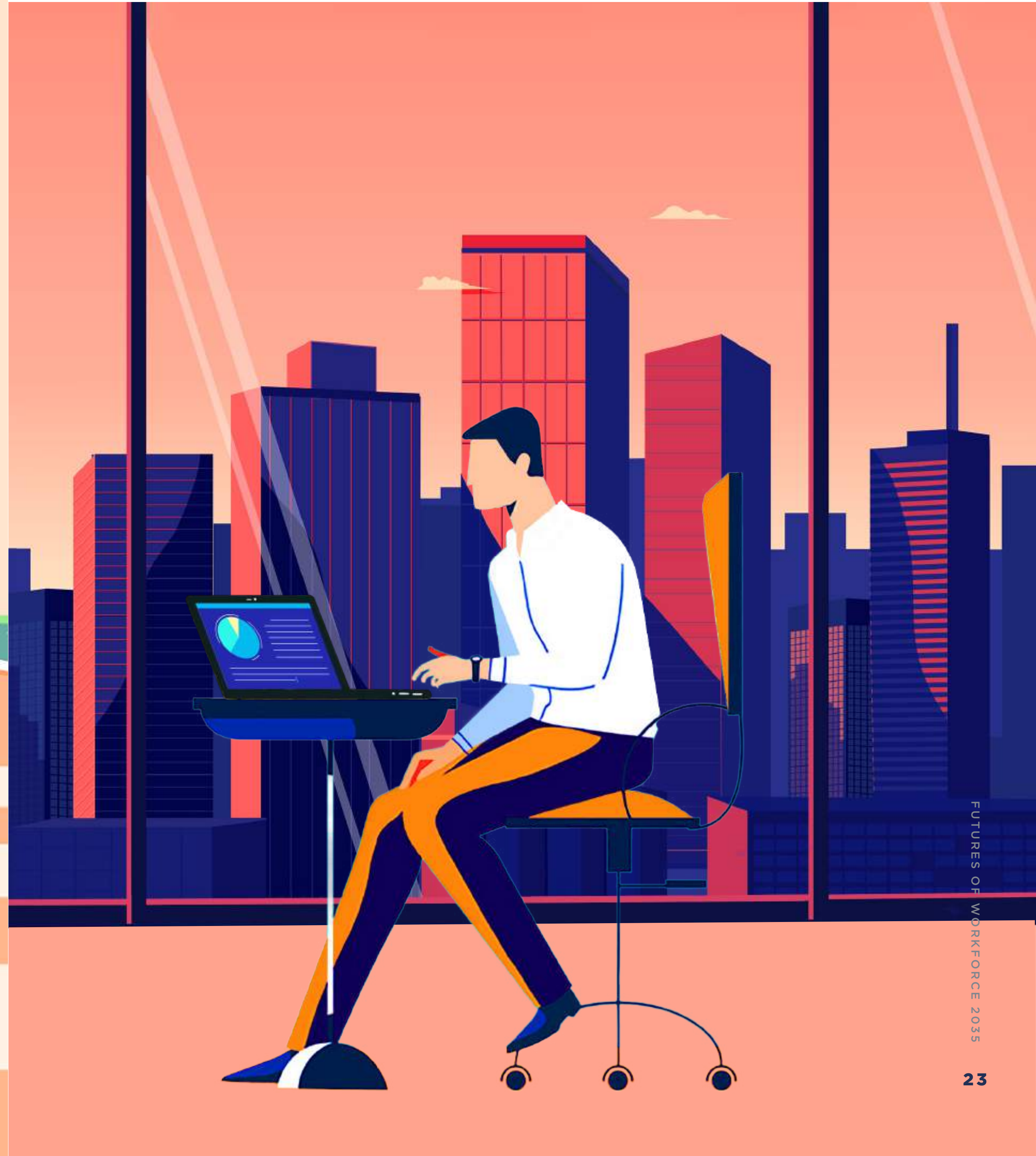
As the workforce transforms toward non-traditional work patterns and the silver wave economy expands, governments face the difficulty of developing appropriate taxation schemes to preserve a balanced dependency ratio. They work tirelessly to develop the correct structures to support the vast range of work styles emerging in this new era.



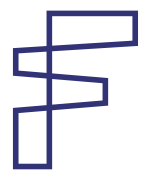




# 3 SYNERGY IN SYNC







By 2035, the integration of advanced technology and a globally diverse workforce completely redefined how workplaces are managed, pushing companies to unprecedented levels of achievement. At the heart of this transformation is the rollout of advanced workplace management systems, which have become essential in boosting output and creating a work culture that values every employee's individuality. These systems mark a major step forward, striking a balance between achieving top productivity and nurturing a work setting tailored to each person's requirements.

Artificial intelligence and machine learning take center stage in transforming how businesses understand and support their employees. These technologies are being utilized in workplace management to learn, recognize, and fully understand each employee on a deep level. Systems recognize their preferences, personal expectations, working styles, and communication patterns, allowing for a more tailored approach to work.

At their foundation, work systems excel at optimizing work schedules for each employee while taking their unique qualities into account. They identify peak productivity hours, each individual's optimal collaboration techniques, and even promote individual well-being. To support both the mental and physical well-being of employees, systems include reminders for hydration, nourishment, and mindful breaks.

Workplace management systems can also embrace diversity and manage an international workforce. Real-time data analysis enables systems to identify potential scheduling conflicts and periods of overwork, while also accommodating global time zones and suggesting adjustments for employees to maintain a healthy work-life balance. Systems can manage the complexities of diverse nationalities, backgrounds, beliefs, values, and perspectives to optimize team members' group collaboration to unleash and maximize their creativity, innovation, and productivity.

With extensive language translation and real-time transcription functions, the technology has overcome language barriers for employees globally. The system allows for seamless interaction among employees across the world, eliminating linguistic barriers and enabling worldwide collaboration.

Workplace management systems go beyond understanding only traditional aspects of diversity. They also value neurodiversity, cultural differences, and disabilities to make every employee feel supported and empowered. Visual cues, text-to-speech software, voice recognition technologies, and other adjustments are seamlessly incorporated, allowing individuals with disabilities to fully engage in the workplace regardless of their geographical location.

Furthermore, systems can evaluate each employee's skill gaps, match them to individual career goals, and develop personalized plans suited to each employee's preferred learning styles to ensure that organizational upskilling and reskilling requirements are effectively executed.

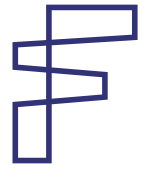
With this advancement in workplace management systems, organizations can embrace the potential of technology to improve efficiency while acknowledging each individual's unique strengths and expectations as the world enters this new competitive and collaborative era. It is a journey of transition in which diversity and productivity coexist harmoniously, driving organizations to new heights of success. However, because organizations manage an immense amount of individual data on a regular basis, substantial investments in secure technological infrastructure and personal data protection must be prioritized.





# 4 BEYOND REALITY





Work and education undergo major changes by 2035, owing primarily to the widespread adoption of the metaverse. Virtual reality has become a new everyday reality for individuals worldwide, completely changing how they work and learn. What was once a faraway ideal has now become a fundamental component of daily life, influencing the entire social fabric.

The metaverse has reimagined work, causing the concept of regular office space to become obsolete. Hybrid work, which was previously popular, has also become outdated due to the successful seamless integration of the metaverse into the workplace. Collaborating in a virtual space seems just as real, if not more so, than meeting in a physical office. Workers might now choose between working on top of the beautiful Himalayas or in a delightful Parisian café with a view of the Eiffel Tower. The 'Internet of Senses' has brought a whole new level of realism, allowing workers to feel every sensation as if they were physically there. The smell of freshly prepared French roast coffee, gentle spring air touching their skin, and the distant melody of street musicians are all vividly presented in the metaverse.

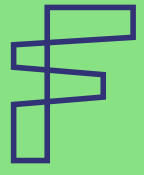
However, the metaverse's influence extends far beyond the workplace. It has expanded into an infinite repository of knowledge, available to people from all walks of life. With AI integration, content is now personalized to each learner's preferences and learning style. Education comes to life in the metaverse, no longer bound to conventional formats. Learners can investigate the complicated structures of cells as if they were microscopic organisms. History courses are transformed into immersive experiences, allowing learners to participate in ancient conflicts and significant moments in history.

Within the limitations of a workday, employees can take breaks and refresh themselves in the relaxed surroundings of the metaverse, enjoying oases of recovery such as a wander through a virtual park in the fall or a rest on a soothing beach. 'The Internet of Senses' elevates the experience by offering workers a multi-sensory escape from the stresses of their daily duties. These periods of relaxation boost productivity and innovation among workers.

Despite this technological phenomenon, inequity remains a reality. Not every organization can afford to invest in cutting-edge technology and infrastructure. The metaverse remains a luxury available exclusively to large organizations, leaving many low-level or average workers struggling to keep up with the labor market's ever-increasing demands. This digital divide has intensified inequities, as people without access to the metaverse fall behind in their pursuit of important skills to succeed in a competitive environment.

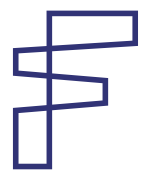
In this metaverse-driven world, the future appears hopeful for those fortunate enough to embrace cutting-edge technology. Beneath the dazzling surface, however, the harsh reality of an unequal society remains, triggering the world to find ways to bridge the gap and ensure that the benefits of the metaverse are accessible to all. The path to a more equal future has only just begun, and the metaverse's possibilities are exciting and alarming as society navigates this bold new virtual environment.





# 5 TRANSFORMATIVE RESILIENCE





By 2035, the global temperature rise has already exceeded the Paris Agreement's goal of 1.5°C, resulting in a series of devastating climate catastrophes. Extreme weather brings global destruction, with natural disasters becoming more frequent and violent. Rising sea levels, extreme floods, and unprecedented droughts affect millions of lives globally, causing food shortages and many other challenges. Humanity has arrived at a crossroads where the planet as we know it will no longer be the same again.

As the world turns south, all eyes turn to green initiatives. No longer the sole responsibility of governments or NGOs, going green becomes a collective global agenda. From individuals to businesses, the importance of sustainability and environmental responsibility becomes prominent. Companies that fail to participate in saving the planet are left behind, discarded by consumers who prefer eco-conscious brands. The world's focus shifts to sustainability, green transition, and environmental, social, and governance (ESG) principles.

The demand for greener practices has fueled the rise of new businesses specializing in sustainability and green sectors. Environmental consultants, sustainability data analysts, circular economy specialists, climate resilience strategists, and renewable energy integration managers become essential parts in the workforce.

Amid the green revolution, technological advances have also transformed the employment landscape. Jobs that once sounded like they came out of science fiction emerge as critical players in the new world. Quantum computing engineers delve into the unexplored realm of computing power, while web 4.0 developers shape the future of the internet. Data privacy officers safeguard personal information, and autonomous vehicle infrastructure engineers navigate the roads of tomorrow. Space exploration engineers take humanity beyond the boundaries of Earth, while augmented reality architects create immersive digital worlds.

As technology progresses and increases in influence, ethical technological integration becomes a critical concern. Organizations across the world are emphasizing the responsible use of AI, challenging algorithmic bias, safeguarding data privacy, and protecting individual information.

Despite technological leaps, certain human skills remain irreplaceable. Critical thinking, creativity, empathy, and problem-solving abilities still hold tremendous value in the workplace. In the face of a complex and evolving work environment, these competencies are seen as vital. Workers who can creatively approach challenges, envision future possibilities, anticipate roadblocks, and devise innovative solutions are highly sought after.



# PERSONAS



## Bella

Female, 36

'Life's greatest joy lies in embracing change fearlessly and carving a path of purpose.'



## Somchai

Male, 82

'Art is the language of the heart, and every creation tells a story of a life well-lived.'



## Li Wei

Male, 64

'Emotions are the colors of the soul; they light up our lives and enrich our experiences.'



## Ari

Non-binary, 21

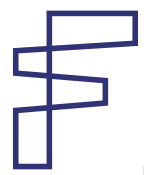
'Be the change you wish to see in the virtual world.'



## Zandiwe

Female, 42

'Success is not about how high you climb, but how you make a positive difference in the world.'



PERSONAS IN SCENARIO 1

CORPORATIONS  
OF GIG

Bella  
Female, 36

Location

Chiangmai, Thailand

Occupation

Ethical AI Consultant Freelancer

Education Level

Undergraduate Degree

Income Level

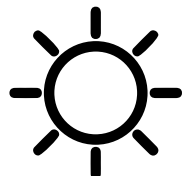
120,000 THB/month

Quote:

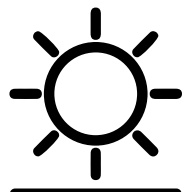
'Life's greatest joy lies in embracing change fearlessly and carving a path of purpose.'



Bella begins her day by putting on VR glasses and virtually transporting herself to the Isha Yoga Center in India. There she meets a group of yoga enthusiasts from all around the world who practice yoga and mindfulness meditation together before beginning their day.



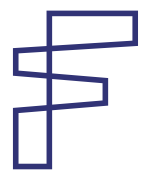
Bella checks her virtual workspace for recommended meeting slots with clients and then confirms her few chosen meeting slots with clients from all around the world. Following each meeting, the system summarizes all results and recommendations to send to clients as well as to recommend for her future projects.



Bella takes a break from client meetings to study the latest advances in AI and AI ethics, as well as to attend virtual courses to learn more about how to build her professional profile to attract more clients. Then she investigates advanced AI-powered technologies to stimulate and analyze potential risks and biases in her clients' algorithms.



Bella contemplates her day and her encounters with clients. She then writes about her experiences on her personal blogs and on social media. She communicates with her followers, answers their questions, and enjoys being a member of this community of professionals who share her interests. Together, they share and raise awareness about ethical AI practices as a community.



PERSONAS IN SCENARIO 2

# THE ARTISAN RENAISSANCE

## Somchai

Male, 82

### Location

Bangkok, Thailand

### Occupation

Ceramic Artist

### Education Level

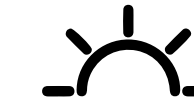
Master Degree

### Income Level

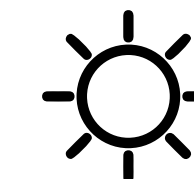
140,000 THB/month

### Quote:

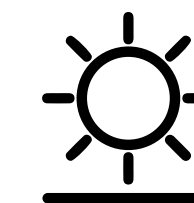
'Art is the language of the heart, and every creation tells a story of a life well-lived.'



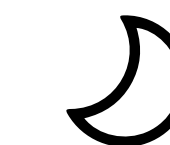
Somchai begins his day with fresh digital English garden scents to inspire his creativity in his pottery studio. He then begins to perfect his craft. Somchai still loves the traditional method of making pottery using a wheel because he believes it represents his special unique touch as well as a piece of his life story. He does, however, automate mundane processes like clay preparation to give him more time to develop and present his artistic vision.



Somchai enjoys a relaxing lunch break while checking out virtual galleries to appreciate and be inspired by the work of other artisan artists. He then enters the metaverse and walks down a street in Florence to rest his mind and gain inspiration from the Italian arts and architecture he observes.

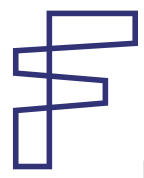


Somchai returns to his craft, concentrating on glazing and firing his ceramic art pieces. Again, he relies completely on his highly specialized skills, employing decades of expertise and knowledge in color selection and traditional firing techniques to generate one-of-a-kind finishes and textures that are distinctive to his ceramic creations.



Somchai returns to the metaverse to take part in a live collaborative creative session with artisan artists from all over the world. Artists use real-time sculpting, painting, and crafting technology such as VR glasses, haptics, holograms, and digital twins. After completion, the artwork is placed in a virtual art auction where supporters can purchase non-fungible tokens (NFTs) that represent this one-of-a-kind digital artwork.





PERSONAS IN SCENARIO 3

## SYNERGY IN SYNC

### Li Wei

Male with Color  
Blindness, 64

#### Location

Tianjin China

#### Occupation

Ethical AI Consultant Freelancer

#### Education Level

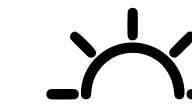
Emotional Experience Designers

#### Income Level

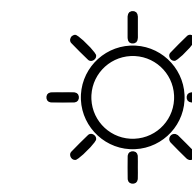
220,000 THB/month

#### Quote:

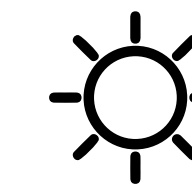
'Emotions are the colors of the soul; they light up our lives and enrich our experiences.'



Li Wei awakens to the view of the Tianjin Eye, his room lighting adjusted to ease his visual impairment and allow him to enjoy the beauty that surrounds him. He then accesses his office management system to meet Sarah, his virtual assistant. The system detects his color blindness immediately and changes the interface to provide optimal visibility and ease of use. Sarah then leads him through a suggested daily routine based on his peak productivity hours, previous performance, and expected preferences.



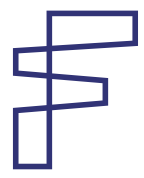
Li Wei joins a virtual meeting with the team he oversees from all over the world. Because of language differences, the system smoothly converts foreign languages to each user's native tongue in real time. During the meeting, Sarah orders a quick lunch with all the nutritious benefits Li Wei requires and it is seamlessly delivered to his doorstep right in time when the meeting ends.



Li Wei works on his project with the aid of a workplace management system that analyzes his creative process in terms of strengths and preferences using AI and machine learning. The system then delivers tailored suggestions to help him improve his creative abilities. Sarah then encourages Li Wei to take a mindful rest in the metaverse's virtual Zen garden and to stay hydrated.



Li Wei then ends his workday by asking Sarah to recommend fresh content that will provide him with new knowledge that he should gain to stay on top of his game. After analyzing Li Wei's present ability and career aspirations, the system searches online for the most complete courses that can best answer Li Wei's upskill needs and recommends them to him.



## PERSONAS IN SCENARIO 4

# BEYOND REALITY

# Ari

Non-binary, 21

### Location

Chonburi, Thailand

### Occupation

Cybersecurity Analyst

### Education Level

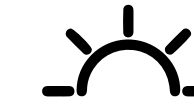
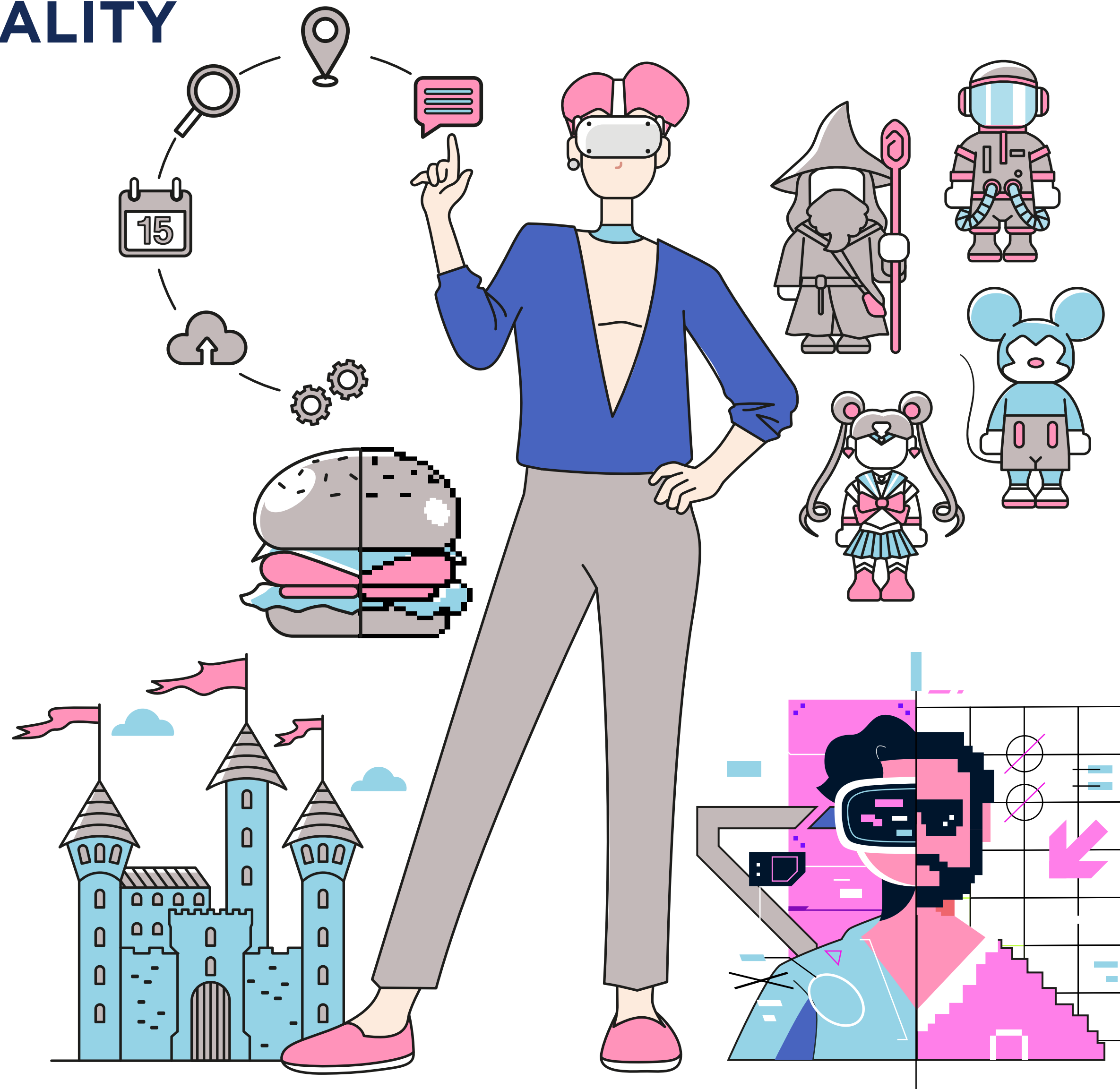
High School

### Income Level

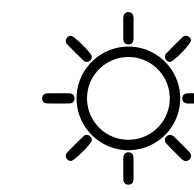
45,000 THB/month

### Quote:

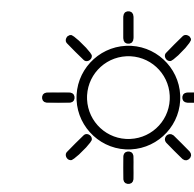
'Be the change you wish to see in the virtual world.'



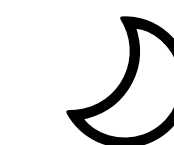
Ari awakens to a sound that transports him to an exciting setting of the metaverse theme he's currently working on, a magic-themed amusement park. After brushing his teeth, Ari puts on VR glasses and other 'Internet of Senses' technologies including haptics and audio, which provide him with surreal digital sensory experiences while working in the metaverse.



Ari joins his global team in avatar form, embodying his favorite character, Gandalf the Grey, to digitally explore this amusement park. Ari and his crew walk through the park, looking for subtle details that could point them in the direction of a possible threat in the system they're currently working on. Ari then transports himself to his favorite virtual restaurant to order lunch, after which a tasty burger is physically brought to his doorway.

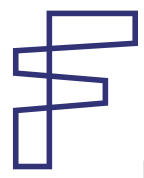


Ari takes a short break after lunch by virtually joining his crew to enjoy some of the park's rides. The group then walks through the park and enters an amphitheater to attend a 'MetaSecure World Forum' convention, where they meet other cyber security enthusiasts from around the world in their virtual avatars.



Ari completes his work in the metaverse by verbally documenting his experiences for the day through a dialogue with an AI-generated avatar. The system then assesses his experiences and makes recommendations for the metaverse company to improve. Ari then logs out to join his AI companion for dinner, which has been arranged as a candlelit romantic Italian evening.





PERSONAS IN SCENARIO 5

# TRANSFORMATIVE RESILIENCE

## Zandiwe

Female, 42

### Location

Durban, South Africa

### Occupation

Energy Storage Analyst

### Education Level

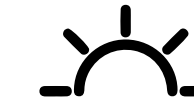
Undergraduate Degree

### Income Level

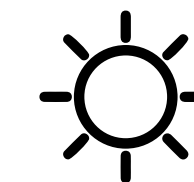
105,000 THB/month

### Quote:

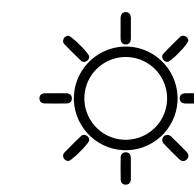
'Success is not about how high you climb, but how you make a positive difference in the world.'



Zandiwe is awakened by sunlight shining through her hand-crafted wooden shutters. Her room is then illuminated and its temperature regulated by smart thermostats and lighting systems, which optimize her home's energy consumption. She then takes a shower with purified rainwater collected by rainwater harvesting equipment she installed for her home. Zandiwe begins her day by listening to AI-personalized content concerning global climate change data and reports.



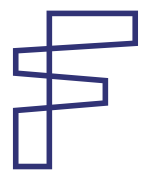
Zandiwe then pulls up data from her Thai clients to investigate the efficiency of their hydro-powered electricity sources to determine the effectiveness of their power grid integration. She then leverages cutting-edge sustainability data analytical tools to detect patterns to improve energy storage arrangements for her clients.



Zandiwe then virtually meets with her Thai clients to discuss the approaches she is proposing. Zandiwe can simulate each scenario in a highly realistic manner up to 100 years into the future using advanced visualization capabilities on the meeting platform. After the meeting, Zandiwe enters her new arrangements into her AI-powered log, so it can examine her work and advise her on her next assignments.



Zandiwe uses recycled greywater to water her homegrown vegetable garden. She then rides her solar-powered electric motorcycle to community-sourced package-free organic supermarkets to buy dinner ingredients. When she gets home, she cooks a plant-based meal and eats by candlelight to save energy. She then practices mindful meditation and reads before going to bed.



# GUIDES TO ACTIONS

In navigating the ‘Futures of Workforce’, it is vitally important for entities at all levels—governmental bodies, corporate organizations, and the workforce—to monitor pivotal elements that are crucial to adapting effectively within an evolving landscape. These elements encompass the management of human resources, the adoption and integration of emerging technologies, and the optimization of work environments. The guidance provided herein aligns with all five scenarios previously discussed, serving as a foundational framework for strategic action.

The accompanying guide offers a basic outline, intended to serve as an initial model that stakeholders can expand and tailor according to their unique objectives. It invites readers to enhance the framework by incorporating additional factors suitable to their observational scope—whether that be industry-specific trends, organizational culture, or operational nuances. Thus, while this guide sets the stage, it is designed with the flexibility to be enriched with more specific details, ensuring its applicability and utility within diverse organizational contexts.



## PEOPLE DIMENSION

### GOVERNMENT

1. Collaborate with governments around the world to support and foster global talent mobility.
2. Develop policies to promote the workforce’s critical future skills, such as offering tax incentives for workers to upskill and reskill or prioritizing school education funding to highlight critical thinking, problem-solving, and creativity abilities.
3. Create tax incentives, benefits, and protection measures that are relevant and inclusive of each worker type, such as gig workers and freelancers.

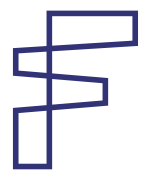
### ORGANIZATIONS

1. Collaborate with institutions such as universities to create specific programs to meet skill needs or ensure talent acquisition.
2. Create comprehensive apprenticeship programs to identify and retain talent early in people’s careers.
3. Use data-driven approaches to drive talent development and training programs, such as identifying skill gaps, tracking learning and development progress, and determining appropriate work arrangements, benefits, and support to retain talent.

### WORKFORCE

1. Stay informed and capable of identifying changes in technology and industry requirements to successfully evaluate one’s own capabilities.
2. Identify skill gaps and career goals to assess one’s own need for upskilling and reskilling.
3. Be open-minded about workplace diversity by acknowledging that people differ on so many levels and that everyone has valuable perspectives to contribute.





## TECHNOLOGY DIMENSION

### GOVERNMENT

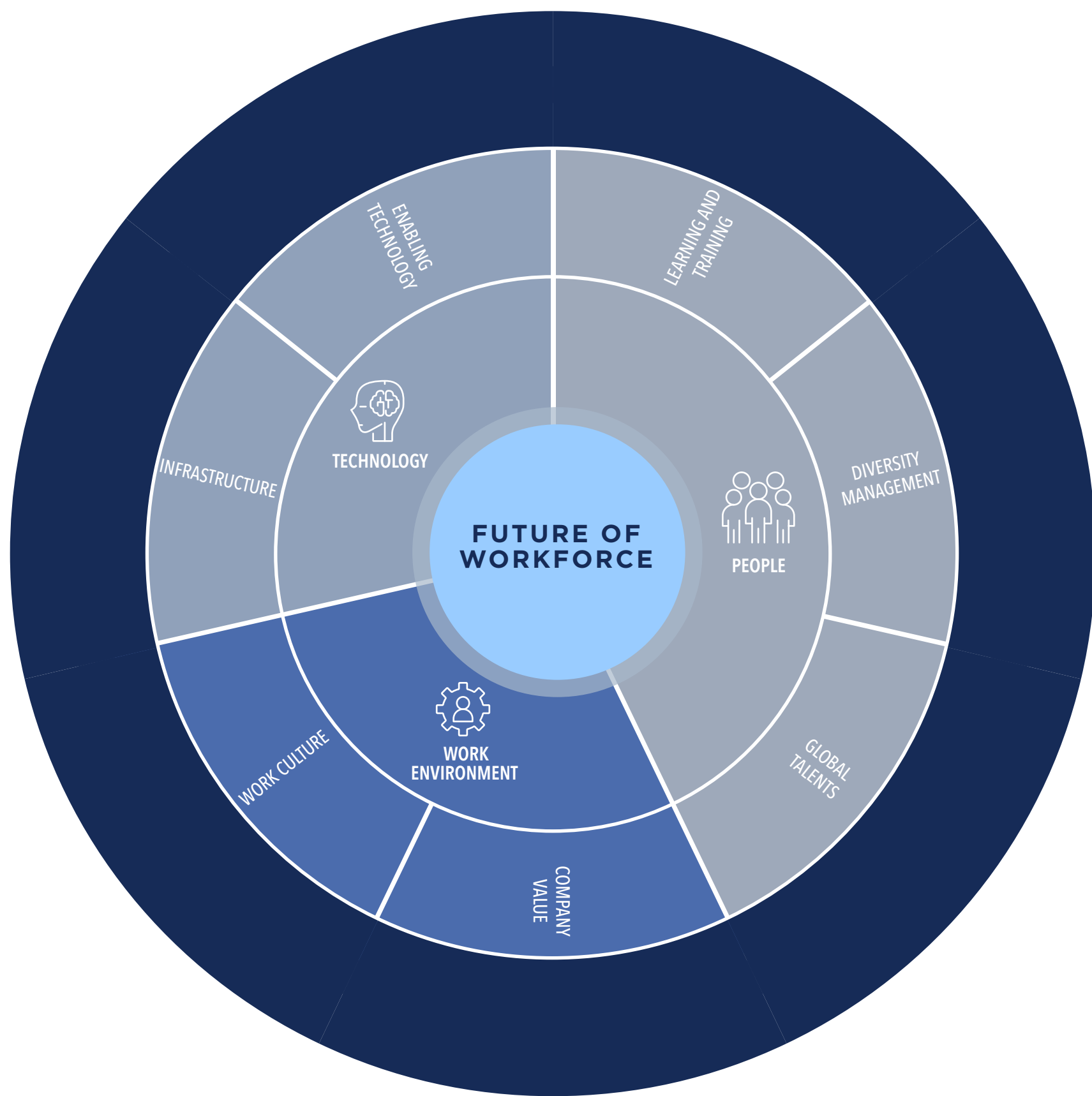
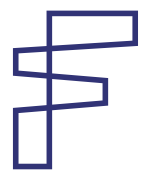
1. Invest in inclusive infrastructure development to guarantee that technologies are available to all groups of people, from early childhood to working age.
2. Assist research and development among academia, businesses, and research institutes to ensure that technological research and development is in line with local business and economic demands.
3. Assist employment transition through designing programs to help workers affected by technological disruption such as providing retraining, unemployment benefits, and assistance in finding new jobs.

### ORGANIZATIONS

1. Analyze business processes to identify automation and digital enhancement opportunities, directing workforce realignment and pinpointing roles and employees for transition, reskill, or upskill.
2. Reevaluate each job requirement to identify gaps where technology might streamline operations, and then implement technological adoption to give employees more time to contribute to higher-value jobs.
3. Cultivate a proactive learning environment by preparing employees for disruptions through regular training and reskilling and encourage them to adopt and innovate with new technologies to enhance their roles and contribute to organizational growth.

### WORKFORCE

1. Be agile and embrace a growth mindset by acknowledging that the world is continuously changing and be willing to evolve and adapt using a variety of practices such as investigating new opportunities, new ways of working, or adopting lifelong learning.
2. Build technical skill sets, both technical and soft skills and, in particular, cognitive skills, to stay relevant and competitive in the employment market.
3. Create a strong professional network with peers from various backgrounds to share expertise and best practices to effectively navigate technological advances and disruptions together.



## WORK ENVIRONMENT DIMENSION

### GOVERNMENT

1. Implement regulations that prioritize worker well-being beyond just financial compensation, which could involve setting standards for work hours, breaks, and mental health support, ensuring that workers' overall well-being is taken into account.
2. Encourage industries to integrate green initiatives into their operations and reduce their environmental impact by offering incentives and tax breaks to organizations that embrace sustainable and eco-friendly practices.
3. Provide public support for citizens to ensure their overall well-being such as free mental health consultation service and increased green public spaces.

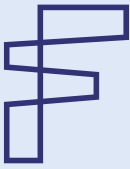
### ORGANIZATIONS

1. Develop a collaborative ecosystem that aligns internal functions, enabling them to jointly craft organizational development and HR strategies that mirror the company's core values and culture, ensuring employees grasp and reflect these essential beliefs in a unified way.
2. HR should innovate adaptive strategies that meet the evolving needs and values of employees, ensuring that the workforce remains engaged, and the organization stays responsive to the changing professional landscape.
3. Improve the work environment with well-being programs—like mental health support, flexible work options, skill development, and an empathetic, communicative culture—combined with green practices for a common purpose. Continuously refine these efforts by collecting employee feedback and adjusting to their changing needs for ongoing enhancement.

### WORKFORCE

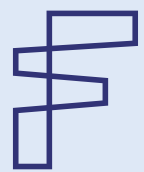
1. Prioritize one's physical and emotional well-being by, for example, practicing stress management techniques, keeping a healthy work-life balance, and getting help when needed.
2. Value and appreciate diversity in the workplace to improve teamwork and well-being for all by building an inclusive environment, actively being open to other perspectives, challenging bias, and supporting equity.
3. Be willing to provide constructive feedback and input to organizations about one's well-being needs to assist in crafting corporate policies and practices to better align with employee values and needs.





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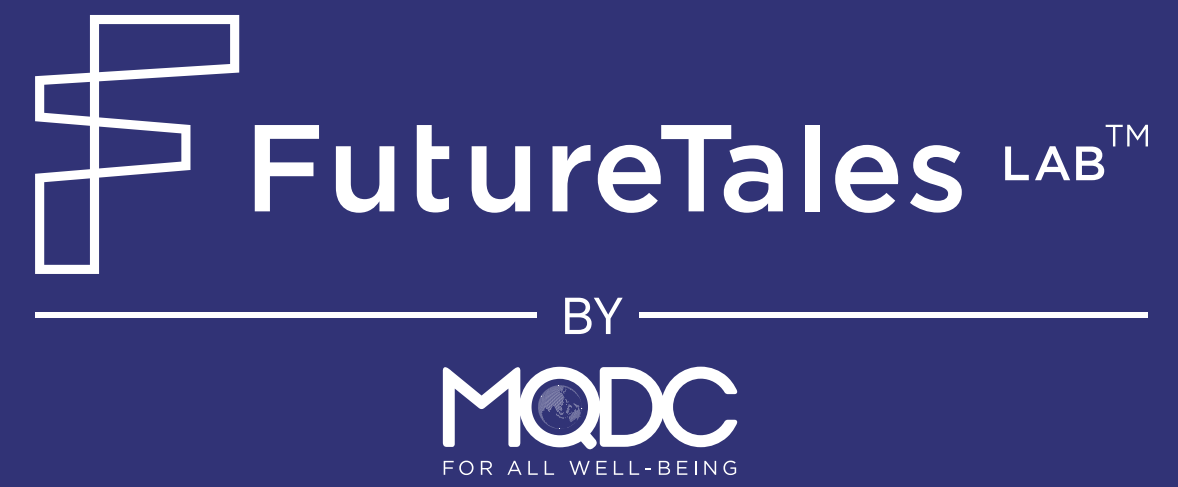
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