

# ICTs for Medical Devices

To Contribute to Ageing Society

Takashi Shimada

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Parallel Session3:

OECD-APEC Business Forum: Smart Technologies for ageing societies

# Medical Devices and Technologies

## Diagnosis / Diagnostics / Therapies

Electronics

Imaging

Precision Processing

Material Science

Bio Technologies

				
X Ray CT	MRI	Endoscope	AED	Pace Maker
				
Echo	PET	Radiation Therapy	Artificial Joint	Insulin Pump
				
Gene Test	Prosthetic Skins	PTCA Balloon	Artificial Valve	
	<b>ICT Can Support</b>			

Wellness  
(Manage Health Condition)

Living Independently  
Longer (Support Elder  
People Live  
Independently)

Manage Chronic  
Conditions (Monitor,  
Detect, Communicate)

Aligned with Continua Concept :[http://www.continuaalliance.org/static/cms\\_workspace/Continua\\_Overview\\_Presentation\\_8.22.12\\_web.pdf](http://www.continuaalliance.org/static/cms_workspace/Continua_Overview_Presentation_8.22.12_web.pdf)

# Example: Home Monitoring System for Implantable Devices (For Pace Maker, ICD, CRT-P/D Patients)

**Wired Device**



Medtronic CareLinkモニター及びアンテナ

**Wireless Device**



**Patient Data**

**Patient Data**



**Server**

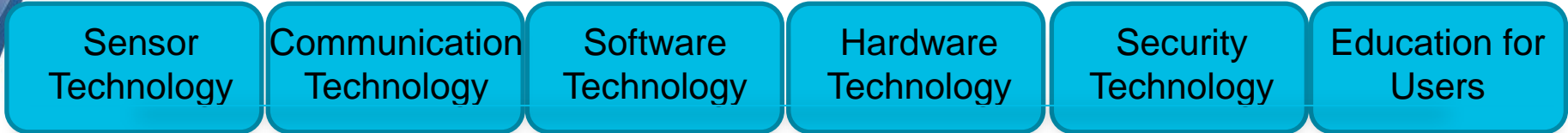
**Internet**



**Patient Data**

**Physicians can see data by their own hard wares**

Source: Medtronic Inc.



- Position
- Glucose
- BMI
- Blood pressure
- Motion monitoring
- Heart Beat

- Wired(phone)
- Wireless Blue Tooth
- WiFi
- MICS etc...
- USB
- Cloud
- Internet/Web

- OS Windows
- Android
- Version mgmnt / Upgrade
- Installment

- PC
- Mobile (S-Phone)
- Server
- Pads
- Hub

- Cyber Attack
- Hacking
- Pass word
- ID
- Data Backup

- Way to use
- Meaning of data
- Issue related (broken etc..)

Energy Consumption is Also Concern



**+ Pharmaceutical Affairs Law**

**+ Medical Law**

**+ Reimbursement etc...**

## ***Japan Unique Requirements: Need to be consolidated***

### **+ Pharmaceutical Affairs Law**

- **Software installation is “manufacturing”, need license**
- **If regulation of Soft Ware is appropriate ?**
- **Is PC become medical device once application installed ?**

### **+ Medical Law**

- **“Face to face” is fundamental policy to get reimbursement even tele medicine is utilized**

### **+ Reimbursement**

- **Device / Application fees are not covered by “product reimbursement “ but physician fee or patient management fees. In general, that is not adequate**