

Progress with DX

Business process transformation

The first step in DX must be a clear understanding of the desired "to-be" business processes that the new digital systems are designed to serve. Our approach is to rigorously standardize 90% of our processes globally to enable efficiencies, cost reduction, and seamless end-to-end value chains. To build this necessary "digital backbone", we have started the design and deployment of our future state capabilities, encompassing our operating processes, data models, systems, and people competencies.

We have initiated several specific programs spanning commercial excellence, operations, customer experience, human resources, and finance in order to support our transition to a market-oriented organization. Initial focus areas include pricing, customer engagement, opportunity management, indirect procurement, and agile management reporting. In executing each initiative, we maintain focus on change management to ensure support and commitment from all relevant members.

Example: Making price-setting processes more efficient through digitalization



Our pricing process progression will adopt globally accepted norms to achieve value differentiation, including margin guidelines, a pricing office, defined performance cadence, and aligned incentives.

Example: Bringing together the lead to closed sale process

See below for MCG's sales funnel (the process from sales lead to closed sale)



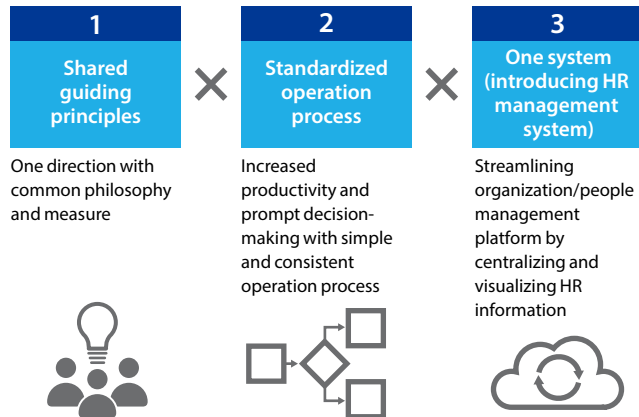
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Application architecture

Only after identifying the future ("to-be") ideal business processes can we standardize the relevant applications and systems. Actions will be reduced in number, simplified, rebuilt, and optimized to fit the newly designed processes. One key example is our implementation of a single human resources system across the entire Group, enabling both better business results and a more dynamic and positive career environment for all employees.

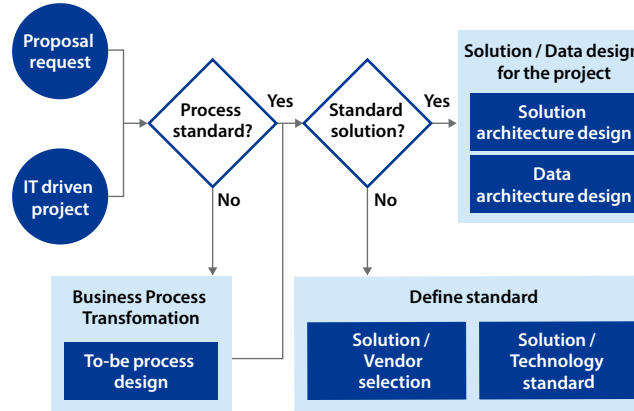
Developing global-standard HR processes/ organizations and information systems

For "One Platform" across the Group/globe



The technology used in each application or system will reflect industry and global standards. Master data standardization is also required for decision makers to have access to current and accurate data. Our flexible solution-adoption approach will allow rapid integration of industry-standard solutions when it is available, and will allow rapid definition of new processes and standard solutions when it is not available. This approach will enable us to improve and simplify our technology environment, from which we expect abundant cost optimization opportunities.

Process for introducing new solutions



Data standardization and utilization

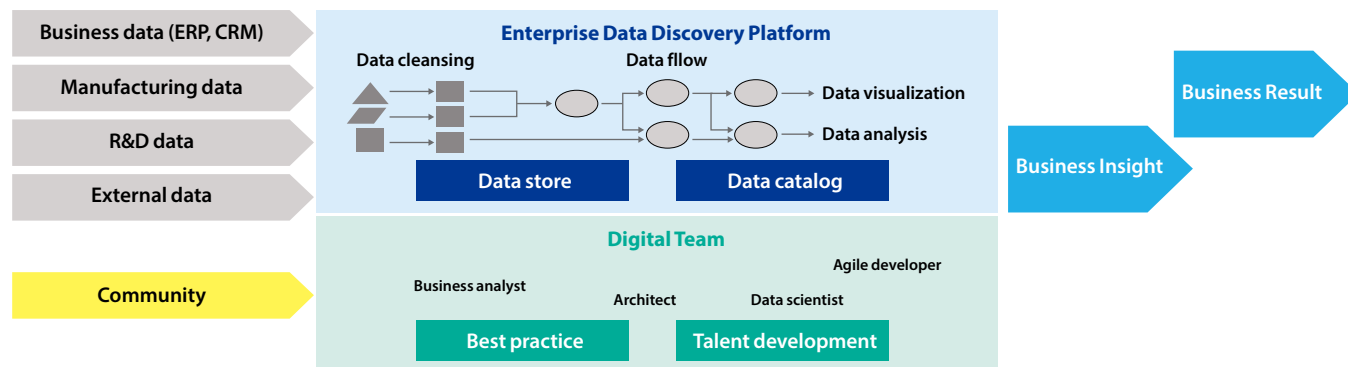
Data is a critical element in the Company's "Forging the future" strategy. We believe that successful data management is more than just storing and protecting data; it must define the most effective use of data as a critical business asset. Enterprise business insights can be derived by collectively visualizing data collected from multiple business operations. These insights fuel the agility needed to make rapid and effective decisions in quickly changing business environments. However, none of this is possible without a fundamental shift in the way we treat data.

We created the Enterprise Data Discovery Platform, a Company-wide data integration initiative supporting end-to-end data life cycle. Data from diverse sources is assimilated onto the platform through automated tools. The data is cleansed, harmonized, and then integrated across organizations to meet specific business intelligence needs. Finally, business intelligence tools facilitate visualization of the data from multiple perspectives. For instance, manufacturing data and sales results are automatically gathered from a production management system and an enterprise resource planning (ERP) system, respectively. The platform then enables business users to make rapid scheduling decisions.

Deep data analysis is provided using state-of-the-art AI tools. The data catalog within the platform provides search capability, a key feature of the platform. Overall, the data platform enables easy visibility to global business applications and business processes. We enhance the platform through an agile data strategy and continuous upskilling of our internal digital team.

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Data platform: From data to business value



Infrastructure migration

Times have changed. Our entire infrastructure will be migrated to an environment that can support end-users working in the office, at home, or elsewhere. Three initiatives are critical to enable this transition, as shown on the right. In addition to creating new options for workers, these initiatives have significant potential for cost optimization.

Initiatives for infrastructure transition

Cloud lifting: Moving applications and systems to cloud environments, reducing current operations and maintenance and shifting resources to more value-added tasks

Multi-device access: Enabling work not only from stationary PCs but also mobile devices, empowering employees with more flexible work options and higher productivity

Network modernization: Preparing for pervasive utilization of 5G and eventually 6G networks, reducing reliance on internal LAN infrastructure

Emerging technologies

DX must also include an aggressive and active posture toward emerging technologies. For example, we participate actively in the IBM Q Network Hub at Keio University. In joint research with IBM Japan, Ltd., JSR Corporation, and Keio University, we calculated the excited states of thermally activated delayed fluorescence (TADF) emitters which are applied to the fabrication of efficient OLEDs. We developed a new scheme to mitigate the error from current noisy quantum computers and succeeded in improving the calculation accuracy. This application of quantum computers to excited state calculations of commercial materials was a world first, and should lead to more accurate quantum chemistry calculation results for designing OLED emitters with high quantum efficiency.