RIETI-NISTEP Policy Symposium

Open Innovation as a Key Driver of Japan's Industrial Competitiveness

Handout

NAKANISHI Hironori

Deputy Director General for Science, Technology and Innovation
Cabinet Office, Japan

August 21, 2015

Research Institute of Economy, Trade and Industry (RIETI)

http://www.rieti.go.jp/en/index.html

Approach to Open Innovation in Japan

August 21st, 2015

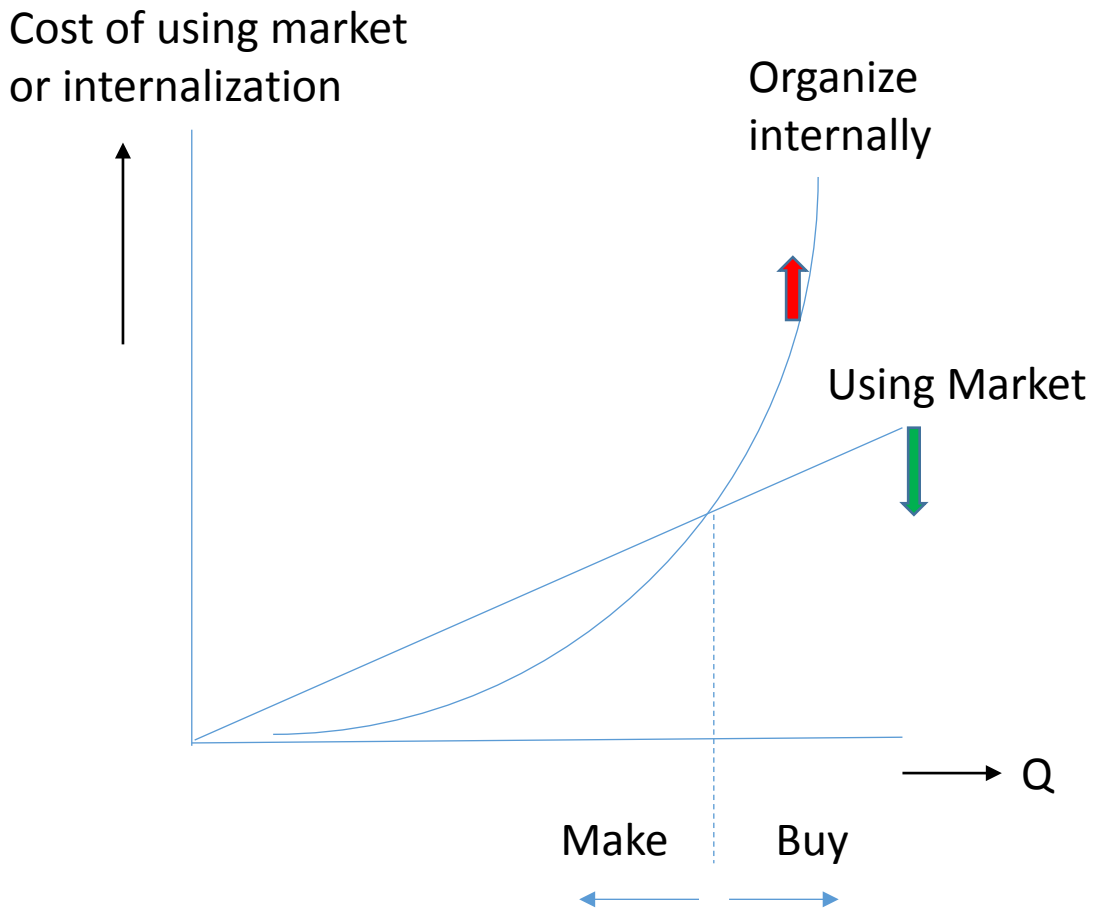
Hironori Nakanishi

Deputy director general for STI policy

Cabinet Office, Japan

Open innovation “Make or Buy?”

Concept of firm’s boundary



<Production>

Transaction cost

Choice of contract

Boundary of firm (Make or buy?)

<Innovation>

Past; Small market of innovation/invention

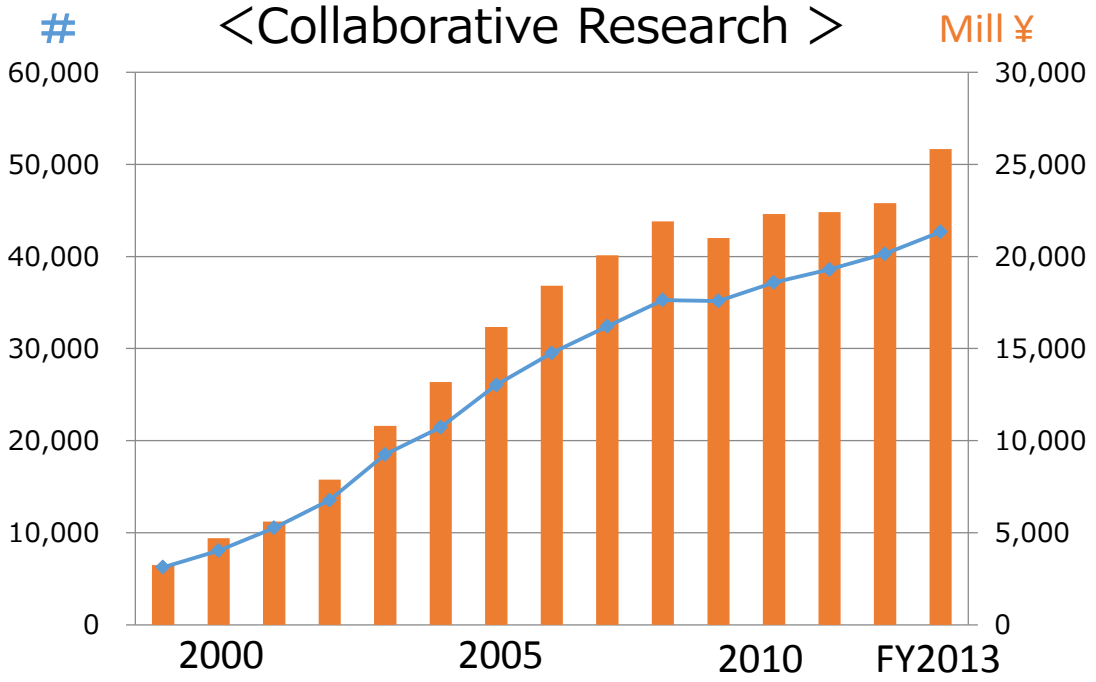
Now; Easy to valuate the purchase of technology and venture due to open innovation, university-Industry cooperation etc.

University-industry cooperation in Japan

Brief history of university - industry cooperation in Japan

1960's-70's Anti-movement in university for collaboration with industry
1998 Law for technology licensing organization
1999 Japanese Bay-Dole act
2004 Reformation of national university to independent institution

Some recent progress

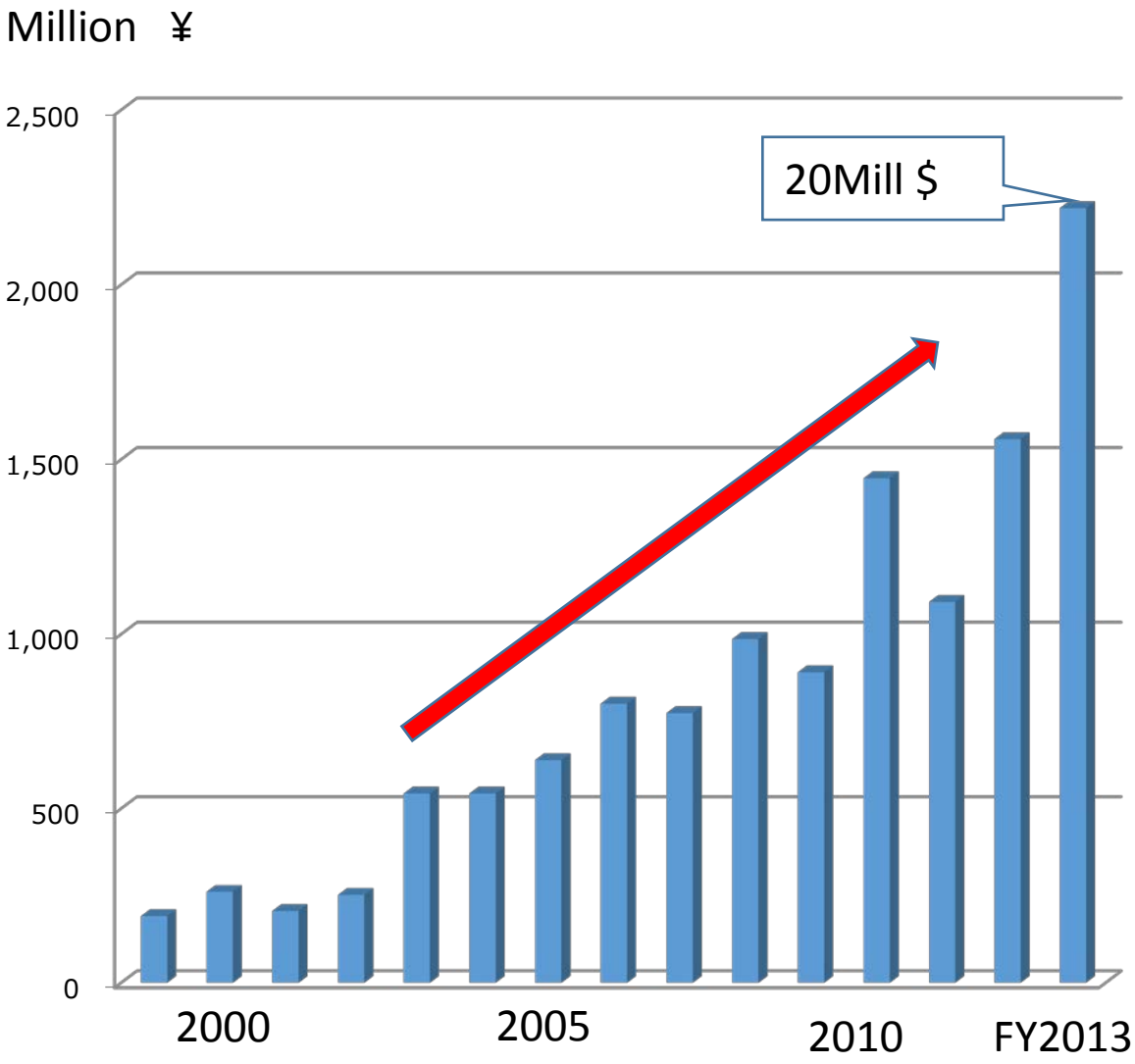


Number by the scale			
FY	2009	2011	2013
＜1 mill ¥	8,850	9,509	10,842
1 mill ¥－3 mill ¥	5,840	6,700	7,178
3 mill ¥－5 mill ¥	1,292	1,439	1,505
5 mill ¥－10 mill ¥	909	945	988
10mill ¥ - 50mill ¥	648	652	749
＞50mill ¥	47	54	74
Total	17,586	19,299	21,336

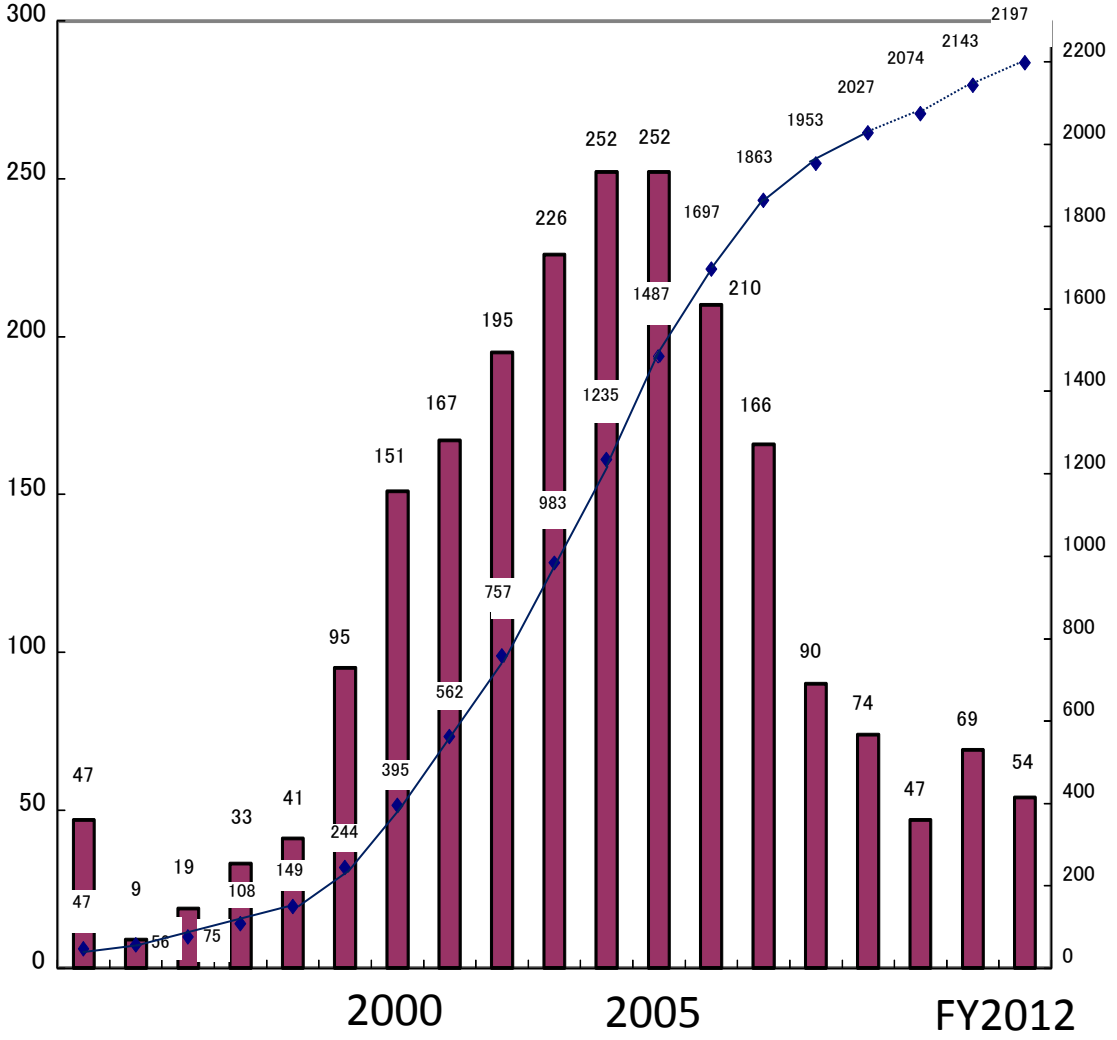
Ave. ¥ 200K /#

Toward open innovation – much to be done

<Revenue of TLO s >



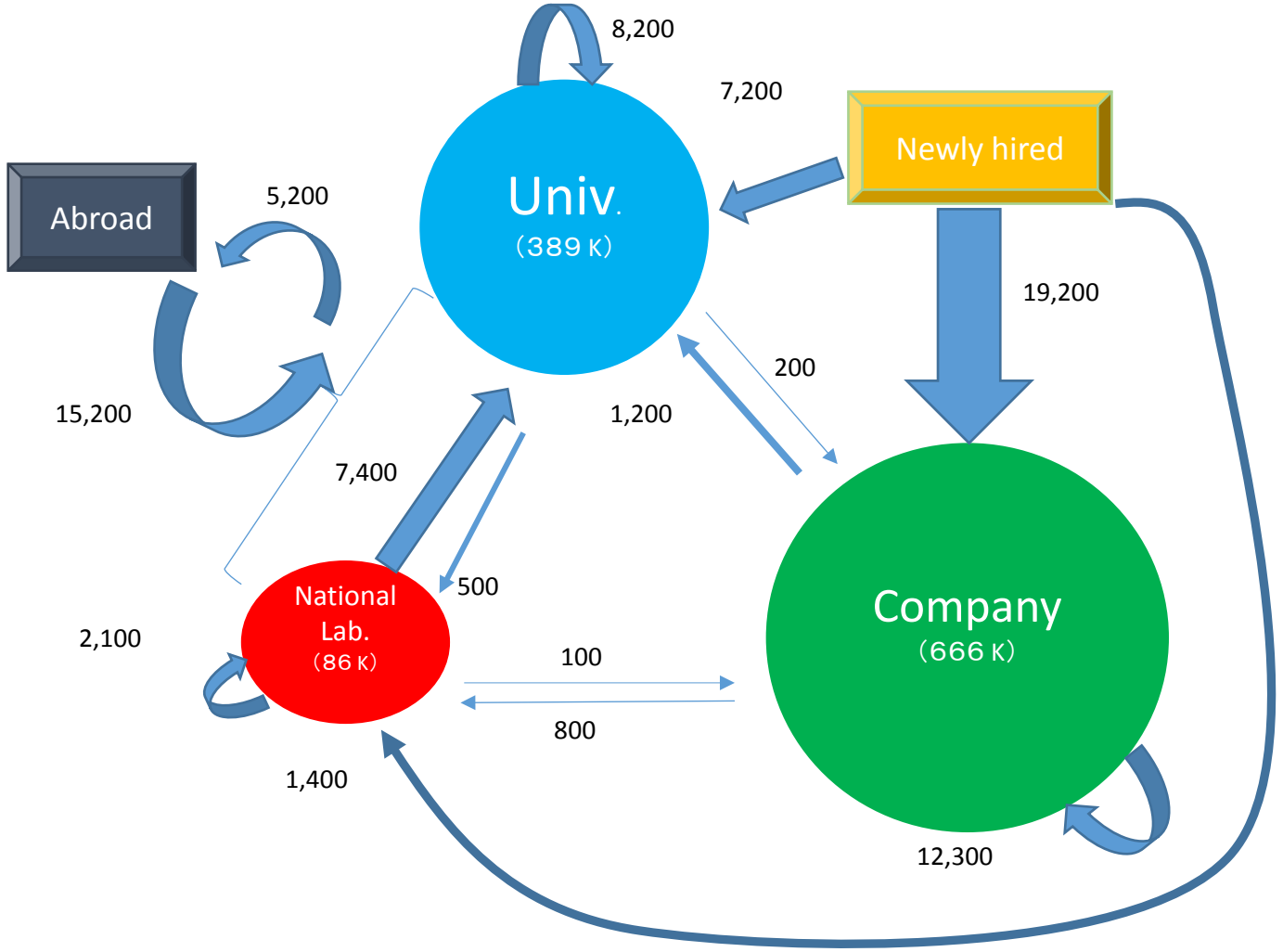
<Number of University start-ups in Japan >



Total value of start-ups from Tokyo Univ. exceeds 10bil $

Fluidity of human resources !?

Flow of scientist and engineer (FY2013)



Era of “Open innovation”

Internal; Absorption ability — Idea, Technology transfer
Human resource management, M&A
Corporate Strategy — Business model

External; National, Regional, Global
Creative/Knowledge Commons
Reduce cost of innovation in the market
e.g. technology, human resources and transaction costs
Soft business infrastructure, Open science
Tear down walls in organization or between sectors and border!?

Mediation function ?

How to create the future to come?

Time of drastic change; Connectivity, Openness, Data-driven

IoT, Industry 4.0, Smart service world, Science 2.0, Open Science

Future industry and society ?

Preparedness and challenge are the key; Cannot tell what happen next

Investing in fundamentals (people and excellence)

Role of Government; How to be an entrepreneurial state?

Level playing filed, leading role for solving socio-economic issues, and more!?

Revitalize neglected technologies by private sector

Co-creation is the imperative for open innovation era.

Inclusive innovation, User induced innovation

Japan’s new national innovation system