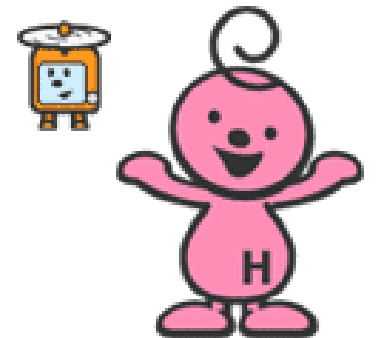


The Technology Transfer Activities in Japan

“University-industry collaborations in Japan”

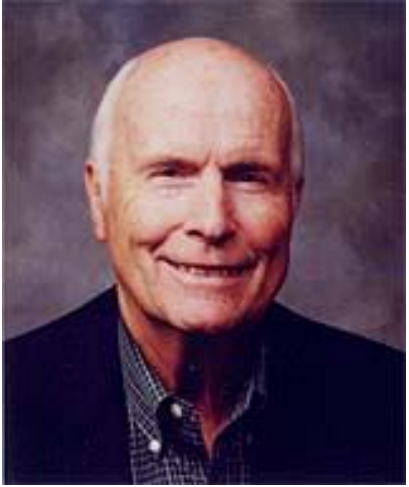
TODAI TLO, Ltd.
Takafumi (TAKA) Yamamoto, RTTP
<https://todaitlo.com/>



Our goal is to provide a better society to
the next generation
through industry-academia collaboration.

23 Years ago

Niels Reimers : Father of Technology Licensing



In 1968 he established a research management office at Stanford University. In 1969 he also established Office of Technology Licensing (OTL) at Stanford Univ.

The successful launching of these two offices led to his hiring by universities such as the Massachusetts Institute of Technology (MIT), the University of California at Berkeley, and the University of California at San Francisco, all of which were seeking to establish their own offices for technology transfers.

A cofounder of the Association of University Technology Managers (AUTM), Mr. Reimers has served as chairman of the Licensing Executive Society (U.S. and Canada).

- Peptidream was founded in 2006, based on the inventions of Prof. Hiroaki Suga.
- The company retains a library of over 1 trillion peptides, along with search technology for finding the right peptides to target diseases with. They began their business by approaching multiple Japanese pharmaceutical companies, but found it rough going until they started forming alliances with big-pharma firms overseas, ultimately leading to their IPO in 2013.



popIn was successfully bought out by Baidu



Mr. Tou Tei, an exchange student from China, established popIn in 2008, using an invention he created in his student days. The popIn service, which increases user retention time on the Web, is used by many mass-media companies and other firms. Envisioning a buyout from the beginning, Mr. Tei successfully engineered one with Baidu in June of 2015.

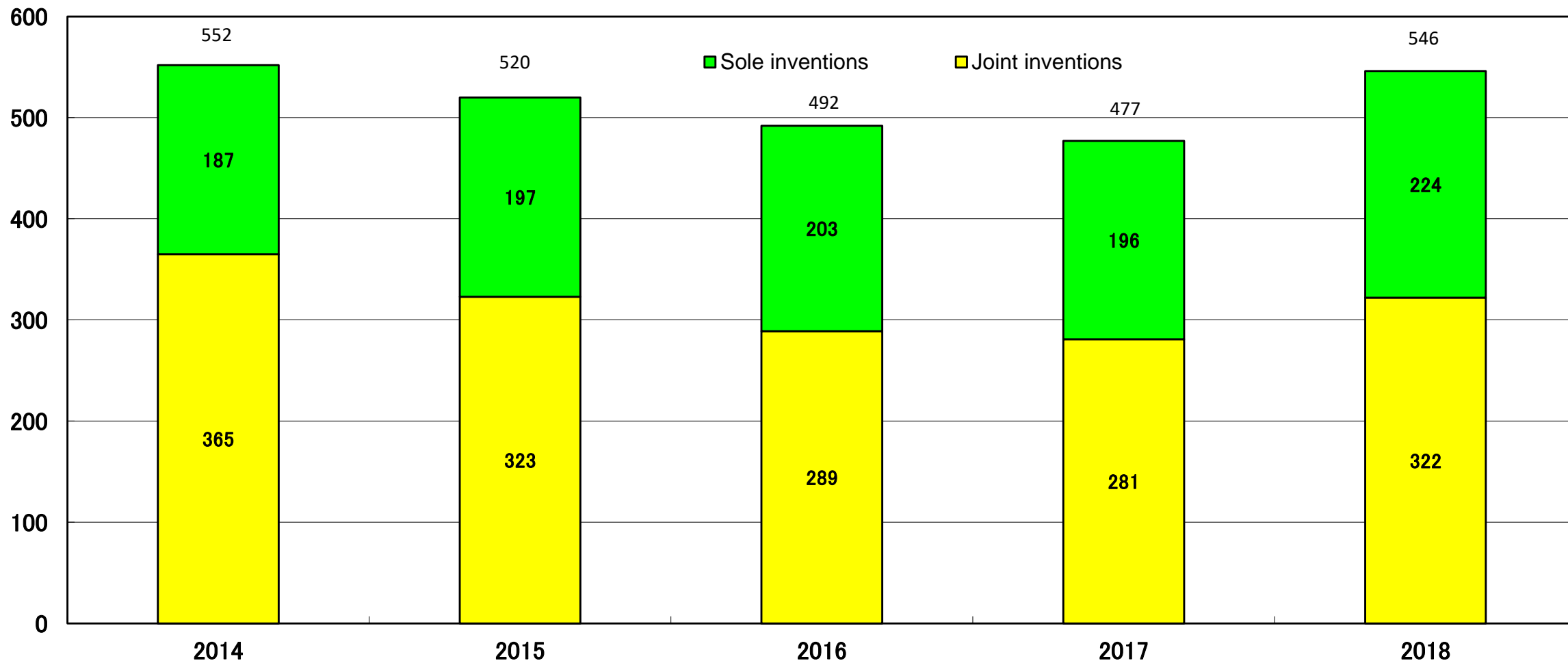
Vedanta Biosciences signs \$241 million licensing deal with Janssen and J&J Innovations



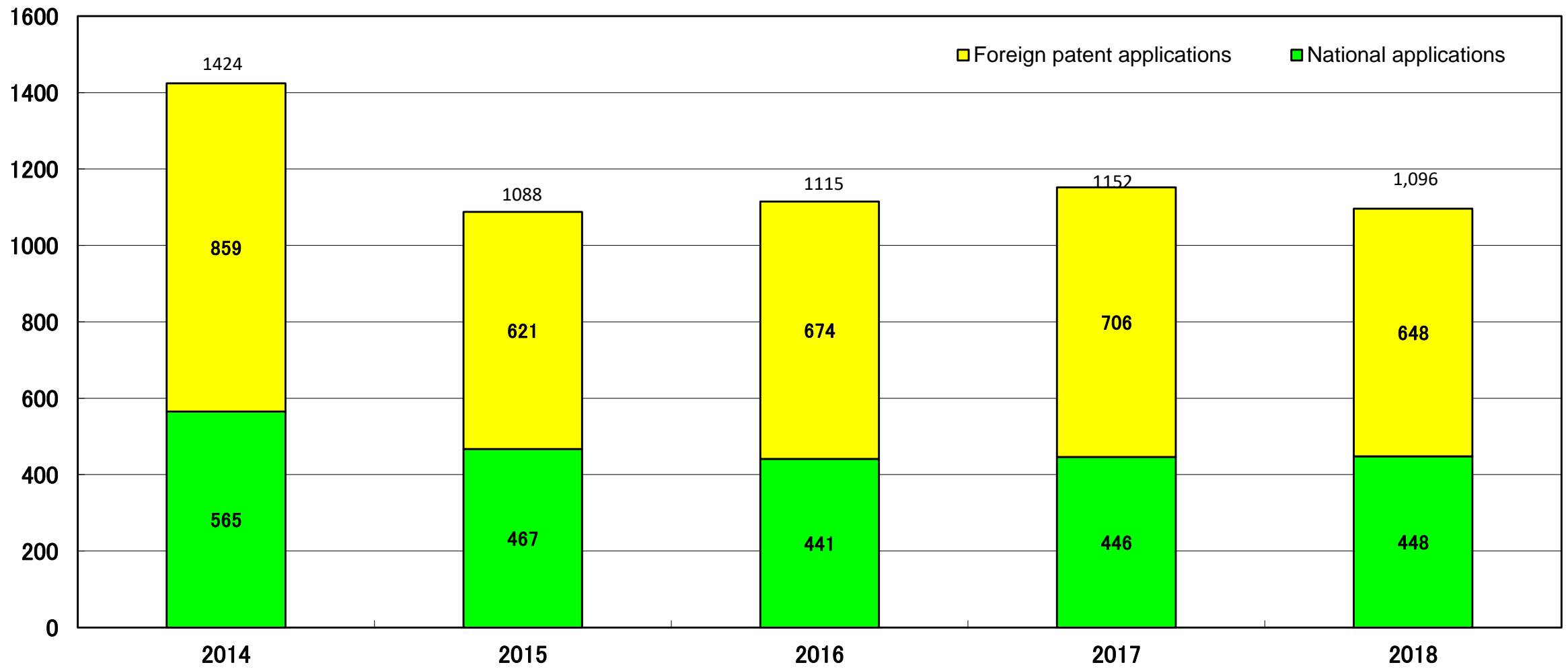
Vedanta, founded in Boston, was based on intestinal flora technology that failed to attract the interest of Japanese firms.

It is a unique case of technology developed at a Japanese university being used to establish a spin-off company overseas. Some may think it best to commercialize Japanese inventions within Japan, but considering the needs of patients, this can still be considered a successful case.

Changes in the number of notifications received by the Todai Technology Licensing Organization for inventions /Copyright / know-how

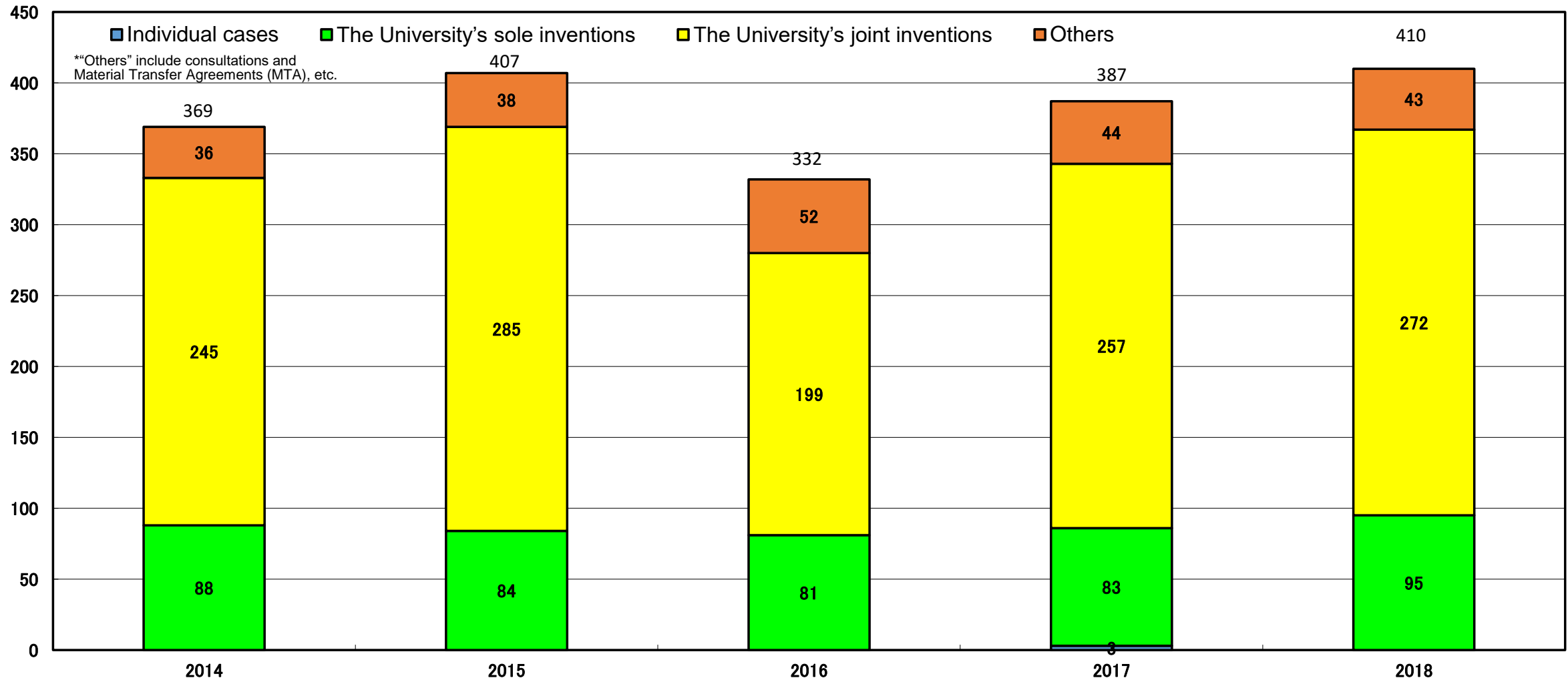


Change in the number of patent applications



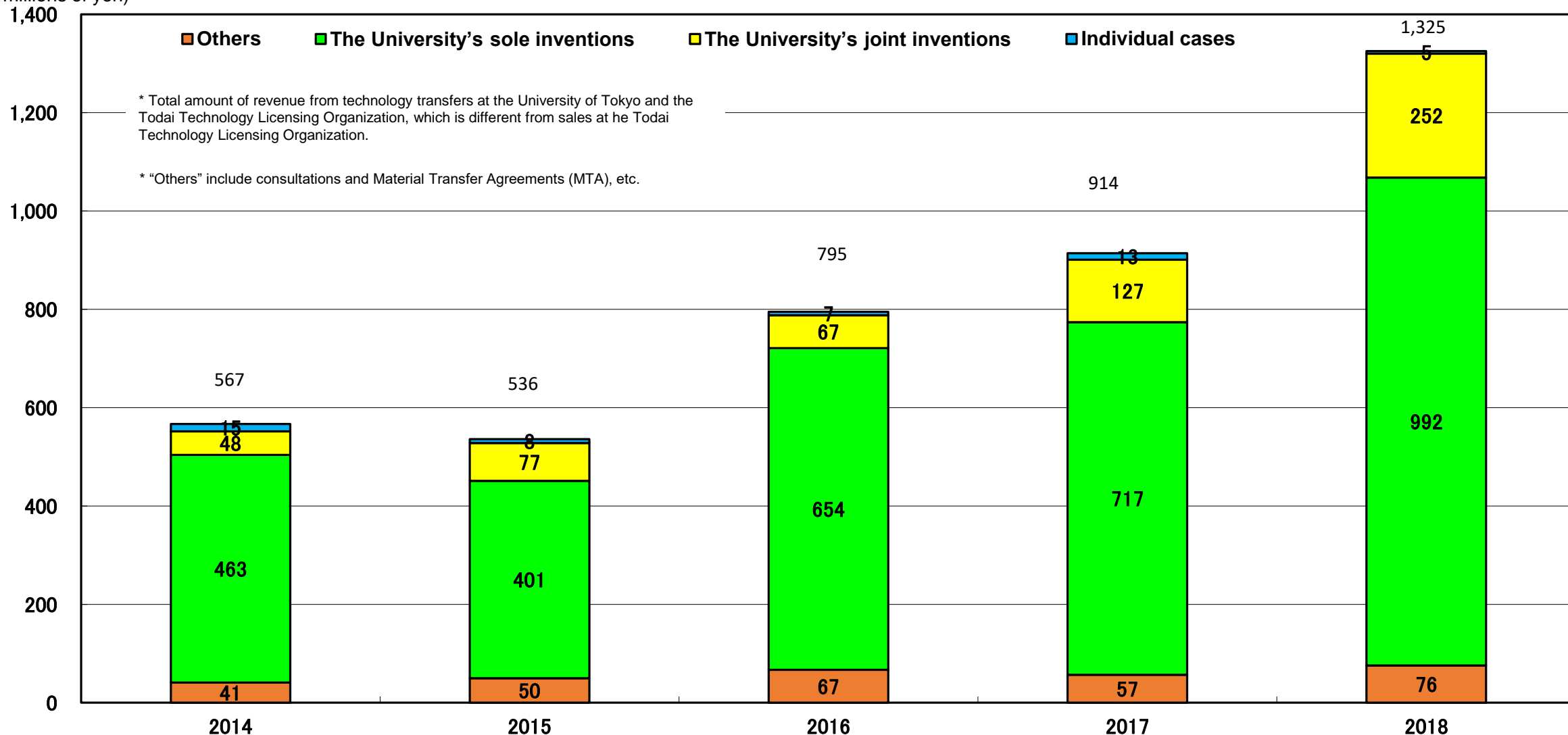
Number of contracts associated with achievements of the Todai TLO

(Number of cases)



Change in revenue from technology transfers at the Todai TLO

(Unit: millions of yen)



Japanese Government encourages universities to do a University-Industry collaborations.

	<p>The Basic Law for Science & Technology policy (1995) The First Five year S&T Plan (1996~2000)</p>
1998	<p>Report on Innovation Research Group (MITI)</p>
	<p><u>Law for Promoting Technology Transfer from Universities (TLO Law)</u></p>
1999	<p><u>Law for Special Measures for Industrial Revitalization</u></p> <ul style="list-style-type: none"> ▪ Japanese Bayh-Dole Act ▪ Reduction of patent fees for approved TLOs
2000	<p><u>Law to Strengthen Industrial Technology</u></p> <ul style="list-style-type: none"> ▪ Allowing TLOs to use national university facilities free of charge
2001	<p>1,000 University-start-ups in three years (Hiranuma Plan)</p>
2004	<p><u>Enforcement of National University Reformation Law</u></p>

IPR Ownership

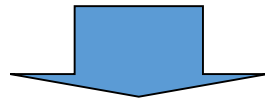
Incorporated as an Independent Agency

2004 / April



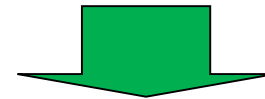
National Universities had no legal status.
 Universities could not be a patent owner.

National Universities get legal status.
 Universities can be a patent owner.



IPR belonged to inventors

TLOs contracted with inventors



IPR belongs to Univ.

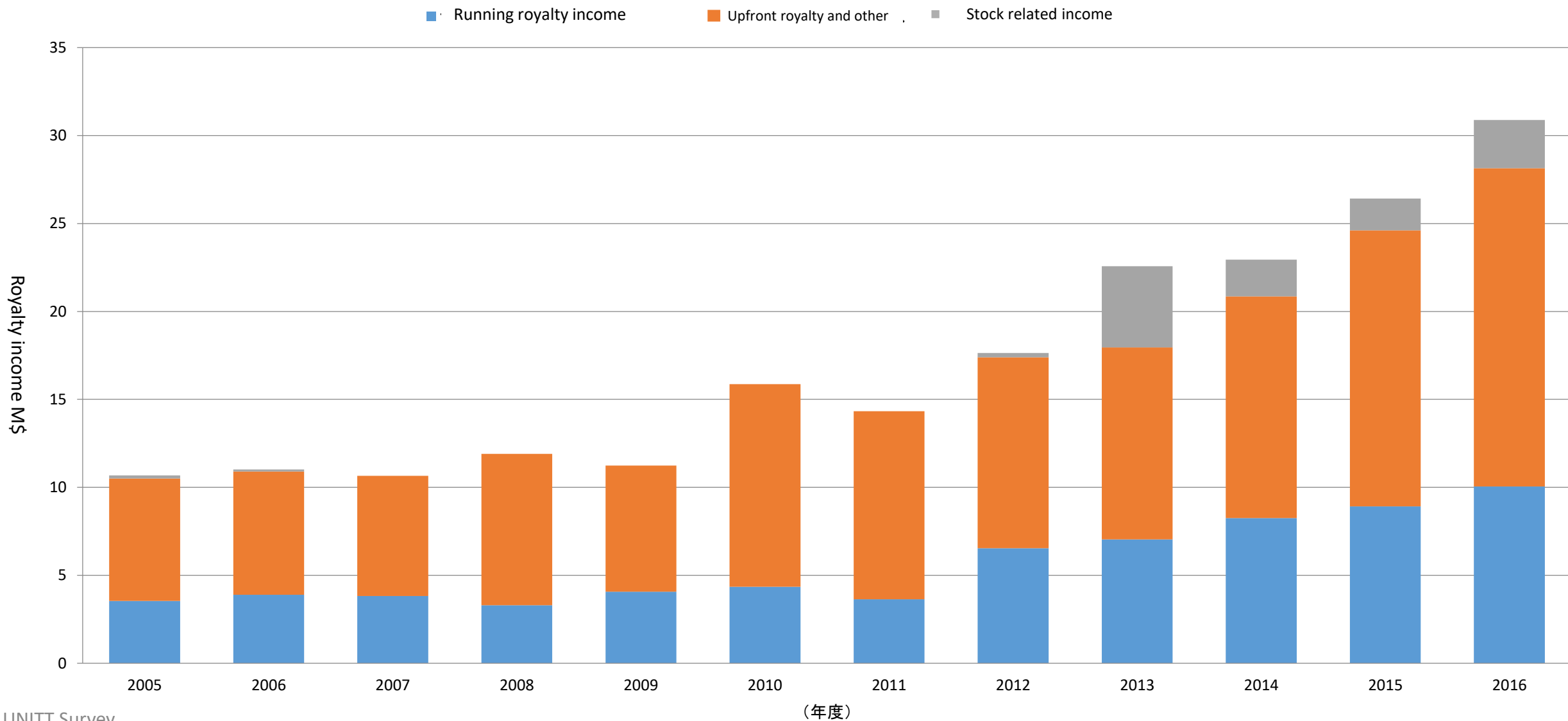
TLOs contract with Universities

Industry-University collaboration in Japan

UNITT Survey 2016

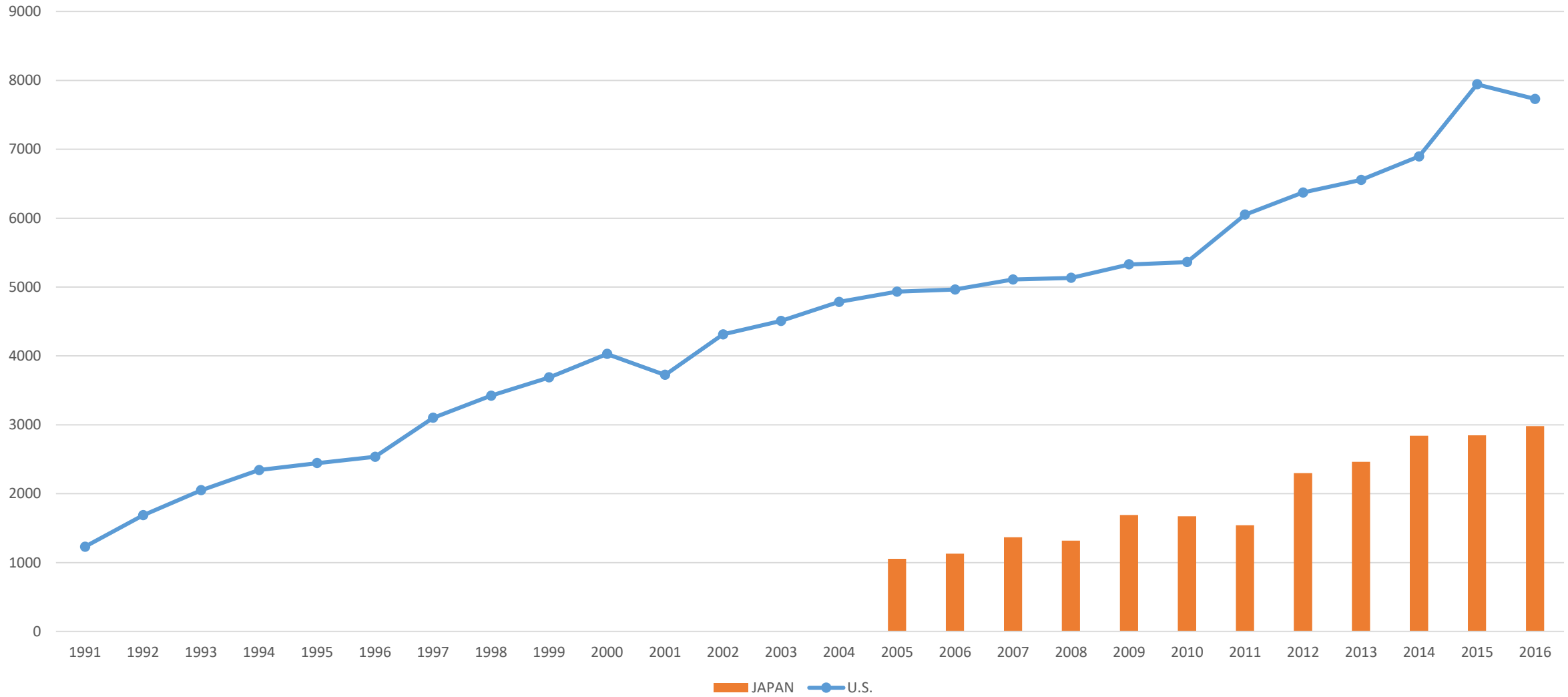
Number of invention disclosures	8,361 (3.2%UP)
Number of Japanese patent applications	6,661 (3.4%UP)
Number of all patent applications	9,388 (6.4%UP)
Number of new licenses	2,980 (4.7%UP)
Total amount of license revenue	22M€ (17.7%UP)

Total amount of license revenue



UNITT Survey

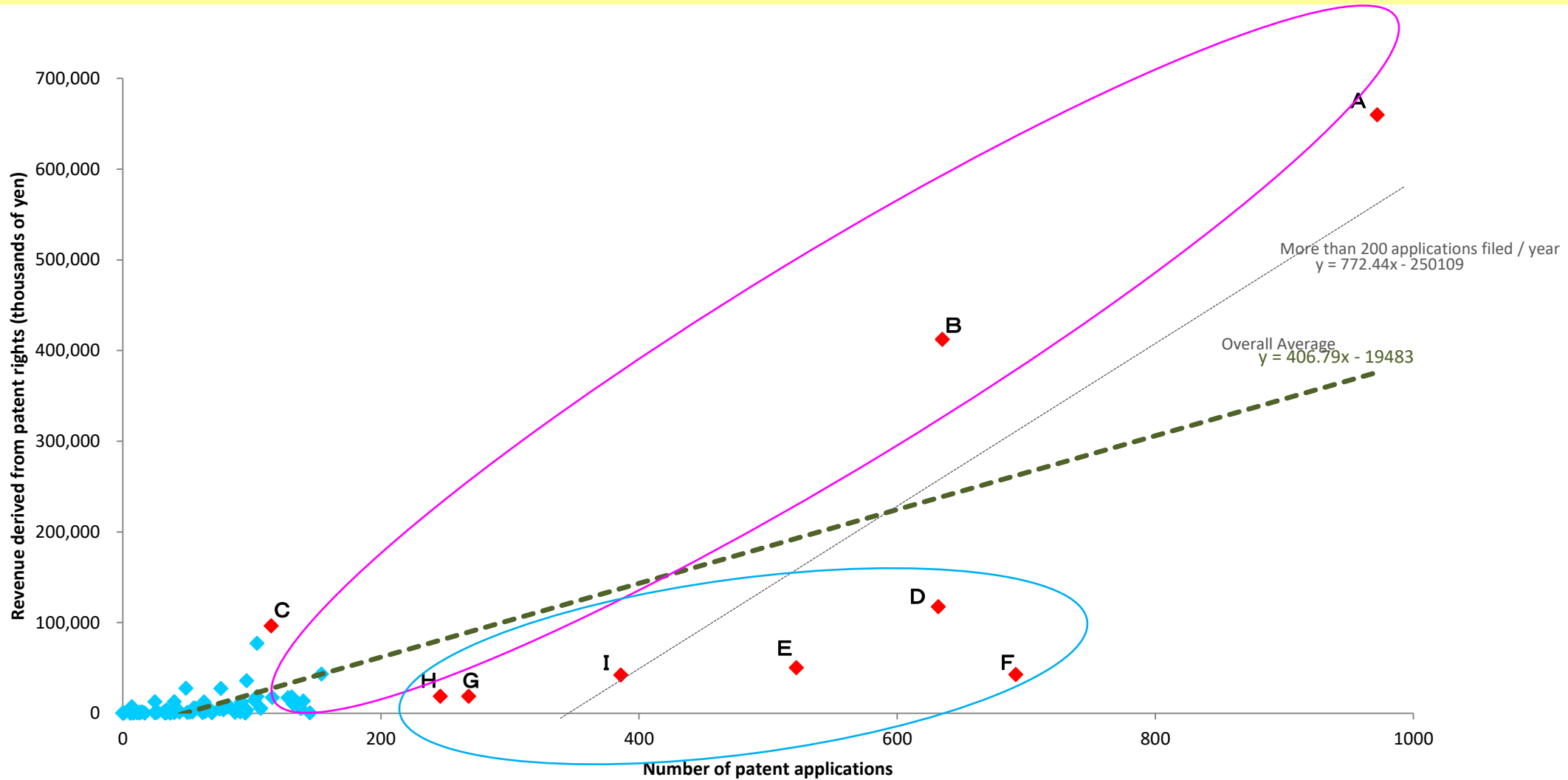
Number of new licenses: Comparison between Japan and the U.S.



The line graph shows the number of new licenses at US universities, and the bar graph shows the number of new licenses at Japanese universities.

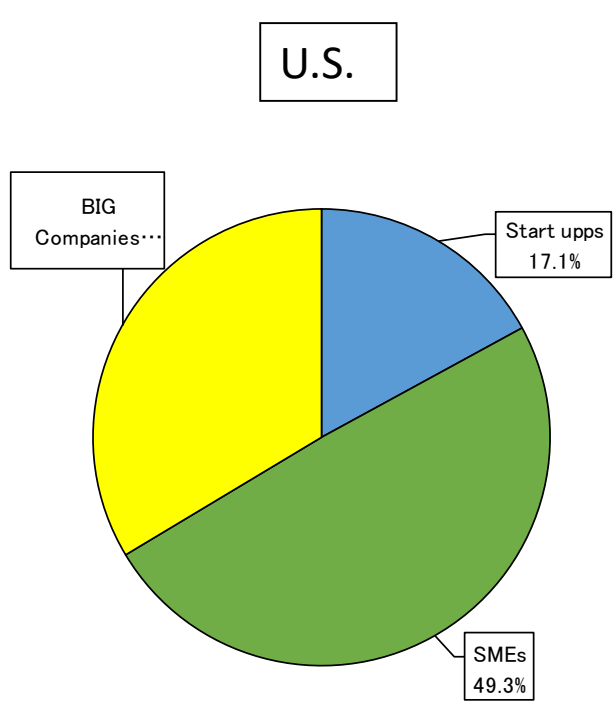
Relationship between the amount of revenue derived from patent rights and the number of patent applications.

Amount of revenue per patent application. Except university A, B, and C most universities produce less value than average universities.

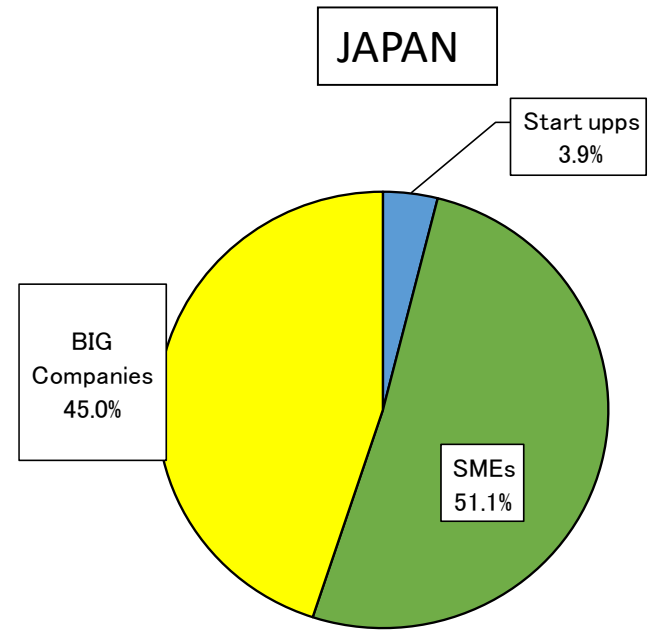


University-industry collaborations SME in the US

Two thirds of technologies in US universities are licensed to small- and medium-sized companies and startups, on the other hand, few of those are licensed to startups companies in Japan.



AUTM survey



UNITT survey

Innovation through Industry-Academia Collaboration

1. Technology transfer professionals

ATTP (Alliance of Technology Transfer Professionals), which was established mainly by Western universities, conducts a certification called RTTP (Registered Technology Transfer Professional).



Global standards for technology transfer professionals
 Strong demand for world-class RTTP professionals

The University of Tokyo advocates simultaneous industry-academia-government reform for the promotion of SDGs.



We bring together the University of Tokyo's research and educational capabilities to make efforts to achieve SDGs.

The University of Tokyo established UTokyo FSI in July 2017, under the direct leadership of the university president.

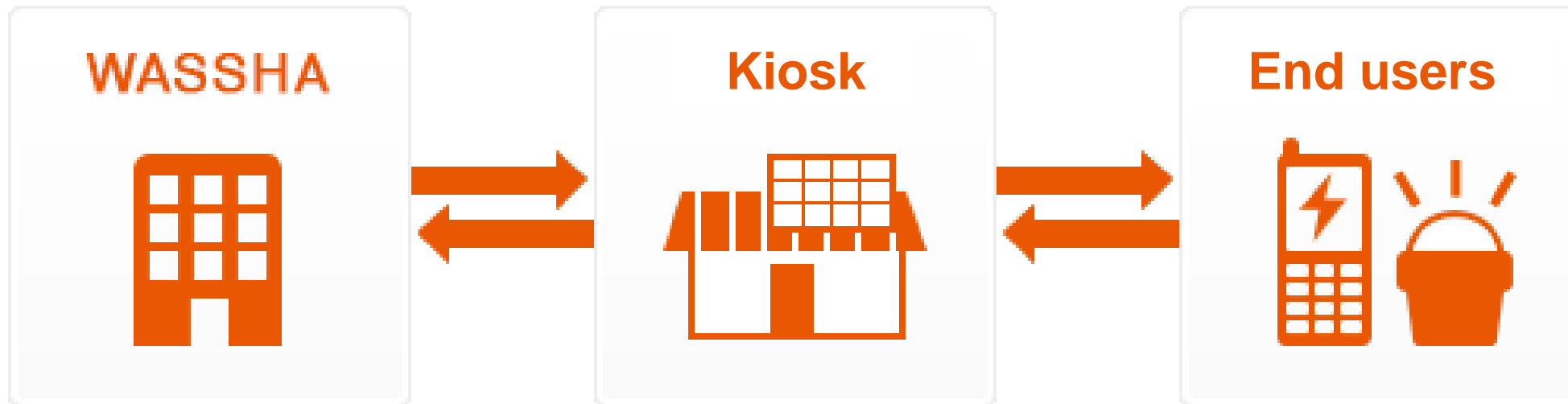
The aim of the initiative is to promote collaborations that are effective in contributing to the future of humanity and the planet, based on the university's mission of serving the global public as outlined in the University of Tokyo Charter.

Public Private **ACTION** for Partnership!!

—Make Japan and the world vigorous through SDGs!
You are a major player!

Todai ventures have already played active roles in Tanzania.

- Until now, some people have traveled 2.5 hours one way in order to charge their mobile phones.
- Currently, many people in the country do not have a bank account.
- WASSHA, in cooperation with Kiosk, covers end users' mobile phone charges by leasing a device intended to sell power generated by solar panels free of charge.



UNITT

* UNITT = University Network for Innovation & Technology Transfer (AUTM Japan)

We held 16th UNITT Annual Conference at Tokyo Denki University on last September.
There were about 550 participants.

We held a 3rd “AUTM-ASIA conference in Kyoto in 2013”.

Technology Transfer educational courses (Basic and Applied Courses) are provided by UNITT.

UNITT join the ATTP in 2013.



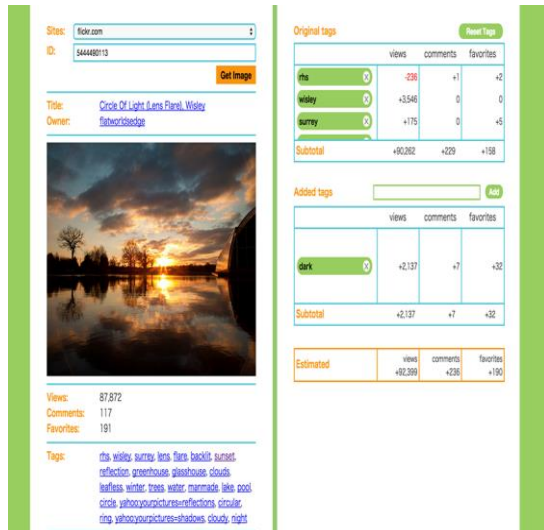
Toshihiko YAMASAKI (山崎俊彦)

Career :
2004-2009, Assistant Professor, The Univ. of Tokyo, Japan
2009-present, Associate Professor, The Univ. of Tokyo, Japan
2011-2013, Visiting Researcher, Cornell Univ., US
Main Field: MM, CV, PR, ML, CG

Education :
2004, Ph.D. at The Univ. of Tokyo, Japan
Analog VLSI design, CMOS imaging circuits

Attractiveness Computing (魅力工学)

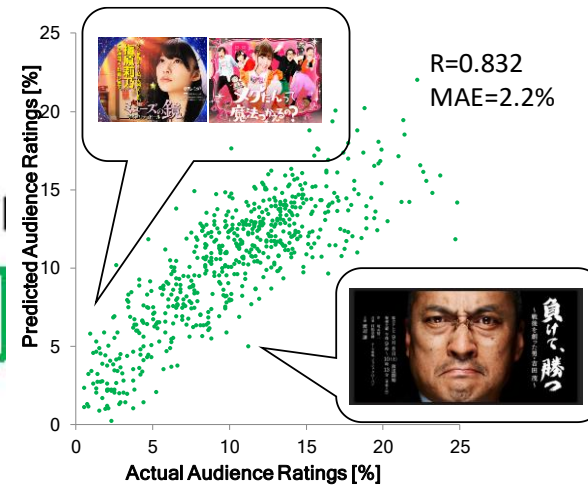
-ビッグマルチメディアデータを用いた魅力の定量化、予測、解析、強化-



SNSの人気度予測と強化



プレゼンテーションの印象解析



視聴率・利用者数予測

Thank you!

