IP-Best Practices in Japanese Startups
Regional Meeting for Supporting Start-Ups in Africa

KONOUE Mao
(NAKAHATA Minoru)
Main Topics

1. Introduction of Japanese startups
2. Problems with startups
3. Some examples of best practices
4. Q&A
Speaker


-Yokohama-city University (M.S. Molecular Biology / Optical Physics)
-2013 Mobile game company (TSE Mothers to 1st)
-2016 Digital Healthcare Startup (Series B-D Finance)
-2017 DRONE iPLAB, Patent Management Company, CEO
  DRONE Startup CIPO
-2018 iPLAB Starups General Partner / Co-Founder
  METI, Industrial Structure Council, IP Committee
  JPO Committee

-Graduated from the Faculty of Law, Gakushuin University.
-A major patent firm in Tokyo
Our professionals

Expertise: Engineer, Licensing, Examiner, Finance, CEO.

VISION
To create new market by technologies and grow its industry with IP.

MISSION
To use intangible assets to the startup company management and to spread the CIPO position.

And other 4 Members
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ACSL - PF1

State-of-the-art industrial platform

ACSL-PF1 is ACSL’s new platform designed for all industrial applications. It integrates new ACSL technologies to provide unrivaled flight performance, safety and easy maintenance for all applications.

https://www.acsl.co.jp/en/products/
Development Issues Concerned in Agriculture Sector
• Lack of rural infrastructure and high delivery cost
• Production and information management for securing stable quality and quantity of agriproducts
• Constraints in increasing agricultural export due to the two factors mentioned above

Products/Technologies of the Company
• Delivery services for agriproducts using drones
• Support services for farming and shipment management based on data captured by rover-type drones

Survey Outline
• Survey Duration: July 2019~December 2020
• Country/Area: Rwanda (Kigali, Rwamagana, Rulindo, Huye, Bugesera)
• Survey Overview: The goal is to increase export of high-value agriproducts by ensuring their stable quality and quantity, by improving access between rural farms and major roads using drones, and by supporting product management through data captured by rover-type drones.

How to Approach the Development Issues
• Collecting and gathering high-value agriproducts for export market using drone and selling the products to exporters or directly to the export market

Expected Impact in the Country
• Enabling “next-gen infrastructure development” with lower cost and shorter duration, as opposed to time and cost consuming conventional infrastructure
• Contributing to income increase for farmers by driving export of high-value agriproducts through farming and shipment management by data

As of July, 2019
Improve agricultural production capacity in developing countries

Supporting the Drone-Agriculture in Rwanda

* TICAD7 (アフリカ開発会議)にて紹介されたPV (time 16’30-18’00)
  https://www.youtube.com/watch?v=mKaoR6xEHZI&feature=youtu.be

DRONE and ICT: JICA SDGs Project for Increasing Added Value for Agriculture Utilizing Drones and ICT in Rwanda.

Mr. Harada, who started as a farming entrepreneur at the age of 30 learning from an attentive farmer, has succeeded in cultivating “Japanese gentian (a kind of flowers)” in Rwanda. He also contributes to rural employment.

Drone Japan supported its activities with Drone Rover Sensing.
ドローン屋根外装点検アプリ

屋根外装点検ならドローンルーファー
全国の屋根外装点検や施工の現場で使われています。

https://service.drone-roofer.com/
CLUE is the first Japanese company to obtain a government-approved flight license in Ghana, West Africa.

In road inspection, a road is captured from above using a drone camera. The captured geographic image is provided as two-dimensional data or three-dimensional data. As a result, the inspection time can be reduced to about 1/10 compared to the conventional inspection using humans and paper working.

Aeronext Inc., a drone architecture research start-up, emphasizes IP strategy and conducts its original 4D GRAVITY® license business.

4D GRAVITY®: patented center of gravity control technology that improves stability

**Flying Robots**

- 360° VR Photography Drone
- Bridge Inspection Drone
- VTOL Logistics Drone
- Short Distance Delivery Drone

**Flying Gondola**
Flying Gondola
Drone Fund

Drone Fund is the world’s only VC fund dedicated exclusively to investment within the Drone Space. Drone Fund provides capital investment, operational support, collaborative planning, and regulatory assistance in order to expand the entire Drone space.

— The Drone Fund Ecosystem

Drone Fund's investment in companies includes support beyond financial administration, IP strategy, innovative planning, drone policy, and operational support.

Drone Fund is proud to be a VC which offers much more than capital investment and financing. We are striving to create a “Drone Ecosystem” in which LP’s and startups can successfully benefit from membership within the Drone Fund community and also grow within the drone space, as the more our investors grow, the more improvements are made in drone technology and ultimately the more humanity benefits.

The Drone Fund ecosystem is made up of two smaller systems (the LP ecosystem and the Investee Ecosystem). Each of these smaller components makes up the larger Drone Fund community and has different goals. Our LP’s benefit differently than our investees do, but the benefits are shared and we grow as a whole.

Drone Fund's Patent Umbrella

DRONE iPLAB, a company that under the direct control of the DRONE FUND, is an IP consulting company supporting the DRONE Start-up companies. They were established at the same time. DiPL is (DF).
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What is a Startup?

Startup: A company that creates new industries to solve social issues.

In a very short period

- Founding
- Seed stage
  - Founding Members
- Early stage
  - 20 Members
- Middle stage
  - 20- members
- Later stage (IPO / MA)

Few years to 10 years
The number of patent applications of SMEs

Although the number of SMEs is large, the ratio of SMEs to patent applications is about 15%.

![Diagram showing the ratio of SMEs to large companies in the number of companies and patent applications.]

**Ratio of SMEs in the number of companies**
Number of companies: approx. 3.59 million

**Percentage of SMEs in patent applications**
Number of patent applications

Patent administration annual report 2019
Why Startups Need “IP”?
The value of IP is high in their situation.
There is no IP department in the Start-Ups.
There are many IP pitfalls.

Insufficient trademark search

Not using the mitigation programs for venture companies

Open their idea to the public before applying

CTO has spun out

Technical information has been taken by a partner

The patent scope has a very narrow

Not understand the importance of IP strategy
IP support is important for startups.
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Typical examples of patent utilization

• Improve corporate value
capitalization, stock price, financing…

• Business contribution
barriers to entry, business freedom, alliances, product appeal

• Deterrence
reduction of exercise and litigation risk

• Monetization
patent sale, licensing…
Only one patent cannot protect their business.

**Startup**
It would be enough to protect only the core technology.

**In fact...**
A Company who has only one patent would lose their competitive advantage when the patent expires.

**Startup**
When and how many applications should be filed
Which technologies should we protect by patents?

**Solution**
It is important to apply for and hold a patent strategically so that the combination has the highest value. The key is planning an intellectual property strategy that matches your business.
It is important to check where each patent is on the map.

Only a core patent

A core Patent

Expired
Invalided
Avoided

Defend

Subordinate concept
Modified example

Portfolio Map

Defense to deterrence

Core
Peripheral
Improved
Substitute
Preemption
Ambush

Subordinate concept
Modified example

Depth
Trademarks

In a fast-growing startup, naming can often change.

<table>
<thead>
<tr>
<th>Company name</th>
<th>Investor check, IPO application check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company logo</td>
<td>May change</td>
</tr>
<tr>
<td>Main service name</td>
<td>Investor check, IPO application check</td>
</tr>
<tr>
<td>Main service logo</td>
<td>May change</td>
</tr>
<tr>
<td>Icon</td>
<td>May change</td>
</tr>
<tr>
<td>Business genre</td>
<td>Genericized trademark?</td>
</tr>
</tbody>
</table>
Timing of applying for a patent

Preparation for patent application CAN begin even if product is not completed

- Problem (Long payment process)
- Means to solve the problem (One-click payment)
- Alpha release
- Beta release
- Product release

Considering or preparation for patent application
Once the concept is decided, apply first

Use the priority system to apply for all results obtained from the PDCA cycle.

Priority Claim

12 months

Basic application Concept

Improved application 1 Optimal configuration

Improved application 2 Addition, modification

Request for examination or PCT application
Payment methods with Equity

There is no budget when IP is important. However, it is too late to start IP management when there is a budget. Utilizing equity is a way to fill that gap.

The faster the IP management, the better

Only startups can use equity

Intangible assets

Valuation (budget)

Gap

Importance of IP protection

T1

T2

time

early

later

time
Multiple related applications

Strategic patent application to expand multiple branches from core technology

core invention A

Priority claim + improved invention b, c, d

Dividing invention b

Invention A

Dividing invention c

Invention b

Dividing invention d

Invention c

Peripheral invention

Substitute invention

Invention d
Fast / Super fast track for Ventures

With Fast track examination, a patent portfolio can be built in a short period of time.
CIPO (Chief IP Officer)

CIPO, who promote IP-based company management, will be strongly required.

The CIPO always thinks:
- What are the core properties that make the company win?
- How do we prevent the properties from being used by the other companies?
- Management and allocation of the properties.
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Thank you

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