Society in the future under the 1.5 degrees Celsius scenario

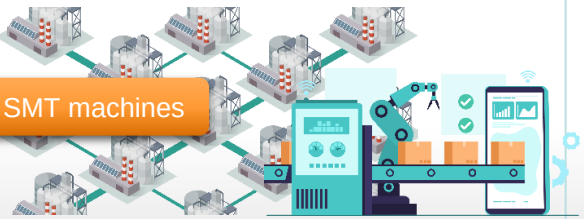
Society

Society 5.0

Driving demand for SMT machines

- Connected society with even more electronic devices
- Increase in energy-saving electrical products in the market

Factories of the world



- Smart factory (FEMS, M2M)
- Promote of low-carbon solutions and BCP for responding to climate change

SMT market

- Use of environmentally friendly raw materials, increased demand for products with added value in terms of the environment

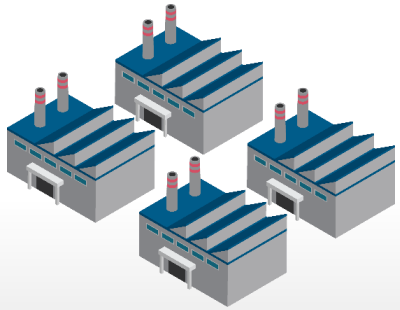
- Increased demand for labor-saving and unmanned products and solutions

- Increased demand for solutions that improve productivity and energy saving
- Increased demand due to increase in prevalence of smart factories

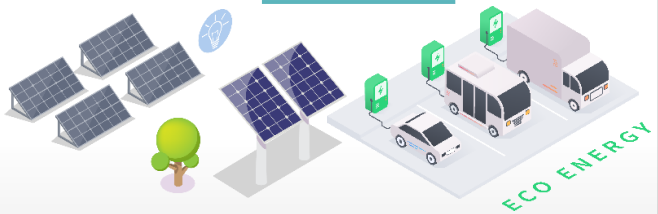
Provide equipment and solutions

Fuji production sites

- Although not as great as the risks of a 4 degrees Celsius scenario, there are greater physical risks due to climate change



- Increased need for diversification in procurement to mitigate the risks of disasters



- Renewable energy use
- Promote electrification of logistics

Government

- Promote energy saving and renewable energy to achieve CO_2 reduction targets and implement policies to promote a low-carbon society
- Increase in fuel and material procurement costs due to the introduction of a carbon tax
- Mandatory sustainability information disclosure

Investors

- Environmentally friendly projects to be a requirement for investment
- Increased ESG investment

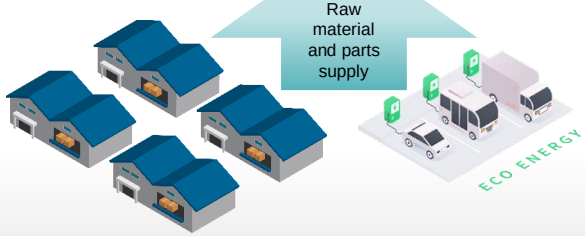
Power supply

Supplier

Raw material supply

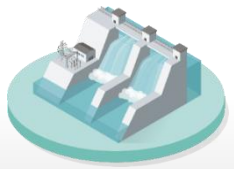
- Demand for environmentally friendly raw materials in the manufacturing industry is increasing, leading to price hikes and supply difficulties.

Raw material and parts supply



- Greater shift to renewable materials from exhaustible resources; higher procurement costs
- Shift to EV trucks

Increase in renewable energy (solar, wind, hydro, etc.)



- Hydroelectric power generation

- Fossil fuel use

- Renewable energy is becoming more widespread, electricity prices are rising, and power generation using fossil fuels is declining

Five forces analysis of 1.5 degrees Celsius scenario

Growing demand for electronic equipment, factory automation equipment, EVs, and semiconductors in a world that also demands energy saving and low carbon emissions

Actions needed in response to risks

Steps to take to gain opportunities

The world of the 2030s under a 1.5 degrees Celsius increase

SMT pick and place machine related industries

Seller (parts and raw materials)

- Increased procurement costs due to environmental regulations
- Low-carbon technology will increase demand for related raw materials, leading to price hikes and supply difficulties.
- Greater shift to renewable materials (green materials)
- Increased need for diversification in procurement to mitigate the risks of disasters caused by climate change

- Cooperation and collaboration with suppliers to investigate using new materials and construction methods
- Investigate diversification in procurement
- Strengthening of cooperation with suppliers of renewable materials

Seller (energy)

- Rising electricity costs due to higher ratios of renewable energy sources in the power supply

- Increase investment in renewable energy

New entrant to industry

- No particular impact from climate change

- Strengthening of cooperation (Alliances, M&A)

Industry

- Increased use of renewable energy
- Increased procurement costs due to higher raw material costs
- Environmental considerations (low-carbon robots, energy-efficient technology, lightweight) designs are essential
- R&D strengthening for smart factories

- Shift to low-carbon products and factories
- R&D strengthening for smart factories

Replacement part

- No particular impact from climate change

Buyer (customer)

- Increased demand for electronic equipment to realize a connected society, leading to increased demand for SMT pick and place machines.
- Increased capital investment due to increased demand for solutions and electrical products that enhance productivity and energy-saving performance
- Increased demand for use of environmentally friendly raw materials and products with high added value in terms of the environment
- Automation and remote operation is progressing in various fields due to labor-saving efforts in response to more frequent extreme weather events and infectious diseases

- Development and sales of products that meet the low-carbon needs of customers
- Establish products and services that are suited to automation and optimization initiatives in factories
- Promoting LCA compliance for major products and disclosure of carbon footprint

Government and regulations

- Introduction of carbon tax and regulation of CO_2 emissions
- To achieve the CO_2 reduction target, promote energy saving and renewable energy, implement low-carbon policies, and also enhance subsidies.
- Eliminate subsidies for fossil fuels
- Promote policies to popularize EVs
- Mandatory sustainability information disclosure

- Prompt access to policy and regulation information
- Subsidy assurance

Investors

- Environmentally friendly projects as a requirement to investment
- Increased ESG investment

Society in the future under the 4 degrees Celsius scenario

Society

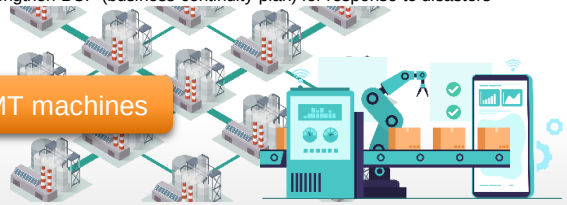
Society 5.0

Driving demand for SMT machines

・Connected society with even more electronic devices

Factories of the world

・Strengthen BCP (business continuity plan) for response to disasters

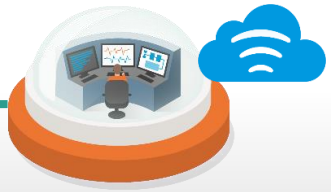


・Further decentralization of factories, and increased demand for labor saving and remote production
・Need for renewal due to damage to factories caused during a disaster

SMT market

・Increased demand for labor-saving and unmanned products and solutions

・Increased demand for equipment that can be operated remotely for factories and facilities

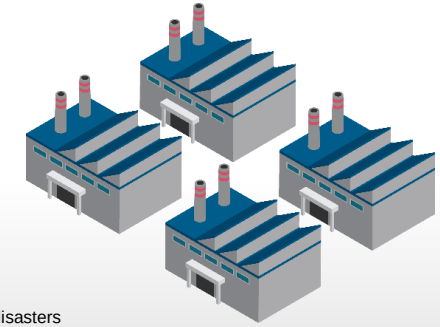


Provide equipment and solutions

Fuji production sites

・Increase in expenses related to the BCP and increases in the cost of responding to increases in infectious diseases

・Greater physical risks due to more severe disasters



・Investigate labor saving and automation as a response to increases in infectious diseases

・Distributed production based on the BCP

・Increases in costs due to increased energy consumption for air conditioning

Government

・No carbon tax

・No support for the introduction of renewable energy

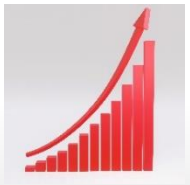
Investors

・Same investment stance as before

Raw material and parts supply

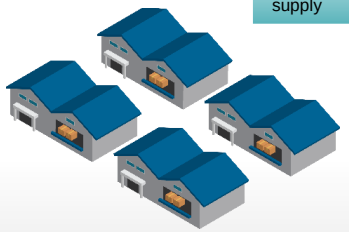
Power supply

Supplier



・Increase in expenses related to the BCP and increases in the cost of responding to increases in infectious diseases

Raw material supply



・Greater need for diversification in procurement and funds for responding to intensifying disasters

Continued dependence on fossil fuels

・Fossil fuel power generation will continue without any expansion of renewable energy

Five forces analysis of 4 degrees Celsius scenario

Physical risks increase as the trend toward low-carbon solutions weakens and warming continues

Actions needed in response to risks

Steps to take to gain opportunities

The world of the 2030s under a 4 degrees Celsius increase

SMT pick and place machine related industries

Seller (parts and raw materials)

- No environmental regulations are being introduced, and there is no significant change in the cost of procuring raw materials
- The shift toward renewable materials is not progressing
- Physical risks emerge for some factories and resource suppliers

- Establish a risk-resistant procurement system
- Implement BCP measures that include the supply chain

Seller (energy)

- No change in electricity prices due to no progress in switching to renewable energy

- Optimization of conventional electricity supplies and investment in renewable energy

New entrant to industry

- No particular impact from climate change

Industry

- Implementation of conventional renewable energy and energy saving measures
- Increased risk of downtime at production lines and disruptions to logistics due to severe disasters
- Increased expenses for BCP measures

- Establish a flexible production system that can respond to demand

Replacement part

- No particular impact from climate change

Buyer (customer)

- Increased demand for electronic equipment to realize a connected society, leading to increased demand for SMT pick and place machines
- As a measure under the BCP, the decentralization of production sites is progressing, and demand for SMT pick and place machines is increasing
- Need for renewal due to damage to factories caused during a disaster
- Automation and remote operation is progressing in various fields due to labor-saving efforts in response to more frequent extreme weather events and infectious diseases

- Establish products and services that are suited to automation and optimization initiatives in factories

Government

- The trend toward low-carbon solutions is weakening, and carbon taxes and other regulations are not progressing
- No support is provided for renewable energy
- No support is provided for the introduction of green products such as EVs, relying on the market instead

- Prompt access to policy information

Investors

- Same investment stance as before