Manufacturing firms of Toyama, Ishikawa and Fukui enjoy high market shares

# Market Leaders from Hokuriku

**TOYAMA** 

ISHIKAWA

**FUKUI** 

Hokuriku Shin-Kansen. The operation started on March 14,2015

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#### 100 Market Leaders from Hokuriku: Selection Criteria

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Products have been selected on the following criteria and are shown here with the permission of the respective producers:

- Technical/technological excellence --- the product involves an innovative technique/technology and has a high market share
- Sustainability --- the product is expected to be in demand for a long time and to continue enjoying a high market share
- Local identity --- the product identifies itself with Hokuriku and is expected to be liked for a long time.



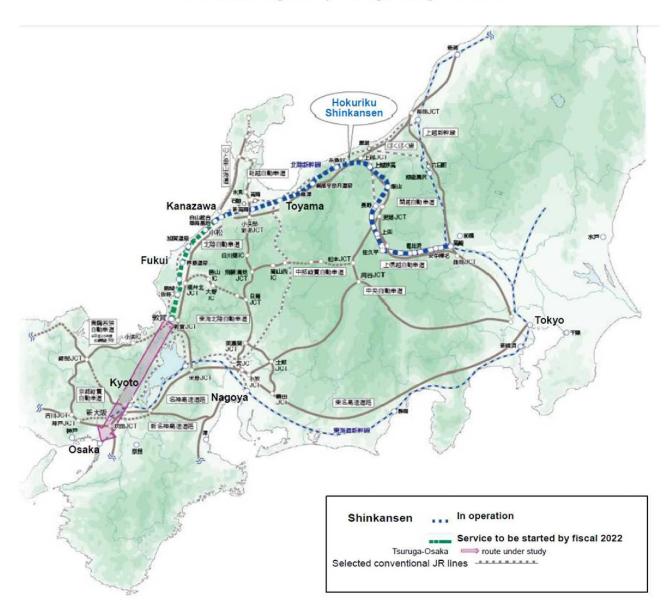
- I. An Environment in Hokuriku which Nurtures Market Leaders ------ 2
- II. List of Market Leading Companies and Products from Hokuriku ---- 6
- III. Brief Descriptions of Market Leading Products from Hokuriku ----- 12
- IV. Introduction to the Industries of the three Hokuriku Prefectures ---- 45

## I. An Environment in Hokuriku which Nurtures Market Leaders



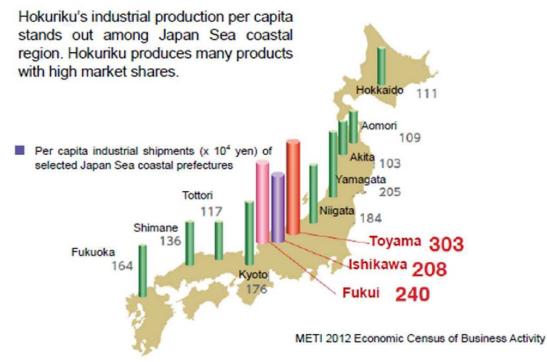
#### Hokuriku lies in the center of Honshu Island

At roughly equal distance from the three largest urban areas of the Tokyo Metropolis, Tokai and Kinki. Accessible from the Tokyo Metropolis in less than 3 hours. Situated in the center of the Japan Sea coastline, Hokuriku is also a major international gateway to neighboring countries.





Hokuriku leads the Japan Sea coastal region in industrial production





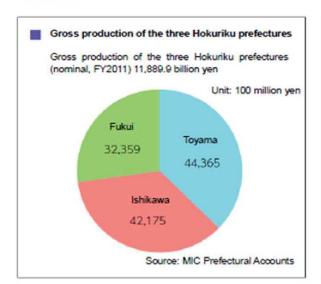
Gross production of Toyama, Ishikawa and Fukui combined

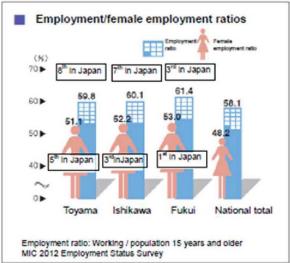


Educated, hardworking, female-friendly work environment

Hokuriku shines with its integrated identity, while each of the three prefectures retain their own characteristics. The traditional craftsmanship of the region is behind the high market shares of the modern-day industrial products which the region turns out.

People of Hokuriku are serious and undaunted. The higher education enrollment ratio is high and the job turnover rate is low. Many families are 3-generational and 2-income. The ratio of working women is also high.





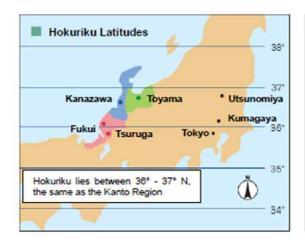


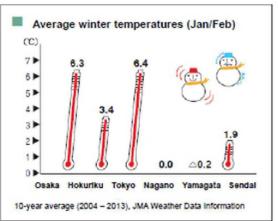
#### Hokuriku is blessed with a rich natural environment for industries



## Not so cold in winter

Contrary to the popular perception of being a northern region, Hokuriku lies at nearly same latitudes as Kanto. The Tsushima warm ocean current running through the Japan Sea keeps the average winter temperature in Hokuriku at 3 - 4 degrees Celsius.

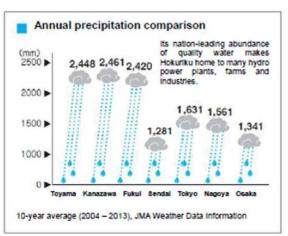


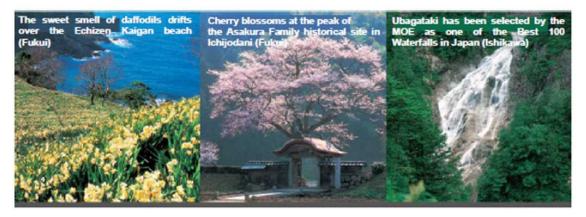


## Blessed with rich nature, Hokuriku has a large reservoir of good water

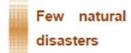
Ten water sources in Hokuriku rank among the Best 100 Waters in Japan as chosen by the MOE, and are very well received by high-tech industries.



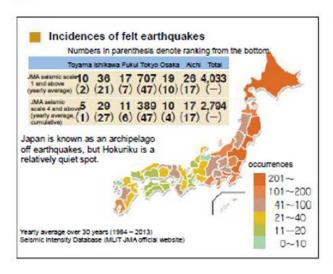


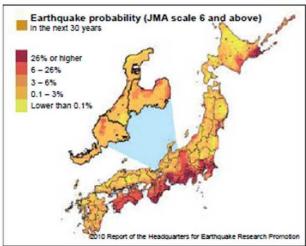


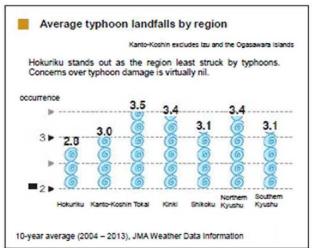
Surrounded by grandiose mountains, ocean and beautiful nature, Hokuriku is truly a great place to live and work.



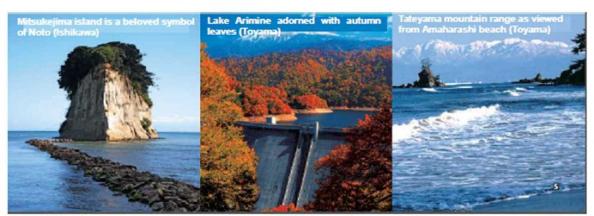
Hokuriku is seldom struck by earthquakes or typhoons. Severe disaster incidents are very rare.











# List of Market Leading Companies and Products from Hokuriku

List of companies and products in Toyama prefecture with the largest market share 32 companies, 40 products



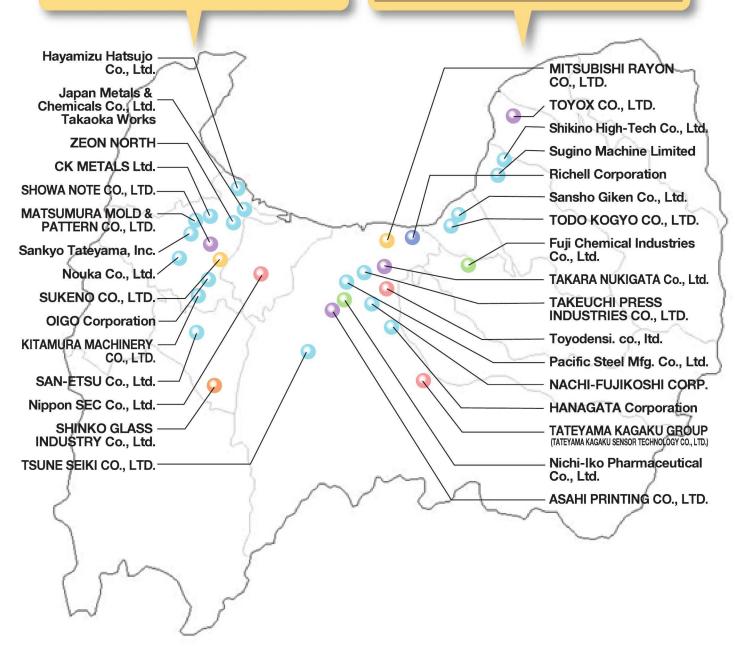
#### Features of Toyama prefecture

The number of employees per manufacturing business is relatively large (10th place for Toyama, and 38th and 41st places respectively for Ishikawa and Fukui), and organizational production systems have been developed which can easily accept large volume order, etc. The background factors for these characteristics include strong community spirit owing to its historical base of rice cropping.

#### Shipment value for Toyama prefecture

Based on "FY2012 Industrial statistics" from METI

Rank	Industry type	(100 mil. yen) Shipment Value
1	Chemicals industry	5,410
2	Metal products	3,573
3	Non-ferrous metals	3,434
4	Electronic components and devices, electronic circuit	ts 2,945
5	Production machinery and equipment	2,802
6	Plastic products	1,895
7	Steel industry	1,817



Company	Product Name	Page
Machinery & Metals		
OIGO Corporation	Temple Bell, Fire Bell, Church Bell, Bronze Statue	8
KITAMURA MACHINERY CO., LTD.	Next Generation High-Speed & High Precision Machining Centers	8
SAN-ETSU Co., Ltd.	Camera Mount	8
Sankyo Tateyama, Inc.	Aluminum Alloy Extrusion Molding Material	8
Sansho Giken Co., Ltd.	Molds for Automotive Connectors	9
CK METALS Ltd.	Non PVC fitting and Transparent Coated Ferrule	9
CK METALS Ltd.	CK e galvanizing (environmentally-friendly hot dip galvanizing)	9
Shikino High-Tech Co., Ltd.	Burn-in board	9
Shikino High-Tech Co., Ltd.	Camera Module	10
Sugino Machine Limited	Wet Pulverizing and Dispersing Device "Star Burst"	10
ZEON NORTH	Aluminum Reclamation Rotary (Melting) Furnace	10
ZEON NORTH	Vibration compression Aluminum Recovery Equipment for Aluminum Dross Ash Disposing Facility (V-MADOC)	10
Pacific Steel Mfg. Co., Ltd.	NT Roll (Forged Roll)	11
TAKEUCHI PRESS INDUSTRIES CO., LTD.	Aluminum Tubes	11
,	Aluminum Aerosol Cans	9 390
TAKEUCHI PRESS INDUSTRIES CO., LTD.		11
TSUNE SEIKI CO., LTD.	Circular Sawing Machine	11
TODO KOGYO CO., LTD.	Self-Aligning Clutch Release Bearing	12
Japan Metals & Chemicals Co., Ltd. Takaoka Works	Nitrogen Bearing Ferroalloy	12
Nouka Co., Ltd.	Aluminum Inner Bowl for Industrial Rotation Bowl (Gas or Electromagnetic Type)	12
HANAGATA Corporation	Automatic Packaging Machine (Film Packaging)	12
Hayamizu Hatsujo Co., Ltd	Spiral Spring for Wind-Up of Automobile Seatbelt	13
NACHI-FUJIKOSHI CORP.	Broach Cutter (Cutting Tool)	13
NACHI-FUJIKOSHI CORP.	Double-row Angular Contact Ball Bearings for Car Air-conditioner	13
NACHI-FUJIKOSHI CORP.	Drive & Swing Motors for Small Shovel	13
MATSUMURA MOLD & PATTERN CO., LTD.	Sleeves	14
Electrical & Electronics		
Nippon SEC Co., Ltd	LED Indicator	23
TATEYAMA KAGAKU GROUP (TATEYAMA KAGAKU SENSOR TECHNOLOGY CO., LTD.)	Si Sensor for Gas Cooker	23
Toyodensi. co., ltd.	@Station	24
Textiles		
SUKENO CO., LTD.	Socks and Leg Wears	26
MITSUBISHI RAYON CO., LTD.	Plastic Optical Fiber	27
Chemicals	·	
Nichi-Iko Pharmaceutical Co., Ltd.	Generic Drugs	30
Fuji Chemical Industries Co., Ltd.	AstaReal® Natural Algae Astaxanthin	30
Ceramics & Glass		
SHINKO GLASS INDUSTRY Co., Ltd.	Resin Laminated Glass	33
SHINKO GLASS INDUSTRY Co., Ltd.	Bent Glass Processing	33
Plastics		
Richell Corporation	Dog Toilet	34
Other		
	Pharmacoutical Packages	26
ASAHI PRINTING CO., LTD.	Pharmaceutical Packages	36
SHOWA NOTE CO., LTD.	Learning Notebooks (for Elementary Students)	36
TAKARA NUKIGATA Co., Ltd.	Trimming Dies	36
TOYOX CO., LTD.	Pressure Hoses	36
TOYOX CO., LTD.	Radiant Air Conditioning	37

# List of companies and products in Ishikawa prefecture with the largest market share 38 companies, 46 products

## ISHIKAWA

#### Features of Ishikawa prefecture

Ishikawa has many Traditional Crafts designated by the Ministry for Economy, Trade and Industry (the number of crafts per one million population is second in Japan) as well as many companies with superior craftsmanship, which brings out a strength in one-off products made based on customer requirements. Ishikawa's characteristic of "products which are representative of their work" show a willingness for having private brands.

### Shipment value for Ishikawa prefecture.

Based on "FY2012 Industrial statistics" from METI

Rank	Industry type	(100 mil. yen) Shipment Value
1	Production machinery and appliance	s 5,583
2	Electronic components and devices, electronic circu	its 4,358
3	Textile industry	1,961
4	Food products	1,429
5	Information and communication machinery and equipme	ent 1,396
6	Metal products	1,217
7	Transport machinery and equipment	1,080

RB Controls Co., Ltd.

Tamada Industries Inc. \_

HOKUSHO CO., LTD. -

Morinaga Electronic Co., Ltd. ~

BBS KINMEI CO., LTD.

Oriental Chain Mfg. Co., Ltd. AKASHI GOHDOH Inc.

Takai Tofu &

Soymilk Equipment Co. Inamoto Manufacturing

Co., Ltd. Ishikawa Giken Industry

Co., Ltd.

KOMATSU WALL INDUSTRY CO., LTD.

COMANY INC.

Tsukiboshi Manufacturing Co., Ltd.

Enuma Chain Mfg. Co., Ltd.

Komatsu Ltd. Awazu Plant

Takazawa candle Co., Ltd.

**Noto Daiya** 

Industry Co., Ltd.

HAKUSAN-MFG. Co., Ltd. Ishikawa Plant

SO-WA TEXTILE Co., Ltd.

**PFU LIMITED** 

KUZE BELLOWS KOGYOSHO CO., LTD.

Sanko Kikaku Co., Ltd.

Maywa Co., Ltd.

**Nippon Parts Center** 

**KATSURAKISYO** 

SHIBUYA CORPORATION

I-O DATA DEVICE, INC.

KANAZAWA CORPORATION

TSUDAKOMA Corp.

Nakamura-Tome Precision Industry Co., Ltd.

Ferrotec Corporation Ishikawa Plant

Takakuwa Art Printing Co., Ltd.

Tohshin Seiki Co., Ltd.

SHOWA SEIKO CO., Ltd.

Fuji Seiko Honsha Co., Ltd.

KOMATSU SEIREN Co., Ltd.

J-BUS Ltd.

IKEDA KIGYO CO., LTD.

Company	Product Name	Page
Machinery & Metals		
AKASHI GOHDOH Inc.	Bimetal Cylinder Blocks with Cast-in Bronze Piston bores	14
Ishikawa Giken Industry Co., Ltd.	Stainless Steel Clad Pipes for Architectural Hardware	14
Inamoto Manufacturing Co., Ltd.	Industrial Large Washing Machines and Large Drying Machines	14
Enuma Chain Mfg. Co., Ltd.	Chain for forklift	15
Oriental Chain Mfg. Co., Ltd.	OCM MINI CHAIN S10	15
KUZE BELLOWS KOGYOSHO CO., LTD.	High Performance Clean Pipes	15
KUZE BELLOWS KOGYOSHO CO., LTD.	Clean Fittings	15
Komatsu Ltd. Awazu Plant	Bulldozer (Construction & Mining Equipment)	16
J-BUS Ltd.	Large-size Sightseeing Bus	16
SHIBUYA CORPORATION	Bottling Machines	16
SHIBUYA CORPORATION	BGA Solder Ball Mounting Machines	16
SHIBUYA CORPORATION	Regenerative Medicine Cell Culture Isolator	17
SHOWA SEIKO CO., Ltd.	CNC Drilling Machines	17
SHOWA SEIKO CO., Ltd.	Cutter Machines	17
Takai Tofu & Soymilk Equipment Co.	Tofu and Deep-fried Tofu Equipment	17
Tamada Industries Inc.	Petroleum Underground Storage Tank (S&F Double-wall Tank)	18
Tsukiboshi Manufacturing Co., Ltd.	Motorcycle Spokes, Hollow Axle Shaft	18
TSUDAKOMA Corp.	Textile Machinery (Jet Loom and Sizing Machine)	18
Tohshin Seiki Co., Ltd.	Spherical Rollers	18
Nakamura-Tome Precision Industry Co., Ltd.	Automatic Lens Centering Machine	19
Nippon Parts Center	Bend Perforated Plates	19
BBS KINMEI CO., LTD.	Silicon Wafer Edge Polishing System	19
Fuji Seiko Honsha Co., Ltd.	Radiation Shielding Door for Nuclear Power Plant	19
HOKUSHO CO., LTD.	Vertical Transfer System (Vertical Conveyor)	20
Maywa Co., Ltd.	Biomass Carbonization Plant for Recycling Organic Waste	20
Maywa Co., Ltd.	Dust Collection System for Agricultural Facilities	20
Electrical & Electronics		
	Floring Laboratory	
RB Controls Co., Ltd.	Electronic Ignition Equipment	24
RB Controls Co., Ltd.	Terrestrial Digital TV for Bathroom	24
I-O DATA DEVICE, INC.	Hard Disk Drive (HDD)	24
I-O DATA DEVICE, INC.	Liquid Crystal Display (LCD)	25
HAKUSAN-MFG. Co., Ltd. Ishikawa Plant	Communication Protective Device	25
PFU LIMITED	Business Image Scanner	25
Morinaga Electronic Co., Ltd.	Arrester (High-Speed Lightning Protection Unit)	25
Textiles		
IKEDA KIGYO CO., LTD.	Sleeve Lining for Men's Suits	27
KOMATSU SEIREN Co., Ltd.	Synthetic Fabrics for Global Luxury Brands	27
KOMATSU SEIREN Co., Ltd.	Span-Thobe for Middle East (OEM)	27
SO-WA TEXTILE Co., Ltd.	Fabric Cloth for Uniforms	28
Ceramics & Glass		
Noto Daiya Industry Co., Ltd.	Industrial Tabletop Brasier Made of Diatom Earth	33
Ferrotec Corporation Ishikawa Plant	Machinable Ceramics	33
Other		
KATSURAKISYO	Badges, Medals, Company Emblem, Group Participation Emblem, Oval Gold Coins, Prize Medals, Metal Craft	37
KANAZAWA CORPORATION	HAND TRUCK & SERVING TROLLEY	37
KOMATSU WALL INDUSTRY CO., LTD.	Partitions	37
COMANY INC.	Partitions	38
Sanko Kikaku Co., Ltd.	Embedded Road Marking Sheets	38
Takakuwa Art Printing Co., Ltd.	Sake Labels	38
Takazawa candle Co., Ltd.	Japanese Candles	38
i anazawa caliule CO., Ltu.	σαραπέδε Φαπαίεδ	30

# List of companies and products in Fukui prefecture with the largest market share

## FUKUI

35 companies, 45 products

#### Features of Fukui prefecture

The number of presidents per 100 thousand population is the largest in Japan, reflecting a strong spirit of independence in spite of its small management size (based on research by Teikoku Databank in February 2012).

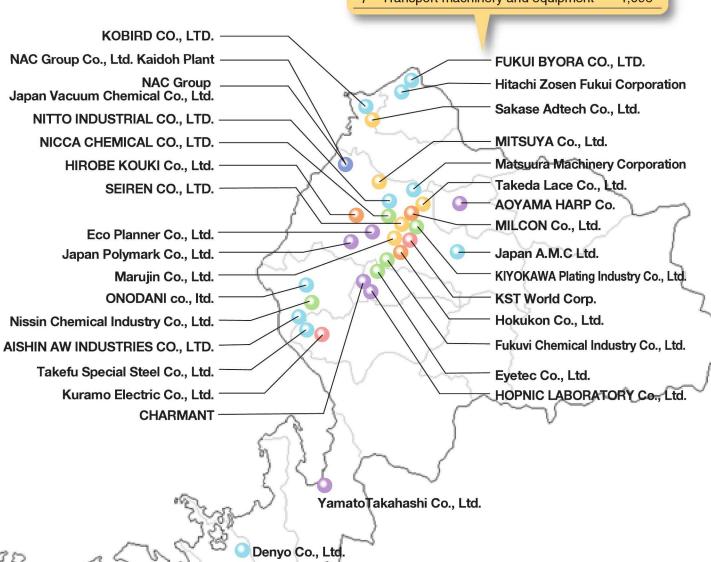
ISHIDA

OBAMA ROPE MFG. CO. LTD.

#### Shipment value for Fukui prefecture

Based on "FY2012 Industrial statistics" from METI

	1-1-1-1	(100 mil. yen)
Rank	Industry type	Shipment Value
1	Chemical industry	2,957
2	Electronic components and devices, electronic circu	its 2,839
3	Textile industry	2,386
4	Electric machinery and equipment	1,657
5	Plastic products	1,466
6	Non-ferrous metals	1,278
7	Transport machinery and equipment	1,096



Company	Product Name	Page
Machinery & Metals		
AISHIN AW INDUSTRIES CO., LTD.	Torque Converter (T/C)	20
Hitachi Zosen Fukui Corporation	Large-size press machines forming bodies and other outer panels of automobiles	21
ONODANI co., ltd.	Full Automatic Large Tire Changer	21
KOBIRD CO., LTD.	MAGICHAND, Ultimate Incrusting Machine exceeding hand-made quality	21
KOBIRD CO., LTD.	Steaming Mixer and Our Type Kneader for Gyuhi Mochi	21
Takefu Special Steel Co., Ltd.	CLAD Metal for Blade (Composite of Different Kinds of Metals)	22
Denyo Co., Ltd. Fukui Plant	Engine Generators	22
NITTO INDUSTRIAL CO., LTD.	Urethane Cutting Machines	22
Japan A.M.C Ltd.	Fittings for High-pressure Piping	22
FUKUI BYORA CO., LTD.	Fluorescent Light Crimp Pin	23
Matsuura Machinery Corporation	5-Axis Vertical Machining Center Equipped with Long Unattended Operation System	23
Electrical & Electronics		
Kuramo Electric Co., Ltd.	Float Switch for Submerged Pumps	26
Kuramo Electric Co., Ltd.	Robot Cables	26
KST World Corp.	Wafer with Thick Thermal Oxide Film	26
Textiles		
OBAMA ROPE MFG. CO. LTD.	Marine Ropes	28
Sakase Adtech Co., Ltd.	3-Axis Fabric Composite Materials	28
SEIREN CO., LTD.	Automotive Seat	28
SEIREN CO., LTD.	House Lapping Material "Lamitect"	29
SEIREN CO., LTD.	Base Materials for Synthetic Blood Vessel	29
Takeda Lace Co., Ltd.	Knitting Lace for Under Garments (Product Name: Forpo Lace, Lacy Liivers)	29
Marujin Co., Ltd.	Reflective Material "LFU-9000 Aurora Color Reflection"	29
Marujin Co., Ltd.	Reflective Thread (twine type) LFUY-1200-T0275	30
MITSUYA Co., Ltd.	Cloth for Inkjet Tifone®	30
Chemicals		
Eyetec Co., Ltd.	Surface Treatment Processing of Eyeglass Frames	31
Eyetec Co., Ltd.	Plating of Carbon Golf Shafts	31
KIYOKAWA Plating Industry Co., Ltd.	Nano-plating technology	31
NICCA CHEMICAL CO., LTD.	Flame retardant for automotive seating and interior curtains	31
Nissin Chemical Industry Co., Ltd.	Solbin (Vinyl Chloride/Vinyl Acetate Modified Resin)	32
Nissin Chemical Industry Co., Ltd.	Vinyblan (Vinyl Chloride Resin Emulsion)	32
Fukuvi Chemical Industry Co., Ltd.	Heating Unit and Heating Container (Heating and Warming Container "Naruhot")	32
Fukuvi Chemical Industry Co., Ltd.	Panels for Washroom/Bathroom	32
Ceramics & Glass		
HIROBE KOUKI Co., Ltd.	Emblems of Police and Fire Departments (Ceramics)	34
Hokukon Co., Ltd.	Concrete Elevator Shafts	34
MILCON Co., Ltd.	JB Rock (which enables quick, natural growth of moss and algae)	34
Plastics		
NAC Group Co., Ltd. Kaido Plant	Curved Mirrors	35
NAC Group Japan Vacuum Chemical Co., Ltd.	Acrylic Pipes	35
NAC Group Japan Vacuum Chemical Co., Ltd.	Resin Mirror Planes	35
NAC Group Japan Vacuum Chemical Co., Ltd.	NAC HEALSPA (FRA)	35
Other		
AOYAMA HARP Co.	Harps	39
ISHIDA	Wakasa Lacquer Chopsticks	39
Eco Planner Co., Ltd.	Intake Equipment with Moveable Barrage "GS Screens"	39
Japan Polymark Co., Ltd.	Caution Labels Displayed on Automobiles (Caution Labels)	39
CHARMANT	High Grade Eyeglass Frames (40 thousand yen or more)	40
HOPNIC LABORATORY Co., Ltd.	Polarized Lens for Vision Correction	40
YamatoTakahashi Co., Ltd.	Oboro Kelp Sheets (Machine Processing)	40

# Brief Descriptions of Market Leading Products from Hokuriku

#### **OIGO Corporation**

## Temple Bell, Fire Bell, Church Bell, Bronze Statue

**60%** share of the Japanese market

#### **Product outline and features**

An all-around manufacturer that handles Buddha statues for temples, ritual implements, Buddhist altar articles for temples, and metallic items for temples. Also a specialty manufacture of temple bells (hanging bells) and other bells, with a No. 1 share of the Japanese market. OIGO has a record of supplying temples and shrines all over Japan and has accumulated a wide range of expertise.

Company address: 47-1 Toide Sakae-machi, Takaoka-city, Toyama-pref

**TEL** +81(0)766-63-6336 **FAX** +81(0)766-63-6338

URL http://www.toyama-smenet.or.jp/~oigo/



#### KITAMURA MACHINERY CO., LTD.

## **Next Generation High-Speed & High Precision Machining Centers**

10% share of the global market

#### Product outline and features

High Performance Machining Centers with World's fastest rapid feed rate (60m/min) on Solid Box Ways. Craftsmanship in Hand-Scraping to assure Accuracy and Longevity. Pioneering Icon CNC Operation, Kitamura's very own Arumatik-Mi Control maximized operator potential and performance.

Company address: 1870 Toide Sakae-machi, Takaoka-city, Toyama-pref

URL http://kitamura-machinery.co.jp/



#### SAN-ETSU METALS Co., Ltd.

#### Camera Mount

**90%** share of the global market

17.9% share of

#### Product outline and features

SAN-ETSU METALS has achieved high quality via its integrated production system from materials to forging and machining processes. Close tolerance forging technology has realized an overwhelming accuracy of 20µ, which is highly appreciated by customers.

URL http://www.sanetu.co.jp/



#### Sankyo Tateyama, Inc.

## Aluminum Alloy Extrusion Molding Material (Produced by Sankyo Alumi Company and Sankyo Material Company)

the Japanese market (according to trade paper)

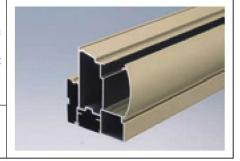
Product outline and features

This material is used for building materials (sashes for conventional homes and buildings), transport equipment (automobiles, railways), electrical equipment (heatsinks), industry machinery (FA frames), precision equipment (PCs, office machines), materials for construction and temporary facilities, welfare equipment, etc.

Company address: 70 Hayakawa, Takaoka-city, Toyama-pref

**TEL** +81(0)766-20-2101 **FAX** +81(0)766-20-2082

URL http://www.st-grp.co.jp/english/



#### Sansho Giken Co., Ltd.

#### **Molds for Automotive Connectors**

## **20%** share of the Japanese market

#### Product outline and features

High precision molds that support the reliability of vehicle-mounted precision components. Advanced precision technology has provided molds with long life, which is highly appreciated by customers.

Company address: 1586 Kamikoizumi, Namerikawa-city, Toyama-pref

URL https://www.sanshogiken.co.jp/



#### CK METALS Ltd.

## Non PVC fitting and Transparent Coated Ferrule

100% share of the Japanese market

#### **Product outline and features**

Transparent coated resin of fitting allows a visual check of screwing conditions for pipes, which securely achieves construction control.

Company address: 2-12-1 Shugo-machi, Takaoka-city, Toyama-pref

**TEL** +81(0)766-21-1448 **FAX** +81(0)766-22-5830

URL http://www.ckmetals.co.jp/



#### CK METALS Ltd.

## CK e galvanizing (environmentally-friendly hot dip galvanizing)

100% share of the global market

#### **Product outline and features**

The only hot dip galvanizing fully compliant with global environmental regulations, achieving (ensuring) a lead concentration of 50ppm or less and a cadmium concentration of 10ppm or less, and achieving the same function and price as before.

Company address: 2-12-1 Shugo-machi, Takaoka-city, Toyama-pref

URL http://www.ckmetals.co.jp/



#### Shikino High-Tech Co., Ltd.

#### **Burn-in board**

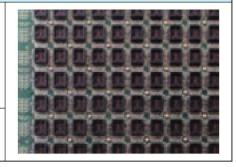
45% share of the global market

#### Product outline and features

Shikino High-Tech, a top-class supplier of burn-in boards in Japan, has established a production system that responds flexibly to various order lots. It also adopts lead-free soldering to meet environmental needs.

**Company address**: 829 Kichijima, Uozu-city, Toyama-pref **TEL** +81(0)765-22-3477 **FAX** +81(0)765-22-3916

URL http://www.shikino.co.jp/



#### Shikino High-Tech Co., Ltd.

#### Camera Module

#### Product outline and features

A camera module product embedded into industrial machines, featuring high quality and reliability. USB-type camera modules are adopted into various types of terminal equipment including ATMs, because of their versatility.

**Company address**: 829 Kichijima, Uozu-city, Toyama-pref **TEL** +81(0)765-22-3477 **FAX** +81(0)765-22-3916

URL http://www.shikino.co.jp/



#### **Sugino Machine Limited**

## Wet Pulverizing and Dispersing Device "Star Burst"

**52%** share of the Japanese market

90% share of

#### Product outline and features

Star Burst is a wet-type pulverizing and dispersing device, used to prepare high performance particles that are micronized at the nano-level. This is accomplished by colliding the particles pressurized up to 2500 bar at a relative velocity of Mach 4.

**Company address**: 2410 Hongo, Uozu-city, Toyama-pref **TEL** +81(0)765-24-5111 **FAX** +81(0)765-24-5051

URL http://www.sugino.com/



#### **ZEON NORTH**

## **Aluminum Reclamation Rotary (Melting) Furnace**

**60%** share of the Japanese market

#### Product outline and features

The efficiency of agitation and mixing of scrap materials and molten aluminum has been revolutionarily increased by decentering and rotating the furnace body.

**Company address**: 351 Ejiri, Takaoka-city, Toyama-pref **TEL** +81(0)766-25-1111 **FAX** +81(0)766-25-1114

URL http://www.zeonnorth.co.jp/



#### **ZEON NORTH**

## Vibration compression Aluminum Recovery Equipment for Aluminum Dross Ash Disposing Facility (V-MADOC)

**100%** share of the Japanese market

#### Product outline and features

This product efficiently extracts (recovers) aluminum at low compression by vibrating the aluminum dross generated in aluminum melting to facilitate aluminum separation. This allows the mitigation of problems such as the occurrence of dust and the necessity of skills for operation.

**Company address**: 351 Ejiri, Takaoka-city, Toyama-pref **TEL** +81(0)766-25-1111 **FAX** +81(0)766-25-1114

URL http://www.zeonnorth.co.jp/



#### Pacific Steel Mfg. Co., Ltd.

## **NT Roll** (Forged Roll)

## An **80%** share of the global market including Japan

#### Product outline and features

NT Roll is high-carbon forged roll used for shaped steel rolling mills that have been successfully made of cast iron roll materials, which was conventionally considered difficult to hot-work, by means of a special hot forging process. This original product has been significantly improved in strength (resistance to breakage), resistance to heat cracking and wear.

Company address: 1-93 Shimonisso-machi, Toyama-city, Toyama-pref

URL http://www.pacificsteelmfg.co.jp/



#### TAKEUCHI PRESS INDUSTRIES CO., LTD.

#### **Aluminum Tubes**

**60%** share of the Japanese market

#### Product outline and features

Our aluminum tubes are high-quality that can be used for various applications such as cosmetics, medical suppliers, and adhesive agents.

Company address: 1-10-1 Kamiakae-machi, Toyama-city, Toyama-pref

**TEL** +81(0)76-441-1856 **FAX** +81(0)76-441-2065

URL http://www.takeuchi-press.co.jp/



#### TAKEUCHI PRESS INDUSTRIES CO., LTD.

#### **Aluminum Aerosol Cans**

**65%** share of the Japanese market

#### Product outline and features

Aluminum Aerosol Cans are used for spray or mousse containers for cosmetics, medical supplies, and antiperspirants, etc. The product is excellent in design for deformed cans and various surface decorations.

Company address: 1-10-1 Kamiakae-machi, Toyama-city, Toyama-pref

**TEL** +81(0)76-441-1856 **FAX** +81(0)76-441-2065

URL http://www.takeuchi-press.co.jp/



#### TSUNE SEIKI CO., LTD.

## **Circular Sawing Machine**

**40%** share of the Japanese market

#### Product outline and features

In addition to high speed and precision cutting quality, this product provides a stable sawing process via a rugged body resistant to long continuous cutting

**Company address**: 852 Takahizuki, Fuchu-machi, Toyama-city, Toyama-pref **TEL** +81(0)76-469-3330 **FAX** +81(0)76-469-5244

URL http://www.tsune.co.jp/



#### TODO KOGYO CO., LTD.

## Self-Aligning Clutch Release Bearing

**60%** share of the Japanese market

#### Product outline and features

This product is a bearing part incorporated into a manual transmission, which allows high-precision processing.

Company address: 838 Kamijima, Namerikawa-city, Toyama-pref

URL https://www.tdknet.co.jp/



#### Japan Metals & Chemicals Co., Ltd. Takaoka Works

## Nitrogen Bearing Ferroalloy

100% share of the Japanese market

#### Product outline and features

Nitrogen Bearing Ferroalloy is a ferromanganese ferroalloy to which nitrogen has been added. This is used to increase the resistance in copper to heat, corrosion, and wear.

Company address: 1-1-145 Yoshihisa, Takaoka-city, Toyama-pref



#### Nouka Co., Ltd.

### Aluminum Inner Bowl for Industrial Rotation Bowl (Gas or Electromagnetic Type)

**95%** share of the Japanese market

#### Product outline and features

This product is used for cooking large amounts of curry, pan-fried noodles, boiled food, etc. in school meals. This is also a hit product in the food industry which makes convenience store lunches around Japan. It has also started being available for convenience stores and university cafeterias in Southeast Asian countries.

Company address: 2904 Sasagawa, Takaoka-city, Toyama-pref

URL http://suihan.com/



#### **Hanagata Corporation**

## **Automatic Packaging Machine (Film Packaging)**

**70%** share of the Japanese market

#### Product outline and features

Automatic Packaging Machines are machines for automatically packing various shapes of commodities just by loading them on the conveyor belt. The product is compact and versatile, with consideration for operability and safety, which has resulted in a record of delivery to a wide range of industries.

Company address: 417 Yokouchi, Toyama-city, Toyama-pref

**TEL** +81(0)76-425-1545 **FAX** +81(0)76-423-3739

URL http://www.hanagata.co.jp/



#### Hayamizu Hatsujo Co., Ltd.

## **Spiral Spring for Wind-Up of Automobile Seatbelt**

**40%** share of the Japanese market

#### Product outline and features

This product provides a winding force when an automobile seatbelt is wound up, and has responded to requests for high quality (high precision and durability) and lightweight. The product has incorporated expertise for maintaining high quality and lightweight devices.

Company address: 2-2-2 Fushikikokubu, Takaoka-city, Toyama-pref

URL http://www.hayamizu-hatsujo.co.jp



#### NACHI-FUJIKOSHI CORP.

### **Broach Cutter (Cutting Tool)**

**80%** share of the Japanese market

#### Product outline and features

Broach Cutters are a tool indispensable for the mass-production of precision components such as cars and machine tools, and the processing of complicated shapes.

Company address: 1-1-1 Fikoshihon-machi, Toyama-city, Toyama-pref

**TEL** +81(0)76-423-5111 **FAX** +81(0)76-493-5211

URL http://www.nachi-fujikoshi.co.jp/



#### NACHI-FUJIKOSHI CORP.

## **Double-row Angular Contact Ball Bearings for car air-conditioner**

**50%** share of the global market

#### **Product outline and features**

Double-row angular contact bearings are mounted on the clutch transferring engine rotations to the compressor in air conditioners. This product is lightweight and compact, and provides high resistance at high speeds and high temperatures.

Company address: 1-1-1 Fikoshihon-machi, Toyama-city, Toyama-pref

**TEL** +81(0)76-423-5111 **FAX** +81(0)76-493-5211

URL http://www.nachi-fujikoshi.co.jp/



#### NACHI-FUJIKOSHI CORP.

## **Drive & Swing Motors for Small Shovel**

**50%** share of the global market (travelling motor)

#### Product outline and features

This product is mounted on a small shovel used in a limited area, and provides drive and swing functionality with strength and high-speed.

Company address: 1-1-1 Fikoshihon-machi, Toyama-city, Toyama-pref

URL http://www.nachi-fujikoshi.co.jp/



#### MATSUMURA MOLD & PATTERN CO., LTD.

#### Sleeve

## approximately 15% share of the global market

#### Product outline and features

Sleeves are parts for solenoid valves used in continuously variable transmission (CVT). For smoother running, the parts are required to achieve high levels of airtightness and micron-order accuracy.

Company address: 805 Chokeiji, Takaoka-city, Toyama-pref

URL http://www.matsump.com/



#### AKASHI GOHDOH Inc.

## **Bimetal Cylinder Blocks with Cast-in Bronze Piston bores**

**50%** share of the global market

#### Product outline and features

Cylinder blocks used in high-pressure hydraulic pumps for construction equipment and other applications. A composite material formed from steel and bronze, it takes advantage of the strength of steel while providing the superb sliding properties of bronze.

Company address: 1484 Yokoe-machi, Hakusan-city, Ishikawa-pref

URL http://www.akashigo.com/



#### Ishikawa Giken Industry Co., Ltd.

## **Stainless Steel Clad Pipes for Architectural Hardware**

**50%** share of the Japanese market

#### Product outline and features

This product is used in hanger pipes, baggage racks in trains, and handrails in building and department stores.

Company address: 1272-1 Deaijima-machi, Hakusan-city, Ishikawa-pref

URL http://www.i-giken.co.jp/



#### Inamoto Manufacturing Co., Ltd.

## Industrial Large Washing Machines and Large Drying Machines

**50%** share of the Japanese market

#### Product outline and features

These products are large industrial cleaning machines that wash dust control items such as mats and mops, and linen such as sheets towels, and tablecloths. These products have been delivered to cleaning factories throughout Japan.

Company address: 948 Genpeijima-machi, Hakusan-city, Ishikawa-pref

URL http://www.inamoto.co.jp/



#### Enuma Chain Mfg. Co., Ltd.

#### **Chain for forklift**

## **60%** share of the Japanese market

#### Product outline and features

Roller chains have a transfer efficiency of 98% or more, and allow smooth and silent transfer even at high-speeds. This product is widely used in the construction machine field, and chains for agricultural machinery have an 80% share of the Japanese market.

Company address: 300 Kamikawasaki-machi, Kaga-city, Ishikawa-pref

URL http://www.enuma.co.jp/



#### Oriental Chain Mfg. Co., Ltd.

### **OCM MINI CHAIN**

## **100%** share of the Japanese market

#### Product outline and features

The world's smallest chain with a pitch of 3.175mm.

Company address: 485 Miyanagaichi-machi, Hakusan-city, Ishikawa-pref

**TEL** +81(0)76-276-1155 **FAX** +81(0)76-274-9030

URL http://www.ocm.co.jp/



#### KUZE BELLOWS KOGYOSHO CO., LTD.

## **High Performance Clean Pipes**

## **40-50%** share of the Japanese market

#### Product outline and features

Clean Pipes with high performance and quality have been consistently produced with a thorough quality management system from the cold drawn processing of original pipes to electrochemical polishing and precision cleaning.

**Company address**: Ri 74-1 Minamichujyo, Tsubata-machi, Kahoku-gun, Ishikawa-pref **TEL** +81(0)76-289-4740 **FAX** +81(0)76-289-2136

**TEL** +81(0)76-289-4740 **FAX** +81(0)76-289-2136 **URL** http://www.kuze.com/kuze/kuzemain.htm



#### **KUZE BELLOWS KOGYOSHO CO., LTD.**

## **Clean Fittings**

## **40-50%** share of the Japanese market

#### Product outline and features

Piping joints for ultrapure fluid, which have been delivered to IT-related industries as well as medical supplies and food industries. Manufactured using the best technologies accumulated over more than 60 years in cold work, in ISO9001 and JIS Q9100 certified factories, and the products comply with quality requirements.

Company address: Ri74-1 Minamichujyo, Tsubata-cho, Kahoku-gun, Ishikawa-pref TEL +81(0)76-289-4740 FAX +81(0)76-289-2136

URL http://www.kuze.com/kuze/kuzemain.htm



#### Komatsu Ltd. Awazu Plant

### **Bulldozer** (Construction & Mining Equipment)

Approximately **60%** share of the Japanese market (bulldozer)

**64%** share of the Japanese market

(in 2014)

#### **Product outline and features**

Bulldozers are construction equipment which excavate and transport crushed stone and sediment, and are used in land leveling work. In 2013, Komatsu introduced a medium size bulldozer into the market, which was equipped with an automatic blade control function for the first time in the world.

Company address: Tsu 23 Futsu-machi, Komatsu-city, Ishikawa-pref

URL http://www.komatsu.co.jp/



#### J-BUS Ltd.

## Large-size Sightseeing Bus

#### Product outline and features

Under the theme "customer-first and social policy", low-pollution busses place consideration on the natural environment.

 $\textbf{Company address}{:}~30~Kogyodanchi,~Kushi-machi,~Komats-city,~Ishikawa-pref$ 

URL http://www.jbus.co.jp/



#### SHIBUYA CORPORATION

## **Bottling Machines**

**60%** share of the Japanese market

An 80% share of

the Japanese market

## Product outline and features

These machines fill soft drinks such as carbonated beverages and fruit juices, alcoholic beverages, cooking oils, and cosmetics, etc.

Company address: Ko58 Mameda-Honmachi, Kanazawa-city, Ishikawa-pref

URL http://www.shibuya.co.jp/



#### SHIBUYA CORPORATION

## **BGA Solder Ball Mounting Machines**

#### Product outline and features

These machines mount microscopic solder balls, i.e., electrode terminals, on wafers or BGsubstrate with an ultra-high degree of accuracy.

Company address: Ko58 Mameda-Honmachi, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-262-1201 **FAX** +81(0)76-223-1914

URL http://www.shibuya.co.jp/



#### SHIBUYA CORPORATION

## Regenerative Medicine Cell Culture Isolator

An approximately **90%** share of the Japanese market

#### Product outline and features

This isolator allows for cell culture operation under a sterile environment in which operators are completely separated from cells.

Company address: Ko58 Mameda-Honmachi, Kanazawa-city, Ishikawa-pref

URL http://www.shibuya.co.jp/



#### SHOWA SEIKO CO., Ltd.

### **CNC Drilling Machines**

**60-70%** share of the Japanese market

#### **Product outline and features**

CNC drilling machines provide drill cutting exclusively for flat steel, etc.

Company address: Re48-9 Minato-machi, Hakusan-city, Ishikawa-pref

URL http://www.showaseiko.co.jp/



#### SHOWA SEIKO CO., Ltd.

#### **Cutter Machines**

**70-80%** share of the Japanese market

#### **Product outline and features**

Cutter machines are combined machines that provide five types of cutting: punching, angle cutting, shearing, notching, and pipe notching.

Company address: Re48-9 Minato-machi, Hakusan-city, Ishikawa-pref

**TEL** +81(0)76-278-2328 **FAX** +81(0)76-278-5589

URL http://www.showaseiko.co.jp/



#### Takai Tofu & Soymilk Equipment Co.

## Tofu and Deep-fried Tofu Equipment

**50%** share of the Japanese market

#### **Product outline and features**

This control equipment makes tofu by handling many work processes together, from the dipping of raw soybean to cooling.

**Company address**: 1-1 Inari, Nonoichi-city, Ishikawa-pref **TEL** +81(0)76-248-1355 **FAX** +81(0)76-248-5457

URL http://www.takaitofu.com/



#### Tamada Industries, Inc.

## Petroleum Underground Storage Tank (S&F Double-wall Tank) An OU 70 snare or the Japanese market

#### Product outline and features

This product has achieved safety and economy by a proprietary technology combining steel with FRP.

Company address: Ha61-1, Muryoji-machi, Kanazawa-city, Ishikawa-pref

TEL +81(0)76-267-4888 FAX +81(0)76-267-5415

URL http://www.tamada.co.jp/



### Tsukiboshi Manufacturing Co., Ltd.

## Motorcycle Spokes, Hollow Axle Shaft

90% share of the Japanese market

#### Product outline and features

Any material and shape can be processed via the core technology of cold forming and fully-equipped systems for cutting, heat treatment, and surface treatment.

Company address: 71-1-1 Nagai-machi, Kaga-city, Ishikawa-pref

TEL +81(0)761-73-8282 FAX +81(0)761-73-8283

URL http://www.tsukiboshi.co.jp/



#### TSUDAKOMA Corp.

## Textile Machinery (Jet Loom and Sizing Machine)

90% Worldwide Market Share

#### Product outline and features

Tsudakoma's water jet looms with a multi-nozzle system and our sizing machines for filament yarns have a 90% global market share. The market share of our air jet looms is 30%.

Our machines have gained high praise from the textile production industry around the world for their high productivity and our global network service.

Company address: 5-18-18 Nomachi, Kanazawa-city, Ishikawa-pref FAX +81(0)76-243-0671

PHONE +81(0)76-242-1110 URL http://www.tsudakoma.co.jp/



#### Tohshin Seiki Co., Ltd.

## Spherical Rollers

70% share of the Japanese market

#### Product outline and features

This product is the type of self-aligning bearings used for industrial machines, and have increased in market share via production facilities with high productivity and precision developed within the group and via the active deployment of facilities. The global market share of this type of product exceeds 10%.

Company address: HA18, Terai-machi, Nomi-city, Ishikawa-pref

TEL +81(0)761-58-5222 FAX +81(0)761-58-5221

URL http://www.tohshin-inc.co.jp/



#### Nakamura-Tome Precision Industry Co., Ltd.

## **Automatic Lens Centering Machine**

**70%** share of the Japanese market

#### Product outline and features

This machine automatically grinds the outside diameter of optical glass lenses for cameras or video cameras after the spherical surface is polished.

Company address: Ro15 Netsuno-machi, Hakusan-city, Ishikawa-pref

URL http://www.nakamura-tome.co.jp/



#### **Nippon Parts Center**

#### **Bend Perforated Plates**

**60%** share of the Japanese market

#### Product outline and features

Bend perforated plates are used as fences to protect roads and facilities against strong winds and dust, and as special fences for inside and outside of building or measures against tsunami.

Company address: 3-12-3 Minato, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-238-6111 **FAX** +81(0)76-238-6459

URL http://www.n-parts.jp/



#### BBS KINMEI CO., LTD.

## Silicon Wafer Edge Polishing System

**90%** share of the global market

#### Product outline and features

This system removes foreign materials on edges by grinding the edge to boost yield.

Company address: 4-12 Asahigaoka, Hakusan-city, Ishikawa-pref

**TEL** +81(0)76-275-6131 **FAX** +81(0)76-275-7021

URL http://www.bbskinmei.co.jp/



#### Fuji Seiko Honsha Co., Ltd.

## **Radiation Shielding Door for Nuclear Power Plant**

**70%** share of the Japanese market

#### Product outline and features

Shielding doors are special doors used for shielding electromagnetic waves and radiation in medical and nuclear power facilities.

Company address: Ya25 Ohama-mach, Nomi-city, Ishikawa-pref

**TEL** +81(0)761-55-0600 **FAX** +81(0)761-55-3428

URL http://www.fujiseiko.co.jp/



#### HOKUSHO CO., LTD.

## Vertical Transfer System (Vertical Conveyor)

**40%** share of the Japanese market

#### Product outline and features

HOKUSHO's vertical transfer system is a transfer mechanism with a vertical transfer route that consists of a vertical transfer section and a horizontal transferring section (loading/unloading conveyor or equipment). These sections are automatically controlled, to constitute an integrated transfer facility.

Company address: E-6 Shimeno-machi, Kanazawa-city, Ishikawa-pref

URL http://www.hokusho.co.jp/



#### Maywa Co., Ltd.

## **Biomass Carbonization Plant for Recycling Organic Waste**

**30%** market share in Japan (1st)

#### Product outline and features

Altering residual biomass (e.g. agricultural / forestry / fishery residue, water hyacinth, human waste, etc.) into biomass charcoal (biochar), reducing expensive disposal cost.

OThe biochar can be used as a soil conditioner and/or a great substitute to chemical fertilizer.

OSpecification can be optimized upon customer's request.

Company address: 3-8-1 Minato, Kanazawa-city, Ishikawa-pref

URL http://www.meiwa-ind.co.jp/ EMAIL kikaku@meiwa-ind.co.jp



Medium size (No electricity required, Portable)



Large size (Automated processing, Fixed, Energy efficient)

#### Maywa Co., Ltd.

## **Dust Collection System for Agricultural Facilities**

**80%** market share in Japan (1st)

#### Product outline and features

Ocollecting vast amount of dust arising from automated agricultural facilities, such as rice processing plants by means of wet deposition system.

OEnergy and cost efficient.

Ocompact design.

OSpecification can be optimized upon customer's request.

Company address: 3-8-1 Minato, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-239-0118 **FAX** +81(0)76-238-0866

URL http://www.meiwa-ind.co.jp/ EMAIL kikaku@meiwa-ind.co.jp





Non-disclosure of the Japanese market

share

#### AISIN AW INDUSTRIES CO., LTD.

## **Torque Converter (T/C)**

#### Product outline and features

Torque converters (T/C) are important components, which form the core of the automatic transmission (A/T) which transmits engine power to the transmission via the fluid (oil), amplifying its torque.

Company address: 38 Ikenokami-cho, Echizen-city, Fukui-pref

**TEL** +81(0)778-25-6611 **FAX** +81(0)778-25-6665

URL http://www.aw-i.co.jp/



#### Hitachi Zosen Fukui Corporation

### Large-size press machines forming bodies and other outer panels of automobiles

Non-disclosure of the Japanese market share

#### Product outline and features

We provide automobile manufacturers with custom-made products suitable of their manufacturing projects around the world. We can provide comprehensive service, designing, manufacturing, and after-sales service, of all facilities for press-forming plants. That's our competitive advantage from other providers.

Company address: 8-28, Jiyugaoka 1-chome, Awara-city, Fukui-pref., 919-0695, Japan

TEL +81(0)776-73-1220 FAX +81(0)776-73-3055

URL http://www.h-f.co.jp/



#### ONODANI co., Itd.

## **Full Automatic Large Tire Changer**

100% share of the Japanese market

#### Product outline and features

This product is the world's first fully automatic large tire changer that allows a tire to be installed and removed by one button operation.

Company address: 63-1 lehisa-cho, Echizen-city, Fukui-pref

URL http://www.onodani.co.jp/



#### KOBIRD CO., LTD.

## MAGICHAND, Ultimate Incrusting Machine exceeding hand-made quality

100% share of the global market

#### **Product outline and features**

MAGICHAND is capable of incrusting foodstuffs with leavened dough without damaging the dough, producing breads, doughnuts, and Chinese steamed breads of higher quality than those produced by manual incrusting.

Company address: 36 Harue-cho Fujiwashizuka, Sakai-city, Fukui-pref

**TEL** +81(0)776-51-5100 **FAX** +81(0)776-51-5103

URL http://www.kobird.co.jp/



#### KOBIRD CO., LTD.

## Steaming Mixer and Our Type Kneader for Gyuhi Mochi

An **80%** or more share of the Japanese market

#### **Product outline and features**

This machine steams and kneads Habutae-Mochi, providing high-quality products of fine and chewy grain.

Company address: 36 Harue-cho Fujiwashizuka, Sakai-city, Fukui-pref

URL http://www.kobird.co.jp/



#### Takefu Special Steel Co., Ltd.

## **CLAD Metal for Blade (Composite of Different Kinds of Metals)**

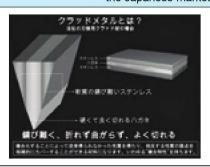
**60%** share of the Japanese market

#### **Product outline and features**

Unlike other composite metals with plating or adhesives, CLAD metal is a metal covered with another metal in which its interface is bonded integrally. CLAD metal features compound characteristics such as toughness and corrosion resistance, and achieves excellence in pattern design. Takefu Special Steel is manufacturing various products using unique technologies and experience.

Company address: 21-2-1 Shiromaru-cho, Echizen-city, Fukui-pref

URL http://e-tokko.com/



#### Denyo CO., Ltd. Fukui Plant

## **Engine Generators**

**65%** share of the Japanese market

#### Product outline and features

Denyo engine generators have been introduced into various facilities as emergency power sources for medical equipment in hospitals, smoke-extraction apparatuses in buildings, computers in offices and plants, one-line systems in banks, etc. for disasters such as typhoons, earthquakes, and fires

Company address: 38-1 Wakasa-cho, Mikatakaminaka-gun, Fukui-pref

URL http://www.denyo.co.jp/



#### NITTO INDUSTRIAL CO., LTD.

## **Urethane Cutting Machines**

**70%** share of the Japanese market

#### Product outline and features

In recent years, urethane forms have required strict cutting precision. To meet this requirement, NITTO INDUSTRIAL has enhanced its accumulated technologies to bring out a machine lineup which is currently available in 13 types, including two-dimensional (XYZ control) machines.

Company address: 4-30-13 Ninomiya, Fukui-city, Fukui-pref

**TEL** +81(0)776-27-6880 **FAX** +81(0)776-27-6881

URL http://www.nitto-sng.co.jp/



#### Japan A.M.C Ltd

## Fittings for High-pressure Piping

**60%** share of the Japanese market

#### Product outline and features

Fittings are piping parts which are always used for hydraulic machines such as construction machines, and are important parts in which no leakage is permitted even at high pressure.

Company address: 13-8 Ichinami-cho, Fukui-city, Fukui-pref

**TEL** +81(0)776-96-4631 **FAX** +81(0)776-96-4600

URL http://www.j-amc.co.jp/



#### **FUKUI BYORA CO., LTD.**

## Fluorescent Light Crimp Pin

#### 60% share of the Global market

#### Product outline and features

Our cold forming technology, integrated manufacturing systems, and unique quality management systems are achieving high precision with high-speed and low cost production.

Company address: 1-7 Yamajuraku, Awara-city, Fukui-pref (INTERNATIONAL SALES DIVISION) TEL +81(0)3-6228-4391 FAX +81(0)3-6228-4493 URL http://www.byora.co.jp/index/en/



#### **Matsuura Machinery Corporation**

## 5-Axis Vertical Machining Center Equipped with Long **Unattended Operation System**

60% share of the Japanese market

#### Product outline and features

This 5-axis vertical machining center allows the high-precision processing of products from any direction. Also, this machining center is equipped with an automatic pallet exchange system in which multiple works can be performed continuously, which enables unattended operation for long periods.

Company address: 1-1 Urushihara-cho, Fukui-city, Fukui-pref

TEL +81(0)776-56-8100 FAX +81(0)776-56-8150

URL http://www.matsuura.co.jp/japan/



#### Nippon SEC Co., Ltd.

#### **LED Indicator**

35% share of the Japanese market

#### Product outline and features

This LED indicator is a tool for the visualization of production progress in plants. The LED indicator informs administrators in real time of the scheduled quantity, actual quantity, and difference, to raise production efficiency.

Company address: 8-10 Hibari, Imizu-city, Toyama-pref TEL +81(0)766-57-0230 FAX +81(0)766-57-0233

URL http://www.npsec.com/



#### TATEYAMA KAGAKU GROUP (TAKEYAMA KAGAKU SENSOR TECHNOLOGY CO., LTD.)

### Si Sensor for Gas Cooker

95% or more share of the Japanese market

#### Product outline and features

Si sensors are mounted on all stove burners to detect the temperature of the pan bottom so as to achieve safety functions such as overheat protection, automatic fire extinguishing in the case of forgetting to turn off the fire, detection of whether a pan is present, and to achieve automatic rice cooking, water boiling, and cooking support.

Company address: 1583 Oizumi, Toyama-city, Toyama-pref FAX +81(0)76-420-5362 TEL +81(0)76-420-5144

URL http://www.tateyama.jp/



#### Toyodensi. co., Itd.

#### @Station

#### Product outline and features

@Station is an information terminal tailored to use the Internet in public places (Internet Kiosk). It accepts coins, TV cards, etc. and also provides a charging function for smartphones. @Station has been introduced mainly into airports, hospitals, stations, and hotels, etc.

Company address: 3-5-11 Mukaishinjyo-machi, Toyama-city, Toyama-pref

URL www.toyodensi.co.jp/



**77%** share of the Japanese market

60% share of

#### **RB Controls Co., Ltd.**

### **Electronic Ignition Equipment**

#### Product outline and features

This equipment is for fan heaters, stove burners, etc.

Company address: Ro71 Kannodo-machi, Kanazawa-city, Ishikawa-pref

URL http://www.rbcontrols.co.jp/



#### RB Controls Co., Ltd.

## **Terrestrial Digital TV for Bathroom**

**40%** share of the Japanese market

#### Product outline and features

Theses TVs are available in 5.5, 7, 12.1, and 15 inch sizes, of which the 7 and 12.1 inch sizes provide FM radio reception. A mirror vision type is also available which is incorporated into the mirror in the bathroom.

Company address: Ro71 Kannodo-machi, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-268-0198 **FAX** +81(0)76-268-1278

URL http://www.rbcontrols.co.jp/



#### I-O DATA DEVICE, INC.

### Hard Disk Drive (HDD)

Top-class share of the Japanese market

#### Product outline and features

A broad product lineup is available for office or home appliances such as PCs, TV recorders, and video cameras.

Company address: 3-10 Sakurada-machi, Kanazawa-city, Ishikawa-pref

URL www.iodata.jp/



#### I-O DATA DEVICE, INC.

## **Liquid Crystal Display (LCD)**

## **15.11%** share of the Japanese market

#### Product outline and features

The product lineup includes a 4K-compatible high-definition model, a model equipped with a function to reduce blue light from the display body, and an educational model is available to meet the needs of customers.

Company address: 3-10 Sakurada-machi, Kanazawa-city, Ishikawa-pref

URL www.iodata.jp/



#### HAKUSAN-MFG. Co., Ltd. Ishikawa Plant

#### **Communication Protective Device**

**35%** share of the Japanese market

#### Product outline and features

This device protects communication devices such as PCs, FAXs, and telephone equipment against abnormal currents generated on communication lines.

Company address: 47-11 Wakabadai, Shika-machi, Hakui-gun, Ishikawa-pref

URL http://www.hakusan-mfg.co.jp/company/base/elex



#### **PFU LIMITED**

## **Business Image Scanner**

**70%** share of the Japanese market

#### **Product outline and features**

Using state-of-the-art paper transport technology and image processing technology, this image scanner is reliably capable of meeting business needs for high-speed and high image quality.

Company address: Nu98-2 Unoke, Kahoku-city, Ishikawa-pref

**TEL** +81(0)76-283-1212 **FAX** +81(0)76-283-4689

URL www.pfu.fujitsu.com/



#### Morinaga Electronic Co., Ltd.

## **Arrester** (High-Speed Lightning Protection Unit)

20% share of the Japanese market

#### Product outline and features

This arrester has adopted a newly-developed surge energy attenuation system. This gives large attenuation to lightning surge energy, which secures electronic systems and equipment against lighting damage.

Company address: 1195 Minami, Fukumasu-machi, Kanazawa-city, Ishikawa-pref TEL +81(0)76-240-8111 FAX +81(0)76-240-8112

URL http://www.alp-plp.co.jp/



#### Kuramo Electric Co., Ltd.

## Float Switch for Submerged Pumps

**70%** share of the Japanese market

#### Product outline and features

In the automatic control of submerged drain pump, the Float Switch detects starting and stopping positions as the float goes up and down by its buoyancy depending on water level.

Company address: 10-9 Shimohirabuki-cho, Echizen-city, Fukui-pref

URL www.kuramo.co.jp/



#### Kuramo Electric Co., Ltd.

#### Flex resistance Cables for industrial robots

**50%** share of the Japanese market

#### Product outline and features

Flex resistance Cables have movable performances such as flex resistance and vibration resistance as well as oil resistance, noise resistance, and torsion resistance. They are capable of withstanding the strenuous movement of industrial robots.

Company address: 10-9 Shimohirabuki-cho, Echizen-city, Fukui-pref

URL www.kuramo.co.jp/



#### KST World Corp.

#### Wafer with Thick Thermal Oxide Film

70% share of the global market

#### Product outline and features

Component substrate for optical communication, to which the deposition processes of various films such as thermal oxide film are applied. This is adopted as a material for optical demultiplexer platforms and for semiconductor devices.

Company address: 13-23 Shimorokujyo, Fukui-city, Fukui-pref

URL http://www.kstworld.co.jp/



#### SUKENO CO., LTD.

## Socks and Leg Wears

10% share of the Japanese market

#### Product outline and features

SUKENO has been manufacturing and selling products that are excellent in material, features, and fashionability for a wide range of men, women, and children. Focusing on trending items, SUKENO has offering leg wear that adopts fashions in not only the Japanese but also Global markets.

Company address: 1 Kamifusumae, Takaoka-city, Toyama-pref

**TEL** +81(0)766-21-1661 **FAX** +81(0)766-27-1322

URL http://www.sukeno.co.jp/



#### MITSUBISHI RAYON CO., LTD. Toyama Production Center

## **Plastic Optical Fiber**

**75%** share of the Japanese market

#### Product outline and features

Plastic Optical Fiber possesses the characteristics of high bending strength and of being difficult to break, and is widely used for optical communication and ornamental display.

Company address: Head Office: Palace Bldg. 1-1-1 Marunouchi, Chiyoda-ku, Tokyo Production Center: 3 Kaigandori, Toyama-city, Toyama-pref TEL +81(0)76-437-1500 (Toyama) FAX +81(0)76-437-1563 (Toyama)

URL http://www.mrc.co.jp/



#### IKEDA KIGYO CO., LTD.

### Sleeve Lining for Men's Suits

**30%** share of the Japanese market

#### Product outline and features

This sleeve lining is a solid or striped high-grade lining employing Bemberg® (trademark of Asahi Kasei Fibers Corporation, general fabric name of cupra), reclaimed cellulose fabric made of cotton, which is excellent in the absorption and desorption of moisture, electrostatic characteristics, and smoothness.

Company address: Ru90 Shima-machi, Komatsu-city, Ishikawa-pref

**TEL** +81(0)761-43-0552 **FAX** +81(0)761-43-0910

URL http://www.ikedakigyo.jp/



#### KOMATSU SEIREN Co., Ltd.

## **Synthetic Fabrics for Global Luxury Brands**

**50%** share of the global market

#### **Product outline and features**

With many globally specialized technologies for synthetic materials such as the world's first reforming technology, Komatsu Seiren manufactures advanced original synthetic fabrics, which attract attention from luxury brands around the world.

Company address: Nu167, Hama-machi, Nomi-city, Ishikawa-pref

**TEL** +81(0)761-55-1111 **FAX** +81(0)761-55-8090

URL http://www.komatsuseiren.co.jp/



#### KOMATSU SEIREN Co., Ltd.

## Span-Thobe for Middle East (OEM)

40% share of the global market

#### Product outline and features

Komatsu Seiren has recommended 150 colors of white-based colors on a steady basis. It has also recommended the feel and textures of fabrics depending on humidity in regions including internal and coastal regions, and is recognized as a Japanese brand.

Company address: Nu167, Hama-machi, Nomi-city, Ishikawa-pref

**TEL** +81(0)761-55-1111 **FAX** +81(0)761-55-8090

URL http://www.komatsuseiren.co.jp/



SO-WA TEXTILE Co., Ltd.

#### **Fabric Cloth for Uniforms**

**42%** share of the Japanese market

#### Product outline and features

SO-WA TEXTILE has provided industry clothing including short and long composite materials that meet a high level of functional requirements by industry and category, through one of the best production capabilities and delivery times in Japan.

Company address: Nu 8 Hongo-machi, Hakui-city, Ishikawa-pref

URL http://www.sowatextile.jp/



#### **OBAMA ROPE MFG. CO., LTD.**

## Marine Ropes

**80%** share of the Japanese market

#### Product outline and features

CE Compound Rope is made of compound material and is currently the global standard for rope. It accounts for an 80% share of the Japanese market for large tankers and LNG vessels. OBAMA ROPE has developed and sold a new product, Quest Line (the world's first straight strand rope in fabric structure).

**Company address**: 3-10 Tada, Obama-city, Fukui-pref **TEL** +81(0)770-56-1234 **FAX** +81(0)770-56-1160

URL www.obamarope.co.jp/



#### Sakase Adtech Co., Ltd.

## **3-Axis Fabric Composite Materials**

100% share of the global market

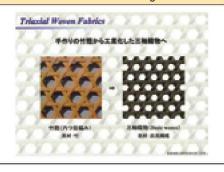
#### Product outline and features

3-Axis Fabric for which materials such as fibers are braided in three longitudinal, lateral, and oblique directions featuring high strength in every direction. This is used for golf shafts, fishing rods, and satellite antennae.

Company address: 14-10 Shimoyasuta, Maruoka-cho, Sakai-city, Fukui-pref

**TEL** +81(0)776-66-2115 **FAX** +81(0)776-66-0173

URL http://www.sakase.co.jp



#### SEIREN CO., LTD.

#### **Automotive Seat**

15-20% share of the global market

#### Product outline and features

Seiren has created the next generation of automotive interiors by achieving amenity, reliability, and energy-saving and by a broad representation of designs. Its unique integrated production system and product development that creates new highly-combined materials has been very well received by automotive manufactures around the world.

**Company address**: 1-10-1 Keya, Fukui-city, Fukui-pref **TEL** +81(0)776-35-2111 **FAX** +81(0)776-35-2114

URL www.seiren.com/



SEIREN CO., LTD.

## **House Lapping Material "Lamitect"**

**30%** share of the Japanese market

#### Product outline and features

Lamitect is used for moisture-permeable and waterproof sheets for exterior walls. "Lamitect Themo eco" is also very well received, and adds heat shielding to prevent the temperature inside houses from increasing or decreasing.

**Company address**: 1-10-1 Keya, Fukui-city, Fukui-pref **TEL** +81(0)776-35-2111 **FAX** +81(0)776-35-2114

URL www.seiren.com/



SEIREN CO., LTD.

## **Base Materials for Synthetic Blood Vessel**

#### Top-class share of the Japanese market

#### **Product outline and features**

These base materials have a three-layer composition consisting of a tubular body and resin layer made of special fabrics, are compatible with biological bodies, and contribute to the shortening of surgeries, which has been very well received in the forefront of medical care. Certified by the Ministry of Health, Labor and Welfare.

**Company address**: 1-10-1 Keya, Fukui-city, Fukui-pref **TEL** +81(0)776-35-2111 **FAX** +81(0)776-35-2114

URL www.seiren.com/



「新日本様式100選」選出

Takeda Lace Co., Ltd.

## Knitting Lace for Under Garments (Product Name: Forpo Lace, Lacy Liivers)

**40%** share of the Japanese market

#### **Product outline and features**

Takeda Lace's production volume for high-value-added lace for under garments is one of the largest in the world. It has created more than 1,000 designs for lace. It established an integrated production system of twine, knitting, dyeing, and cutting, and ensures unique production technology and quality control.

**Company address**: 601 Wakae-cho, Fukui-city, Fukui-pref **TEL** +81(0)776-54-3440 **FAX** +81(0)776-54-5348

URL http://www.takedalace.co.jp/



Marujin Co., Ltd.

## Reflective Material "LFU-9000 Aurora Color Reflection"

100% share of the Japanese market

**Product outline and features** 

This reflective material changes recursive reflected light to be aurora (rainbow color) depending on its angle. (Product patented in Japan and U.S.)

Company address: 2-29-5 Hanadonaka, Fukui-city, Fukui-pref

**TEL** +81(0)776-36-4212 **FAX** +81(0)776-34-2995

URL www.marujin-lf.co.jp/



#### Marujin Co., Ltd.

## Reflective Thread (twine type) LFUY-1200-T0275

100% share of the Japanese market

#### **Product outline and features**

Reflected material made by processing high-intensity reflective material on both the front and back and then twisting the micro slitted item with polyester yarn to be used as weaving yarn and knitting yawn. (Product patented in Japan)

Company address: 2-29-5 Hanadonaka, Fukui-city, Fukui-pref

URL www.marujin-lf.co.jp/



#### MITSUYA Co., Ltd.

## Cloth for Inkjet Tifone®

#### Product outline and features

Tifone® is a product that is excellent in printing and durability and that is compatible with all large printers. MITSUYA has developed an enhanced resin that maintains the ink and its processing method, to prevent printed cloth from losing color even if wet with water.

Company address: 69-1 Yamamuro-cho, Fukui-city, Fukui-pref

URL http://www.e-mitsuya.jp/

An approximately **40%** share of the Japanese market

The number-one generic drug manufacturer by

40% share of

the global market



#### Nichi-Iko Pharmaceutical Co., Ltd.

## **Generic Drugs**

#### Product outline and features

Aiming at "premium quality" which exceeds "high quality", Nichi-Iko strives to increase visibility with print characters and colors using laser and inkjet printing. "Nichi-Iko" Packaged Products, etc. are available for pharmacists to fill a prescription for patients without opening.

Company address: 1-6-21 Sogawa, Toyama-city, Toyama-pref

URL http://www.nichiiko.co.jp/

## 

#### Fuji Chemical Industries Co., Ltd.

## AstaReal® Natural Algae Astaxanthin

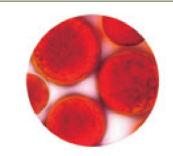
#### Product outline and features

Astaxanthin is a naturally occurring pigment that gives the reddish pink color to marine organisms such as crabs, shrimp, and salmon. It is often called the King of the Carotenoids because of its powerful antioxidant potency. Fuji's AstaReal® Astaxanthin is the world's most researched brand of astaxanthin and is used by major supplement, food, and cosmetic manufacturers both in Japan and around the world.

Company address: 55 Yokohoonji, Kamiichi-machi, Nakanikawa-gun, Toyama-pref

**TEL** +81(0)76-472-2323 **FAX** +81(0)76-472-2330

URL http://www.fujichemical.co.jp/



Eyetec Co., Ltd.

## Surface Treatment Processing of Eyeglass Frames

**70%** share of the Japanese market

#### Product outline and features

A variety of high-quality surface treatment processing (e.g., plating, coating) has increased added value such as the design and quality of frames.

Company address: 2-6-8 Kaminaaka-cho, Sabae-city, Fukui-pref

URL http://www.eyetec.co.jp/



Eyetec Co., Ltd.

## **Plating of Carbon Golf Shafts**

**90%** share of the global market

#### Product outline and features

Metallic film coated using ion plating, achieving a high class finish.

Company address: 2-6-8 Kaminaaka-cho, Sabae-city, Fukui-pref

**TEL** +81(0)778-52-8647 **FAX** +81(0)778-51-4136

URL http://www.eyetec.co.jp/

Cr をコーティングしたゴルフシャフト

#### KIYOKAWA Plating Industry Co., Ltd.

## Nano-plating technology

Non-disclosure of the market share

#### **Product outline and features**

"Nano-plating technology" controls plating layers with the precision of a nanometer scale (one-millionth of a millimeter). This technology is based on scientific theories and our experience ,and now plays important roles in the many field of industry such as communication device, automobile, energy, and medical equipment.

Company address: 1-414 Wadanaka, Fukui-city, Fukui-pref

**TEL** +81(0)776-23-2912 **FAX** +81(0)776-21-7402

URL http://www.kiyokawa.co.jp/

# "Nano-plating technology"

#### NICCA CHEMICAL CO., LTD.

## Flame retardant for automotive seating and interior curtains

**70%** Market share in Japan

#### Product outline and features

High flame retardancy with excellent washing durability is realized by the surface science as a core competency, and eco-friendly surfactants are selected for the flame retardant. It is also designed for dying mills so that they have less stains in the dye machine which cause serious problem during the process.

**Company address**: 4-23-1, Bunkyo, Fukui-city, Fukui-pref **TEL** +81(0)776-25-8567 **FAX** +81(0)776-21-9227

URL http://www.nicca.co.jp/
http://nctexchem.com/



Contribute to the safety improvement of curtain and car seat. (the right picture: flame retardancy testing)

#### Nissin Chemical Industry Co., Ltd.

## Solbin (Vinyl Chloride/Vinyl Acetate Modified Resin)

An **80%** share of the Japanese market

#### **Product outline and features**

Solbin is used as a coating material and a binder of inks. Solbin is excellent in dispersing pigment and inorganic materials, and has been widely used as a coating agent for paper.

**Company address**: 2-17-33 Kitago, Echizen-city, Fukui-pref **TEL** +81(0)778-22-5100 **FAX** +81(0)778-24-0657

URL http://www.nissin-chem.co.jp/



#### Nissin Chemical Industry Co., Ltd.

## Vinyblan (Vinyl Chloride Resin Emulsion)

**90%** share of the Japanese market (for surface preparation agent)

#### **Product outline and features**

Vinyblan has a large share of surface preparation agents for wallpaper. Vinyblan is applied as a binder of inks and a coating material, and is applicable to various paper mediums.

Company address: 2-17-33 Kitago, Echizen-city, Fukui-pref

URL http://www.nissin-chem.co.jp/



#### Fukuvi Chemical Industry Co., Ltd.

## Heating Unit and Heating Container (Heating and Warming Container "Naruhot")

An approximately 100% share of the Japanese market (for lunchbox)

#### Product outline and features

This container has a function to heat the inside of the container with steam in a short time without using fire. The heating is conducted by chemical reaction and its exothermic agent (slacked lime) can be reduced naturally after use. This product is widely used such as train lunches, souvenirs and even meals at the time of disaster.

Company address: 33-66 Sanjuhassha-cho, Fukui-city, Fukui-pref

**TEL** +81(0)776-38-8001 **FAX** +81(0)776-38-8080

URL http://www.fukuvi.co.jp/



#### Fukuvi Chemical Industry Co., Ltd.

#### Panels for Washroom/Bathroom

## 60% share of the Japanese market

#### Product outline and features

With profile extrusion foaming technology, multi material extrusion technology and insulation material filling technology, these panels have high insulation properties that maintain indoor space warm and prevent condensation even in winter season, and also have water resistance to a degree that can be used for bathroom. And with UV coating on the surface, it prevents the panel from getting dirty and makes easily wiped off even becoming dirty.

Company address: 33-66 Sanjuhassha-cho, Fukui-city, Fukui-pref

URL http://www.fukuvi.co.jp/



70% share of

70% share of

the Japanese market

#### SHINKO GLASS INDUSTRY Co., Ltd.

#### **Resin Laminated Glass**

## Product outline and features

Resin Laminated Glass is made by combining glass with glass, and glass with PC, with an acrylic resin, in order to increase functionality and designing. It is used for various applications such as building interiors and interiors, the cabins of construction, observation windows of machine tools.

**Company address**: 1889-1 Ota, Tonami-city, Toyama-pref **TEL** +81(0)763-33-1779 **FAX** +81(0)763-33-1796

URL http://www.shinkoglass.co.jp/



#### SHINKO GLASS INDUSTRY Co., Ltd.

## **Bent Glass Processing**

#### **Product outline and features**

SHINKO GLASS INDUSTRY implements high-precision bent glass processing of usual sheet glass for building interiors and exteriors, monuments, refrigerated or frozen showcases, railroad vehicles, etc. depending on needs.

**Company address**: 1889-1 Ota, Tonami-city, Toyama-pref **TEL** +81(0)763-33-1779 **FAX** +81(0)763-33-1796

URL http://www.shinkoglass.co.jp/



#### Noto Daiya Industry Co., Ltd.

## **Industrial Tabletop Brasier Made of Diatom Earth**

An approximately **70-80%** share of the Japanese market

#### Product outline and features

This product is a table top brazier made of diatom earth in Noto where its reserves are the largest in Japan. The diatom earth is removed and then ground into a product because of its high quality. The diatom brazier has high heat storage performance, which saves fuel expenditure.

Company address: Mu37 Mozu, Misaki-machi, Suzu-city, Toyama-pref

**TEL** +81(0)768-82-6711 **FAX** +81(0)768-82-6263

URL http://www.notodaiya.com/



#### Ferrotec Corporation Ishikawa Plant

## **Machinable Ceramics**

**60%** share of the Japanese market

#### Product outline and features

Machinable Ceramics is easily processable by machine tool, and is widely used for the heat insulation and electric insulation of semiconductor equipment, LCD equipment, and OA equipment, etc.

Company address: 1142 Urushijima-machi, Hakusan-city, Ishikawa-pref

**TEL** +81(0)76-274-9800 **FAX** +81(0)76-274-7790

URL http://www.ft-ceramics.co.jp/



#### HIROBE KOUKI Co., Ltd.

## **Emblems of Police and Fire Departments (Ceramics)**

**70%** share of the Japanese market

#### Product outline and features

Emblems of Police and Fire Departments are of ceramic, which is also called pottery. They can maintain their beautiful form almost permanently, even outdoors.

Company address: 5-15 Fukatani-cho, Fukui-city, Fukui-pref

URL http://www.hirobe-kouki.co.jp/



#### Hokukon Co., Ltd.

#### **Concrete Elevator Shafts**

**90%** or more share of the Japanese market

#### Product outline and features

This is a state-of-the-art technology to install elevators in various existing buildings such as apartments and schools. Compared with conventional construction methods, this is a "construction method friendly to local residents" which achieves significant reductions in work periods and laborsaving, and which allows construction to be performed while residents is living there.

Company address: 66-20-2 Imaichi-cho, Fukui-city, Fukui-pref

URL http://www.hokukon.co.jp/



#### MILCON Co., Ltd.

## JB Rock (which enables quick, natural growth of moss and algae)

An **100%** share of the Japanese market

#### **Product outline and features**

JB Rock is a porous concrete product that is excellent in water-absorbing properties, and water and fertilizer retention. It enables the natural growth of moss to harmonize blocks to the natural landscape, contributing to the reduction of  $CO_2$ .

Company address: 202 Nagamoto-cho, Fukui-city, Fukui-pref

**TEL** +81(0)776-52-8007 **FAX** +81(0)776-52-8011

URL http://www.milcon.co.jp/



#### **Richell Corporation**

## **Dog Toilet**

## **34%** share of the Japanese market

#### Product outline and features

This product is a toilet adaptable to your dog's growth. The toilet can be used for a long period due to the installation of a plastic mesh when the dog is a puppy and removing it after the dog grows up. It can be entered from any side, and is available in two sizes: regular size and wide size. Washable because it is made of plastic. Non-slip rubber is provided to protect floors from scratches.

Company address: 136 Mizuhshi Sakuragi, Toyama-city, Toyama-pref

**TEL** +81(0)76-478-2155 **FAX** +81(0)76-478-5335

URL http://www.richell.co.jp/



40% share of

An 80% share of

70% share of

100% share of

#### NAC Group Kaido Kogyo Co., Ltd.

#### **Curved Mirrors**

#### Product outline and features

Curved Mirrors are installed as important items for traffic safety at intersections and crossroads across Japan.

Company address: 8-20 Kushino-cho, Fukui-city, Fukui-pref

URL http://www.nacks.co.jp/



#### NAC Group Japan Vacuum Chemical Co., Ltd.

### **Acrylic Pipes**

#### Product outline and features

Acrylic Pipes are used for displays, lighting covers, and aquaria, etc. Japan Vacuum Chemical manufactures and sells pipes with external diameters of 30mm to 2000mm and lengths of 2000mm or less.

Company address: 20-22 Kushino-cho, Fukui-city, Fukui-pref

URL http://www.nacks.co.jp/



## NAC Group Japan Vacuum Chemical Co., Ltd.

#### **Resin Mirror Planes**

## Product outline and features

Resin (Acrylic Resin, Polycarbonate Resin) Mirror Planes are used for curved mirrors and store security mirrors, and are manufactured by applying vacuum molding technology.

Company address: 20-22 Kushino-cho, Fukui-city, Fukui-pref

**TEL** +81(0)776-83-1184 **FAX** +81(0)776-83-1182

URL http://www.nacks.co.jp/



#### NAC Group Japan Vacuum Chemical Co., Ltd.

## NAC HEALSPA (FRA)

#### Product outline and features

NAC HEALSPA (called FRA) is a product for which acrylic vacuum molded components are reinforced with FRP. It is a large FRA bathtub with functions such as jet, blow, and underwater light.

Company address: 20-22 Kushino-cho, Fukui-city, Fukui-pref

**TEL** +81(0)776-83-1184 **FAX** +81(0)776-83-1182

URL http://www.nacks.co.jp/



#### ASAHI PRINTING CO., LTD.

## **Pharmaceutical Packages**

Approximately 40% share of the Japanese market

#### **Product outline and features**

Founded in 1872, ASAHI PRINTING accounts for a top share in manufacturing pharmaceutical packages. It specializes in the manufacture of printed packaging materials for pharmaceuticals and cosmetics, has established the dedicated production lines by product family and market, and provides quality products meeting diverse market needs.

Company address: 1-1 Ichiban-machi, Toyama-city, Toyama-pref

URL http://www.asahi-pp.co.jp/



#### SHOWA NOTE CO., LTD.

## **Learning Notebook (for Elementary Students)**

**50%** share of the Japanese market

#### Product outline and features

SHOWA NOTE has manufactured learning items including Japonica learning notebooks, and manufactures and sells character stationery. Japonica learning notebooks, a longtime seller since gong on sale in 1970, was approved as a 3D trademark in December 2013. Everyone is familiar with these notebooks.

**Company address**: 850 Sano, Takaoka-city, Toyama-pref **TEL** +81(0)766-22-6201 **FAX** +81(0)766-25-1959

URL http://www.showa-note.co.jp/



#### TAKARA NUKIGATA Co., Ltd.

## **Trimming Dies**

**100%** share of the Japanese market

#### Product outline and features

TAKARA NUKIGATA has created high-precision dies for packages, gaskets, flexible substrates, and LCD films

Company address: 3-1-1 Kamifugo, Toyama-city, Toyama-pref

**TEL** +81(0)76-451-4020 **FAX** +81(0)76-451-4021

URL http://www.takaranukigata.jp/



#### TOYOX CO., LTD.

#### **Pressure Hoses**

**72%** share of the Japanese market

#### Product outline and features

TOYOX has developed, manufactured, and sold pressure hoses and couplings for piping plant equipment, foods, beverages, shower and home watering.

Company address: 4371 Maezawa, Kurobe-city, Toyama-pref

**TEL** +81(0)765-52-3131 **FAX** +81(0)765-52-4245

URL http://www.toyox.co.jp/



65% share of

#### TOYOX CO., LTD.

## **Radiant Air Conditioning**

#### Product outline and features

TOYOX has developed, manufactured, and sold next generation air conditioning that is energy-saving, healthy, and comfortable. It provides quiet and windless spaces improving intellectual productivity.

Company address: 4371 Maezawa, Kurobe-city, Toyama-pref

URL http://www.toyox.co.jp/



#### **KATSURAKISYO**

# Badges, Medals, Company Emblem, Group Participation Emblem, Oval Gold Coins, Prize Medals, Metal Craft

**30%** share of the Japanese market

#### Product outline and features

KATSURAKISYO has implemented die carving, press work, plating of gold, silver, and copper plating, and various types of finish processing of their own design.

Company address: Ha30-14 Futatsudera-machi, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-268-1611 **FAX** +81(0)76-268-1634

URL http://katsurakisyo.com/



#### KANAZAWA CORPORATION

#### HAND TRUCK & SERVING TROLLEY

**90%** or more share of the Japanese market

#### Product outline and features

KANAZAWA CORPORATION is a leading manufacturer of hand truck and serving trolley used to carry every FFE in all the hospitality fields.

Company address: 1-1 Hohsai, Kanazawa-city, Ishikawa-pref

**TEL** +81(0)76-262-1511 **FAX** +81(0)76-262-1514

URL http://www.kanazawa-corporation.com/



#### KOMATSU WALL INDUSTRY CO., LTD.

#### Partitions

**26%** share of the Japanese market

#### Product outline and features

KOMATSU WALL offers a wide range of products, including mobile partitions and movable partitions that meet space and various other requirements.

Company address: 1-72 Kogyodanchi Komatsu-city, Ishikawa-pref

**TEL** +81(0)761-21-3131 **FAX** +81(0)761-21-3127

URL http://www.komatsuwall.co.jp/



#### COMANY INC.

#### **Partitions**

#### Product outline and features

COMANY's partitions are intended to be used in any space such as offices, welfare facilities, plants, and educational facilities, and their product lineup is available for the pursuit of the functionality and design based on each application.

Company address: 1-93 Kogyodanchi Komatsu-city, Ishikawa-pref

URL http://www.comany.co.jp/



**27%** share of the Japanese market (based on the industry

60% share of

20% share of

20% share of

#### Sanko Kikaku Co., Ltd.

## **Embedded Road Marking Sheets**

#### Product outline and features

These sheets are affixed to the surface of roads, parking spaces, etc. and can be marked for a long period because they are embedded and have excellent durability.

Company address: 11-2 Asahiyama, Tsubata-machi, Kahoku-gun, Ishikawa-pref

**TEL** +81(0)76-289-6708 **FAX** +81(0)76-289-7992

URL http://www.sanko-kikaku.com/



#### Takakuwa Art Printing Co., Ltd.

#### Sake Labels

#### Product outline and features

Labels are important symbols to express the attraction of products. TAKAKUWA ART PRINTING manufactures labels for sake, foods, shochu, wine, etc. in Japan through its design department and thorough quality control.

Company address: Ka16-1 Tsuchimuro, Kawakita-machi, Nomi-gun, Ishikawa-pref

**TEL** +81(0)76-277-3188 **FAX** +81(0)76-277-9188

URL http://takakuwa.wave.jp/



#### Takazawa candle Co., Ltd.

## Japanese Candles

#### Product outline and features

Warousoku using plant-based raw materials have characteristics that it gives a large flame that do not go out by wind, and give off less oil smoke.

Company address: 11 Ipponsugi-machi, Nanao-city, Ishikawa-pref

**TEL** +81(0)767-53-0406 **FAX** +81(0)767-53-8174

URL http://www.takazawacandle.jp/



100% share of

20% share of

the Japanese market

#### AOYAMA HARP Co.

## **Harps**

#### Product outline and features

AOYAMA HARP is a specialist manufacturer that manufactures concert harps for orchestras, chamber music, and solo performances.

Company address: 15-62-1 Matsuokayoshinozakai, Eiheiji-cho, Yoshida-gun, Fukui-pref

URL http://www.aoyama-harp.co.jp/



#### **ISHIDA**

## Wakasa Lacquer Chopsticks

#### **Product outline and features**

Wakasa Lacquer Chopsticks are lacquer chopsticks featuring patterns made by applying seashells or egg shells with colorful color lacquer.

**Company address**: 2-35 Mizutori, Obama-city, Fukui-pref **TEL** +81(0)770-53-0848 **FAX** +81(0)770-53-1717

URL http://www.0848ishida.jp/



#### Eco Planner Co., Ltd.

## Intake Equipment with Moveable Barrage "GS Screens"

**100%** share of the Japanese market

#### **Product outline and features**

GS Screens are maintenance-free dust removing intake equipment that utilize the force of flowing water. It is available in a pump integrated type and CO water channel integrated type, none of which require a tank site.

Company address: Y-2 Bldg. 1811 Fuchi, Fukui-city, Fukui-pref

**TEL** +81(0)776-33-2166 **FAX** +81(0)776-33-2168

URL http://www.eco-planner.co.jp/



#### Japan Polymark Co., Ltd.

## Caution Labels Displayed on Automobiles (Caution Labels)

Top-class share of the Japanese market

#### Product outline and features

Japan Polymark provides automotive manufacturers both inside and outside Japan with caution labels for automotive sun visors, etc. It's very highly valued unique bonding technology prevents labels from losing color and from being peeled off even under strong ultraviolet light in the hot sun or under high-temperatures and humidity and has thorough quality control.

Company address: 45-300 Shimizusugitani-cho, Fukui-city, Fukui-pref

URL http://www.polymark.co.jp/



#### CHARMANT

## High Grade Eyeglass Frames (40 thousand yen or more)

# **46.9%** share of the Japanese market (Research by GIK LifeStyle Tracking Japane Based (Research by GIK LifeStyle Tracking Japane Based)

#### Product outline and features

Although this business category is based on division of labor, SHARMANT is one eyeglass frame manufacturer implementing integrated production. The delicate design of "Line Art CHARMAN", a brand of middle and high price glasses in which the feel when wearing is prioritized, and laser fine joint technology for titanium alloy has been utilized in collaboration with Tohoku University, and Osaka University, etc.

Company address: 6-1 Kawasari-cho, Sabae-city, Fukui-pref

URL http://www.charmant.co.jp/



#### HOPNIC LABORATORY Co., Ltd.

#### **Polarized Lens for Vision Correction**

90% share of the global market

#### Product outline and features

HOPNIC LABORATORY has succeeded in the mass-production of polarized lenses with a high refractive index (1.60, 1.67) by adopting unique technology. It has achieved more lightweight and thinner lenses than products for general purpose use.

Company address: 27-46 Shimonoda-cho, Sabae-city, Fukui-pref

URL http://www.hopnic.co.jp/



#### YamatoTakahashi Co., Ltd.

## **Oboro Kelp Sheets (Machine Processing)**

100% share of the Japanese market

#### Product outline and features

Oboro Kelp Sheets are made by grinding with machines the surface of "kelp blocks" in which several sheets of kelp are overlapped and crimped, and then by overlapping several such sheets which are joined together into sheets. These are used for rice balls, rice and sea weed rolls, hand-rolled sushi, and rice crackers, etc.

Company address: 1 of 17-3 Sakanoshita, Tsuruga-city, Fukui-pref

**TEL** +81(0)770-20-1000 **FAX** +81(0)770-20-0055

URL http://yamatotakahashi.com



#### IV. Introduction to the Industries of the three Hokuriku Prefectures

#### 1. Scale and structure of the Hokuriku economy

According to fiscal year 2011 prefectural accounts data, the gross prefectural product of Toyama was 4,436.5 billion yen, that of Ishikawa was 4,217.5 billion yen, and that of Fukui was 3,235.9 billion yen. Put together, Hokuriku's total gross prefectural product was 11,889.9 billion yen, accounting for 2.4% of Japan's gross domestic product. The size of its secondary industries accounted for a 2.8% share of the nation's total (See Fig.1). The shares of the secondary industrial sector in gross prefectural production were higher than the national average in Toyama and Fukui. The share of Hokuriku's gross product was also higher than the national average (Fig.2). Secondary industries in Hokuriku employed 30.5% of the working population aged 15 years or more. This share is more than 5 percentage points higher than the nation's average, and is the next largest among the regions of Japan, only behind the Tokai region (Fig.3).

Capitalizing on the technical and technological expertise that has accumulated through the traditional textile and other local industries, Hokuriku has successfully established wide-ranging industrial agglomerations, including high-tech industries. Fig.4 is a list of products for which Hokuriku has a 25% share or higher in Japan in terms of shipment value. In addition to textiles, non-ferrous metals and metal products are other examples of manufactured products for which Hokuriku has major shares.

To be more specific, textiles continues to be an important industry of Hokuriku, even though competitive imports are eroding the market. Hokuriku has more than 70% shares of shipments of warp knit fabrics (76.8%), bulky yarns (75.0%) and viscose rayon fabrics (73.3%). Hokuriku is also a major player in non-ferrous metals with a 48.9% share of the nation's total shipments of secondary smelting and refining of copper and copper alloys, in fabricated metal products, with a 39.7% share of aluminum sashes for houses, and in general industrial machinery and equipment, with a 44.1% share of weaving and knitting machinery, parts, tools and attachments. In the category of miscellaneous manufacturing, prefectural specializations are outstanding, as exemplified by Hokuriku's 75.4% share of kitchen and table lacquerware, and a remarkably high share (95.9%) of spectacle frames, which will be described in more detail later.

Fig.1 Hokuriku Gross Prefectural Production, Industrial Shipments and Shares in Japan

(units: 100 million yen; 1000 people)

Item	Item		Hokuriku		Toyama	Ishikawa	Fukui
				Share (%)			
Gross Prefectural Product(FY2011)		4,974,111	118,899	2.4	44,365	42,175	32,359
	Primary	52,949	1,328	2.5	497	473	358
	Secondary	1,163,158	32,310	2.8	14,234	9,077	8,999
Tertiary		3,730,810	84,592	2.3	29,388	32,415	22,789
Population (2013)		127,298	3,030	2.4	1,076	1,159	795

Source: Cabinet Office, Prefectural Accounts; MIC, Population Estimate Yearbook

Note: Shipments by industry classification do not sum up to the total because no interest is deducted.

Fig.2 Composition of gross Prefectural Product by industry

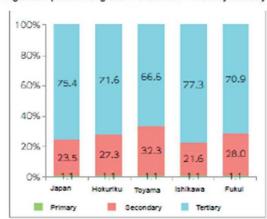


Fig.3 Employment by industry

Region	Primary (%)	Secondary (%)	Tertiary (%)
Tokai	3.0	31.9	60.3
Hokuriku	3.5	30.5	63.0
North Kanto	5.6	29.7	60.4
Koshinetsu	7.7	28.6	61.0
Chugoku	5.0	25.4	65.4
Tohoku	8.9	24.8	64.0
Kinki	1.8	23.9	67.5
Shikoku	8.3	22.7	66.1
Kyushu + Okinawa	6.8	19.9	68.8
South Kanto	1.2	19.2	70.7
Hokkaido	7.7	18.1	74.2
Japan	4.2	25.2	70.6

Source: Cabinet Office, Prefectural Accounts

Source: 2010 National Census

Fig.4 Selected industrial products from Hokuriku with high market shares

Industry			Market sha	re in Japan		Hokuriku
classification	Product	Hokuriku	Toyama	Ishikawa	Fukui 12.1 0.0 2.6 40.3 73.3 6.4 34.0 26.8 39.9 69.8 64.1 0.0 33.8 52.4 56.8 0.0	shipmen amount
	Spun polyester (including blends)	28.1	16.0	0.0	12.1	2,6
	Other twisting yarns	40.8	0.0	40.8	0.0	1,47
	Bulky yarns	75.0	0.0	72.4	2.6	11,50
	Habutae silk fabrics (including union cloth) (broad width)	40.3	0.0	0.0	40.3	9
	Viscose rayon fabrics	73.3	0.0	0.0	73.3	7
	Nylon long-fiber fabrics	29.9	0.0	23.6	6.4	1,1
	Polyester long-fiber fabrics	69.8	3.8	32.0	34.0	22,4
	Narrow fabrics	46.9	0.8	19.3	26.8	18,7
Textiles	Warp knit fabrics	76.8	34.4	2.6	39.9	22,3
	Machine dyed and finished silk and rayon fabrics	69.8	0.0	0.0	69.8	9
	Dyed and finished knit and lace	64.1	0.0	0.0	64.1	6,1
	Embroidery lace	40.6	20.3	20.3	0.0	1,2
	Knit lace	52.8	0.0	19.0	33.8	8.8
	Knitted outer gaments and coats (including blazers, jumper, etc.)	52.4	0.0	0.0	52.4	3,8
	Knitted trousers and skirts	56.8	0.0	0.0	56.8	3,0
	Knitted work gloves	40.1	40.1	0.0	0.0	3,3
Furniture and fixtures	Office and store fixtures	25.3	3.6	21.6	0.1	37,2
Chemicals and associated	Surface-active agents, except soaps and synthetic detergents	28.2	0.0	0.0	28.2	16,6
Non-ferrous	Secondary smelting and refining of copper and copper alloys	48.9	48.9	0.0	0.0	27,7
metals and products	Extruded aluminum products (including drawing)	27.0	27.0	0.0	0.0	82,3
	Forged copper and copper alloys	29.0	23.0	6.0	0.0	30,2
Fabricated	Aluminum sashes for houses	39.7	38.0	0.8	0.9	104,2
netal products	Aluminum sashes for buildings	31.1	29.0	1.8	0.3	47,2
General	Miscellaneous machinery	34.1	0.0	34.1	0.0	2
industrial nachinery and equipment	Weaving and knitting machinery and parts, tools and attachments	44.1	1.6	37.6	4.9	11,5
lectronic parts,	Silicon transistors	29.4	0.0	29.4	0.0	51,4
devices and circuits	Resistors	26.6	7.4	0.0	19.3	35,6
	Lacquer ware for kitchen and table	75.4	1.9	34.5	39.0	7.6
Miscellaneous	Eyeglasses	39.1	0.0	0.0	39.1	1,3
manufacturing	Eyeglass frames	95.9	0.0	0.0	95.9	31.7

Source: METI, 2012 Economic Census

Note: Total of establishments with no less than 4 employees. Hokuriku share and shipment amounts are totals of published data only.

#### 2. Major factors supporting Hokuriku's industrial strength

#### (1) High-quality, cost-competitive labor force

The people of Hokuriku are known for their perseverance. The job turnover rate is quite low (Fig.6). This is probably linked to the historical tradition of Hokuriku as a major rice-growing region in Japan. Rice cultivation requires meticulous water management and the timely execution of many processes, from paddy preparation to harvesting, through the cooperative work of the entire community. It is also necessary to forecast weather and to schedule work plans accordingly. This sociocultural background has nurtured a strong sense of community bonds and diligence, which sustains the region's thriving industrial and manufacturing activities.

Hokuriku is also a region that has a well-educated and hard-working workforce, with a high ratio of women participating in the workforce (Fig.7). One reason for this is the large number of three-generation households, which makes it easier for women to work outside their homes (Figs. 8, 9). It may be correct to say that the female workforce has been one of the driving forces of Hokuriku's success in industries such as textiles and electronics which require close care and attention to detail.

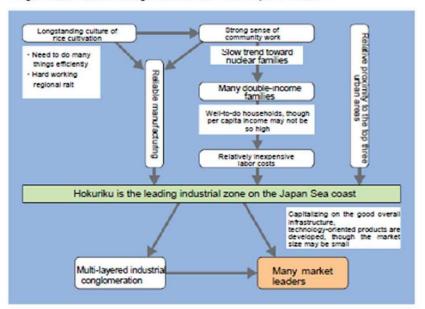


Fig.5 Hokuriku is the leading industrial zone on the Japan Sea coast

Fig.6 Prefectures with low job turnover rates (2012)

Rank	Turnover rate (%, last 12 months)	Prefecture
1	3.9	Wakayama, Yamaguchi
3	4.1	Tokushima
4	4.2	Aomori
5	4.3	Akita, Fukui, Nagano, Kochi
9	4.4	Yamagata, Tochigi, Niigata, Toyama, Tottori, Kagawa
15	4.5	Nara, Okayama
17	4.6	Fukushima, Mie, Hiroshima, Ehime, Oita
22	4.7	Gunma, Ishikawa, Yamanashi, Gifu, Aichi, Saga
-	5.0	National average

Source: MIC, 2012 Employment Structure Basic Survey

Fig.8 Ratio of 3-generation families

Rank	Prefecture	Ratio of 3-generation families (%)
1	Yamagata	21.5
2	Fukui	17.6
3	Akita	16.4
4	Niigata	16.4
5	Toyama	16.1
18	Ishikawa	11.2
-	JAPAN	7.1
45	Osaka	3.6
46	Kagoshima	3.2
47	Tokyo	2.3

Source 2010 National Census

Fig.7 Female working ratios and percentage of women raising children\*

Rank	Prefecture	Female working rato (%)	Women raising children (%) (rank)
-1	Fukui	53.0	72.1 (3)
2	Tokyo	52.2	50.0 (40)
3	Ishikawa	52.2	68.2 (6)
4	Toyama	51.1	68.3 (5)
5	Nagano	51.1	59.3 (22)
-	JAPAN	48.2	52.4
45	Hokkaido	44.7	48.2 (41)
46	Hyogo	43.8	43.2 (46)
47	Nara	42.5	46.8 (42)

Source: MIC, 2012 Employment Structure Basic Survey

Fig.9 Ration of double-income households

Rank	Prefecture	Ration of double-income households (%)
1	Fukui	56.8
2	Yamagata	55.7
3	Tottori	54.8
4	Ishikawa	54.8
5	Toyama	54.7
	JAPAN	45.4
45	Hokkaido	406
46	Osaka	39.6
47	Nara	37.2

Source 2010 National Census

In terms of employee compensation per capita, Hokuriku prefectures have a competitive edge over their counterparts in the country's major industrial belts. In terms of per capita income in FY 2011, Toyama ranked among the top five of the 47 prefectures in Japan, well above the national average. Prefectural income includes income from corporations, and therefore does not necessary represent the income level of the citizens (employees and consumers). Yet it is also noteworthy that Hokuriku prefectures have higher incomes and employee compensation per household than the national average, due mainly to the larger number of income earners in each household compared with other parts of Japan (Fig.10).

Hokuriku people are by nature hard-working and have job opportunities available nearby. Since per household incomes are good, they are willing to work without asking for particularly high compensation.

Fig.10 Per capita income of prefectures

		Perd	capita			Per hor	usehold	
Prefecture	Prefec	tural income		nployee pensation	Prefec	tural income		nployee pensation
	Rank	Yen	Rank	Yen	Rank	Yen	Rank	Yen
Toyama	5	3,054,546	8	1,924,487	2	8,497,136	3	5,353,538
Ishikawa	20	2,743,681	23	1,773,560	12	7,134,229	18	4,611,681
Fukui	14	2,841,340	21	1,788,166	4	8,321,281	5	5,236,905
JAPAN	-	2,914,864	_	1,937,779	-	6,926,218	-	4,604,496
Tokyo	1	4,372,649	1	2,634,593	1	9,094,649	2	5,479,675
Osaka	10	2,919,840	9	1,916,974	24	6,578,695	26	4,319,137
Aichi	3	3,104,847	2	2,291,563	7	7,890,909	1	5,823,962

Sources: Cabinet Office, FY2011 Prefectural Accounts; MIC, Estimated Population Yearbook; JGDC, Residents Basic Registry

<sup>&</sup>quot;Women raising children" means females aged between 25 and 44 who are raising children under the school age

#### (2) Distances to Japan's Big 3 cities

The distances from Hokuriku to Japan's Big 3 cities --- the Tokyo Metropolis, Tokai (Nagoya) and Kinki (Osaka) – are nearly the same.

The development of highway networks has enabled easy access from Hokuriku to all of the Big 3 cities. From Shizuoka prefecture, which is closely linked with both the Tokyo Metropolis and Tokai, it takes an average of 158 minutes to reach one of the three big cities. The corresponding average travel times from Hokuriku are: 267 minutes to Toyama, 265 minutes to Ishikawa and 234 minutes to Fukui. The differences are only 80 to 110 minutes, and considering the less congested traffic conditions on the Japan Sea coast than on the Pacific coast, the Hokuriku location is guite competitive in terms of access to the Big 3 cities (Fig.11).

Regarding railway services, the Hokuriku Shinkansen has been extended to Kanazawa, cutting down the travel time from Toyama or Kanazawa to Tokyo by more than an hour (Fig.12). Business people and tourists in the Hokuriku region can now spend longer in the Tokyo Metropolitan area and vice versa. The Hokuriku Shinkansen is planned to be further extended to Fukui and Tsuruga. This increased ease of access will enhance the position of Hokuriku as a major region of Japan.

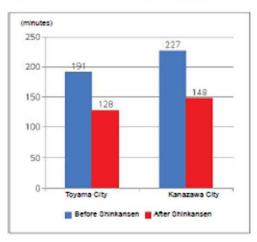
Fig.11 Travel time and distance to the Big 3 cities by automobile

D	0.4		Required ti	me (minute	s)		Travel distance (km)				
Region	City	Tokyo	Nagoya	Osaka	Average	Tokyo	Nagoya	Osaka	Average		
Tohoku	Sendai	282	540	670	497	369	660	883	637		
Koshinetsu	Niigata	261	365	463	363	340	475	606	474		
Hokuriku	Toyama	334	188	279	267	439	241	364	348		
	Kanazawa	377	185	234	265	494	235	303	344		
	Fukui	391	133	177	234	514	169	228	303		
Tokai	Shizuoka	140	73	260	158	177	80	339	198		
Chugoku	Hiroshima	616	369	264	416	812	481	343	546		
Shikoku	Matsuyama	634	383	260	426	835	491	328	551		
Kyushu	Fukuoka	824	578	473	625	1,093	763	625	827		

Source: Shortest routes (time and distance) calculated from Pro Atlas 2011

Note: Cities represent the most populous prefectural capitals in the respective regions.

Fig.12 Travel time and distance to Tokyo by Hokuriku Shinkansen





March 14, 2015 at Kanazawa Station

#### (3) Virtuous cycle of industrial agglomeration

Molds are indispensable components of the industrial mass production process, including forging, pressing and plastics processing. Hokuriku has the next heaviest concentration of mold manufacturers in Japan, only behind the Tokai. A wide-range of "support industries for supporting industries" have established themselves in Hokuriku (Fig.13). An industrial agglomeration of basic technologies provides a strong infrastructure for the development of a large variety of new industries and products, opening up the possibilities for the creation of new markets.



Fig. 13 Per capita shipment of molds by region

Source: Shipment amounts in yen of press molds, forging molds casting molds, molds for plastics, molds for rubber and glass, and other molds in the "2012 Industrial Statistics", divided by the populations in the "2012 Population by Prefecture"

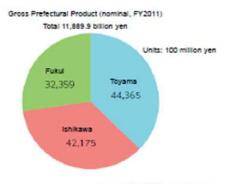
#### 3. Characteristics of Hokuriku's industrial structure

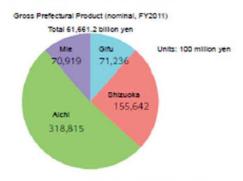
#### (1) Overview

The structure of industries in Hokuriku is in stark contrast to that of Tokai, as can be seen in the gross prefectural product. While the industrial prosperity of the Tokai region is primarily from Aichi prefecture (about half), the Hokuriku region has no such single leading prefecture. All three prefectures make roughly equal contributions to the industrial success of Hokuriku, taking advantage of their respective strengths and specializations (Figs.14, 15). Unlike a hierarchical industrial structure with a global giant at the top, the structure of Hokuriku industry is a loose collaborative network of manufacturers engaged in a large variety of industries, who inject their own special expertise and capacities. This is indeed the soil on which diverse and original technologies can flourish in Hokuriku.

Fig. 14 Gross Prefectural Product of the 3 Hokuriku Prefectures







Source: MIC, Prefectural Accounts

Source: MIC, Prefectural Accounts

#### (2) Composition of industries in the three Hokuriku prefectures

When one looks at the industrial specialization index of manufacturing activities in the three Hokuriku prefectures (Fig.16), the most striking feature is the 5.09 score for the textiles industry. Though it is a declining industry in Japan overall, the textiles industry continues to have a very important place as a local industry in Hokuriku. Besides textiles, industrial sectors with specialization indices over 2.0 include electronics parts, devices and circuits (2.86 comprising both local firms and transplants of non-Hokuriku large corporations), production machinery (2.29), miscellaneous manufacturing (2.20 comprising fasteners, lacquerware, spectacles, spectacle frames and others) and non-ferrous metals (2.14). The sectoral composition of manufacturing activities in Hokuriku is rather unique.

#### (Specialization index)

The specialization index shows the degree of deviation of an industrial sector of a given area from the national average or other comparative group. If the index of an area is greater than 1.0, the area is more specialized in that particular sector than the average.

[Specialization index] = [Share of a prefecture's industry] / [Share of national total]

Example: When the general machinery sector occupies 16% of Hokuriku's manufacturing activities, and the sector accounts for a 10% share of the nation's total manufacturing activities, then the specialization index for that sector in Hokuriku is 1.6.

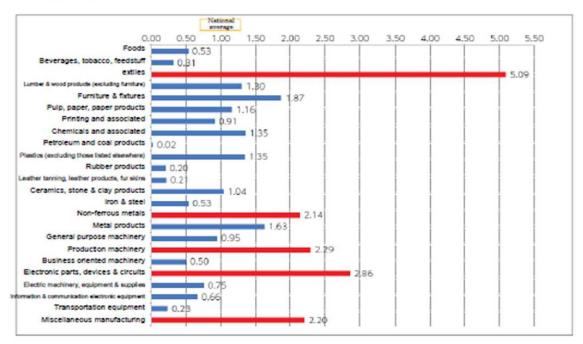


Fig.16 Industrial specialization index of the 3 Hokuriku prefectures

Source: Prepared from METI, "2012 Industry Statistics"

#### (3) Features of industrial activities in the three Hokuriku prefectures

The "FY2012 Industry Statistics" (Fig.17) show that the top three industrial sectors in Toyama in terms of shipments were chemicals, metal products and non-ferrous metals, which altogether accounted for almost 40% of all manufacturing shipments. In Ishikawa, the top three were production machinery, electronic parts/devices/circuits and textiles, accounting for about one half of all manufacturing in the prefecture. As for Fukui, the top three were chemicals, electronic parts/devices/circuits and textiles with a combined share of about 40% of manufacturing activities.

Industrial sectors that rank high on the list by shipments in all of the three prefectures include: chemicals (1<sup>st</sup> in Toyama, 8<sup>th</sup> in Ishikawa, 1<sup>st</sup> in Fukui), production machinery (5<sup>th</sup> in Toyama, 1<sup>st</sup> in Ishikawa, 8<sup>th</sup> in Fukui), and electronic parts/devices/circuits (4<sup>th</sup> in Toyama, 2<sup>nd</sup> in Ishikawa, 2<sup>nd</sup> in Fukui).

In terms of specialization indexes, non-ferrous metals have the highest in Toyama, and textiles in Ishikawa and Fukui.

Sectors that have high specialization indexes in all three prefectures are: textiles (2.12 in Toyama, 5.93 in Ishikawa, 9.08 in Fukui), electronic parts/devices/circuits (1.93 in Toyama, 3.88 in Ishikawa, 3.18 in Fukui), and furniture and fixtures (1.50 in Toyama, 2.88 in Ishikawa, 1.23 in Fukui) (Fig.18).

Fig.17 Top 8 industrial products shipped

		Toyam	3			Ishikawa				Fukui		
Rank	Category	Shipment	Compositi on ratio	S.I.	Category	Shipment	Compositi on ratio	S.I.	Category	Shipment	Compositi on ratio	5.1
1	Chemicals	541,099	16.3%	1.51	Production machinery	558,289	22.9%	4.26	Chemicals	205,003	15.3%	1.70
2	Metals	357,284	10.6%	2.42	Electronics	435,786	17.9%	3.66	Electronics	283,878	14.7%	3.18
3	Non-ferro us	343,371	10.4%	3.35	Textiles	196,094	8.1%	5.90	Textiles	238,578	12.3%	9.03
4	Electronics	284,502	8.9%	1.93	Foods	142,934	5.9%	0.70	Electric machinery	165,891	5.6%	1.65
5	Production machinery	280,182	8.5%	1.57	IC electronics	138,630	5.7%	1.82	Plastics	148,571	7.6%	1.97
6	Plastics	189,449	5.7%	1.40	Metals	121,719	6.0%	1.12	Non-ferrous	127,777	6.6%	2.14
7	Iron/steel	181,705	5.5%	0.58	Transporta tion equip.	100,783	4.5%	0.28	Transporta tion equip.	109,591	5.7%	0.29
8	G.P. Machinery	158,559	4.5%	1.30	Chemicals	100,804	4.1%	0.46	Production machinery	108,407	5.6%	1.04
	Total Manuf.	3,312,496	100.0%	1.00	Total Manuf.	2,433,350	100.0%	1.00	Total Manuf.	1,934,383	100.0%	1.00

Shipments in million yen; S.I. = Specialization index

Source: Prepared from METI, "2012 Industry Statistics"

Fig. 18 Top 10 industries with high specialization indexes

	Toyama			Ishikawa		Fukui			
Rank	Industry	S.I.	Rank	Industry	S.I.	Rank	Industry	S.I.	
1	Non-ferrous	3.35	1	Textiles	5.93	1	Textiles	9.08	
2	Misc. manuf.	2.67	2	Prod. machine	4.26	2	Electronics	3.18	
3	Metals	2.42	3	Electronics	3.88	3	Misc. manuf.	2.96	
4	Textiles	2.14	4	Furniture/fixture	2.88	4	Non-ferrous	2.14	
5	Electronics	1.93	5	IC electronics	1.92	5	Plastics	1.97	
6	Chemicals	1.81	6	Printing	1.48	6	Chemicals	1.70	
7	Pulp/paper	1.62	7	Metals	1.12	7	Electronics	1.65	
8	Prod. machinery	1.57	8	Lumber/wood	1.10	8	Lumber/wood	1.60	
9	Furniture/fixture	1.50	9	Ceramics/stone	1.07	9	Pulp/paper	1.33	
10	Plastics	1.49	10	GP machinery	1.07	10	Furniture/fixtures	1.23	

Source: Prepared from METI, "2012 Industry Statistics"

Now, let us look at the features of each of the prefectures. The district groupings are according to the Industry Statistics.

#### i) Toyama Prefecture

In Toyama, 'metal sashes & doors' and 'machine tool parts & attachments excluding tools, molds' have the largest numbers of establishments throughout the prefecture, with little regard to district divisions. Unlike in Ishikawa or Fukui, no particular geographical specialization can be observed.

In terms of shipments, pharmaceutical formulations are on top of the list in Toyama/Takaoka and Niikawa. Metal sashes & doors are also a major sector in all districts in terms of shipments.

#### ii) Ishikawa Prefecture

In terms of the number of establishments, silk & viscose textiles in Nanao Bay, construction

machinery & mining machinery in South Kaga, and lacquerware in Noto are worthy of special attention. In terms of shipments, sectors closely related to electronic parts/devices/circuits occupy important positions in most districts, such as 'LC panels & flat panels' and 'display devices' (both in Lower Tedorigawa district), 'computers (excluding PCs)' and 'external memory equipment' (both in Central Ishikawa district), ICs (in Hakui and South Saga districts) and 'semiconductor devices (excluding photovoltaic)' and 'resistors, capacitors, transformers, and composite parts' (Noto district).

#### iii) Fukui Prefecture

Textiles and related industries have the largest numbers of establishments in the districts of Fukui and Ono/Katsuyama. The Echizen/Sabae district has a very large number of spectacle producing establishments, while lacquerware tops the list in Tsuruga/Obama.

In terms of shipments, aluminum & alloy rolling (including drawing & extrusion) is the number one sector in the Fukui district, while miscellaneous electrical appliances is the largest sector in Echizen/Sabae, connectors, switches & relays in Tsuruga/Obama, and pharmaceutical formulations in Ono/Katsuyama.

Fig. 19 Profiles of core industrial districts (Toyama prefecture)

District	Rank	Sectors	Establish ments	Compositi on ratio (%)	Rank	Sectors	Shipments (million yen)	Compositio n ratio (%)
Toyama/ Takaoka	Total mar	nufacturing	1,972	100		•	2,166,215	100
	1	Offset printing (paper)	67	3.4	1	Pharmaceutica I formulation	208,290	9.6
	2	Metal sashes & doors	62	3.1	2	Ball bearings	117,772	5.4
	3	Machine tool parts & attachments (excl. tools, mold)	60	3.0	3	Metal sashes & doors	86,630	4.0
Niikawa	Total mar	nufacturing	513	100			743,080	100
	1	Metal sashes & doors	25	4.9	1	Pharmaceutica I formulation	129,225	17.4
	2	Machine tool parts & attachments (excl. tools, molds)	23	4.5	2	Metal sashes & doors	67,185	9.0
	3	Misc. seafood	19	3.7	3	Needles, pins, hooks, snaps	66,154	8.9
Tonami	Total mar	nufacturing	409	100	l,		403,171	100
	1	Metal sashes & doors	17	4.2	1	Machine tools	66,824	16.6
	2	Noodles	15	3.7	2	ICs	54,977	13.6
	2	Machine tool parts & attachments (excl. tools, mold)	15	3.7	3	Metal sashes & doors	42,229	10.5

Source: METI, "2012 Industry Statistics"

#### Notes:

- "X" = exact values are withheld because they correspond to only one or two establishments.
- Districts covered by the Industry Statistics: "Toyama/Takaoka" = Toyama C. Takaoka C. Himi C. Oyaba C. Funahashi V. Tateyama T. Imizu C.; "Niikawa" = Uozu C. Namerikawa C. Kurobe C. Kamiichi T. Nyuzen T. Asahi T.; "Tonami" = Tonami C. Nanto C.

Fig.20 Profil	es of co	re industrial distri	cts (Ishikawa pref					
District	Rank	Sectors	Establishments	Composition ratio (%)	Rank	Sectors	Shipments (million yen)	Composition ratio (%)
Lower Tedorigawa	Total manufacturing		667	100			913,502	100
	1	Machine tool parts & attachments (excl. tools, mold)	47	7.0	1	LC panels & flat panels	×	x
	2	Construction machinery & mining machinery	39	5.8	2	Display devices	X	X
	3	Canning & plating	22	3.3	3	Construction machinery & mining machinery	46,859	5.1
Nanao Bay	Total m	anufacturing	201	100	-		85,354	100
	1	Silk & viscose textiles	24	11.9	1	Silk & viscose textiles	11,619	13.6
	2	Pastries and cakes	13	6.5	2	Fish paste	9,376	11.0
	3	Joinery	7	3.5	3	Plywood	X	X
Central Ishikawa	Total manufacturing		179	100			576.825	100
	1	Offset printing (paper)	59	4.9	1	Computers (except PCs)	×	×
	2	Machine tool parts & attachments (excl. tools, mold)	54	4.5	2	External memory equipment	×	X
	3	Narrow woven fabrics	51	4.2	3	Packing & packaging machinery	35,757	6.2
Hakui	Total m	anufacturing	179	100			166,132	100
	1	Silk & viscose textiles	9	5.0	1	Pharmaceutical formulation	×	X
	2	General lumber	6	3.4	2	ICs	X	X
	3	Plastic sundry goods & tableware	5	2.8	3	Aluminum & its alloys rolling (including drawing & extrusion)	X	х
	3	Ready-mix concrete	5	2.8				
	3	Pressed metal products (except aluminum & alloys)	5	2.8				
South Kaga			666	100			656,307	100
	1	Construction machinery & mining machinery	61	9.2	1	Construction machinery & mining machinery	243,519	37.1
	2	Lacquerware	50	7.5	2	Automotive (including motorbikes)	×	X
	3	Twisting yarn (except bulky yarn)	43	6.5	3	ICs	×	X
Noto	Total manufacturing		198	100			35,236	100
	1	Lacquerware	34	17.3	1	Semiconductor devices (except photovoltaic)	×	X
	2	Ready-mix concrete	10	5.1	2	Resistors, capacitors, transformers, composite parts	x	X
	3	Unclassified miscellaneous manufacturing	9	4.6	3	Unclassified miscellaneous manufacturing	2,739	6.4

Source: METI, "2012 Industry Statistics"

#### Notes:

- "X" = exact values are withheld because they correspond to only one or two establishments.
- Districts covered by the Industry Statistics: "Lower Tedorigawa" = Hakusan C. Nomi C. Kawakita T.; "Nanao Bay" = Nanao C. Nakanoto T; "Central Ishikawa" = Kanazawa C. Kahoku C. Nonoichi C. Tsubata T. Uchinada T.; "Hakui" = Hakui C. Hodatsushimizu

T. Shiga T.: "South Kaga" = Komatsu C. Kaga C.; "Noto" = Wajima C. Usu C. Anamizu T. Noto T.

Fig.21 Profiles of core industrial districts (Fukui prefecture)

District	Rank	Sectors	Establishments	Composition ratio (%)	Rank	Sectors	Ohlpments (million yen)	Composition ratio (%)
Fukui	Total n	nanufacturing	1,126	100			865,528	100
	1	Silk & viscose textile	50	4.4	1	Aluminum & its alloys rolling (including drawing & extrusion)	х	X
	2	Unclassified miscellaneous textiles	48	4.3	2	Miscellaneous electronic parts, devices, circuits	34,635	4.0
	3	Narrow woven fabric	44	3.9	3	Machine tools	33,681	3.9
	3	Offset printing (paper)	44	3.9				
Echizen/ Sabae	Total manufacturing		831	100			658,611	100
	1	Eyeglasses (including frames)	180	21.7	1	Miscellaneous electric appliance	125,412	19.0
	2	Lacquerware	42	5.1	2	Car parts & attachments	97,570	14.8
	3	Miscellaneous jackets & shirts	31	3.7	3	Resistors, capacitors, transformers, composite parts	x	X
Tsuruga/ Obama	Total manufacturing		245	100			223,630	100
	1	Lacquerware	17	6.9	1	Connectors, switches, relays	X	X
	2	Misoellaneous seafood	11	4.5	2	Generators, motors, other rotary electric machines	17,977	8.0
	3	Ready-mix concrete	10	4.1	3	Plastic films	X	X
Ono/ Katsuyama	Total manufacturing		179	100			184,641	100
	1	Silk & viscose textiles	19	10.6	1	Pharmaceutical formulation	×	×
	2	Twisting yarn (except bulky yarn)	12	6.7	2	Ferroalloys	×	×
	3	Miscellaneous textile semi-finished products	9	5.0	3	Resistors, capacitors, transformers, composite parts	18,901	10.2

Source: METI, "2012 Industry Statistics"

#### Notes:

 <sup>&</sup>quot;X" = exact values are withheld because they correspond to only one or two establishments.

Districts covered by the Industry Statistics: "Fukui" = Fukui C. Awara C. Sakai C. Eiheiji T.; "Echizen/Sabae" = Echizen C. Sabae C. Minamiechizen T. Echizen T; "Tsuruga/Obama" = Tsuruga C. Obama C. Mihama T. Wakasa T. Takahama T. Ooi T.; "Ono/Katsuyama" = Ono C. Katsuyama C.

#### 4. Moving to a new horizon of industrial development through wide-area collaboration

Hokuriku has led the Japan Sea coast regions in creating a strong industrial agglomeration centering around so-called "support industries" which are based on advanced technologies such as mold design and fabrication, metal forging, casting, plating and others and serving as component suppliers etc. for automotive, electronics, information and imaging, aerospace and other world-class high technology industries located in the Big 3 cities. Many Hokuriku manufacturers play important roles in providing parts, components, industrial machinery and equipment and other products that seldom meet the eyes of general consumers.

In July 2013, the "Hokuriku Life Science Cluster for Opening up a Healthy Aging Society" project based on a collaborative proposal by the three Hokuriku prefectures was selected as a Regional Innovation Strategy Support Program of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). This project is designed to build upon the accomplishments of the Hokuriku Innovation Cluster for Health Science Project which was implemented jointly by Toyama and Ishikawa prefectures until 2012, and developed novel pharmaceuticals and medical equipment over a period of five years. With Fukui prefecture as new project partner, industry, academia, financial institutions and governments in the three Hokuriku prefectures contribute their respective strengths and work together with local communities in opening up a healthy aging society by developing new products and services in preventative health care, diagnosis and therapy. The project is thus intended to make contributions to providing solutions to the aggravating challenges of population decline and aging in this country, and at the same time to establish an internationally competitive life science R&D base in Hokuriku, as a way of promoting regional development through the creation of health care-related industries with a concentration of advanced technologies.

Another Hokuriku public-private initiative is the strategy for enhanced international competitiveness in the field of new functional materials to make Hokuriku a major agglomeration of advanced industries. Carbon fiber composite, magnesium, titanium and other light metals, nano-materials and other light-weight and strong materials are expected to be in increasingly large demand, not only for use in aerospace but also for windmills, pressure vessels, automobiles, industrial machinery, robotics and medical equipment. In short, new functional materials offer a very promising potential for growth. Even though not many firms in Hokuriku make final products, there is, for example, a strong production base of carbon fiber composite precursors. As illustrated by the approximately 40% share of Hokuriku in the shipment of aluminum sashes in Japan, Hokuriku has a solid agglomeration of material production and processing activities. The challenge now is to capitalize on this strength and achieve further sophistication of new functional material production, as well as to develop fields of application.

In Ishikawa prefecture, the Ishikawa Carbon Fiber Cluster project was started in 2009. In March 2014, a large development base called the Innovative Composite Materials Research and Development Center (ICC) was inaugurated in the Yatsukaho Research Campus of the Kanazawa Institute of Technology. A wide-area supply chain has already been established; carbon fiber composite materials fabricated in Hokuriku are shipped to the Tokai region for use in aircraft main wings and fuselages. Closer cooperation between Hokuriku and Tokai could lead to the formation of an extensive and internationally competitive industrial agglomeration area of composite material production and fabrication, of a scale unmatched elsewhere in Japan.

Since old times, Hokuriku has been known for its excellence in "manufacturing." It has successfully taken advantage of this local trait today to enjoy a renowned position with high market shares in many industrial sectors, albeit with a lack of hierarchical leaders and the paucity of an abundant hinterland population. The three prefectures of Hokuriku will continue working together beyond the boundaries of the prefectures and the region to create new industries and develop many innovative products.



Tateyama Mountains Range/Shinminato Bridge



Hishi Yagura/Gojukken Nagaya/Hashizume-mon Tsuzuki Yagura (Kanazawa Castle Park)



