

# FROM PAPER TO DEFINITIVE ACTION

**“If you do not change direction,  
you may end up  
where you are heading”**

Lao Tzu, Chinese philosopher.

But to remain a profitable and sustainable business, which direction should you take? Set your course to your desired future with one of our foresight formats, that we have developed in our co-creation and innovation space “Ensō – The Space for Creators”.



### Ensō Foresight Workshop **MICRO**

Spend half a day with us and let us dive deep into 1-2 selected foresight topics, full of interesting insights, interactive parts and great discussions.



### Ensō Foresight Workshop **MEGA**

In one full day, we will deep dive into 4-5 selected foresight topics, make the topics tangible by showing live demos and give you some tips on experimenting with latest technology on your own. In several interactive sessions, we will work together on tackling challenges and creating solutions that work first time.



### Ensō Foresight Workshop **GIGA**

If you spend two days with us, you will gain insights into the future of society, generating an understanding of your future customers. Using a human-centered design approach, you will build visions for your products and services while getting to know relevant technology by trying out demos in a “Tech Fun Fair”.



### Ensō Foresight Keynote

With a keynote speech, we can give many people new insights and impulses to use in a short amount of time. Using stunning presentations and high-quality visualizations, we make it easy for people to follow and to keep the key aspects in their minds during their daily life.



**Don't wait for the future to happen.  
Contact us and let's start creating it!**



[foresight.ensot17s.com](https://foresight.ensot17s.com)



# LOOKING AHEAD

**ENSŌ FORESIGHT 2020  
START TO BUILD YOUR  
COMPANY'S FUTURE NOW!**

# LOOKING AHEAD: TECHNOLOGY TRENDS DRIVING DIGITAL INNOVATION

NTT DATA R&D experts are continuously analysing real-world case studies and various sources to identify the most significant technology and societal trends that we believe will drive change over the next three to ten years. The Information Society Trends provide our perspective on the evolution of society and business. The Technology Trends summarise our views on innovative technologies and their impact on the world.

## INFORMATION SOCIETY TRENDS



IST 01

### Individual-Centered Design

The power of the individual continues to grow. Technological advancements have increased our ability to analyse people and objects with extreme precision, enabling personalization of services, products and organizations. Continuous and rapid improvement of human-centered design that focuses in depth on the individual is imperative to expand future business opportunities and improving society.



IST 02

### Expand Beyond Borders

Territorial and digital/physical limitations are fading. Technological evolution is enabling businesses to transcend boundaries and uncharted frontiers, crossing global and conventional borders. The relentless leveraging of technology and innovation to break down barriers will become a driving force for economic growth.



IST 03

### Forge New Norms

Technology is permeating society at an unprecedented rate, rendering traditional norms obsolete. Conventional standards must change to keep up with the rate of innovation. To achieve a sustainable society, it is essential to forge, shape and nurture new norms that can adapt rapidly to changes in societal and business environments.

## TECHNOLOGY TRENDS



TT 01

### Intellectual Advancement of AI

Advanced language proficiency for AI such as translation and summarization is reaching the level of human ability. Modeling human cognition, AI will gain new capabilities through varied and diverse research efforts. Such ability includes flexibility of applying knowledge and experience once learned and logical thinking by inference using causality.



TT 02

### Coexistence with AI

AI is used by countless individuals, who rely on and benefit from its capability. Addressing issues such as an explanation of specific results, establishment of quality standards, prevention of discrimination and countermeasures for vulnerability, are essential for continued acceptance and progress.



TT 03

### Data-Driven Transformation

Data is now the bedrock for growth. Capturing data from unprecedented sources combined with mechanisms for aggregation and analytics will enable new levels of convergence between the digital and physical worlds. In turn, this will bolster data-driven decision making and accelerate transformation.



TT 04

### AI for Healthcare & Life Sciences

AI-assisted medical diagnosis along with the use of more precise and comprehensive data is becoming more accepted and prevalent in practice. Augmenting healthcare workers with AI innovations such as pattern search for genome data and structure prediction for protein promise further advancements in healthcare and life sciences.



TT 05

### Security for the Digital Age

Given the limitless application of data, its protection is being re-engineered. On top of traditional protection methods, organizations are implementing zero-trust security measures to counteract breaches quicker and to minimise damages. Business leaders are also adopting privacy protection technologies to keep individual data anonymous.



TT 06

### Computer Power Evolution

The inexhaustible demand for computing power is being tackled with a combination of new, denser chips and application-specific architectures. To solve power requirements, additional new materials like carbon nanotubes, along with approaches like photonics and neuromorphic architectures are also being investigated and introduced.



TT 07

### Synergy in Human-Machine Systems

Pervasive AI is redefining the relationship between humans and machines. Human-machine synergy in systems driven by AI will create added value. For example, AI may offer safer driving for unanticipated dangers in vehicles, but humans can provide the flexibility needed to adapt in changing conditions.



TT 08

### Hardware Evolution for Service Operations

To operationalise service chains with IT, hardware must permeate operations in areas never thought possible. Hardware combined with AI acquires the capability to understand complex surroundings and undertake dexterous operations. As a result, evolved hardware combined with extensive use of IT is expected to revolutionise service operations.