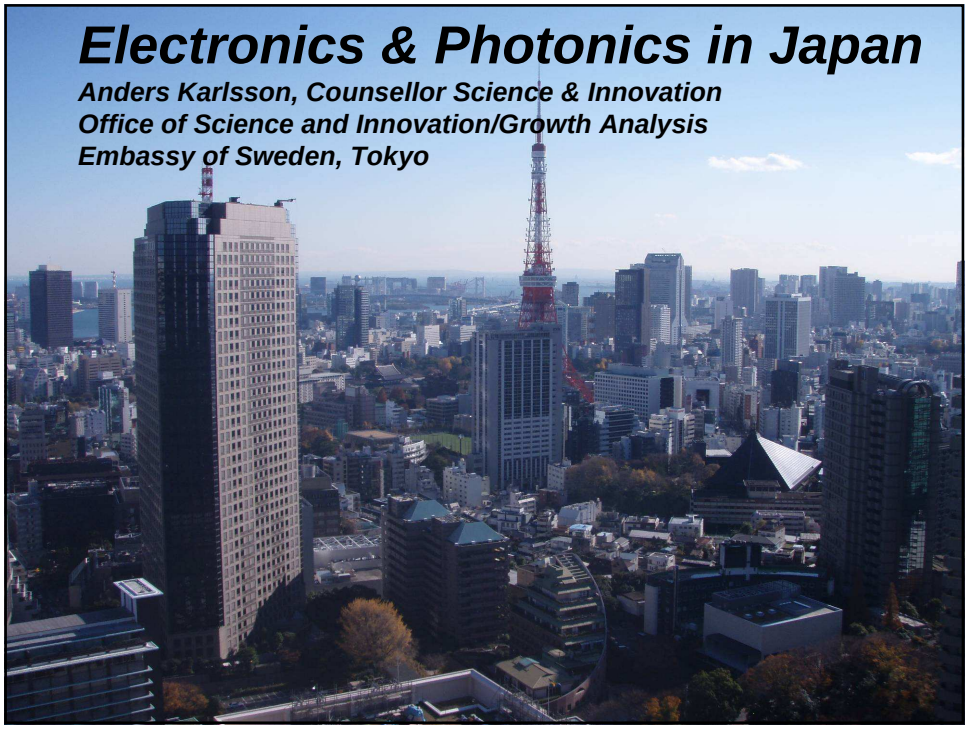
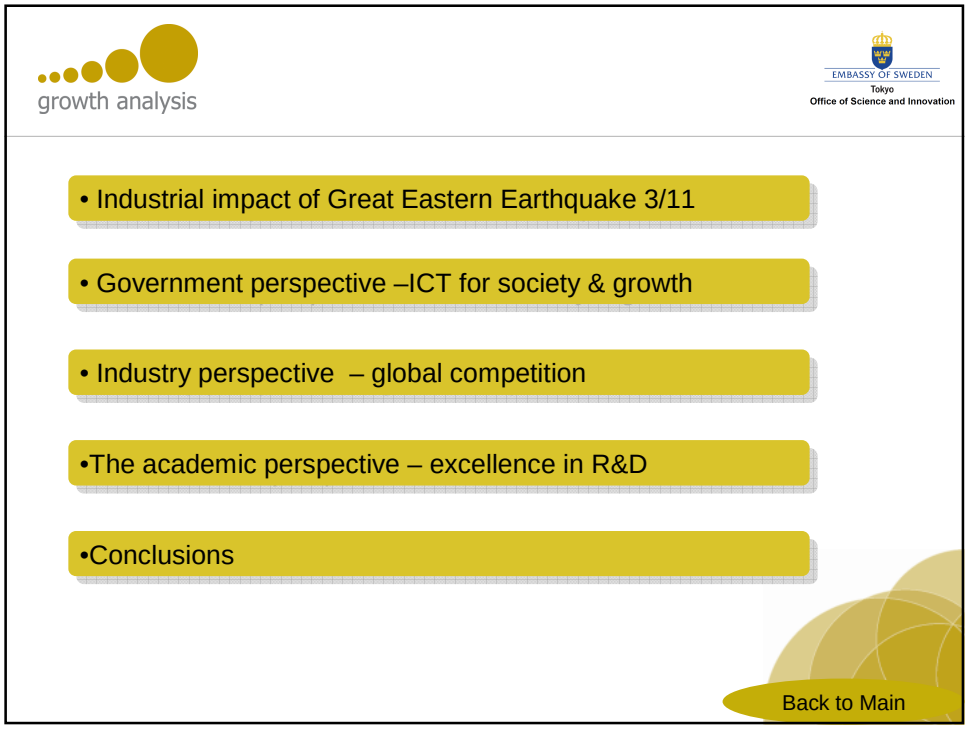




For more info contact:
anders.karlsson@growthanalysis.se

Magnitude of the 3/11 disaster

As of May 5, from government

- Number of people killed: 14871
- Number of people missing: 10171
- Totally collapsed buildings: 78641
- Evacuated: +165 000 persons
- Reconstruction cost 1200 – 1900 billion SEK

Back to Main

Example: J-Parc

(Japan Proton Accelerator Research Complex, Tokai Village, 100 km north Tokyo)

Main Control Room

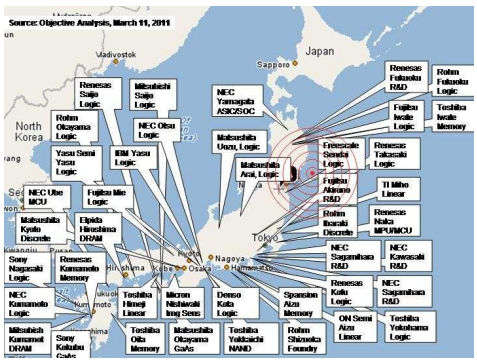
Main Control Room was in a reasonable shape.

Road in front of Linac

Serious cracks on the road. This is a typical one and can be seen all over the J-PARC area.

Back to Main

Disrupted global supply chains..



- Shin-etsu,MEMC SUMCO,
  (77 % world share Si-wafers)
  - 27 % of world Si-wafer production halted
- Renesas Industries
  (30 % world share microcontrollers)
  - 25 % of production down until June
- 15 – 25 % power shortage expected
  in summer

Source: www.semiconportal/en/quake

Back to Main

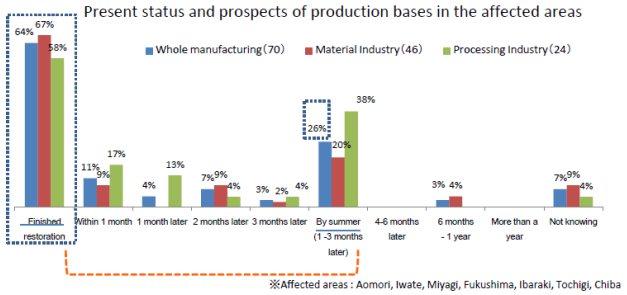
Restoration..

Manufacturing Industry

1. Present status and prospects of restoration of production bases in the affected areas

- More than 60% of affected bases of respondents have already finished restoration.
- Meanwhile, other production bases are on the way to resumption, and about less than 30% are expected to be restored by summer.

(Reference) The ratio of the number of establishments located in the municipalities in 7 prefectures (Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Tochigi, and Chiba) covered by the Disaster Relief Act in the total number of the manufacturing establishments all over the country, is about 7%. (The figure was calculated based on Census of Manufactures 2008, as of March 27)



Source: METI; Ministry of Economy, Trade and Industry, April 2011

Back to Main

growth analysis

EMBASSY OF SWEDEN
Tokyo
Office of Science and Innovation

- Industrial impact of Great Eastern Earthquake 3/11
- Government perspective –ICT in society & for growth
- Industry perspective – global competition
- The academic perspective – excellence in R&D
- Conclusions

Back to Main

growth analysis

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Broadband in Japan

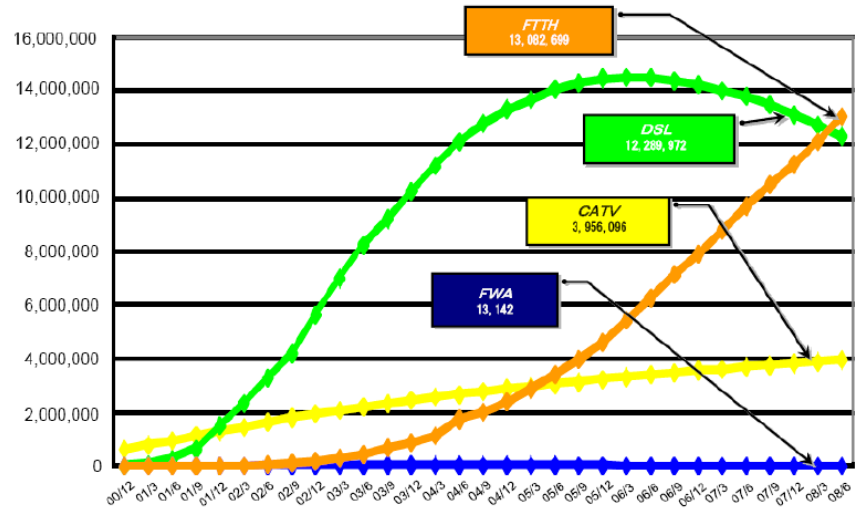

Figure 1, Number of broadband users. Source: MIC.

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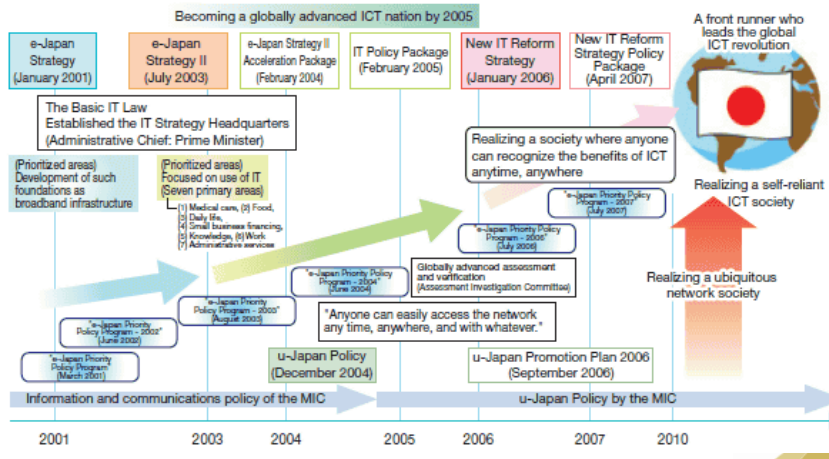
Fig. A: Footsteps of ICT strategies in Japan



Source: Ministry of Interior and Communications, 2010

Back to Main

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Recent reports ICT-policies (in Swedish)

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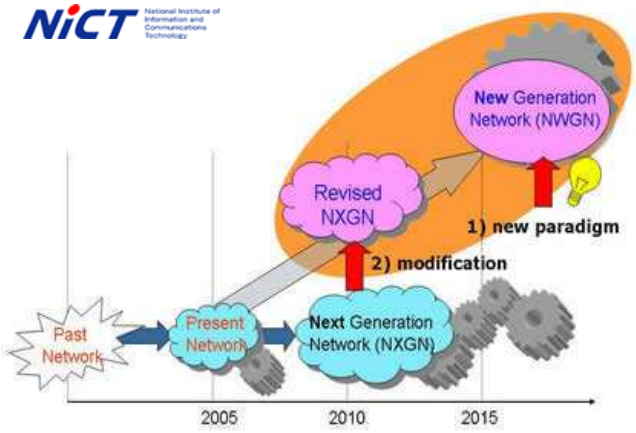
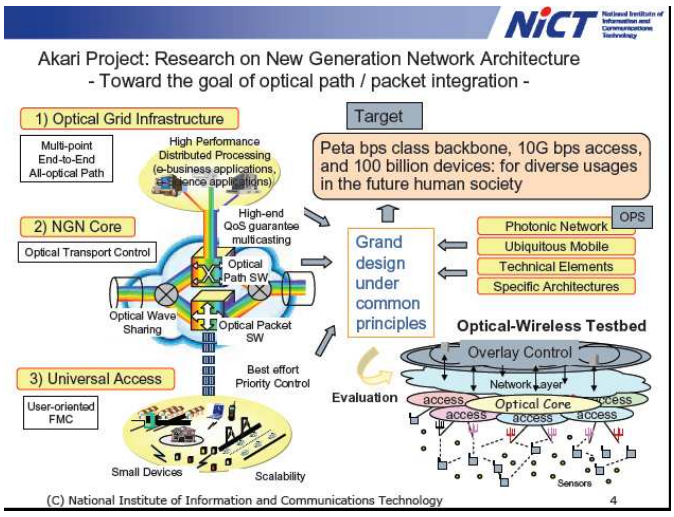
Down-loadable from www.growthanalysis.se

Back to Main

New generation network



Back to Main



http://akari-project.nict.go.jp/eng/index2.htm

Back to Main

4-5. Establishing International R&D Hubs

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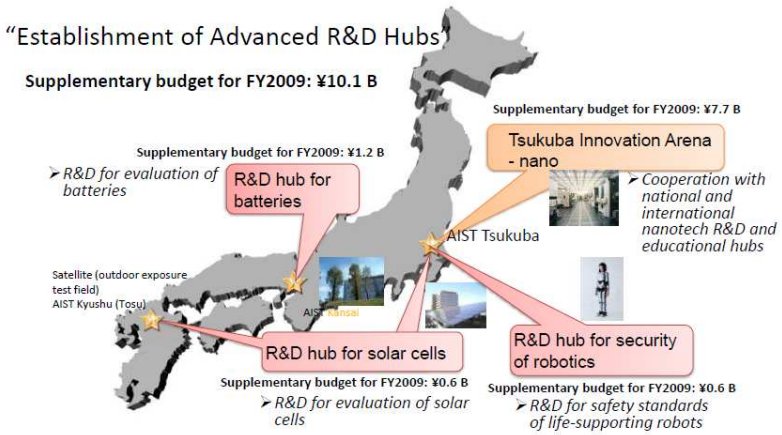
✔ Promoting international R&D hubs to accumulate human resources, funds, information and technologies from various stakeholders.



Source: METI; Ministry of Economy, Trade and Industry, 2010

Back to Main

growth analysis

EMBASSY OF SWEDEN
Tokyo
Office of Science and Innovation

- Industrial impact of Great Eastern Earthquake 3/11
- Government perspective –ICT for society & growth
- Industry perspective – global competition
- The academic perspective – excellence in R&D
- Conclusions

Back to Main

growth analysis

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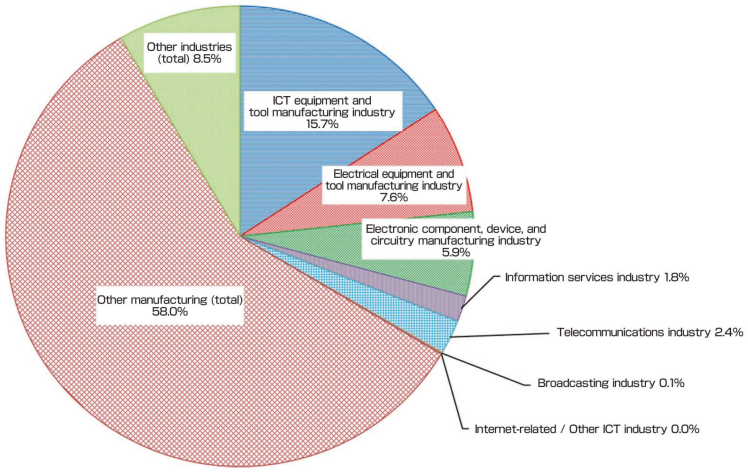
(R&D spending for all industries: 13.6345 trillion yen)



(Source) Compiled from 2009 Research Investigation Report on Science and Technology, Ministry of Internal Affairs and Communications

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Size of Japanese ICT & Electronics

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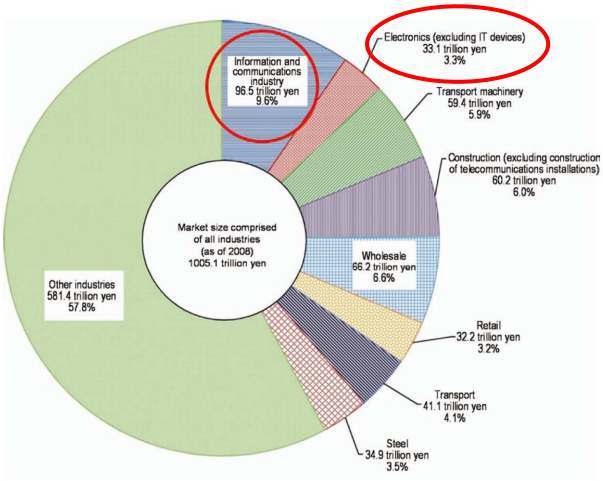

(Source) Ministry of Internal Affairs and Communications "Survey of Economic Analyses on ICT" (2010)

Back to Main

For more info contact:
anders.karlsson@growthanalysis.se

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Ministry of Economy, Trade & Industry
Industrial competiveness council, July 2010

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Japanese industries are characterized by a large number of competing players

Overview of major players in each industry

	Japan	North America	Europe	Asia, etc.
LCD TV	Sony, Sharp, Toshiba, Panasonic, Funai	Vizio (USA)	Philips (Netherlands)	Samsung (South Korea), LGE (South Korea), TCL China)
Railways	Nippon Sharyo, Hitachi, Kawasaki Heavy Industries, , Tokyu Car, Kinki Sharyo	Bombardier (Canada)	ALSTOM (France) Siemens (Germany)	Hyundai Rotem (South Korea)
Nuclear power	Toshiba (WH), Hitachi, Mitsubishi Heavy Industries	GE(USA), [WH]	AREVA (France)	Doosan Heavy Industries & Construction (South Korea)
Water business (Drinking water / sewers)	Toray, Metawater, Ebara, Kubota, etc. *Major corporations include of 16 companies for equipment, nine for plant construction, and three for operations and maintenance	GE (USA), Nalco (USA)	Veolia (France) Siemens (Germany) Suez (France)	Thames Water (Australia)
Diagnostic imaging equipment	Toshiba Medical, Hitachi Medico, Shimadzu, Aloka	GE (USA)	Philips (France)	—

Source: prepared by METI on the basis of assorted materials

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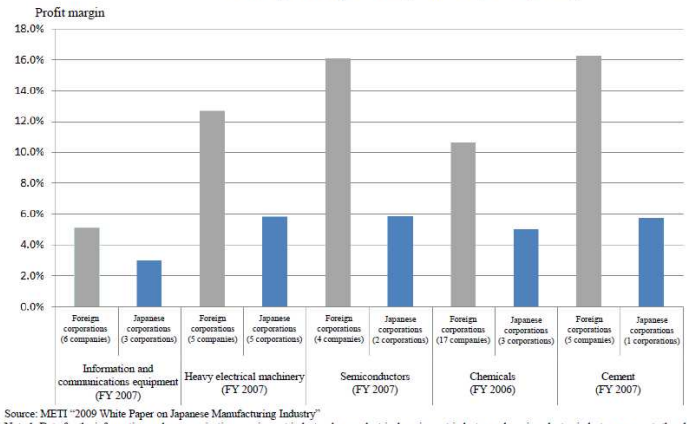
Ministry of Economy, Trade & Industry
Industrial competiveness council, July 2010

EMBASSY OF SWEDEN Tokyo Office of Science and Innovation

Japanese corporations have slim profit margins

Profit margin comparison (5 industry categories)



Source: METI "2009 White Paper on Japanese Manufacturing Industry"
Note 1: Data for the information and communications equipment industry, heavy electrical equipment industry and semiconductor industry represents the global top 10 companies, data for the chemical industry represents the top 20 companies, and data for the cement industry represents the global top 6 companies
Note 2: Profit margin consists of the net average operating margin for each company (however, current profit margin is used for the information and communications equipment industry only. Industries incurring losses are excluded from calculations)

Back to Main

growth analysis

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Tokyo
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- Industrial impact of Great Eastern Earthquake 3/11
- Government perspective –ICT for society & growth
- Industry perspective – global competition
- **The academic perspective – excellence in R&D**
- Conclusions

Back to Main

growth analysis

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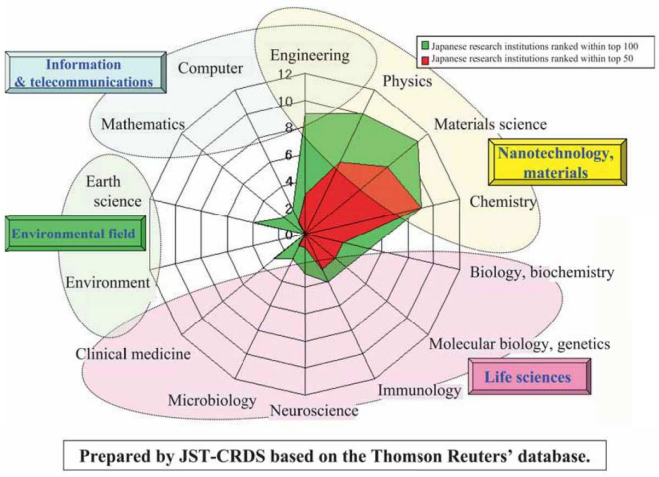
Japanese strengths..



Prepared by JST-CRDS based on the Thomson Reuters' database.

Source: www.crds.jst.go.jp Nano-technology report 2010

Back to Main

Academic & Institute System

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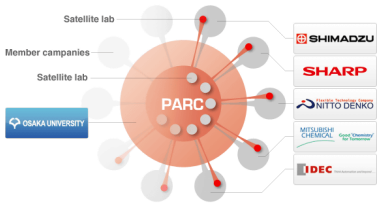
- + 700 Universities, some 30 top
- Strong Research Institutes
- Focused R&D programs
  - WPI – World Premier Research Center Initiative
  - FIRST – Funding Program for World-Leading Innovative R&D on Science and Technology
  - Innovation Center for Fusion of Advanced Technologies

Back to Main

Photonics Center, Osaka University

Executive director Professor Satoshi Kawata
More than 20 laboratories,
about 10 big companies and some venture companies



Photonics Advanced Research Center (PARC) 2007-2016
Innovation center for fusion of Advanced Technologies/Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Photonics-based Eco-Life-Technology Development
Center /the Program by Minister of Economy, Trade and Industry (METI)

Advanced Nano Photonics Research and Education Center in Asia /the JSPS Asia CORE Program

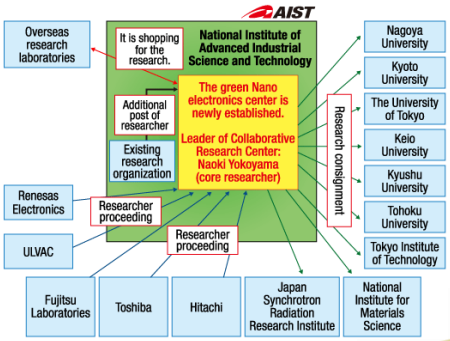
http://parc.osaka-u.ac.jp/english/

Back to Main

FIRST – Funding Program for World-Leading Innovative R&D on Science and Technology

50-70 MSek/year for 5 years. In total 30 projects

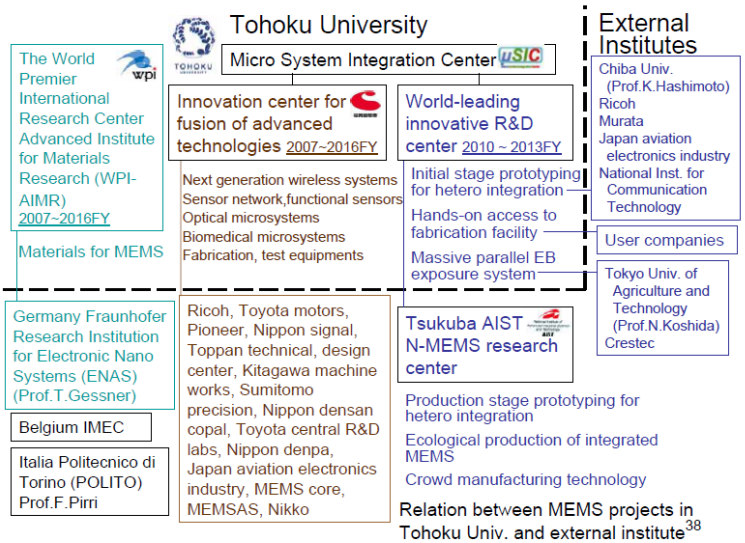
Core researcher Naoki Yokoyama



http://www.yokoyama-gnc.jp/english/

Back to Main

Tohoku Univ Masayoshi Esashi Lab



to Main

Tohoku University MEMS facility

Earthquake damage
Building cannot be used
Pic. April 28, 2011

MEMS process facility for 20 mm wafer shared by many laboratories
More than 100 companies dispatched researchers (full time, 2years)

http://www.mems.mech.tohoku.ac.jp/index.html

Back to Main

Nature Editorial, March 25, 2011

THIS WEEK

EDITORIALS

The long road back

Contact your MP!

"Those who are creating windows of opportunity for japanese needy scientists should keep them open. And others might want to think about opening more."

See also
www.nipponsciencesupport.net

Back to Main

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EMBASSY OF SWEDEN
Tokyo
Office of Science and Innovation

- Industrial impact of Great Eastern Earthquake 3/11
- Government perspective –ICT in society & for growth
- Industry perspective – global competition
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- Conclusions

Back to Main

growth analysis

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Modes of collaboration

- Researcher exchange
- Jointly funded R&D projects
  Vinnova & SSF – JSPS
- EU-Japan S&T agreement (Nov. 2009)
  & EU FP7 programs
  - ICT has priority
  - Closed calls; Superconductivy & concentrated Photovoltaics
  http://eurasiapac-fp7.eu/
- Strategic R&D alliances with Japanese companies

Back to Main

El-Seed is off to a bright future

INVEST:SWEDEN

SUCCESS STORY

El-Seed is striving to develop a white LED technology that can replace normal lamp bulbs.

Optovent´s technology for high-efficiency LED has been developed over a 15 year period at Linköping University.

Continued development is progressing smoothly both in Sweden and Japan.

El-Seed is backed by the Japanese Government´s technical development organization NEDO with 6,5 million USD. The market for white LEDs is estimated to 40 billion USD/year.