7. Recommendations for Future Initiatives for Japan to improve Digital Transformation in the Electronics/Semiconductor industry.

In this section, we will cover the current strategy that Japan government has outlined to resurrect their semiconductor industry. Then we will discuss about the 5 dimensions for agility (Technology, Organization Design, People, Leadership, Culture). Agility is crucial as the global semiconductor industry is extremely fast paced and Japan does not have the reputation of a fast-changing environment. Lastly, we will propose additional recommendations.

Current Strategy:

In June 2021, Japan’s Ministry of Economy, Trade and Industry (METI) outlined a core strategy for their semiconductor and digital industries with the following measures:

* Formation of a partnership with the United States and Taiwan. Japan’s most advanced fabs are operating at the 40nm design, which is 10 years behind world leaders TSMC and Samsung. Through collaboration with other countries, Japan might be able to achieve the design and production of next generation chips (2nm and below) by the late 2020s. This objective will be pursued through the formation of Rapidus, a consortium of Japanese semiconductor companies in collaborating with IBM and European research organization IMEC
* Development of “game-changing” future semiconductor technologies. Japan is establishing the Leading-Edge Semiconductor Technology Center (LSTC), a government-supported R&D center for advanced chip research.
* Establishment of new chip manufacturing bases to make legacy devices. Japan is providing subsidies to entice Taiwan’s TSMC to form a joint venture with Japanese firms to build advanced fab plants in Japan.
* Subsidies for domestic chip manufacturing. Japanese government is inclined to subsidize up to 1/3 of the capital costs incurred by domestic and foreign manufacturers to produced designated types of semiconductor devices, equipment, and raw materials.

To achieve this strategy and outcome that Japan government has outlined, Japanese semiconductor companies would need to address the 5 key factors (Technology, Organization Design, People, Leadership, Culture) to digitally transform themselves and be agile to anticipate the future and fast changing semiconductor/electronics that the global market needs.