

SPESA Conference
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Advancements in Manufacturing Technologies

Advancing Automation

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Brother Sewing Solutions for the better



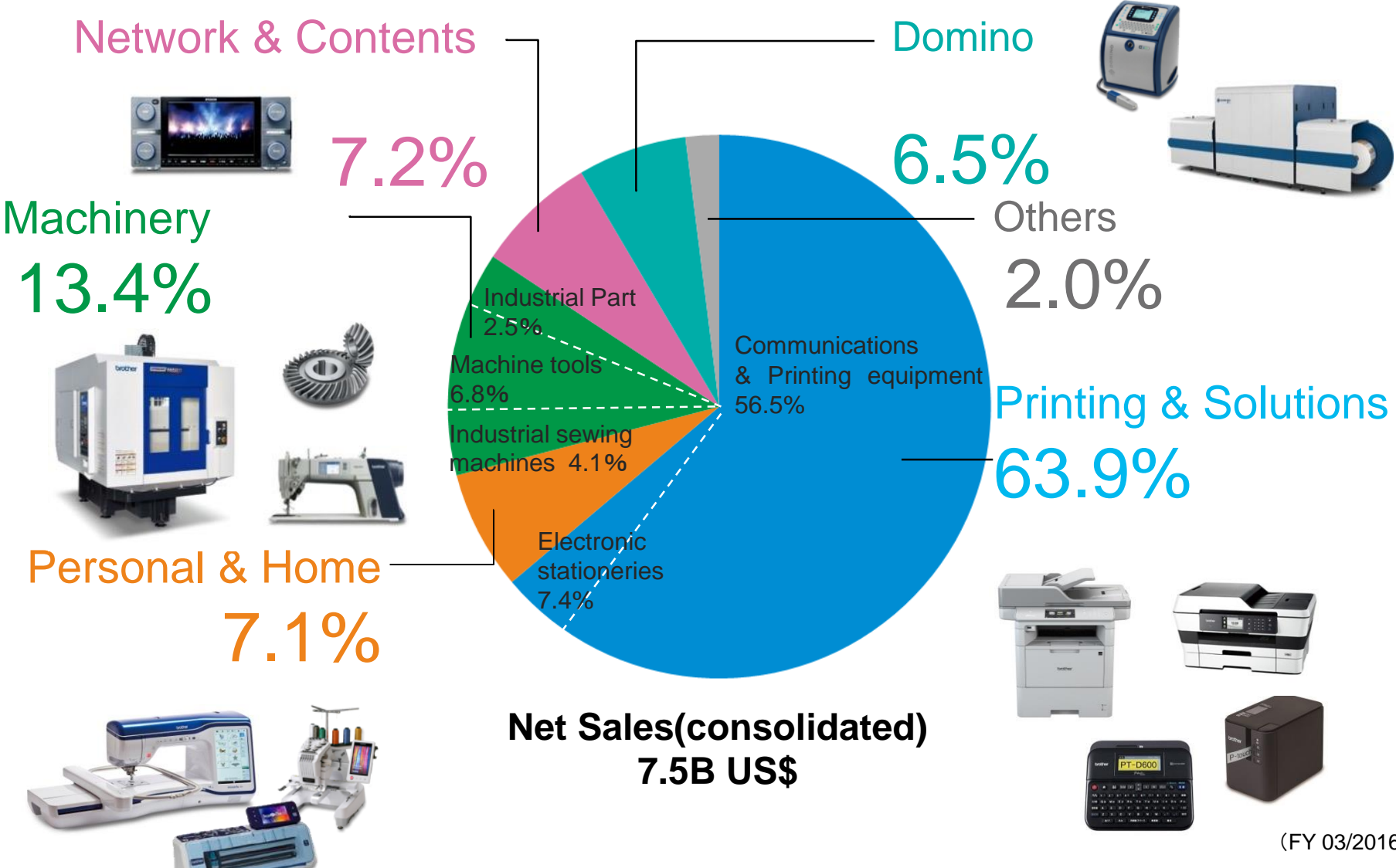
1908



Current



Business Segments



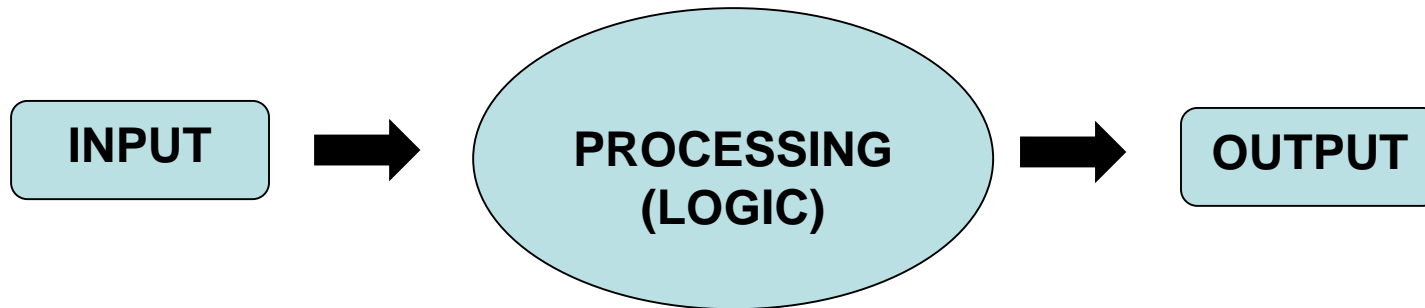
(FY 03/2016)

Challenges in Sewing Automation

- ***“The ability to replicate those tasks which are performed by a skilled sewing operator when using a conventional sewing machine.”***
- The control and manipulation of one or more pieces of fabric when joining the fabric pieces together using a conventional sewing machine.
- The ability to consistently pick up or grip a “single” piece of fabric from a stack of multiple layers or plies of fabric to be presented to the sewing machine for sewing.

Operator Elements

- *The coordination and articulated movement of the fingers, hands, arms and feet based upon the operators visual input and sense of touch/feel.*



INPUT

Visual: Visually observing the fabric workpieces so to coordinate the movement of the hands / fingers and machine sewing speed (as regulated by the foot) as needed during the sewing process

Sense/Touch: Sensing fabric presence in order to regulate the degree of pressure and or gripping force by the fingers as needed during the sewing process

Operator Elements

PROCESSING

Brain: The Brain simply put is the central processor that provides the logic in controlling the outputs based upon the inputs

OUTPUT

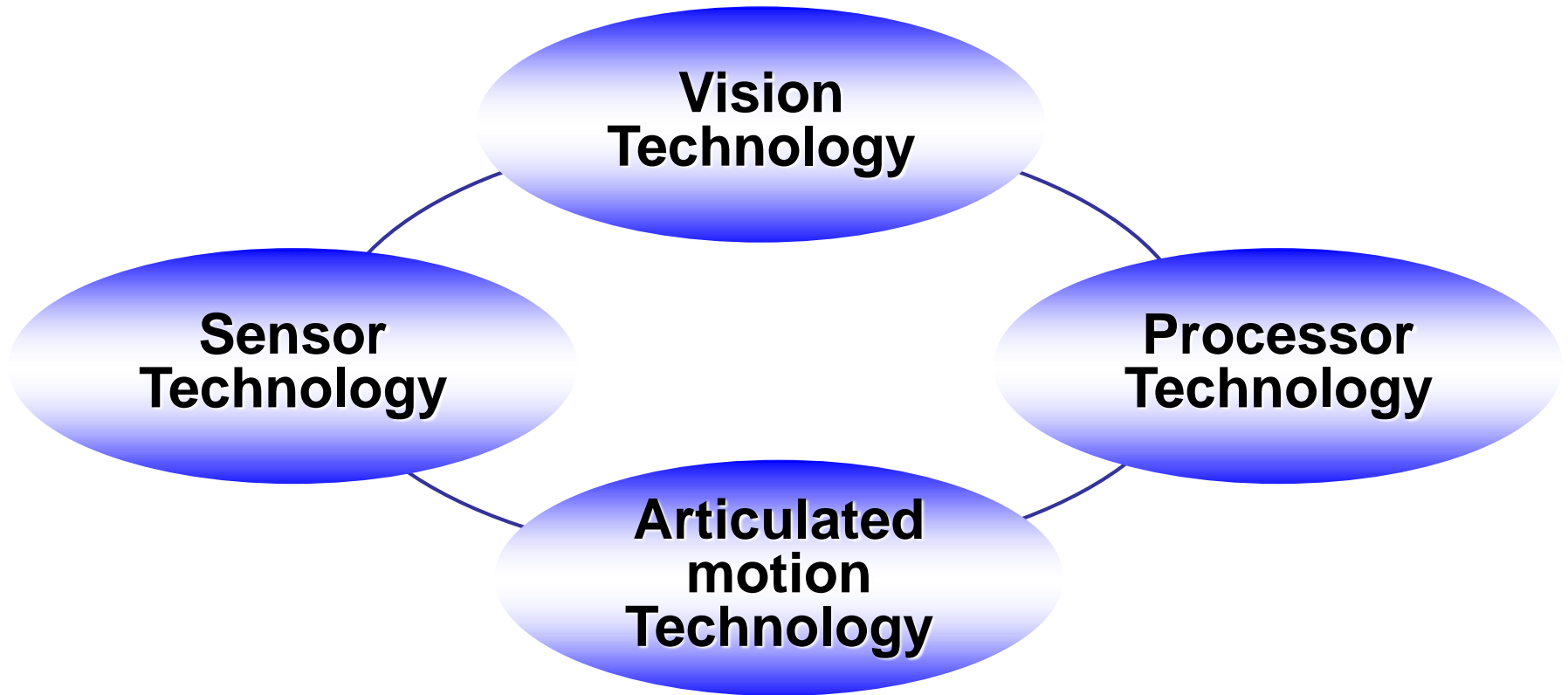
Fingers: Necessary for the articulated gripping and or applying a degree of pressure, force, creating resistance to control the fabric workpieces during the sewing process

Hands/Wrist: Necessary to facilitate the position and orientation of the fingers during the sewing process as needed

Arms: Necessary to facilitate the position and orientation of the hands/fingers during the sewing process as needed

Feet/legs: Necessary to facilitate the control of the sewing machine speeds and the rate in which the workpiece(s) move through the sewing machine during the sewing process as needed

Technology Challenges ?



brother
at your side