“Review: Ashitaka Shipping Delays”

“Strengthen Global Operations”

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Review: Ashitaka Shipping Delays
Quickly Normalized, Impact Minimized

- Operations: Quick normalization
  - Sterilization: Added chambers, utilized other factories to restore during 2018. Currently 30% surplus capacity
  - Shipping: All backorders from all regions caused by the shipping delays resolved in FY18
  - Inventory: Steadily optimizing (partially increased buffer)

- Business impact: Some temporary impact; mostly recovered
  - Japan: No major fluctuation in market shares
  - Outside Japan: Took measures to keep customers, minimized impact
Preventive Actions

- Ease overconcentration of production in Ashitaka factory, improve production capacity and efficiency
  - Accelerate capacity expansion for access devices (guidewire etc.) at Vietnam factory
  - Optimization among 4 factories (Yamaguchi, Vietnam, Maryland and Clinical Supply)
  - Accelerate automation and slim down product lineup to improve efficiency

- Enhance engineering expertise, mutually share them and cooperate
  - Beyond factories, actively pass on the advanced technologies and know-how

- Risk management
  - Secure remaining sterilization capacity: Continue with leveraging other factories. Upgrade Ashitaka’s capability
  - Secure proper inventory: Establish inventory strategies considering products and area differences (minimize impacts from contingency)
Strengthen Global Operations
Global Production System (31 factories)

% outside Japan

21% 53%

FY99 FY03 FY08 FY13 FY18
Toward Strengthening Global Operations

**Key themes**

- Increase capacity to meet growth speed
- Improve quality; cost and efficiency
- Stable supply; enhance SCM, risk mgmt.
- Compliance to tightened regulations
- Cope with localization

**Key measures**

1. Global optimization
2. Strengthen organization
3. Collaboration across businesses
4. Local production

Share, pass on "monozukuri" culture
(1) Global Optimization: Cardiac & Vascular TIS Case

Mother factory

Products

Sub mother factory

Satellite factory

Products

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(2) Strengthen Organization

**Cardiac & Vascular**
- Quality systems, regulatory, environmental compliance
- Global optimization, capacity expansion
- Improve productivity
- Stable supply
- TIS-dedicated

**General Hospital**

**Blood Management**

**Existing**
- Chief Quality Officer

**New**
- Chief Manufacturing Officer

**New**
- Chief Operations Officer

Production and supply chain controller functions, positions are in place
(3) Collaboration Across Businesses/Companies Cases

- Flexible sharing of sterilization functionality

- Sharing of production technology

- Acquired factory process transfer, integration

- Accelerate intra-area collaboration: Technology, infrastructure, resources, etc.
(4) Local Production: China Case

- **Essen Technology Co., Ltd. acquisition (completed Dec ’18)**
  - Obtained made-in-China DES; biggest market in near future
  - Collaborate with Terumo engineers to improve production and development technologies

- **Established peritoneal dialysis partnership with Wego group**
  - Jointly develop, produce locally for expanding Chinese dialysis market
    (first shipment in Mar ’19)
  - Leverage Wego’s strong sales channels in China

- **Start manufacturing neurovascular products in FY20**
  - Manufacture at Terumo Hangzhou factory
  - Embolic coil for treating cerebral aneurysms with No. 1 market share in China
Monozukuri Evolution: From Implicit to Explicit; Pass on within The Group

- Make engineering expertise explicit and share
  - Mutual learning across businesses/companies
  - Visualize and analyze craftsmanship by IT

- Efficiently enhance monozukuri skills globally
  - Global Manufacturing Management Meeting: Discussion on common issues, solutions
  - Manufacturing Innovation Exhibition: Sharing and developing application of production technologies among all the factories
Mid- to Long Term Vision

- Trusted in medical settings as a Top Brand

- World-class total Quality (products, supply, services)

Global Corporation with Unique Excellence
Among the information that Terumo discloses, the forward-looking statements including financial projections are based upon our assumptions using information available to us at the time and are not intended to be guarantees of future events or performance. Accordingly, it should be noted that actual results may differ from those forecasts on projections due to various factors. Factors affecting to actual results include, but are not limited to, changes in economic conditions surrounding Terumo, fluctuations of foreign exchange rates, and state of competition.

The market share information in this presentation is partly derived from our own independent research.