



Discover Global Markets

# JAPAN

*Opportunities*

November 17, 2014

Minnesota Trade Office

# Agenda

- *Japan Opportunity*
- *Japan in Minnesota*
- *Resources*



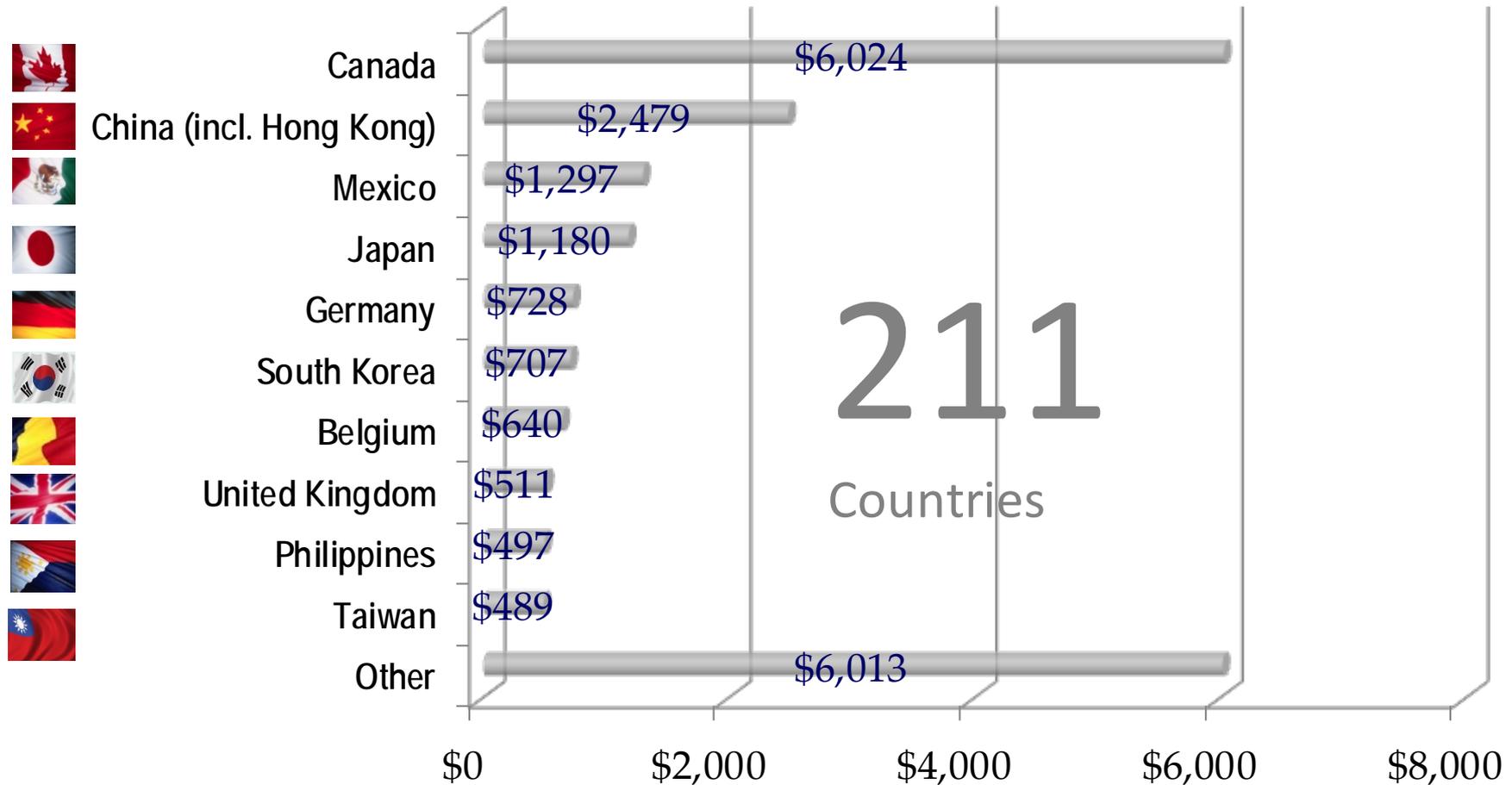
“Japan’s PMDA\* (FDA) is  
no more complex than the US,  
maybe less.”

-- *Overheard at Advamed 10/2014*

\*Pharmaceuticals and Medical Devices Agency



# Minnesota's Export Markets -2012



# Largest Global Economies - 2012

By GDP

1. United States	\$15,650,000,000,000
2. China	\$8,250,000,000,000
3. Japan	\$5,984,000,000,000
4. Germany	\$3,367,000,000,000
5. France	\$2,580,000,000,000
6. United Kingdom	\$2,434,000,000,000
7. Brazil	\$2,425,000,000,000
8. Italy	\$1,980,000,000,000
9. Russia	\$1,954,000,000,000
10. India	\$1,947,000,000,000

Source: CIA World Fact Book



# Why export?

## Exporting Rewards...

- Increase revenue and profits
- Reduce dependence on existing markets
- Balance business cycle fluctuations
- Extend the lifecycle of existing products
- Sell excess production capacity
- Foster ideas for innovations



# Why do business with Japan?

1. Lucrative
2. Loyal
3. Lots of resources

## Japan:

- Accounts for 10% of total global medical market (Source: MHLW)
- Ranks as 3<sup>rd</sup> third largest after US and EU
- Market will continue to expand, especially as people over 65 rises from 23% to 36% by 2050 (UN report)

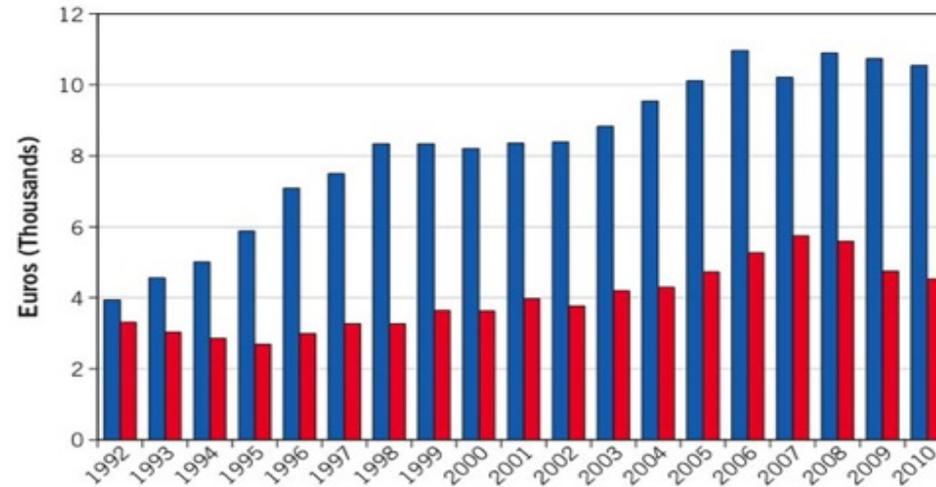


# Why do business with Japan?

## 4. Don't be left out



# Japan's trade deficit - in medical devices



Japan's medical device trade deficit from 1992 to 2010.  
Exports are indicated in red and imports are in blue.

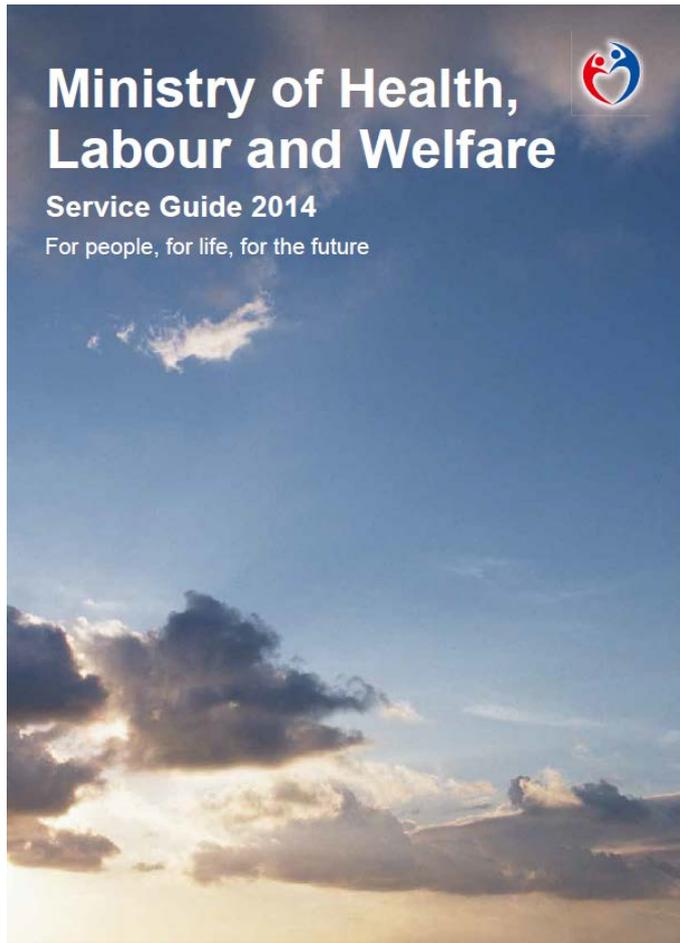
Source: : MHLW Statistics as presented by emdt European Medical Device Technology



# Japan's Strategic Initiative



# Japan's Strategic Initiative

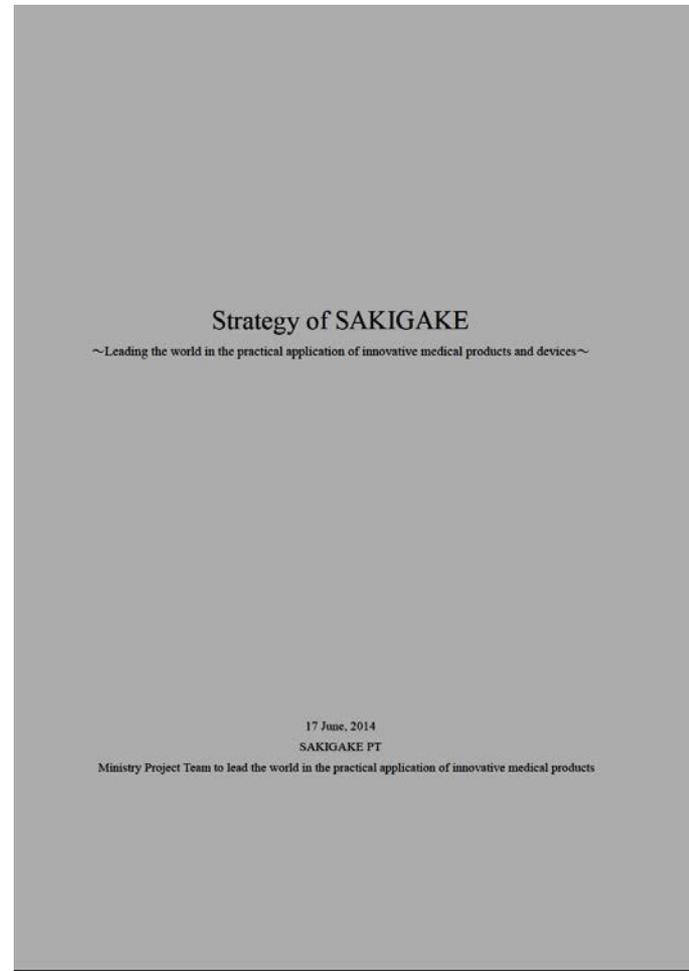


**New vision for the pharmaceutical industry**  
– Aiming at the industry with international  
competitive power taking the mission of innovation –

**August 30, 2007**  
**Ministry of Health, Labour and Welfare**



# Japan's Strategic Initiative



# Japan and Minnesota

- Daily non-stops to Narita 成田空港
- 135 non-stops to US and 21 international cities
- Ranked #1 airport in US (*Travel & Leisure* 2013)



# The Japan Opportunity

1. Japan's regulatory reform may benefit us "foreigners"
2. Japan is pumping billions of yen into its medtech innovation capability -- follow the money
3. Japan's medtech leaders are coming here, and MN



# 1. Regulatory reform benefits all 規制緩和

JFMDA, AMDD, European Chamber lobbied to:

- expand range of medical devices that require no new approvals for upgrades or partial changes,
- loosen some rules for foreign medical device manufacturers



## 2. Follow the money

- a) 4/2015 new Agency for Medical Devices
  - with approx. ¥120B (\$1.2B) to invest in building foundation for innovation,
  - with dedicated staff of 300-400
- b) Special Districts for the National Strategy 国家戦略特区
  - Kansai (Osaka area)
  - Kanagawa (Yokohama area next to Tokyo)



## 2. Follow the money

### c) Super Tokku

Special Advanced Technology Development Zones

Gov't investments of tens of billion ¥

(hundreds of million \$) focused on:

1. IPS cell – Kyoto U. Dr. Yamanaka
2. Regenerative medicine
3. Dev of innovative med devices
4. Dev of innovative biomedical
5. R&D of medicine and medical devices used for national insurance for key treatment and diagnosis



# 2. Follow the money

09-13

"Super Tokku" special advanced technology development zone projects

Classified Number

1. IPS Cell
2. Regenerative medicine
3. Development of regenerative medical devices
4. Development of innovative medical devices
5. Research and development of medicine and medical devices used for national insurance for key treatment and diagnosis

	Representative/Organization	Research Organization	Subject
1	Prof. Shinya Yamana Kyoto University	Osaka University, Keio University, The Institute of Medical Science The University of Tokyo, RIKEN, The University of Tokyo	Project to accelerate IPS research into regenerative.
2	Prof. Hiroyuki Mizuguchi National Institute of Biomedical Innovation	National Institute of Health Science, National Health Center for Child Health and Development, National Cancer Center, Kumamoto University, National Hospital Organization Osaka National Hospital	Vitro toxicology assays using human iPSCs project.
3	Prof. Hideyuki Okano Keio University	Tohoku University, Osaka University, Kyoto University, Chiba University	Repair of optic nerve.
4	Prof. Mitsuo Okano Tokyo Women's Medical University	National Health Center for Child Health and Development, Nagasaki University, Osaka University, Tohoku University	Regenerative medicine by cell sheet.
5	Prof. Tsuyoshi Takato The University of Tokyo	The University of Tokyo, The Institute of Medical Science The University of Tokyo, Osaka University, Kyoto University, Tokyo Medical and Dental University	Complex three-dimensional tissue products.
6	Ms. Misako Nakashima National Institute for Longevity Sciences, NCGG	Aichi Gakuin University, Nagasaki University, Scholartec Machine Engineering, Tokyo Medical and Dental University	Bone morphogenetic proteins(BMPs).
7	Mr. Shinichi Nishikawa Foundation of Biomedical Research and Innovation	Foundation of Biomedical Research, Kyoto Prefectural University of Medicine, Kobe University, Kanagawa Dental College, Kyoto University	Regenerative medicine.
8	Mr. Kouichi Kuramoto Nakashima Propeller Co., Ltd.	Osaka University, Okayama University, Kyushu University, Nagoya University, Kyoto University	Construct a prosthetic order system to fuse biological for each patient.
9	Mr. Susumu Satomi Tohoku University	Nara Medical University, Foundation of Biomedical Research and Innovation, Kyoto University, Hokkaido University, Yamagata University	Medical device creation to meet social needs.
10	Prof. Hiroki Shirato Hokkaido University	The Cancer Institute of JFCR, Hyogo Ion Beam Medical Center, Tohoku University, National Institute of Radiological Sciences, The University of Tokyo	Advanced radiation technology.
11	Prof. Kenji Sunakawa Kyushu University	National Cardiovascular Center, Kochi University, The University of Tokyo, Tohoku University, Kanazawa University	Advanced medical information system.
12	Prof. Ryozo Nagai The University of Tokyo	Kyushu University, Tokyo Women's Medical University, Keio University, Waseda University, National Institute for Materials Science	Practical advanced medical development project with medical cooperation.
13	Mr. Nobuo Hashimoto National Cardiovascular Center	Osaka University, The University of Tokyo, Tokyo Women's Medical University, Kyoto University, Mie University	Advanced cardiovascular treatment device.
14	Prof. Masahiro Hiraoka Kyoto University	Kyoto University, Tokyo University, Tokyo University of Agriculture and Technology, Osaka University, Canon Inc.	Development of innovative medical devices by imaging technology.
15	Prof. Tadamitsu Kishimoto Osaka University	Kagoshima University, Chugai Pharmaceutical Co., Ltd., National Institute of Biomedical Innovation, Kyoto University	Development of advanced immune medical.



## 2. Follow the Money

- d) 3 elite academic institutions get funding for initiatives in medtech innovation methodologies
  - University of Tokyo, Osaka and Tohoku
  
- e) New Evaluation Center for Medical Devices
  - Designation of Tohoku - Fukushima
  - ¥10-20M (\$200,000)
  
- f) 10 clinical trial centers



# 3. Japan in Minnesota

## U of Minn Medical Devices Center

### Medical Devices Center

**New state-of-the-art  
world class center**

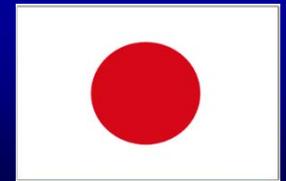
### DMD Conference

### Design of Medical Devices

- April 13-16, 2015 *14<sup>th</sup> year*
- April 2014 *Record attendance*
- Oct. 7-9, 2013 – *1<sup>st</sup> overseas*  
Delft, the Netherlands
- *Next global location?*



# 3. Japan in Minnesota



# 3. Japan in Minnesota - Olympus

## Olympus Surgical Technologies America

- new research, design and manufacturing facility for minimally invasive operations
- \$37 million, 180,000 square-foot plant (17,000 sq. meters)



12/13/13 with Governor Dayton



# 3. Japan in Minnesota - Toshiba

4/28/11

## Toshiba Medical Systems Corp

TMSC acquires Vital Images, Inc. for \$18.75 per share in all cash transaction

- Combination to strengthen TMSC's global healthcare imaging solutions business

## 東芝メディカルシステムズ株式会社

2011.04.28

東芝メディカルシステムズ  
米国バイタル・イメージ社  
を買収

- グローバル市場における  
医療画像ソリューション  
事業を強化



# 3. Japan in Minnesota - Toray

- 10/10/13  
Liaison office  
opened by  
CEO Nikkaku

新 報 新 報

2013年(平成25年)11月15日(金曜日)

12版 企業1 12

大 高 は 代 々 た て 部 程 車

医療事業の拠点  
東シ、神戸と米に  
機器開発や情報収集  
東シは今年中に神戸と  
米ミネソタ州の2カ所に  
医療事業の拠点を立ち上  
げる。医療分野の技術者  
を派遣し、新しい医療機  
器の開発や他社との事業  
提携のための情報収集に  
あたる。医療機関・関連  
企業が集中する日米の集  
積地を押しさえ、事業拡大  
を狙う。



# RESOURCES

- Federal Agencies
  - [export.gov](http://export.gov)
- Minnesota Trade Office
- Nongovernmental Organizations



# Minnesota Trade Office (MTO)



Exporting



Canada & Mexico

Latin America

Europe & Russia

Middle East & Africa

India & Central Asia

Greater China

Asia Pacific



Medical & Bioscience

Healthcare

Environment & Energy

\* Market Development  
\* FDI Development  
\* Industry Development



# MTO Services

- **Export Counseling & Technical Assistance**
- **Export Education and Training**
- **Export Promotions**
- **Protocol Assistance**
- **International Research Resources**



# Business Support Resources

## *Improve Cash Flow*

- Gap financing
- Capital grants
- **STEP  
export  
grant**

## *Workforce Savings*

- Free recruiting tool
- Training grants

## *Tax Credits*

- Minnesota R&D Tax Credit
- Refundable Angel Tax CR

## *Tax Exemptions*

- No sales tax on capital equipment for manufacturing
- No property tax on “personal property” (materials, machinery, inventory, fuels used in manufacturing)



# Supply Chain Directory



ミネソタ州政府経済開発局

[MadeInMinnesota.com](https://www.madeinminnesota.com)



# Supply Chain Directory

*Minnesota*

DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT



## MADE IN MINNESOTA DIRECTORY

AN ONLINE DATABASE OF MINNESOTA MANUFACTURERS AND SUPPLIERS

### TOP TOOL CO

3100-84th Lane NE  
Minneapolis , MN 55449  
Hennepin , County

ESTABLISHED: 1966  
Employees: 32  
Women-owned

### COMPANY DESCRIPTION:

Top Tool manufactures high-precision, microminiature components—featuring complex geometries and tight tolerances—stamped from ultrathin, exotic materials. The company is an innovator in world-class tooling and design-for-manufacturing, offering inventive solutions for implantable medical devices, surgical instruments, electronics, energy and defense. In-house design, engineering, prototyping, validation, and full-scale production are available. World Class Tool & Die Contract Micro Wire EDM Services

### NAICS CATEGORIES:

332 - Fabricated Metal  
334 - Computer and Electronics  
335 - Electrical Equipment  
336 - Transportation Equipment  
339 - Miscellaneous Products

### QUALITY CERTIFICATIONS:

ISO 13485  
ISO 9001:2008  
ITAR Registered

### WE ARE SUPPLIERS TO THE FOLLOWING INDUSTRIES:

- Aerospace equipment
- Medical/dental equipment and supplies
- Renewable energy or energy conservation/Efficiency

### PRODUCER OF COMPONENTS.

CONTACT: Duane Kari  
TITLE: Sales Manager  
PHONE: 763-786-0030  
EMAIL: [ttcsales@toptool.com](mailto:ttcsales@toptool.com)  
WEB: [www.toptool.com](http://www.toptool.com) OUR TOP

### PRODUCTS:

- Complex precision metal components
- Contract micro wire EDM
- Precious metal components
- Precision tools and dies

### PRODUCTS WE ARE POTENTIALLY INTERESTED IN BUYING FROM MINNESOTA SUPPLIERS:

- Metal
- Tool building supplies
- Tool steel



# Thank you

**International Trade  
Representative**

Minnesota Trade Office

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