



Japan 2.0: Designing an Optimized Society

From the Real to the Virtual, and to Human Well-being

December 11, 2018

Keizai Doyukai (Japan Association of Corporate Executives)

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Summary
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From the Real to the Virtual, and to Human Well-being

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Keizai Doyukai (Japan Association of Corporate Executives)

1. Japan 1.0 (1945–2016): Preservation of the economic and social systems developed over the 70 years since World War II

- Japan rose from the ashes of World War II to become the world’s second-largest economic superpower, but it subsequently lost around 20 years as a result of failure to respond quickly enough to changes in the social environment in Japan and overseas. Foreign observers ask when Japan will drop out its existing systems, pointing out that Japan lags far behind in terms of computational design thinking employing artificial intelligence, or AI.

2. Japan 2.0 (2021–2045): A “national 100-year plan” to create a country that is sustainable and spiritually enriching

- Japan has no future unless it finds solutions for issues such as its declining birthrate and aging society, fiscal consolidation, and the global agenda including global warming. First we should employ a national 100-year plan to envision the form that a sustainable society will take, focusing on the period from immediately after World War II until around 2045, when “singularity” is expected to occur.
- We should leverage typically Japanese forms of innovation to once more lead the world as a nation at the forefront of problem-solving. We should bring about economic prosperity by achieving sustainable growth led by the private sector. Meanwhile, as we target fiscal consolidation by increasing revenue, we should also guard against the spread and entrenchment of income disparities, creating a country where citizens feel spiritually enriched.

3. Three dimensions and the temporal axis: Maximizing the value of our nation by backcasting from 2045

- To bring about Japan 2.0 we need to set dimensions in which to analyze and assess Japan’s value, and engage in a repeated cycle of scientific hypothesis and verification

based on data and evidence.

- *X* Axis: “Body”: Management of economics (MOE): Achieving economic prosperity
- *Y* Axis: “Technique”: Management of technology (MOT): Using innovation to forge our future
- *Z* Axis: “Mind”: Management of sustainability (MOS): Ensuring the sustainability of society
- Temporal axis *t*: Taking a global overview and discerning the winds of change to conduct analysis and preparation targeting the next generation

4. Lack of a sense of urgency: Future-oriented analysis and preparation will test our intelligence, perceptiveness, and imagination

- The three rising tides of transformation currently sweeping the world in the form of globalization, digitization (pervasion of AI), and socialization¹ are bringing change in three relationships: between the real and the virtual, between added value and utility, and between the individual and the group.
- Japan is lacking in a sense of urgency. Populist politics and ostensibly compliant public administration have covered up the real nature of our problems, leading to intellectual degeneration and depleted capacity for self-improvement. Envisioning a future society unbound by convention will require analysis and preparation; it is now, therefore, that the Japanese people’s ability to use intelligence and perceptiveness to understand their times, and to use their imagination to forge the next generation, is being put to the test.

5. The era of human well-being: Satisfying increasingly sophisticated, complex desires by adopting a multifaceted understanding of the economy and society

- In a society where all material needs are met, the economy cannot be measured using GDP alone. The yardstick must change from a measure of the real to a measure of the virtual as the era shifts from manufacturing to service provision.
- Diversifying values are making emotional identification central to work attitudes, consumer behavior, and investment behavior. Accordingly, increasingly sophisticated, complex desires should be considered in terms of a “measure of human well-being.”

¹ In this context, the word “socialization” is used to describe a contemporary society where a broad spectrum of entities are in constant contact with each other. Today, it is easier to bypass boundaries that separate businesses from individuals and cities from outlying areas to create new communities and societies. This environment allows social entrepreneurs, nonprofit organizations, and others to contribute more effective solutions to our global problems.

In the era of human well-being, we will use the left brain to think about tangibles, the right brain to experience intangibles, and our aspirations to guide our humanity in order to come up with optimal solutions.

- The corporate executives of the next generation will be required to leverage the imaginative capacity of computational design thinking employing AI.

6. Japan 2.0 Optimized Society: A virtuous cycle that combines maximizing the value of our nation with increasing the sustainability of society

- An optimized society is one in which maximizing the value of our nation and increasing the sustainability of society form a virtuous cycle. The vision we should aim for in 2045 is a society in which:
 - Advancing globalization has brought competition for supremacy over standardized infrastructure, as well as unique forms of differentiation
 - Advancing digitization (AI) has caused innovation to subsume morality and social norms
 - Advancing socialization has enabled both heteronomous (i.e., externally imposed) and autonomous governance to function according to public opinion
- A virtuous cycle should be maintained that combines maximization of value provided by organizations, such as corporations, the national government, local governments, and universities, with optimization of the benefits enjoyed by society and communities.

7. The power to optimize: Japan should leverage strengths that are not easily imitated to meet the world's expectations

- Japan has long experience of finding mutually acceptable solutions to competing interests and combining disparate influences. To give specific examples, the former is represented by the concept of *sanpo yoshi* (three-way satisfaction), and the latter by the concepts of *wakon kansai* and *wakon yosai* (Japanese spirit imbued with Chinese or Western learning, respectively).
- A distinguishing feature and strength of the Japanese people is the capacity to demonstrate creativity by adapting flexibly to external changes and combining disparate influences while at the same time passing on traditions and culture (i.e., the ability to optimize). We should hone this ability and take advantage of it to enable Japan to secure a competitive edge and reach new heights in meeting the world's expectations.

8. Humanism: A diverse, inclusive, and stable society

- As globalism and democracy evolve, we will still have to strive simultaneously for both happiness at the individual level and peace and prosperity for humankind as a whole.
- If some people's dissatisfactions erupt violently, or others get carried away with greed, the damage to our society would be incalculable. It will therefore become increasingly important to implement a redistribution policy with the potential to provide a basic income. More importantly still, humanity should remain at the heart of society however much AI may advance.
- Doyukai's ambition is to create a society that is sustainable, diverse, inclusive, and stable by truly using our aspirations to guide our humanity.

Japan 2.0 Optimized Society Corporate Executives' Declaration

December 11, 2018

Keizai Doyukai (Japan Association of Corporate Executives)

As globalization, digitization (AI), and socialization advance under Japan 2.0, the power and humanity of a diverse range of individuals will drive societal change. In this era, we will lead by example as corporate executives, spearheading the changes detailed below through progressive policy proposals and action. Our aim will be to establish a virtuous cycle that combines maximizing the value of our nation with increasing the sustainability of society.

1. Maximizing corporate value

We will maximize corporate value by proposing a vision of the world for our corporations to target and striving to realize that vision. To that end, we will define key issues for our corporations to solve, implementing solutions to those issues through our businesses. We will pursue management that makes the best possible use of tangible and intangible business resources in order to do so.

2. Bolstering capacity to innovate

We will build an innovation ecosystem that combines a global open-and-closed strategy² with individuality, capability, and intellect in a variety of forms to achieve benefits such as business scalability and rapid societal implementation of the advanced technologies necessary to facilitate creation of new value.

3. Encouraging active participation by a diverse range of individuals

We will make society more dynamic by marshalling individuality, capability, and aspiration in a variety of forms to boost diversity and make it ubiquitous. To this end, we will create environments in which individuals can participate actively irrespective of personal characteristics including nationality, age, gender, or whether or not they have a physical disability.

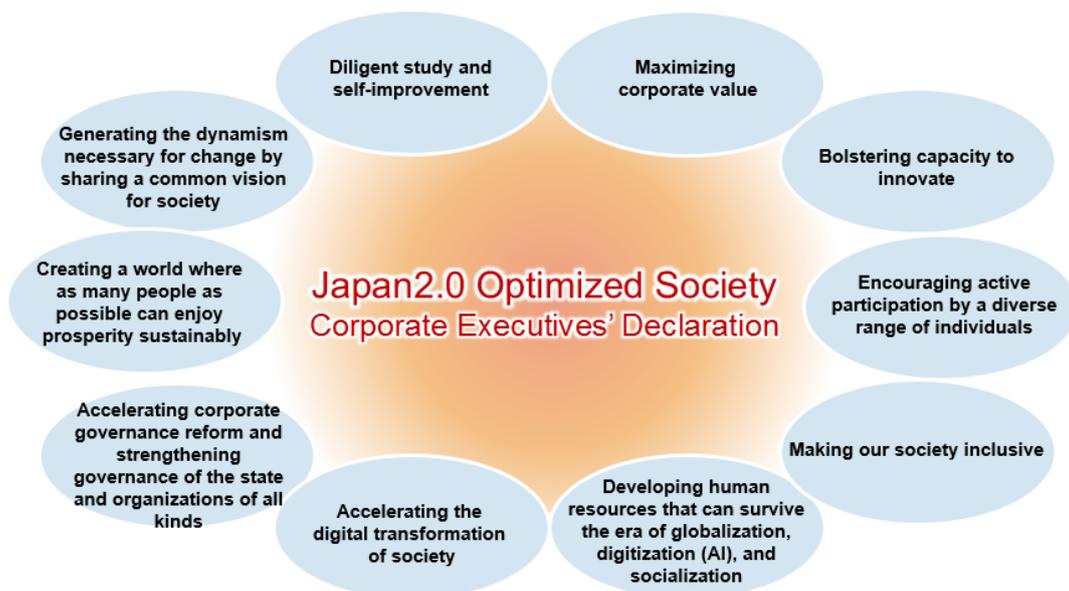
² A strategy of conducting open innovation in noncore areas while retaining closed innovation in core areas.

4. Making our society inclusive

We will seek to improve people’s ability to transcend differences and personal interests and meet halfway to solve issues (i.e., their ability to optimize) in order to bring about an inclusive society where nobody is left behind by the changes resulting from diversifying values and technological innovation.

5. Developing human resources that can survive the era of globalization, digitization (AI), and socialization

We will support the lifelong development of human resources throughout the process from school-based education to recurrent education in later life. Such human resource development will encompass the study of morality to cultivate individual humanity, as well as basic academic skills, and creative skills for producing innovation. It will also include advanced specialist expertise and liberal arts education of international standards, as well as capabilities and skills that meet the demands of economic and social change.



6. Accelerating the digital transformation of society

We will accelerate digital transformation of the organizations that make up society, including corporations, the national government, and local governments. We will seek to achieve Japan’s vision for society and address issues requiring solutions by using digital technologies including AI-based data analysis to design businesses and policies.

7. Accelerating corporate governance reform and strengthening governance of the state and organizations of all kinds

We will accelerate corporate governance reform and make bold risk-taking and rigorous enforcement of compliance the two mainstays of business management. We will encourage reform of Japan's governing institutions, as well as efforts to strengthen governance at organizations of all kinds that supply goods or services, including the introduction of a governance code for universities.

8. Creating a world where as many people as possible can enjoy prosperity sustainably

We will contribute to creating a multilateral framework for free trade, ensuring availability of food and water, increasing the sustainability of the global environment, and achieving the long-term goals of the Paris Agreement. In addition, we will participate actively in discussions concerning free and fair utilization of data and development of the regulations that accompany technological innovation, spearheading the establishment of global standards.

9. Generating the dynamism necessary for change by sharing a common vision for society

We will endeavor to bring about the optimized society targeted under the Japan 2.0 vision by conducting discussions and taking action in collaboration with the younger generation and other groups that make up society, as well as a wide range of other corporate stakeholders, to inspire them to identify with the need for social change.

10. Diligent study and self-improvement

As corporate executives we will study hard to continue improving ourselves, inspired by our mission of passing a sustainable society on to future generations by undertaking the reforms and new challenges necessary to do so.

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Keizai Doyukai (Japan Association of Corporate Executives)

I: The 70 Years since the War and Japan's Future

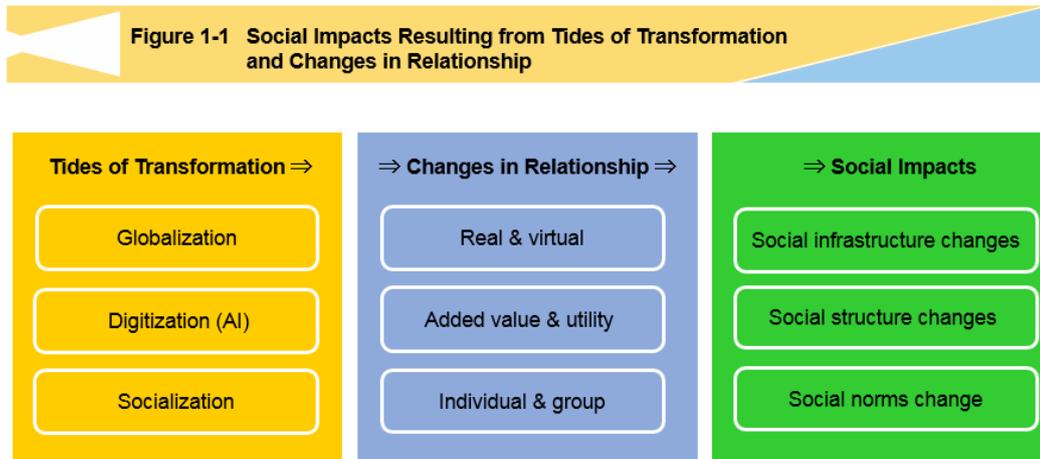
1. Lack of a Sense of Urgency

“Lack of a sense of urgency”: there are no words that more accurately describe contemporary Japan than these.

In his inauguration speech on April 27, 2015, Yoshimitsu Kobayashi, the chairman of Keizai Doyukai (Japan Association of Corporate Executives; hereafter, Doyukai) clearly set out Doyukai's aim to build a sustainable society. His speech at that time cited three problems that Japan needed to face up to, acknowledging the urgent truth that Japan would have no future unless it broke with convention. The first problem was the problem of accumulated public debt caused primarily by the social security system particular to Japan. The second was a problem common to many advanced industrial nations: the combination of a declining birthrate and an aging society. The third was the so-called global agenda of issues including poverty and economic disparity, ethnic and religious conflicts, depletion of energy and natural resources, and global warming. The speech also pointed out the three rising tides of worldwide transformation that would bring significant changes to our social environment into the future. These were globalization, digitization (AI), and socialization (referred to collectively hereafter as “the GDS transformation”).

Subsequently, in his remarks at Doyukai's annual meeting in April 2016, the chairman noted that these three rising tides were developing into a tidal wave, bringing change in three relationships: between the real and the virtual, between added value and utility, and between the individual and the group. He also noted these changes would in turn

transform social infrastructure, social structure, and social norms.



In just the three and a half years or so since April 2015, the world has been plunged into turbulence that nobody could possibly have foreseen on both the geo-economic and geo-political fronts. New challenges include Brexit, the “America-First” approach of US president Trump, and the situation on the Korean Peninsula, where increasing tension has been followed by a move toward reconciliation. Corporate activities too have been subject to major constraints as a result of increasing income disparities, the spread of nationalism, and market intervention by governments, among other factors. From another perspective, developments such as social fragmentation and instability, the emergence of state capitalism, and the increasing momentum of protectionism and supremacism could be considered the result of companies following the logic of capital through to its conclusion and losing the balance between partial optimization and overall optimization. Global corporations and other organizations are now rediscovering the importance of sustainable, inclusive societies, and are struggling to achieve or put into practice the appropriate corporate behavior. However, it is beyond doubt that the three tides of worldwide transformation will continue to advance irreversibly.

Meanwhile, one cannot deny a sense that Japan is at the mercy of the tides of change represented by the GDS transformation. Japan’s efforts to address the areas where it needs to catch up with other countries, as well as the areas it needs to tackle as a front-runner itself, are proceeding at a snail’s pace. Japan once suffered such devastation that it was virtually reduced to ashes, and now more than 70 years later, it is once again facing a crisis comparable to that faced in the aftermath of the war. And even more

critically, awareness of this crisis is lacking among the Japanese people.

2. Intellectual Degeneration and Depleted Capacity for Self-Improvement

If we consider Japan 1.0 (1945–2016) to be the period of around 70 years that it took for this new crisis to materialize, during this era Japan achieved miraculous recovery and growth, becoming the world's second-largest economic superpower. Behind that miracle was the fact that, faced with an overwhelming shortage in supplies of goods, Japan had a clear goal of catching up with and overtaking the US and Europe. A major factor in its success was the contribution to mass production and mass consumption provided by diligent workers benefitting from a standardized education who took up employment in manufacturing industries.

However, around the time when Japanese values had diversified, the economy had become more service-oriented, and the majority of Japanese people felt that Japan had finally caught up with the US and Europe, the bubble economy collapsed. GDP growth subsequently stalled from the mid-1990s onward and Japan ended up losing around 20 precious years.³

With regard to problems such as the declining birthrate, aging society, and fiscal deficit, by the mid-1970s Japan's total fertility rate had dropped below 2.0 and the government had already started issuing deficit-covering government bonds. These problems were therefore highly predictable and there should have been plenty of time to implement countermeasures.

Yet, once Japan's corporations had caught up with those in the US and Europe, and were placed in the unprecedented position of breaking new ground, there were few that changed the paradigm, rose to the challenges of the unknown and what the future may bring, and became world leaders. Meanwhile, as Japanese companies struggled to find solutions to immediate problems, the world's global corporations were taking on new challenges, or striving to create new business models by accumulating empirical knowledge through repeated trial and error. Particularly in terms of employing digital technologies to solve social issues, therefore, Japan's corporations

³ In the early 2010s, a foreign intellectual working globally asked Doyukai's chairman when Japan would free itself from the economic and social systems founded on its postwar experience of success.

and society are now lagging behind.⁴

Japan's politicians are prone to pandering to its citizens with short-term, self-centered "I'm all right, Jack" thinking. This populist political approach and ostensibly compliant public administration have covered up the real nature of our problems. We contend that this has caused citizens to stop thinking, hindering their self-reliance and autonomy, leading to intellectual degeneration and depleted capacity for self-improvement, and ultimately giving rise to a wide variety of problems.

3. Use Intelligence and Perceptiveness to Discern the Winds of Change

The advance of the GDS transformation is likely to continue uninterrupted from now on, bringing both benefits and drawbacks. Democracy and capitalism are fundamentally affected by the three tides of transformation, and there is no way of telling whether they will be able to continue advancing regardless, or will instead go into retreat. To take a specific example, the innovation epitomized by digitization is both the world's most important source of added value and a key concern in terms of national security. Amid conflict over data supremacy, the issue of how to effectively utilize data while protecting the rights of individuals and ensuring the conditions for fair competition has become so important that it has the power to determine not only corporate value, but even national value.

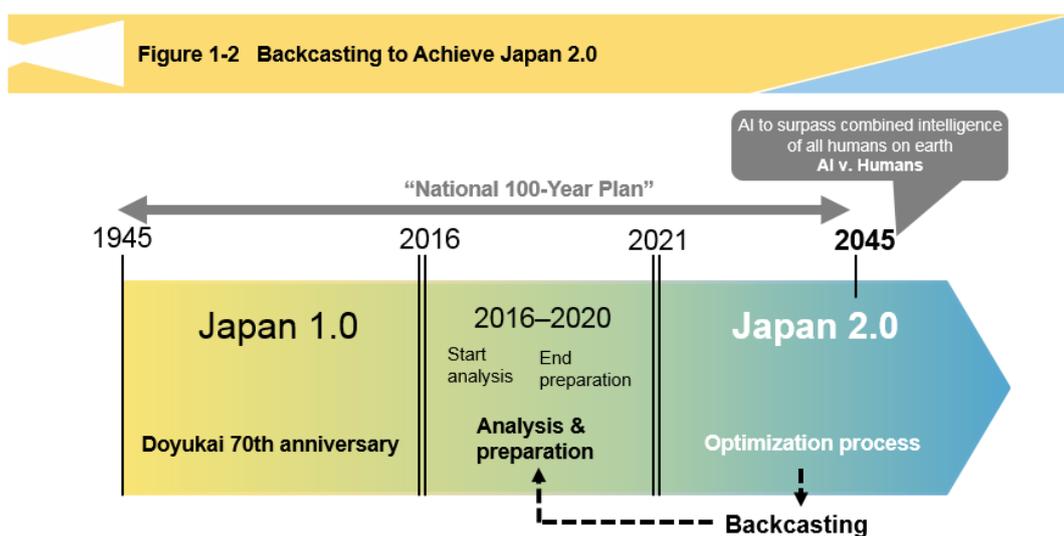
Some say that around the year 2045 "singularity" will occur, marking the point at which artificially produced intelligence surpasses the combined intelligence of all humans on earth. Furthermore, the Israeli historian Yuval Noah Harari states in his book *Homo Deus: A Brief History of Tomorrow* that "In the twenty-first century we might witness the creation of a massive new unworking class. . . . This 'useless class' will not merely be unemployed—it will be unemployable."⁵ Nobody knows whether these events will come to pass, but undeniably many people are feeling anxious and

⁴ There is a method of using AI-based big data analysis to design brand-new business models and visions for society called computational design thinking. During the chairman's mission to the US in October 2018, Yoshimitsu Kobayashi was informed of some harsh truths by people he met who are involved in this area. They said that Japanese companies implementing this method of thinking are nonexistent, and that Japan is lagging far behind.

⁵ Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow* (Harvill Secker, 2016), 379. Incidentally, it is interesting—if not of direct relevance—to note that the famous French existentialist philosopher Jean-Paul Sartre (1905–1980) observed that "Man is a useless passion."

under threat, while discussions regarding the necessity for a basic income (i.e., a guaranteed minimum income) are starting to take place.

If we consider the postwar period in terms of a national 100-year plan, Japan 2.0 (2021–2045) will be an unprecedented era built by taking on new challenges following thorough analysis and preparation. The future is not something we should predict, but something we should forge by honing our imagination and embracing our own aspirations. As the Japanese people stand at this inflection point in time, our intelligence, perceptiveness, and imagination are being put to the test to establish whether we can discern the winds of change and build a new era.



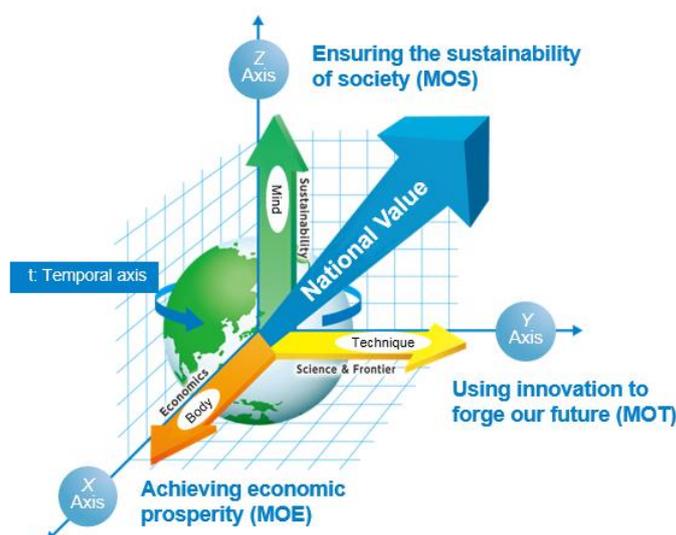
4. Use Analysis across Three Dimensions to Maximize the Value of Our Nation and Optimize Society

The true value of Doyukai is found in our commitment to assess the situation objectively, delve into the essential aspects of the problems, formulate hypotheses for their resolution, and finally, implement audacious measures for success.

In order to bring about Japan 2.0 as envisaged under our national 100-year plan, we need to set clear dimensions in which to analyze and assess Japan’s value and engage in a repeated cycle of scientific hypothesis and verification based on data and evidence to bring our nation and our society up to date. In specific terms, we need three dimensions subject to three different timescales: short-term, medium-term, and long-

term. The first such dimension would be on the *X* Axis—achieving economic prosperity—where our management of economics (MOE) will be put to the test. Next, the *Y* Axis—using innovation to forge our future—will require management of technology (MOT). Finally, for the *Z* Axis—ensuring the sustainability of society—management of sustainability (MOS) will be essential. In addition to these, we must set a temporal axis, designated as *t*; this axis requires us to constantly take a global overview and discern the winds of change to analyze and prepare for the next generation.

Figure 1-3 Using Three Dimensional Analysis to Maximize the Value of Our Nation



If we commit fully to pursuing maximization in each of the three dimensions, their sum—the value of our nation—should also be maximized. At the same time, however, we need to ensure that what is true at the individual level will also be true for the nation as a whole, and that national value can be constantly upgraded and maintained in a maximized state. We would be getting our priorities back-to-front if the nation prospered but the Japanese people did not.

We should think, speak, and act for ourselves, aiming to bring about a situation in which maximizing the value of our nation and increasing the sustainability of society form a virtuous cycle—or, in other words, an optimized society. And that should start with each individual citizen: we all need to hone our ability to optimize as a typically Japanese strength. We must expedite educational reform and a revolution in human

resources development across the board, from elementary education through recurrent education in later life. Areas to be targeted include the ethics and morality necessary as a human being, the practical learning needed for work, creative skills to spur innovation, and advanced specialist expertise of world-class standards.

Figure 1-4 A Society with a Virtuous Cycle of Optimization



In the following pages we start by setting out the current situation and issues for the world and Japan, focusing on the year 2045 to envision the ideal society to aim for. Then we present our policy proposal, *Japan 2.0: Designing an Optimized Society—From the Real to the Virtual to Human Well-being*. This proposal, targeting stakeholders in our society of all types, and especially corporate executives, aims to realize our vision for society through backcasting.

II: Current Situation and Issues for the World and Japan

1. The World's Current Situation and Issues: Overcoming the Adverse Impacts of Globalization, Digitization (AI), and Socialization

(1) The tides of transformation: Globalization, digitization (AI), and socialization

The world is in the midst of three tides of major change, referred to collectively as the GDS transformation. These three tides will alter the nature of the world and its countries on a scale and with a speed beyond our expectations, overturning conventional preconceptions. Examples of benefits the GDS transformation will bring include expansion of trade and investment via economic partnerships among countries and regions, productivity improvements through technological innovation such as AI, and expansion of human networks across cyberspace. On the other hand, however, it will also be a cause of adverse impacts such as more widespread income disparities, and the fragmentation and destabilization of societies. Thus the GDS transformation combines both benefits and drawbacks, but it is irreversible and will continue to gain ground on into the future.

Globalization is enabling corporations to boost their competitiveness by securing business resources both domestically and overseas to further advance their development of global value chains that generate added value. Consequently, it will become more natural than ever before for corporations to select the countries or regions best suited to specific operations or functions, whether research and development, production, sales, or after-sales services.

Digitization, meanwhile, has brought IT-related innovations including AI, the internet of things (IoT), and cloud computing that, together with advances in hardware, are changing even our society, the existing structure of industry, and the nature of work itself. An irreversible, revolutionary period of digital transformation is now truly upon us. Within industry, different fields have been merged as value has transitioned from the real to the virtual, and from there to personalization. At the same time, technologies such as virtual reality, augmented reality, mixed reality, and robotics are making it increasingly possible to deliver a diverse range of high-quality services irrespective of the physical distances involved. It is also possible that digitization could accelerate globalization. For example, the World Trade Organization (WTO) predicts that trading

costs will decrease due to technological innovations such as AI, IoT, and Blockchain, thereby boosting trading volume and facilitating trade by small and medium-sized enterprises and corporations in developing nations, as well as increasing the number of service transactions.⁶

Socialization has brought about a community in which anybody, wherever they may be in the world, can connect with others over the internet and transmit their own content. Consequently, the influence and roles that states, corporations, and other organizations have within societies are becoming decentralized to individuals. Moreover, growth in internet-based communication such as social media, and in the overall volume of information distributed, has now started to change individuals' decision-making and behavior in the real world. As the transmission of information in cyberspace exerts an ever-increasing impact on politics, public administration, the economy, and corporate activities, it has become difficult to judge the authenticity of information, making discernment of the truth a challenge.

We must minimize these adverse impacts of the GDS transformation and avoid being swept away by the tides of change as we decide on Japan's future course toward building new economic and social systems.

(2) Functional Decline of the democracy

The tides of the GDS transformation are now giving rise to nationalist tendencies, as exemplified by the UK's withdrawal from the EU and the policies of the Trump administration in the US. Citizens' dissatisfaction with existing political parties and governments that offer no concrete measures to counter the negative aspects of globalization and digitization (AI)—including employment instability and increasing income disparity—has prompted the rise of populism, endangering democracy itself. Confronted by issues requiring international cooperation, such as climate change and multilateral economic partnerships, people also feel less involved in politics that cannot address their own grievances and expectations. The contraction of the middle-class accompanying persistent low growth has, moreover, produced a rift between ordinary working people and the elite, while the waning number of moderates within

⁶ World Trade Organization, *World Trade Report 2018*, Key Facts and Findings and Executive Summary.

party politics has produced a similar rift between liberals and conservatives. Meanwhile, governments and legislatures have failed to respond to this societal polarization by seeking compromise to find realistic, effective solutions for healing such rifts.

Another factor contributing to social fragmentation and instability is social media. Two typical features of social media are cybercascades, in which group discussions are swept in a certain direction, and group polarization, whereby people are exposed only to opinions that agree with their own, thereby reinforcing their own convictions. The problem, therefore, is that social media can be used to deliberately spread false information (or “fake news”), destroying the very foundations that underpin voting based on policy discussion grounded in facts.

For Japan to ensure optimal decision-making based on the democratic process, we need to update how democracy functions to bring it in line with the age of the GDS transformation. In specific terms, we need to enhance democracy’s capacity to curb increasing income disparity and societal rifts and embrace a diverse range of values, and to enable people to make decisions following deliberation based on accurate information.

(3) The changing face of capitalism

The tides of the GDS transformation are really changing capitalism. As global competition intensifies, corporations seek to boost their productivity by shifting the various operations and functions that make up their value chains overseas. However, productivity improvements achieved through globalization of corporate activities do not necessarily result in higher wages for all workers at home.

As digital technology advances, it is leveraging IoT to steadily extend zero-marginal-cost business models and the sharing economy (whereby individuals use consumer-to-consumer markets to exploit their assets and time) into the manufacturing and energy sectors. Further advances in IoT, which connects objects over the internet, will make data the primary source of value, changing economies so that control of data becomes the single most important factor in value creation. At the same time, however, it will become harder than before for individuals to upgrade their capabilities and skills in

line with the rapid progress of technological innovation.

Globalization and digitization (AI) are liable to cause employment instability and growing disparity between those who possess data and those who do not possess data. Achieving sustainable growth without causing social fragmentation requires global capitalism to be modified at an accelerated pace.

(4) Sounding the alarm over digital dictatorship

In addition to the changes that the tides of the GDS transformation will bring to the world, and to the nature of democracy and capitalism, another factor that will come to have a major impact on our societies going forward is digital dictatorship. In his speech at the Davos meeting of the World Economic Forum in January 2018, Yuval Noah Harari addressed humanity's destiny, sounding the alarm over a potential digital dictatorship in which those who controlled data would control the future. According to Harari's book, the supreme value of Dataism is "information flow."⁷ He also stated that the Dataist idea that "organisms are algorithms" is significant due to its day-to-day practical consequences.⁸

Even now, global platform provider corporations in the US are monopolizing data, while in China the state is reinforcing its own control over data under the cybersecurity law. Although the entities that control data may differ, it is fair to say that both the US and China are taking action in pursuit of data supremacy. The EU, in the meantime, enforced its General Data Protection Regulation in May 2018, tightening regulations protecting personal data as part of competition policy. Meanwhile, Asia-Pacific Economic Cooperation (APEC) established Cross-Border Privacy Rules governing data transfer within the APEC area.

⁷ Harari, *Homo Deus*, 444.

⁸ Harari, *Homo Deus*, 454.

Figure 2-1 International Comparison of Data Policies

		 US	 Japan	 EU	 China
Personal information	Legislation	No comprehensive law protecting personal information	Act on the Protection of Personal Information	General Data Protection Regulation	Cybersecurity Law
	Out-of-region transfer	Generally freely permitted	Consent of the individual in question generally required		Out-of-region transfer generally prohibited for personal information and important data held by critical information infrastructure operators (government bodies, and providers of energy, financial, and transportation services, etc.)
Industrial information	Out-of-region transfer	Generally freely permitted, except in the security sphere			
	Key industries	Government issues recommendations on use of cloud services	Data management rules apply in the medical and financial spheres	Obligation to manage data relating to public services, etc. within each country	
Principal actors in managing/using data & overall approach		Corporations Free flow of data	Develops rules in collaboration with US & EU	Individuals Right to informational self-determination	State Restrictions on data flow

As data’s importance as an asset increases, we need to prevent the spread of digital dictatorship by establishing a global framework for owning and using data democratically. The creation of rules to govern data distribution and protect intellectual property is now a key issue within economic diplomacy strategy, and closer collaboration among Japan, the US, and Europe will be required to determine the overall objectives.

(5) Efforts to address the global agenda

At the same time as the GDS transformation and pursuit of data supremacy are changing the world and our existing democratic, capitalist societies, we have other issues at a global level that all countries must work together to tackle in the run-up to 2045. The United Nations (UN) has set 17 issues to be resolved by 2030 in the form of the Sustainable Development Goals. And with the world’s population predicted to reach 9.5 billion⁹ by 2045, the year targeted under the Japan 2.0 vision, the issue of how to share limited resources such as food, water, and energy is set to persist beyond 2030. With regard to the climate change issue, the 2015 Paris Agreement achieved a

⁹ United Nations, *Probabilistic Population Projections based on the World Population Prospects: The 2017 Revision* (2017).

consensus on holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels (as well as reducing greenhouse gas emissions to net zero in the second half of the twenty-first century).

Innovation in digital technologies and accelerating globalization are making the decline of existing industries likely to occur more rapidly than was previously the case, while the transfer of labor to new industries is not proceeding smoothly. Increasing income disparities are predicted as the digital transformation continues to gain ground; in trying to prevent such widening disparities the challenges will be to improve the way social security functions and create mechanisms that can sustainably provide social security appropriate to each individual. The essential duty of human societies is to overcome difficult challenges and pass a better world on to future generations. Establishing sustainable mechanisms for resolving issues will require individual countries to set aside short-term aims and nationalism, focusing instead on the pursuit of overall optimization at the global level.

Corporations too will be called on to come up with new business models and technological innovations aimed at creating sustainable societies. An example would be the development of a circular economy that employs digital technology to facilitate the reuse of resources and energy, recycling of products and parts, and effective use of assets. On the other hand, realizing such an economy would also require technological innovation to reduce power consumption by the information processing system that would strategically obtain, store, and dispose of the exponentially burgeoning volume of data.

Japan must aim to be the front-runner in resolving worldwide issues such as these through international collaboration and private-sector leadership.

2. Japan's Current Situation and Issues: Depleted Energy for Change

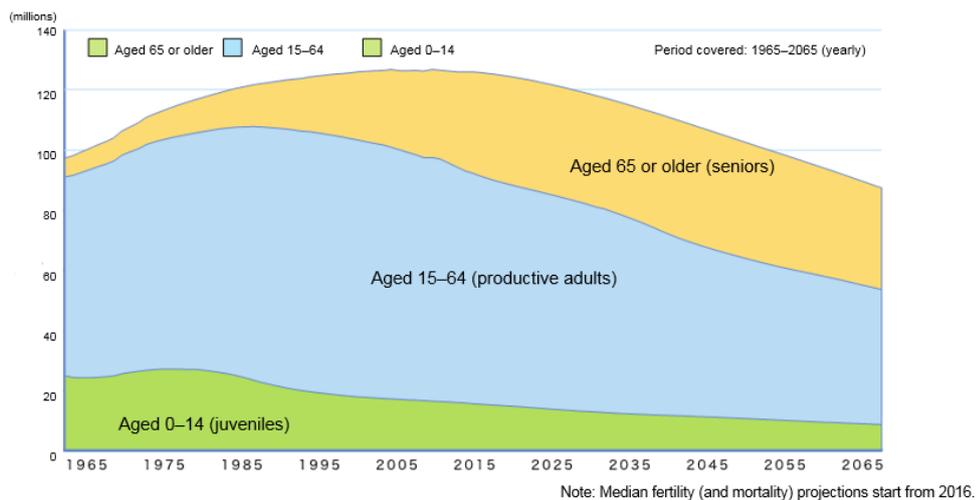
As we approach 2045, Japan's declining birthrate, aging society, and overall population decline will progress further still. However, Japan's energy is severely depleted when it comes to changing its economic and social systems to meet not only the demographic challenges, but also the tides of the GDS transformation.

(1) Delays in institutional reform to address the declining birthrate, aging society, and overall population decline

It is estimated that in 2045 Japan’s total population will be around 100 million, while the ratio of senior citizens will be around 37 percent, and the number of productive adults will be around 56 million.¹⁰ However, delays in institutional reform to address the declining birthrate, aging society, and overall population decline have caused the issues described below.

Figure 2-2 Population Projections for Japan

It is estimated that in 2045 the number of productive adults will be around 56 million



Source: Prepared by Doyukai from data in the *Population Projections for Japan (2017)* of the National Institute of Population and Social Security Research.

Under Japan’s social security system, the pensions, medical care, and nursing care of the growing number of senior citizens are reliant on the social insurance premiums paid by the dwindling working population; the system will therefore become increasingly unsustainable. In addition, the senior demographic receives a disproportionate share of social security benefits. However, it is likely that the future speed of technological innovation will cause structural changes in industry to occur very rapidly, making employment and incomes more prone to instability. It will therefore be essential to make social security for the working population function better.

¹⁰ National Institute of Population and Social Security Research, *Population Projections for Japan (2017)*.

In rural areas, the declining birthrate, aging society, and overall population decline are already progressing rapidly and 47.5 percent of Japan's municipalities are now underpopulated.¹¹ Maintaining and extending self-reliant, dynamic communities requires the transfer of authority and financial resources from the state to local governments, as well as improved administrative efficiency to deal with financial constraints. However, no obvious progress has been made in these regards. In fiscal 2014 and 2015, the government formulated its Comprehensive Strategy for Overcoming Population Decline and Revitalizing Local Economies (phase 1), but there remains some way to go in drawing up and implementing distinctive growth strategies that make the most of individual regions' attractions.

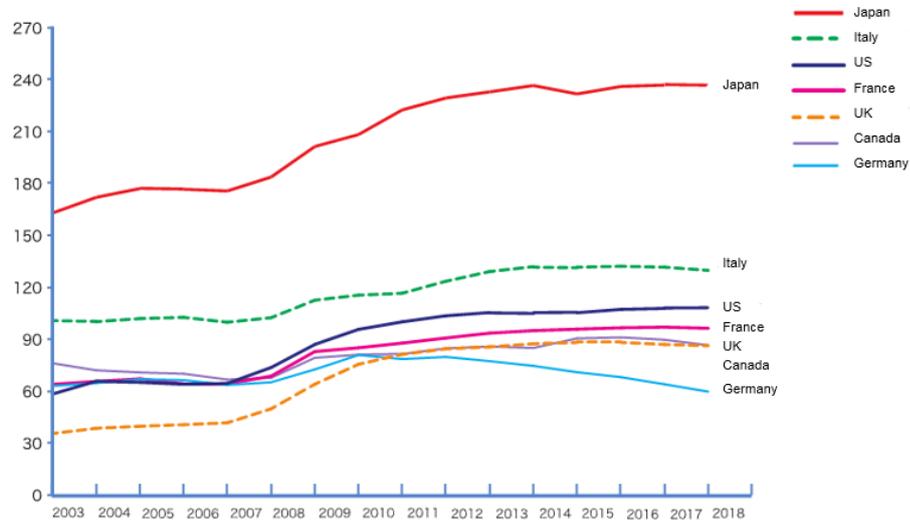
Japan's political system has failed to redress the prevailing "silver democracy," in which the growth of the senior population increases the likelihood that policy will reflect the opinions of the senior demographic more than others. A concrete example is the government's lack of measures to ensure equality in the value of votes between rural areas, where the ratio of senior citizens is high, and urban areas, where the younger generation and families with children account for a greater percentage of the population.

(2) Weak political commitment to fiscal consolidation

In the past the government has indicated targets for fiscal consolidation, but the political commitment necessary to achieve those targets has been weak and the state of Japan's public finances continues to be worse than that of any other developed nation.

¹¹ Ministry of Internal Affairs and Communications, *Heisei nijuhachi nendo ban kaso taisaku no genkyo (gaiyoban)* (Current status of measures to prevent population decline [summary] FY2016).

Figure 2-3 Balance of Government Debt as Percentage of GDP in Major Industrialized Nations



Source: Ministry of Finance, *Nihon no zaisei kankei shiryō* (Data relating to Japan’s public finances), March 2018.

The government has set a target of achieving a surplus in its primary balance by fiscal 2025, but it has not yet indicated a specific path toward fiscal consolidation based on prudent economic projections. Moreover, it has not yet managed to set out the prospects for reforming revenues and expenditures after a primary balance surplus has been achieved with a view to shrinking the balance of outstanding debt.

For some time already there have been calls to implement a number of policies, such as increasing the consumption tax rate to over 10 percent, making payment of social security benefits more efficient, and using data to make medical and nursing care costs more reasonable. However, the government’s short-term, populist perspective when faced with implementing potentially painful reforms has compromised its ability to take effective action. Consequently, costs associated with social security¹² are on a steady growth trajectory and, having failed to secure a reliable source of revenue to cover these costs, Japan’s public finances are now arranged in such a way that the burden is postponed for future generations to deal with.

The fact that tasks such as reinforcement of fiscal discipline, regional devolution of

¹² Of approximately 58.9 trillion yen in general expenditure for fiscal 2018, social security costs accounted for approximately 33.0 trillion yen, or around 56 percent.

power, and equalization of the value of votes have remained unaccomplished, persisting as problems for years, is an indication of Japan's lack of state governance.

(3) Low labor productivity and a declining capacity for innovation by international standards

As Japan's population continues to decline, increased labor productivity and innovation are crucial to achieving sustainable economic growth. However, improvements in labor productivity are hindered by our inflexible labor laws and labor market, as well as employment practices that result in a high degree of homogeneity and limited mobility among human resources. At the same time, corporations' dedication to self-sufficiency and their underinvestment in research and development, combined with other factors such as the declining role of universities as research and education institutions, have led to flagging innovation.

Compared with other member states of the Organisation for Economic Co-operation and Development (OECD), Japan ranked 21st for labor productivity per worker in 2016.¹³ However, when assessing worker performance, our labor laws and employment practices fail to prioritize results over time spent at work, and for that reason work style reforms to improve productivity are making no progress. In fact, neither corporations nor the government have made any headway in leveraging digital technologies to improve work efficiency. On the other hand, the M-shaped curve that represents women's rate of participation in the labor force is steadily disappearing. Nonetheless, the ratio of non-regular employees is high, and options in terms of diverse, flexible work styles still appear to be limited.

In the Global Innovation Index for 2018 Japan ranked 13th.¹⁴ Among other Asian countries, Singapore ranked 5th, South Korea ranked 12th, Hong Kong ranked 14th, and China ranked 17th.

¹³ Japan Productivity Center, *Rodo seisansei no kokusai hikaku 2017 nendoban* (International comparison of labor productivity for 2017).

¹⁴ Global Innovation Index 2018. The index is produced through collaboration between Cornell University, INSEAD, and the World Intellectual Property Organization.

Figure 2-4 Global Innovation Ranking

Japan ranked 13th in the global innovation ranking

Global Innovation Index 2018

Country (economic bloc)	2018 ranking	2017 ranking	Change in ranking
Switzerland	1	1	0 →
The Netherlands	2	3	1 ↗
Sweden	3	2	-1 ↘
UK	4	5	1 ↗
Singapore was 5th	5	7	2 ↗
US	6	4	-2 ↘
Finland	7	8	1 ↗
Denmark	8	6	-2 ↘
Germany	9	9	0 →
Ireland	10	10	0 →
Israel	11	17	6 ↗
South Korea was 12th	12	11	-1 ↘
Japan	13	14	1 ↗
Hong Kong was 14th	14	16	2 ↗
Luxembourg	15	12	-3 ↘
France	16	15	-1 ↘
China was 17th	17	22	5 ↗
Canada	18	18	0 →
Norway	19	19	0 →
Australia	20	23	3 ↗

Japan needs to encourage the innovation necessary to prevail in competition with other Asian countries, but its capacity for building an innovation ecosystem is limited. Factors contributing to this limited capacity include weak links between major corporations and start-ups, and stagnation in links between industry and academia that leverage universities' strengths such as fundamental research, while reforms to university governance aimed at pursuing such links have also stalled. Another problem is that Japan is unable to enact regulatory and institutional change flexibly in response to technological innovation with the result that societal implementation and commercialization of innovations takes a long time. Innovation is held back by a setup comprising strong vested interests protected by regulations that have never changed.

(4) Society's limited diversity and lack of the dynamism necessary for change

At the heart of these issues are the economic and social systems developed from postwar recovery through the era of rapid economic growth to the bubble economy, and the fact that Japanese people have not managed to relinquish their attachment to the success experienced under those systems. Solving challenges more complex than the ones faced at that time requires individuals with a variety of values and ideas to pool their wisdom. However, Japan is not yet a society in which a diverse range of

individuals, including women, senior citizens, people with disabilities, and non-Japanese, can participate fully.

At the same time, the Japanese people lack a sound sense of urgency regarding such issues as the risk of fiscal collapse; the diminished international competitiveness of our corporations, our universities, and our nation; the decline of rural areas; and the dependence of our national security on other countries. Even if people were aware of the issues, provided there were no adverse effects in their own lives, it is highly unlikely that anxiety and dissatisfaction at the status quo would accumulate to the extent that society would be destabilized. In fact, according to the Cabinet Office's Public Opinion Survey on the Life of the People conducted in June 2018, the ratio of the Japanese public who are satisfied with their current lifestyles has reached 74.7 percent.¹⁵

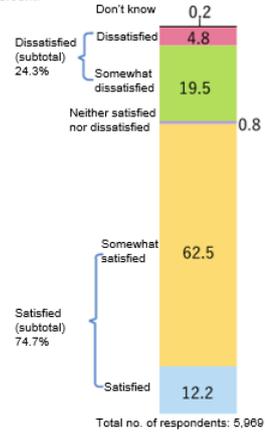
From a worldwide perspective, however, Japan's per-capita GDP in 2017 was 17th among the 36 OECD member states, and the gaps between Japan and other countries such as the US or Germany are widening. This situation indicates a Japan where people are content with their day-to-day lives and remain oblivious to their country's declining position within the world as a whole. The dynamism to change society is born out of a constant craving for a better life and a better society, and a strong sense that one's own survival is in danger. Now that the GDS transformation is about to drastically alter the world, we must avoid lapsing into complacency; instead, every single one of us must think about what we should do to help change Japan, and take action accordingly. Failure to do so could lead to national decline over the medium to long term.

¹⁵ This is the sum of the percentages that responded "Satisfied" (12.2 percent) and "Somewhat satisfied" (62.5 percent).

Figure 2-5 Japanese People's Life Satisfaction and Per-Capita GDP

Japanese People's Current Life Satisfaction

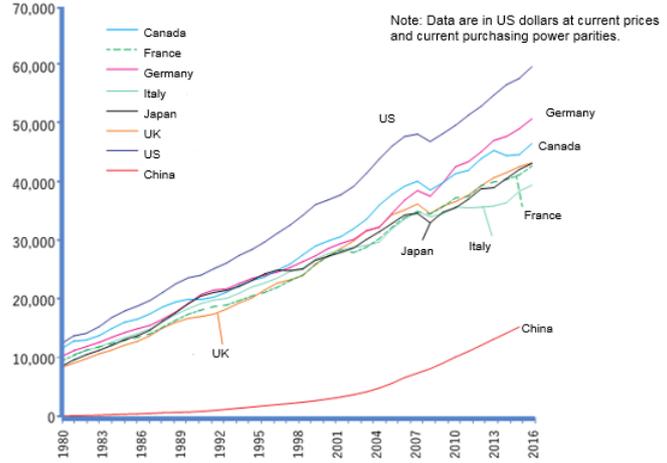
In a Cabinet Office survey, the ratio satisfied with their current lifestyles reached 74.7 percent.



Source: Cabinet Office, *Public Opinion Survey on the Life of the People* (conducted in June 2018).

Per-Capita GDP (Comparison with Other G7 Nations & China)

Japan's per-capita GDP in 2017 was 17th among the 36 OECD member states, and the gaps between Japan and other countries such as the US or Germany are widening.



Source: OECD.

III: Japan 2.0: Designing an Optimized Society

1. Finding Optimal Solutions by Understanding Human Nature and the Essence of Economic Activities, and Being Aware of the Winds of Change

(1) Seek happiness, overcome challenges, and survive in a prosperous society, then pass that society on

To conceive of a new type of society, we need to understand the instincts and nature of the people who will make up that society. Living beings including humans have always competed for survival over and over in order to provide for their offspring. From the time humankind first emerged until the present day, we have overcome a whole array of difficulties, in the process gaining a great deal of wisdom for collaboration. It is said, however, that once people's desires for survival and safety are met, they seek satisfaction of their economic and social desires, and then their desires for self-fulfillment.

Since around the turn of the twenty-first century, there has been a marked tendency toward declining birthrates in many advanced industrial nations that developed mature societies after achieving economic prosperity. In Japan's case, the population has already started decreasing, and what is more, an increasing number of young people lack the desire to engage in any form of competition or challenge. This state of affairs will lead directly to national decline: we need to cultivate an environment that will enliven young people, as well as opportunities for them to embrace aspirations.

What do young people born in a prosperous era want, and what do they consider to be matters of urgency? What gives life meaning for people living in prosperous societies? And—to address a philosophical question given that singularity could even occur before 2045—what is a human being? These questions provide the starting point for us to gain self-mastery, survive in competition, solve the issues faced by Japan, and pass a sustainable society on to the next generation.

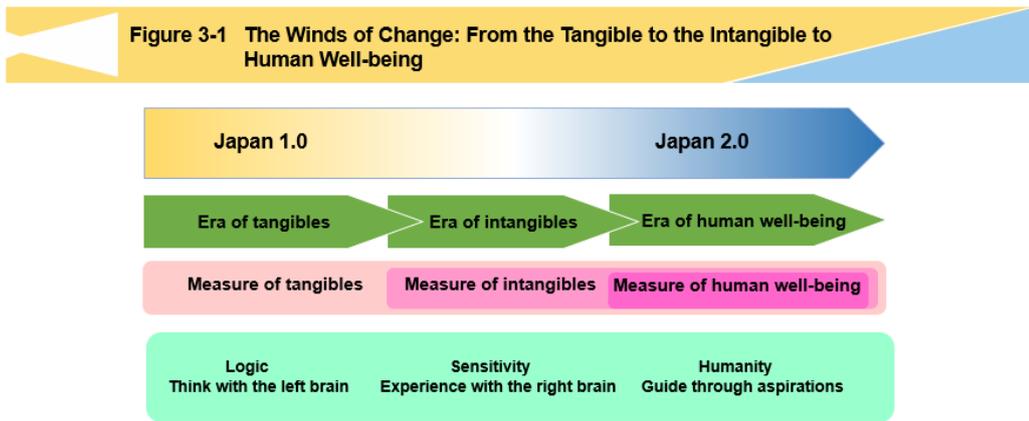
(2) Change the paradigm to reflect the era, from the real to the virtual to human well-being

Since fiscal 2015 Doyukai has pondered the essence of economic activities predominant in mature societies. After the war, Japan enjoyed uninterrupted economic growth, at one point becoming the world's second largest economy. However, its inability to keep pace with other industrialized nations in an increasingly information- and service-oriented economic environment, combined with the rapid growth of emerging nations, reduced Japan to a fading presence on the world stage. We must face up to the fact that we were too slow to change our business paradigm to embrace new growth fields because we were in thrall to the memory of our earlier manufacturing-oriented success.

We now urgently need to improve productivity in our service industries, while converting manufacturing industries into service industries is key to adding high value. Accordingly, we need to accelerate the structural shift in industry from tangible products to intangible products and change the yardstick by which we gauge GDP and other aspects of the economy from a measure of the real to a measure of the virtual.

We now find ourselves in an era when our material needs are satisfied and innovations are making a steady stream of outstanding products and services available at zero marginal cost or free of charge. As added value no longer increases in proportion to utility, it has become impossible to measure prosperity using GDP alone, making a multifaceted approach essential. With the diversification of values, individual desires are becoming increasingly sophisticated and complex, and people's work attitudes, consumer behavior, and investment behavior are being transformed. Increasingly, the emphasis is on factors such as social contribution, environmental impact, diversity, or emotional identification with a corporate philosophy. As we go on to create a new era, therefore, a "measure of human well-being" is likely to be essential as a yardstick for understanding the economy and society in a multifaceted way.

We need to transition from an "era of the real" to an "era of the virtual," and from there to an "era of human well-being." Japan's ability to lead in the next generation will depend on whether we are able to use the left brain to think about the real, the right brain to experience virtual, and our aspirations to guide our humanity in order to come up with optimal solutions. In the next generation, corporate executives in particular will need not only scientific and artistic understanding, but also the imagination to embrace lofty aspirations and forge the future using design thinking.



(3) Maximize value provided by organizations, optimizing the benefits enjoyed by society

Corporate executives constantly think about issues such as capital regulation, labor laws, taxation systems, and industrial infrastructure to select optimal locations for business operations. This is said to be an era in which corporations choose the countries in which they operate, but countries themselves need to move beyond a passive approach of waiting to be chosen by corporations. Instead, national and local governments must change their mind-sets to compete with other national and local governments in actively proposing locational advantages that will enhance competitiveness for their “customers,” the corporations. In recent years, it has also been said that individuals choose the countries in which they live, but it is only once national and local governments feel a sense of urgency about their exposure to competition that their efforts to use innovation for reforming public services will pick up pace.

Whether profit-making or non-profit-making, if organizations¹⁶ supplying goods and services within society constantly competed in terms of ingenuity and operational improvements, replacement of the old with the new would naturally be hastened. The result would be to maximize the value provided to stakeholders by organizations including national and local governments, nonprofits, universities, and research institutes, as well as corporations. Meanwhile, societies and communities¹⁷ would

¹⁶ In this context “organizations” means groups where the roles and functions of group members are demarcated and coordinated in order to achieve certain shared goals.

¹⁷ In this context “societies and communities” means the groups within which people gather together to lead their lives.

evaluate and choose the goods and services provided by individual organizations fairly and from multiple perspectives. With the help of full information disclosure, societies and communities would assume the role of deciding and acting based on consideration of factors such as the acceptability of the business activities that produced the goods or services, or the risk of market failure or increased income disparity occurring. As a result, society would arrive at the optimal solutions to sustain its existence and the benefits enjoyed by society would be optimized.

(4) Use evaluation by stakeholders across three dimensions to drive a virtuous cycle of optimization

In order to maximize the value of the various goods and services produced for society, it is essential to clearly stipulate who will be responsible for evaluating the entities providing the goods and services, as well as the criteria to be used. First of all, therefore, the evaluators should be stakeholders of the entity in question. They should use cost-benefit analysis based on data and evidence to quantify the evaluation criteria for each of three dimensions: the *X* Axis (achieving economic prosperity), the *Y* Axis (using innovation to forge our future), and the *Z* Axis (ensuring the sustainability of society). This evaluation framework is applicable not only to a range of organizations, but also to individuals as the producers of goods and services. Moreover, these approaches enable society to drive a sustained virtuous cycle combining maximization of value provided by organizations with optimization of benefits enjoyed by society.¹⁸

With regard to the solution providers that offer solutions to social issues, to take corporations first, their evaluators should be not only shareholders, but also other stakeholders including employees, business partners, and local communities. And the

¹⁸ To take the example of rising gasoline prices, for example: on the *X* Axis logistics costs would rise and car outings would be curbed, which would reduce economic prosperity, while on the *Y* Axis corporations would conduct research on electric vehicles, and on the *Z* Axis further reductions in CO₂ emissions would be achieved. When increasing use of electric vehicles caused price escalation and shortages for rare earths, on the *X* Axis car production would be disrupted and the price of secondhand cars would rise, while on the *Y* Axis research institutions in the industrial, governmental, and academic sectors would find a way out by developing alternative materials, and on the *Z* Axis the risk of international conflict over scarce resources would decrease. Reduction in gasoline demand and in the population itself might then combine to accelerate the closure and merger of gas stations. On the *X* Axis, reduced convenience in rural lifestyles would be a concern, but on the *Y* Axis local governments and other entities would encourage social innovation in areas such as ride-sharing and automated driving, and on the *Z* Axis local communities would be revitalized. It should therefore be possible for the various organizations to spur innovation in these ways and increase the sustainability of the Earth's environment, national security, and local communities.

evaluators of public administrative bodies such as national and local governments should be citizens or local residents, so they could be individuals and corporations that pay taxes, for example. Given that the only possible evaluators of politics are members of the electorate, it should be emphasized that the quality and performance of an optimized society would ultimately come down to individual judgments.

2. Considering the Three Worldwide Tides of Transformation to Envision the Optimized Society of 2045

(1) Advancing globalization has brought competition for supremacy over standardized infrastructure, as well as unique forms of differentiation

In the optimized society of 2045, advancing globalization has brought progress in the development of “hard” and “soft” infrastructure that is shared worldwide. Because corporations that gain control of this infrastructure command an overwhelming competitive advantage, fierce competition occurs and an extreme form of oligopoly is gaining ground. Society enjoys the benefits of high-quality, cheap infrastructure, while competition policy and measures to counter vulnerability to malfunction have been optimized.

In addition, corporations seek to differentiate themselves from others by competing on the basis of unique features, becoming solution providers for their customers and society at large. Corporations have honed their unique features into core competencies, pursuing open innovation in everything else that they do. Meanwhile, diversity throughout society has resulted in widespread awareness that comparative advantage is derived not from distinctions such as nationality, age, or gender, but from the characters of individuals.

Consequently, understanding of characteristics such as ethnicity, religion, and culture has deepened, and both rediscovered latent values and humanity’s shared universal values have been optimized.

(2) Advancing digitization (AI) has caused innovation to subsume morality and social norms

In the optimized society of 2045, innovation, as epitomized by digitization (AI), spurs further innovation, continuing to advance relentlessly. In this situation, the morality and social norms that had become integral to human psychology and the fabric of earlier societies have been subsumed within innovation's advance. Consequently, morality and social norms have been optimized to promote sound innovation without impeding it.

Rights issues with regard to all forms of data generation, acquisition, use, accumulation, and disposal in the private sector have been addressed through data democracy by building international consensus on the need to take steps to protect individuals' rights before maximizing utility. Meanwhile, progress has been achieved in discussions on cyber security as a crucial issue for ensuring national security. From a technological perspective, all forms of personal information (including biometric and medical data, as well as data on property and movements) can be captured and cannot be subsequently altered; from a legal perspective, the anonymity and confidentiality of information is fully assured, while the right to be forgotten and the right to disconnect are firmly established. As a society, therefore, we have succeeded in optimizing the relationship between technological capabilities and legal protections.

Huge volumes of accumulated big data and advanced AI have become easily accessible in the form of social infrastructure, and this infrastructure underpins AI's continuing evolution via its interaction with humans. For individuals to win through in this highly digitized (AI-prevalent) era, the standards required of them in terms of personal capabilities are brutally demanding. The key considerations are what concepts individuals can envision, how they turn those concepts into reality, what their personal aspirations are, and whether or not they can bring their own characters and strengths into play—these attributes are the sources of added value.

These developments have led to reevaluation of the way education is conducted, resulting in a renewed awareness of the importance of science in pursuing the truth and workings of the natural world, and of philosophy in seeking answers to the questions of what a human being is and what the purpose of life might be. The content to be studied and the methods of study have both been optimized accordingly.

(3) Advancing socialization has enabled both heteronomous and autonomous governance to function according to public opinion

In the optimized society of 2045, as digitization has advanced, transparency and quantification have increased in every possible situation, while the monitoring capacity of nonprofits and third parties has been bolstered, and democracy—previously a cause for concern due to its declining capacity to function—has progressed by making use of digital technologies. It has become impossible for conventional politicians with their “I’m all right, Jack” thinking to win the support of the electorate, and both in name and in reality society embodies the idea that politics throughout Japan should be determined according to public opinion.¹⁹ Meanwhile, the parts of the Constitution of Japan that are not in keeping with globalization, digitization, and other changes in the social environment are promptly amended on the basis of national debate. In addition, society has become proficient at dealing with the drawbacks of social media, the fake news problem, and related issues, while public opinion’s ability to take shape and exert an influence within the cyber (i.e., virtual) space surpasses that in the real world.

In a society where information of all types can be captured and cannot subsequently be altered, the efficacy of external monitoring has increased dramatically. This has strengthened the governance of organizations (including corporations, administrative bodies, and universities) from a heteronomous (i.e., externally imposed) perspective. At the same time, it has led to a virtuous cycle whereby the existence of effective external monitoring has encouraged better autonomous governance by those inside organizations, thus optimizing both forms of governance.

In the political sphere too, advancing socialization has not only impacted citizenship education, voting behavior, and election campaigns, but has also hastened political reform including reform of the electoral system, thereby optimizing transparency, fairness, and equality in the value of votes.

¹⁹ The first article of the Imperial Oath of Five Articles promulgated in 1868 stipulated that deliberative assemblies should be established on an extensive scale, and all governmental matters should be determined by public discussion.

3. A Japan That Meets the World's Expectations by Finding Solutions to Competing Interests and Combining Disparate Influences

As they advance, the three tides of transformation will engulf countries, corporations, and individuals all over the world, subjecting the organizations that provide goods and services to society, and the individuals who make up those organizations, to fierce competition. In such circumstances, it will be of vital importance to take advantage of Japan's distinguishing features and strengths in order to secure a competitive advantage and maximize the value of our nation.

Japan has long experience of finding mutually acceptable solutions even when interests compete. A typical example is the concept of *sanpo yoshi* or “three-way satisfaction,” whereby merchants of the Edo period (1603–1867) known as *Omi shonin* came up with optimal solutions that were acceptable to all in three-way situations comprising a seller, a buyer, and society at large. This attitude is one of Japan's most significant distinguishing features, cultivated over its long history and passed down in an unbroken line to the present day. It is not something that another country could imitate overnight.

Moreover, Japan could not necessarily be described as a country where ethnic groups and cultures of different geopolitical origins are part of daily life, but located as it is in the Far East, it has matured by flexibly assimilating disparate influences, thereby creating its own unique forms of value. Doyukai's policy proposal compiled in July 2013 referred to “mitochondria and curried udon noodles”;²⁰ this metaphor illustrated the concept of *wakon kansai* or *wakon yosai* (Japanese spirit imbued with Chinese or Western learning, respectively), which is a matter of historical fact. Japan's strength is its capacity to demonstrate creativity by adapting flexibly to external changes and combining disparate influences while at the same time passing on its history, traditions, and culture (i.e., the ability to optimize).

Leveraging these core competencies will make it possible to ensure that society grows sustainably. By around 2045 Japan will be indispensable to the world as a country where diverse human resources bring their capabilities to bear in finding solutions for

²⁰ Further details are included in our policy proposal entitled *Future Vision of Japan 2045: Mitochondria and Curried Udon Noodles* (released on July 30, 2013; Japanese only).

social issues and generating cutting-edge innovation. As a society, we will seek satisfaction of spiritual needs rather than material needs. Respected by the world as a country that is “Making Japan Not Only Valuable, but Indispensable to the Common Good of the World,”²¹ Japan will reach new heights in meeting the world’s expectations for satisfaction of desires in terms of the real, the virtual, and human well-being.

As the start of Japan 2.0 in 2021 draws closer, the world is currently in the midst of an irreversible, revolutionary period of digital transformation, creating a situation in which rival leaders are vying for supremacy. Precisely because we are faced by such circumstances, it is imperative to make the most of Japan’s strengths, understand the tides of the GDS transformation, gain self-mastery, and prevail over the competition.

In the following pages we first address what we ourselves should do, setting out the measures to be taken for each of the X, Y, and Z axes in order to maximize the value of our nation through analysis of the three dimensions. Then we offer recommendations on reforming Japan’s governing institutions and strengthening governance to establish a shared foundation for maximizing national value.

²¹ Further details are included in our policy proposal entitled *HR Strategies to Forge a Japan That Is Both Wanted and Needed: Immediate Action to Restore Japan’s Luster* (released on June 21, 2018; Japanese only).

IV: The Spirit of Humanism and Doyukai's Efforts to Improve Itself

1. Building a Society That Is Diverse, Inclusive, and Stable

The phrase “winner takes all” appeared time and again in a certain book²² that drew attention to the advent of the “winner-take-all society” and its harmful effects, and from around the late 1990s the phrase came to be in frequent use. As the twenty-first century got under way, 2008 brought the collapse of Lehman Brothers, after which the world experienced a financial crisis on a scale seen only once every hundred years. This forced a reconsideration of the prevailing form of global capitalism, which had gone too far. Meanwhile, another noteworthy development was the democracy movement that had its origins in Tunisia at the end of 2010 and spread instantly via social media in an atmosphere of economic distress and frustration with prolonged autocratic government, gaining momentum to become the Jasmine Revolution (or Arab Spring). Elsewhere, the problem of immigrants and refugees fragmented societies in Europe and the US, while anti-globalism intensified.

In Japan, meanwhile, the declining birthrate, aging society, and overall population decline continued to advance, but we have now finally changed course toward actively accepting non-Japanese workers.²³ If Japan is to learn from the experiences of Europe and the US and build a society that is diverse, inclusive, and stable, humanism must be the basis for all that we do.

Looking back at history, the experience of two major wars prompted the world to build bodies such as the UN, the International Monetary Fund, and the WTO to resolve disputes and achieve economic progress. We now need to reassess the roles played by these international frameworks to strengthen and make the most of them. As globalism and democracy evolve, we will still have to strive simultaneously for both happiness at the individual level and peace and prosperity for humankind as a whole.

Furthermore, humanity should remain at the heart of society however much AI may advance, and our personalities, rights, and dignity as human beings should remain

²² Robert H. Frank and Philip J. Cook, *The Winner-Take-All Society* (Free Press, 1995).

²³ On December 8, 2018, legislation partially amending the Immigration Control and Refugee Recognition Act and the Act for Establishment of the Ministry of Justice was enacted.

sacrosanct. If some people's dissatisfactions erupt violently, or others get carried away with greed, the damage to our society would be incalculable. In the era of human well-being, therefore, it will become increasingly important to implement a redistribution policy with the potential to provide a basic income. Doyukai's ambition is to create a society that is sustainable and stable by truly using our aspirations to guide our humanity.

2. Challenging Ourselves to Improve as an Action-Oriented Policy Group Spearheading Reform

At the ceremony to commemorate the 70th anniversary of Doyukai's founding on November 21, 2016, we announced our new vision to improve our own organization entitled *Doyukai 2.0: A Group of Distinctive Individuals with a Sense of Ownership and Initiative*. Doyukai is an action-oriented policy group spearheading reform, and as a group of corporate executives who are keenly aware of our role and responsibilities, and put them into practice, we have taken various forms of concrete action in the last two years alone, primarily in the following areas:

- First, we took steps to retain and increase the number of ambitious individuals among our membership by reviewing our definition of the term "corporate executive" as a requirement for membership. In a related move, we upgraded and clarified the role and responsibilities of individuals recommending new members. Meanwhile, we took steps to maintain a network of former members who had been forced to leave Doyukai as a result of taking up public office or being transferred by their companies. In addition, we started using a videoconferencing system to hold meetings allowing participation from far away, including from overseas; such meetings are held at least once a week.
- Second, we bolstered our ability to communicate our policy proposals externally. We established the Public Policy Council to take a systematic view of Doyukai's policy proposals and address action by the government and its agencies. It does so by investigating important policy issues promptly and responsively, creating a network of experts to enhance policymaking capacity; the council has held numerous discussions.

- Third, we took steps to make use of external advice in the way we run our organization. We set up an Advisory Group comprising five experts as an independent body. We receive advice from the Advisory Group every six months, which we use to improve the way we run our organization. The group adopts a variety of perspectives, including comparison with other business associations, to advise on a range of issues, such as the content of proposals, the timing of proposal announcements, and how we can do more to put proposals into practice.
- Fourth, we rolled out the *Forging Our Future Together* project, making use of our “terrace,”²⁴ as a space in which to engage in dialogue with members of the next generation and a range of groups within society. Under the auspices of this project we hold educational forums targeting junior high school students, teachers, and parents; research- and essay-writing contests for students at vocational high schools; and contests for research papers on constitutional reform by undergraduate and graduate students. Other initiatives include creating and operating the Regional Revitalization Platform website (in Japanese) to forge links across the public and private sectors in both rural areas and the Tokyo area.
- Fifth, we took steps to encourage young corporate executives and entrepreneurs to participate in Doyukai’s activities. We set up a Young Business Leaders Engagement Committee and created a new system enabling participation in our activities by individuals sympathetic to Doyukai’s principles who are willing to work with us to enhance Doyukai’s value. These individuals are individually nominated to contribute to Doyukai under a special membership category separate from regular membership. During this fiscal year we intend to accept several young corporate executives and entrepreneurs, who will participate in Doyukai’s activities as nominated members from next fiscal year.

In November 1947 Doyukai published the draft concept of modified capitalism *Draft Proposal on Corporate Democratization: The Concept of Modified Capitalism*, the content of which has been passed on by word-of-mouth to the present time. As Doyukai’s then chairman Banjo Otsuka explained, if socialism rushes to an extreme standardization, it results in dehumanization, while capitalism, if left alone to extreme

²⁴ “Terrace” in this case is a metaphor; it likens Doyukai’s membership (comprising business executives) to a building with a public space or “terrace” that is located outside the main building, but freely accessible, where members can mix with non-members.

laissez faire, causes disruption too. It was Otsuka's conviction that a new position should evolve at the midpoint of those two.

Having been founded the year after the end of the war, by its second year Doyukai was already publicly advocating the concept of an ideal society emphasizing humanity. More than 70 years since then, we once again intend to broadcast our proposals for a sustainable society with humanity at its heart, aiming to bring about the future we will all envision together.

The social environment in Japan and overseas is changing dramatically as a result of trends such as globalization, digitization (AI), and socialization, while society's stakeholders are themselves undergoing change. Within this context, Doyukai will continue challenging itself to improve as it strives to bring about the optimized society represented by Japan 2.0.