

Global Orthopaedic Supply Chain Efficiency Improvement

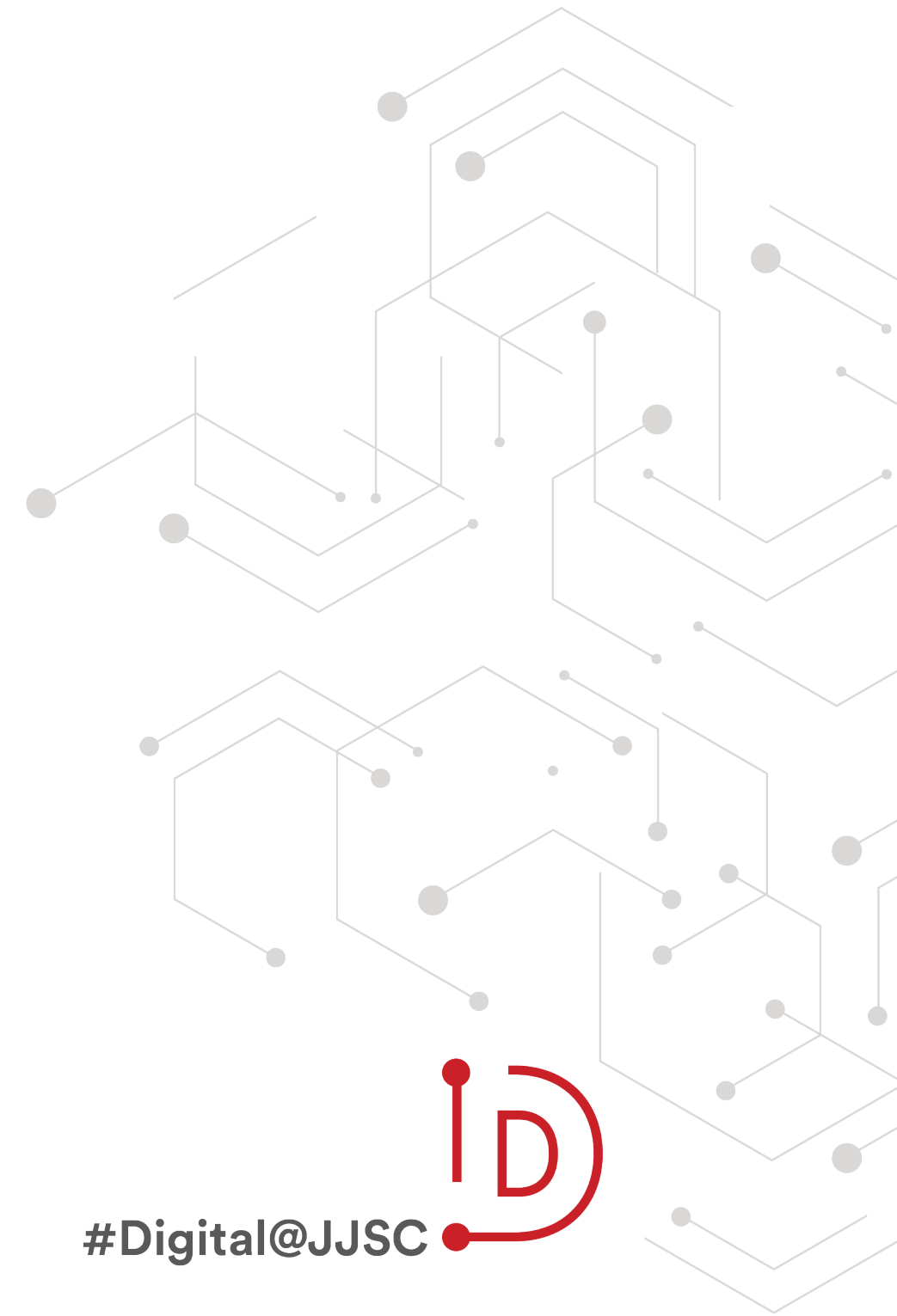
Blair Korman

GS1 Global Healthcare Conference

Noordwijk, Netherlands

27.March.2019

Johnson & Johnson



Presentation Overview

Introductions

Japan Project Overview

Proof of Concept Results
Operational Improvements
GS1 RFID Adoption

Lessons Learned and Next Steps
Standardization Required



Our Credo

Johnson & Johnson

We believe our first responsibility is to the patients, doctors and nurses, to mothers and fathers and all others who use our products and services. In meeting their needs, everything we do must be of high quality. We must constantly strive to provide value, reduce our costs and maintain reasonable prices. Customers' orders must be serviced promptly and accurately. Our business partners must have an opportunity to make a fair profit.

We are responsible to our employees who work with us throughout the world. We must provide an inclusive working environment where each person must be considered as an individual. We must respect their diversity and dignity, and recognise their merit. They must have a sense of security, fulfilment and purpose in their jobs. Compensation must be fair and adequate, and working conditions clean, orderly and safe. We must support the health and well-being of our employees, and help them fulfil both their family and other personal responsibilities. Employees must feel free to make suggestions and complaints. There must be equal opportunity for employment, development and advancement for those qualified. We must provide highly capable leaders, and their actions must be just and ethical.

We are responsible to the communities in which we live and work, and to the world community as well. We must help people to be healthier by supporting better access and care in more places around the world. We must be good citizens – by supporting good works and charities, improving health and education, and bearing our fair share of taxes. We must maintain in good order the property we are privileged to use, protecting the environment and natural resources.

Our final responsibility is to our stockholders. Business must make a sound profit. We must experiment with new ideas. Research must be carried on, innovative programmes developed, investments made for the future and mistakes paid for. New equipment must be purchased, new facilities provided and new products launched. Reserves must be created to provide for adverse times. When we operate according to these principles, the stockholders should realise a fair return.

Johnson & Johnson Portfolio

Consumer

Baby Care • Body Care • Facial Skin Care • Sun Care •
Feminine Personal Care • Allergy Care • Compromised
Skin Care • Cough and Cold Care • Digestive Health •
Oral Care • Pain Care



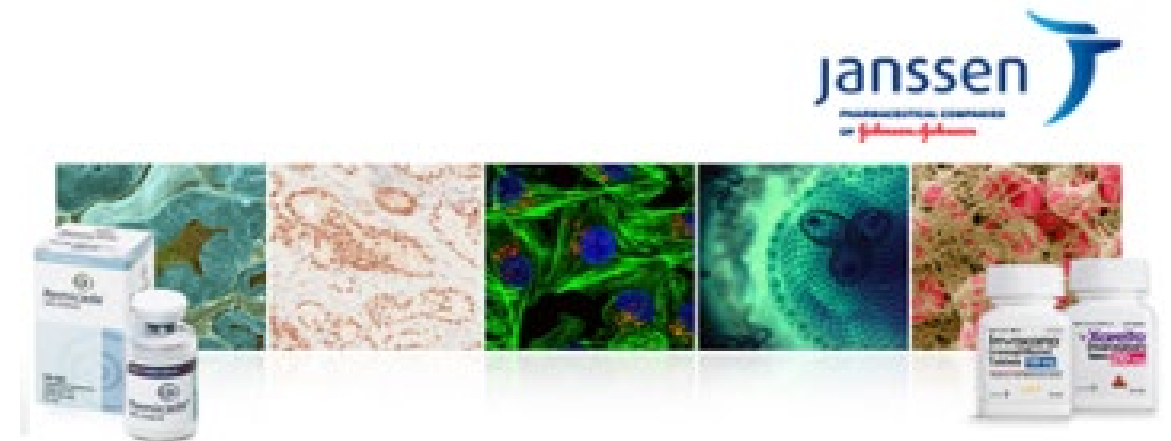
Medical Devices

Wound Closure & Surgical Devices • Minimally Invasive
Surgery • Joint Replacement • Sterilization • Eye Health
• Diabetes Care



Pharmaceuticals

Oncology • Infectious Diseases & Vaccines •
Immunology • Cardiovascular & Metabolism •
Neuroscience & Pain • Pulmonary Hypertension



Japan Project Overview and Results

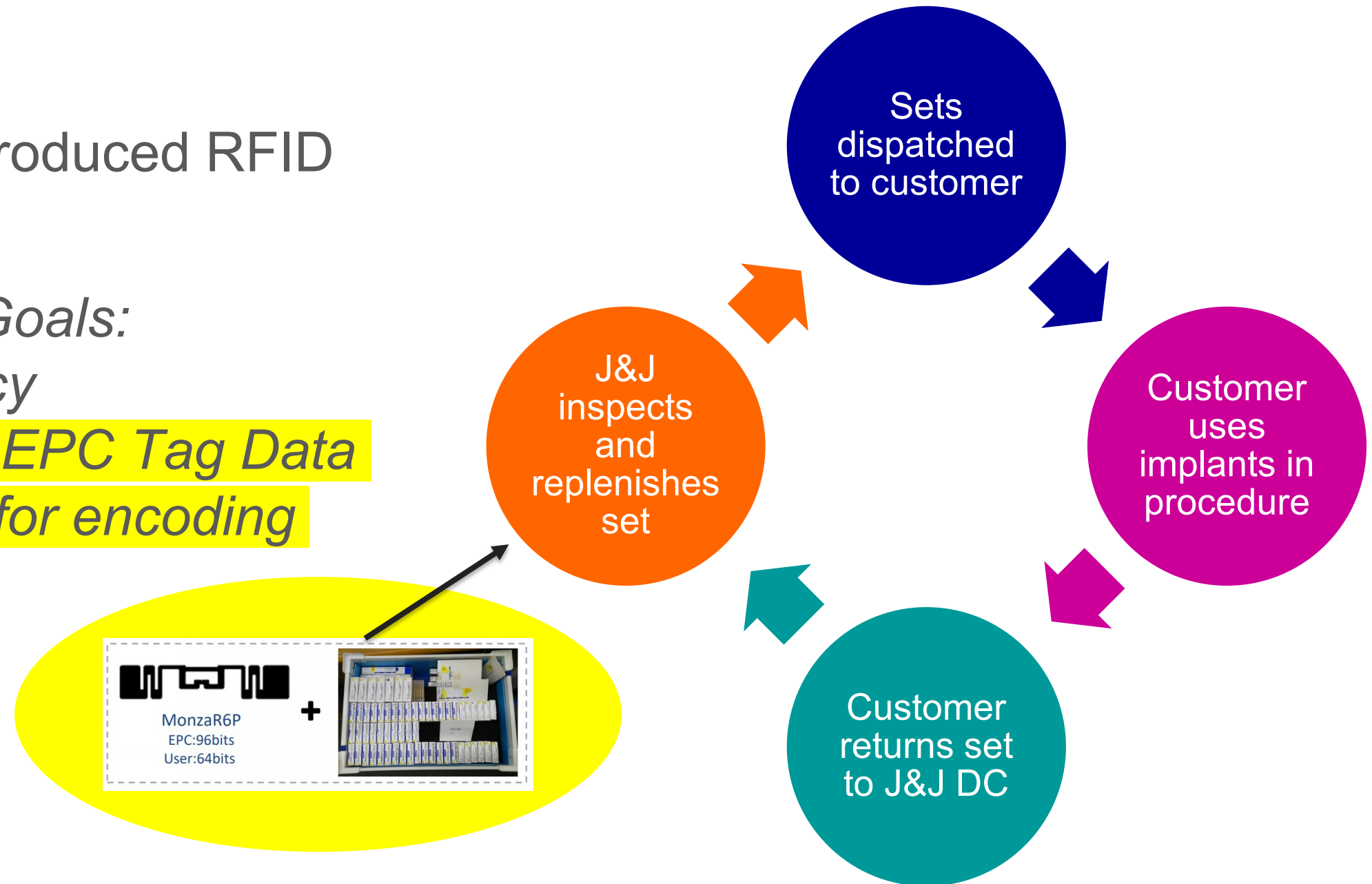


#Digital@JJSC

RFID Improves Japan Supply Chain

Project Overview

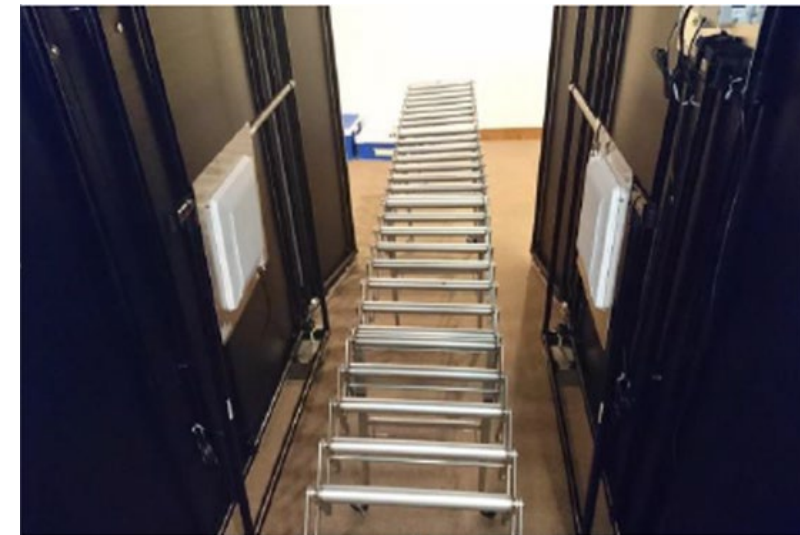
- Sterile implants introduced RFID Tagging in 2018
- *Proof of Concept Goals:*
 - *Process efficiency*
 - *Leverage GS1's EPC Tag Data Standard (TDS) for encoding RFID tags*



RFID Tagging Proof of Concept

Operational Results Revealed

- Highly Accurate with 99.96% read rates
- Operational efficiency goals met
- Improved set availability for customer
- Created serialization of each device
- POC approved for implementation



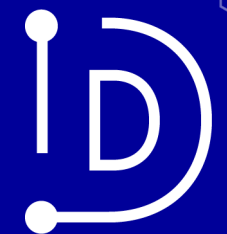
RFID Tagging Proof of Concept

GS1 Results – alignment with EPC Tag Data Standard (TDS) for encoding

- Adopted UHF frequency (EPC UHF Gen2 Air Interface Protocol)
- Tag Data Standard compliant (GS1 TDS)
 - EPC memory bank → SGTIN
 - User memory bank → packed data objects (GS1 AIDC Translator Library)

	GS1 Data				Encoding Method
	GTIN AI: (01)	Expiration Date AI: (17)	Lot# AI: (10)	Serial# AI: (21)	
EPC Memory (128 bits)	✓			✓	SGTIN-96
User Memory (512 bits)		✓	✓		Packed Objects

Lessons Learned and Next Steps



#Digital@JJSC

Standardization Helps End-to-End Supply Chain

Without standardization RFID is costly to all

- Impedes customer adoption
 - Multiple radio frequencies (UHF or HF)
 - No standard tag data
- Not customer centered supply chain focused
 - Customer specific inventories
 - Less secure supply chain
 - Bar code scanning dependent

With standardization

- Reduces infrastructure costs for customer
- Enables end-to-end supply chain efficiency
- Promotes data sharing environment that has value beyond RFID
 - Securing the supply chain
 - Efficient recording of product information for health records at customer site
 - Streamlining product inventory cycle

Drivers for our RFID Position

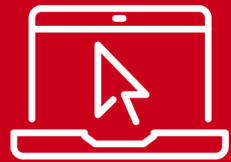
- GS1-compliant EPC tag data encodings for our customer
- Customer set-up for reading tag data is same
- UHF frequency friendly to E2E supply chain
- One inventory process for all customers
- Compliance to product labeling ensures quality
- Enables production labeling of full batches
- Global product uniqueness secures the supply chain and promotes data sharing



Next Steps



Japan solution going global



Shared data platform need



Use case expansion to customer and internal DC operations



Share our success to influence adoption in industry



Enable RFID adoption through standardization