


在外研究員研究報告書

2021 年 7 月 9 日 受付

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研究課題名	ベルリン自由大学 (ドイツ)			
研究期間	2018年 3月 29日 ~ 2020年 3月 30日			
滞在期間 ・滞在地 研究調査先	滞在期間	滞 在 地	研究・調査先	
	2019.9.28~2020.9.28	ドイツ	ベルリン自由大学	
研 究 費	306.6 <del>200</del> 万円	研究成果の概要	別記 4,000字程度	
発 表	題 目 名	発表学術誌名Vol. No.	発行年月日	
	著 書 名	発 行 所 名	発行年月日	
	演 題	講演学会名	講演年月日	
	Entrepreneurial storytelling and the rise of robotics/AI start-ups in Japan	European Group for Organizational Studies	2018年7月5日	
Entrepreneurship as the management of multiple strategic action fields	European Group for Organizational Studies	2019年7月5日		

## 研究成果概要

ベルリン西部のダーレム地区には、閑静な住宅街や森が広がっている。ダーレムは第二次大戦後にアメリカの統治下におかれ、そこに自由を求めて東ベルリンから脱出した研究者たちを中心に設立されたのがベルリン自由大学である。現在は 12 の学部・大学院と 6 つの研究所を擁し、世界屈指の研究大学としての地位を確保している。

近年、欧州を中心に展開しつつある組織論と経営史の対話を進める New Business Histories の流れに関心があったこともあり、私も組織論研究者の考え方を学びたいと思い、ベルリン自由大学の School of business and economics に所属する Jörg Sydow 先生に受け入れて頂いた。組織論を専門にする Sydow 先生は、歴史の観点を取り入れた理論構築に関心を持っている。そのため経営史研究者との交流を進めていて、同時期にグラスゴー大学のレイ・ストークス先生とヨーク大学のマティアス・キッピング先生も在籍していた。そのような豪華な陣容の末席で、歴史家として理論を学ぶ機会を頂けたことは私にとって幸運なことであったと思う。

具体的に、日本のロボット産業と AI 産業の歴史的文脈に着目し、自身に優位となる制度環境を企業者がどのように構築したかについて比較研究を進めた。本研究は組織論・戦略論の主要国際学会である EGOS で二回報告し、ベルリン自由大学や早稲田大学などの共催する INCAS において初稿を報告した。また、当該期間の成果ではないものの、在外期間中の研究成果を 2020 年度日本経営史学会全国大会（於同志社大学）の統一論題を組織して報告した。

ベルリン自由大学の研究環境は素晴らしく、個人研究室を提供していただいた。Sydow 先生の研究室は、もともとマックス・プランク研究所の理論物理学拠点だった古めかしい建物の中にある。私もその歴史ある建物の一角に部屋を用意して頂き、日々を過ごした。図書館を自由に利用できることはもちろん、電子論文へのアクセスも十分に保証されており、プリントアウトも無料であった。ほぼ毎日、研究室に足を運び、研究を進めた。それに加えて、Sydow 先生の院生たちと、ほぼ毎日昼食をともにした。英会話の練習にもなただけでなく、個人的なつながりもできたので、今思い出しても、大変充実した日々をおくることができたと実感している。もちろん、たわいない話もしたが、研究の相談もできた。大学院生のころに戻った感覚でいろいろな相談ができたので、論文に反映できる知見も多く得られた。Sydow 先生とも、ほぼ毎日研究室で研究について話しあった。私がペーパーの草稿を書いて、それをもとに議論をして、修正ポイントを洗い出すという作業を繰り返した。ときに大変な要求もあったが、大変ためになる研究プロセスであった。

また、ベルリンのスタートアップ企業を育てる民間インキュベーション施設（Factory Berlin Mitte）や、大学の運営するインキュベーション施設（Profund Innovation - Freie Universität Berlin）を訪問し、ドイツの状況について聞き取り調査を進めることで、日本の AI 産業やロボット産業の状況を相対化して理解をすすめた。また、ベルリン自由大学

の大学院生とともに、ベルリンで開催された国際展示会に参加する日系ベンチャーの社長にインタビューを行ったり、ロボットの国際標準化を進める委員がドイツに来訪したときに聞き取り調査を行うなど、当地でもデータ収集を行った。

在外研究中は、毎週3回の研究会に参加しながら、研究をブラッシュアップした。火曜日には、国内外からゲストを招聘して開催される研究報告会に参加し、海外の最新の研究動向を理解する機会を得た。本研究会は、ベルリン自由大学経済・経営学部主催で、年間を通じて開催された。欧州を中心に組織論や戦略論に関する研究報告が毎週行われた。組織論領域を中心に若手から名の知られた研究者まで、報告者の幅は広い。多いときの参加者は30名近くになるが、少ないときは報告者を含めて4名ということもあった。経済理論の報告が行われることもあったため、すべての報告に参加はしていないものの、8割以上の報告会に参加し、質疑応答に関与した。最終報告を兼ねて、ここで報告予定であったが、コロナのため報告会は中止となってしまったのは残念であった。

上記の研究会に加えて、大学院の組織論の講義にも参加させてもらい、組織研究の基板となる知識の習得に務めた。事前にアサインされたペーパーの分量は多く、かなり大変ではあったが、組織理論に関連する知識を習得するうえで非常に有用な体験となった。特に、同時期に訪問研究者としてベルリン自由大学に在籍していた Mttias Kipping 先生が参加したときは、歴史と組織に関連する議論を深めることができた。その成果は、2020年度日本経営史学会全国大会の統一論題に十分にいかすことができたと考えている。

また、金曜日に開催される小規模な演習形式のワークショップにも参加した。本ワークショップの目標は、大学院生の論文第1稿をあらかじめ読んだ上で、その場でコメントし合いながら海外査読誌に掲載されるレベルに引き上げていくことが掲げられていた。参加して驚いたことのひとつは、修士課程1年の大学院生が、Sydow 先生やその他の研究者(山内も含む)に向かって「理論的貢献がはっきりしない」とか「この部分のデータが弱い」とか、研究に関することであれば直言することであった。オープンさもここまで来るとさすがすごいと感じたが、どうやらこれは Sydow 先生の意向に基づいてそのような運営がされているのであって、必ずしもドイツで一般的なやり方というわけではないようだ。いずれにせよ、このプロセスに参加することを通じて、海外査読誌で求められる考え方や理論的背景、哲学的素養など知る良い機会となった。実際に、私の研究についても軽く報告させていただいたが、そこで得られた知見を EGOS の報告にいかすことができた。

これら研究を向上させていく機会を利用することに加えて、複数の集中ワークショップにも参加した。オックスフォード大学の Tom Lawrence 教授の主催するワークショップでは、組織論に関連する自身の知見を広げる貴重な機会も得ることができた。また、5日間にわたって開催された Sydow 先生主催のクリエイティブ産業に関連するワークショップに討論者として参加した。欧州を中心に30名ほどの大学院生とポスドクが報告し、10名ほどの大学教員が討論者として参加していた。組織論を専門とする各国の大学院生たちとも知り合うことができた。このスプリングスクールで出会った研究者たちと学会で再開

し、休憩時に話す機会もあった。海外学会において居場所を見つけられた気がして、うれしく感じたことを記憶している。

こうした日々の研究活動のひとつの成果として、INCASの最終研究成果報告会でSydow先生と共同研究報告を行った。INCASは、フランスのEcole des Hautes Etudes en Sciences Sociales (EHESS)と、Oxford University, Freie Universität (Berlin 自由大学)、早稲田大学の共同研究プロジェクトである。ベルリン日独センターに各大学の研究者が集い研究報告会が開催された。研究会は、思ったよりも規模が大きく、しかも最終成果報告会であったため、少し緊張したものの、和やかな雰囲気での国際研究会だったこともあり、プレゼンテーションをうまく終えることができた。本報告会に参加する日本に関心のある国内外の研究者と話すこともできたので、国際的なネットワークの構築にも寄与したと感じている。

また、在外中に二回、組織論・戦略論の主要国際学会であるEGOS(European Groupe for Organizational Studies)で報告を行った。毎年1000人以上が参加する規模の大きな学会である。普段参加している歴史系の国際学会とは異なる雰囲気であった。EGOSの参加者は、50近くあるテーマセッションのいずれかに応募する。採択された場合、そのセッションに3日間参加し続けることになる。他のセッションの報告を聞くことは、基本的に許されない。2011年にEGOSで初めて報告したときは、そのような縛りはなかったと記憶しているので、おそらく近年になって作られたルールなのだろう。はじめは戸惑ったものの、3日間も同じ部屋に缶詰め状態のまま過ごし、お互いの研究について質疑応答をするので、そのテーマについて広く理解することができるうえ、参加者どうし非常に仲良くなる。この試みはとても肌に合った。

また、私見ではあるが、EGOSにおいて、歴史研究への注目も進みつつあるように感じている。ここ2年連続で「歴史」をどう取り扱うかというプレナリーセッションが開催されている。もちろん、彼らの関心と我々歴史研究者の関心は必ずしも一致するわけではない。歴史を長期データに過ぎないと考えている組織研究者も多い。両者の対話を深めるためには、経営史研究者も組織論研究者も、お互いの「言語」をさらに理解しなければならないだろう。実際に、在外研究中に、組織論研究者たちと共同研究を続けるなかで、そのことを痛感している。それでも、歴史研究者が組織論の学習を深めることで、組織論と経営史の対話が進み、新たな経営史研究の地平が開くことを期待してやまない。

研究の成果とは異なるが、ベルリン自由大学・経済経営学部と同志社大学商学部との間で、学生交換協定を構築することもできた。ベルリン自由大学の国際課オフィス職員の方と緊密にやりとりをしたこともあって、欧州の大学運営についての情報も得られた。本学商学部とベルリン自由大学・経済経営学部との交流が継続することは、本学学生が海外経験を増やすことにも寄与する。行ったきりではなく、これからも継続的な関係性を維持することで、同志社大学の国際化に少しでも寄与していければ幸いである。最後に、このような機会を提供していただいた同志社大学に深く感謝いたします。

以下、当該研究の成果についてまとめた。

## **Entrepreneurship as the Management of Multiple Strategic Action Fields**

### Introduction

Historic turn in organization studies has been progressed (Clark & Rowlinson, 2004). This academic movement highlighted new aspects of the process writings between the past and the present with a set of unique methodological assumptions (Wadhvani and Bucheli, 2014). For example, some organizational historians write an organizational changing process as a shift from one stable situation to another stable situation, focusing on the unstable world (Bucheli & Salvaj, 2013). It shows that historical perspectives are useful for understanding organization development (Cummings & Worley, 2018).

Our paper will explain the process of the organizational development led by an entrepreneur who managed the multiple organizational fields to open up a better future. Based upon a start-up in the Tokyo metropolitan area we will explore how a new robotics startup in Japan created a new organization field. In this regards, we shed light on entrepreneurs who tried to manage multiple Strategic Action Fields (SAFs) introduced by Fligstein and McAdam (2011).

With our exploration of the case, we provide not only insights into how entrepreneurs construct and eventually reconstruct their narratives along with tensions between firm's profitability and societal challenges but also strengthen the narrative perspective in entrepreneurship research (Garud, Gehman, & Giuliani, 2014a). In this way, we add to the interpretative perspective which, despite the importance of entrepreneurs and their talking and acting in the start-up process, "has remained conspicuously sidelined" (Packard, 2017: 537) in entrepreneurship research. The same applies to the historical perspective that also deserves more attention when analyzing start-up activities and practices (Lippmann & Aldrich, 2016).

### Entrepreneurship in Strategic Action Field

Fligstein and McAdam (2011) introduced a new framework, *Strategic Action Fields (SAFs)*, to explain social movement with collective strategic action. Strategic action is defined as the attempt by social actors to create and maintain stable social worlds by securing the cooperation of others (Fligstein, 2001). According to this definition SAFs are meso-level social order where actors (who can be individual or collective) interact with knowledge of one another under a set of common understandings about the purpose of the field, the relationships in the field (including who has power

and why), and the field's rules (Fligstein and McAdam, 2011:3). We would expect that actors in SAFs would share a consensus as to what is going on with shared understandings about the rules in the fields. Actors also possess powers. They know 'who their friends, their enemies, and their competitors (Fligstein and McAdam, 2011:4).'

SAFs are seen as comprised of incumbents, challengers, and governance units (Fligstein and McAdam, 2011:5-6). Incumbent are those actors who wield disproportionate influence within a field and whose interests and views attend to be heavily reflected in the dominant organization of the SAFs. Challengers occupy less privileged niches within the field and ordinarily wield little influence over its operation. Challengers have an alternative vision, but most of the time they can be expected to conform to the prevailing order. In addition to those two main actors, governance units facilitate the overall smooth functioning of the system. Governance units, such as trade associations, are not to serve as neutral arbiters of conflicts between incumbent and challenger, but to reinforce the dominant logic.

Those actors possess a social skill. The social skill can be defined as how individuals or collective actors possess a highly developed cognitive capacity for reading people and environments, framing lines of action, and mobilizing people in the service of these action frames (Fligstein, 2001, Jasper 2004, 2006). This view suggests that people are always acting strategically. In the stable social world, such skilled strategic actors are institutionalized and foster the social order. On the contrary, in the uninstitutionalized world, skilled actors can become institutional entrepreneurs (DiMaggio, 1988). In other words, it is generally accepted in SAFs theory that entrepreneurial ability to help create and maintain collective identities comes to the fore and in unstable SAFs.

However, there has been little research on how entrepreneurs create stable SAFs from an unstable situation. The aim of this paper is to examine the creating process of stable SAFs with special reference to the entrepreneurial management of multiple SAFs.

For the purpose of understanding the process, we should see the difference between incumbent and challenger. Before starting the business, entrepreneurs do not have enough resources and lack legitimacy. To overcome this liability of newness (Aldrich & Fiol, 1994) they make more use of existing institutions and narratives. In other words, entrepreneurs try to understand the rules in SAFs and to be incumbent. After the business has started and generated first returns, however, an entrepreneur can tell his or her *own* story in order to get or strengthen legitimacy (Lounsbury & Glynn, 2001). With respect to this transition process, we have to pay attention to "anchor events" (Garud et al., 2014a, p. 1184) wherein diverse stakeholders can engage and coordinate their activities.

Starting with traditional narrative theory (Czarniawska, 1997; Freytag, 1863), we refer to the general background in which an entrepreneurial narrative is embedded. The historical and cultural context opens up the space of possibilities for an unfolding narrative. The divergence of how

an entrepreneur uses his or her own storytelling is typically affected by the historical exposition process, including eventual explanations why the story is constructed the way it is. This emphasis on history is not yet very common in entrepreneurship research (see, however, Lippmann & Aldrich, 2016; Vaara et al., 2016) but very important for understanding the start-up process and how it relates to society, not least from a narrative perspective (Wadhvani, 2016).

## Method

We apply a qualitative case study design (Eisenhardt, 1989; Yin, 2014). We chose to identify suitable ventures in the emerging field of robotics which is particularly advanced in Japan and situated in and around Tokyo: CYBERDYNE. The case was selected from a larger set of start-ups initially contacted and interviewed. The major reason for choosing the case was the prominent position of the companies in the field of robotics.

Currently, CYBERDYNE employs approximately 150 people. CYBERDYNE was started by Professor Sankai as a spin-off of the University of Tsukuba. The founder started research leading to the present humanoid robot in 1991. Between 1995 and 1997 he produced a prototype and in 1998 launched the first humanoid robot named HAL-1 (Hybrid Assistive Limb). He continued R&D and showed HAL-5 to the world in the 2005 World Exposition in Aichi, Japan. CYBERDYNE began renting out HALs to welfare facilities and hospitals in June 2009. By the end of 2017, almost 500 of these suits have been rented out to hospitals, not only in Japan but also in Europe.

Data collection was based on an analysis of the companies' websites, press reports, and interviews with the management. In all, we have so far conducted interviews with 6 informants at their facilities plus several background interviews with representatives from industry, government, and research. In addition to interviews with industry experts, government officials and researcher, a media analysis of the Japanese robotics discourse was conducted for a better understanding of the field.

According to Doganova and Eyquem-Renault (2009), when looking for investors and other stakeholders, entrepreneurs need to convince these in terms of not only calculations but also narratives. In particular, the presentation of the new business model “must pass 'the narrative test' (is the story coherent?) and 'the numbers test' (do the maths work?)” (p. 1562, with reference to Magretta, 2002). Therefore, when analyzing a narrative, it is important to focus on the tensions the plot implies, with regard to the market, technological and societal environment the firm is embedded in, and how these tensions are solved by the entrepreneur.

Robotics in Japan: the case of CYBERDYNE

**The origins of robotics in Japan**

Let us start with the prehistory about Japanese robotics. This provides us a starting point for understanding the characteristics of the SAF in Japan's robotics industry. Current robotics industry in Japan was grown along with the domestic narrative. While researchers created basic technologies in this field, the business concentrated on the application of these technologies. The government supported the two streams from the 1980s onwards. Media talked about this favorably. The combination of these two streams constituted the domestic narrative: robotics technology was born in Japan.

The ElectroTechnical Laboratory (currently: National Institute of Advanced Industrial Science and Technology) founded in 1970 introduced one of the earliest models of robots, named ETL Robot Mk-I in October 1970. Some members specialized in motor control, others specialized in robotics designs, image processing or artificial intelligence. From the first time, research on robotics was divided into its parts of the whole system. The members of the Institute were spread around Japan later. Some became researchers of private companies, most became professors of research universities. The Robotics Society of Japan was founded and focused on these researchers in 1983 (Takase, 2016).<sup>1</sup>

Compared to the struggle about the best technological solutions in academia, companies did not pay much attention to basic technologies but prioritized issues directly connected with potential profits such as improvement of technological performance. The industrial robot in Japan started from imitation in the late 1960s.<sup>2</sup> Following the release of the first domestic industrial robot in 1969 by Kawasaki Heavy Industries, Ltd. (KHI), the company succeeded in receiving orders of welding robots from Toyota and Nissan in 1972. Since robot employment by the motor industry was expected to make its market grow, the now leading companies like Yasukawa and FANUC started to put industrial robots on the market in the 1970s. The more the market expanded, the more independently each company engaged in R&D. As a result, the Japanese industrial robot companies focused on application technologies based on market demand in the 1980s.

### **The emergence of the unstable SAFs**

With the brief history out of the way, we now proceed to analyze the creation process of SAFs, firstly focusing on the unstable SAF organized by the governance unit, the New Energy and Industrial Technology Development Organization (NEDO). The project of humanoid robots based on academic technologies started in 1998 and was named the Humanoid Robotics Project; its initial total budget was 4.57 million yen (about 35 million €) for 5 years. Not only large industrial robot

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<sup>1</sup> [https://sankoukai.org/secure/wp-content/uploads/untold\\_stories/kunikatsu-takase\\_final.pdf](https://sankoukai.org/secure/wp-content/uploads/untold_stories/kunikatsu-takase_final.pdf)

<sup>2</sup> This description is based upon Kusuda, Yoshihiro (2004). *A history of Japanese Industrial Robotics. Survey Reports on the Systemization of Technologies*, 4: 1-47.



companies belonged to the project but also academic institutions including professor Sankai, who was the founder of CYBERDYNE, which had just completed the first prototype robot. However, researchers from academia played a central role in this project as incumbent. Academic researchers were gathered on the issue to create a common understanding of basic technologies of the humanoid robot rather than commercialization. On the other hand, companies with the strong interests of application technologies did not actively participate in the projects. As a result, the SAFs on robotics remained unstable in terms of the continuation. Even so, NEDO continued to provide funds. The Basic Plan of 21<sup>st</sup> Century Robot Challenge Program issued by METI in 2002 and The Next Generation Robot Practicalization Project started in 2004 was almost the same with regard to project objectives and members.

NEDO, the governance unit, tried to receive attention from companies and other stakeholders for the purpose of stabilizing the emerging SAFs with incumbents. NEDO and the project leader, who was a professor at Tokyo University, decided to exhibit the outcome in the World Expo held in 2005. The founder of CYBERDYNE, professor Sankai, got started as one of the numerous incumbents of the national robotics projects in 1998. He adjusted his action to the project aim as a researcher. For example, he introduced the whole body suit robot that looks good for the purpose of exhibiting in the EXPO, although his research focused on the assisted robot for human limbs.

As a result of acting in compliance with the rules in the SAF, the final report of the third program in 2005 picked up his robot as one of the successful two cases (NEDO, 2007: 24-26). He told us joining the support system by national institutes was one of the opportunities to establish a company:

I founded CYBERDYNE on June 24, 2004, but the company was still like a walking baby. I had created the company's articles of incorporation. At that time METI thought about collecting robots for Aichi EXPO 2005 from all over Japan. I tried hard as a member of the Expo. Since some media interview will come after the Expo, corporate activities will start full-scale in February 2006.

In the process of emerging the SAFs, Professor Sankai started his business shortly before the Expo. CYBERDYNE was started as a spin-off of the University of Tsukuba, now one of the leading universities of technology in Japan. The founder started research leading to the present humanoid robot as early as 1991. Between 1995 and 1997 he produced a prototype in his laboratory and in 1998 he launched the first humanoid robot named HAL-1 (Hybrid Assistive Limb). He then joined the national project as a member. During the emerging process of the SAFs, he acted as a researcher, not an entrepreneur.

From 2002 onwards the Japanese government supported start-ups from universities. This was also a time when the Technology Licensing Organization (TLO) began to be established in national universities including the University of Tsukuba. At the same time, Sankai accepted an offer from METI via the TLO and wrote an MOT textbook. He said this opportunity changed his attitude toward business:

I studied the MOT, but I felt “superficial”. Most textbooks just tweaked technologies as a licensor. This was useless. I thought managing technology must include creating a business and industrializing it. I was just an amateur, but I was at least able to notice it. This opportunity changed me.

While tied to METI and using a still simple university support system, Professor Sankai provided a capital stock with his personal 10 million yen in 2004. After exhibiting HAL-5 at the World Expo in Japan in 2005, he decided to intensify his business activities. However, at that time neither the university nor the government provided sufficient support for start-ups. Because Sankai did not even know the phrase “venture capital” (or VC) at that time, he borrowed 20 million yen from a small regional bank, using his own future salary as collateral. Shortly after one newspaper had written an article about his start-up, Daiwa House Industry Company, Japan’s largest home-builder, called him. Sankai joined a roundtable for development projects in the Tsukuba area as an academic expert. The company made a successful bid for the project and asked him about its details and his HAL project. Sankai recalled the process as follows:

Then, Daiwa House started to develop this area (*Note: "This area" refers to the Kenkyu Gakuen Area (the science research area), where CYBERDYNE currently exists*), so they wanted to hear my opinion. I was able to see the president easily. When I explained to the president, Higuchi, about the predecessor to HAL 5, he decided to invest 30 minutes after starting to talk. The investment was already decided before me showing the robot. I think he thought about the next industry. Japan was developed but someday the growth would stop. Investing in my company was one of the first options to open up the next industry.

The president of Daiwa House replied immediately and offered him the third party allotment increase. Daiwa House intended to use HAL not only in the main shopping mall in the Tsukuba area as an eye-catching object but also in the nursing home and sports center business. In February 2007 he received 1 billion yen. By November 2010, Daiwa House had increased its share to 4 billion yen. Starting with this, he increased the number of investments from VCs. He incorporated financial investors who were incumbent in other SAFs into the SAFs of humanoid robot. Investors who

belonged to the financial SAFs regarded professor Sankai as an only incumbent in the robotics SAFs who was communicable based on their financial rules. Sankai utilized the connection to strengthen his legitimacy in the robotics SAFs.

### **Stabilizing the SAFs: the inheritance of the legitimacy and managing multiple SAFs**

Professor Sankai utilized the past and the future as an incumbent. He was the only incumbent who changed his status from academic researcher to an entrepreneur after the Expo. After the retirement of the former academic leader, NEDO regarded professor Sankai as an exemplary incumbent and a legitimate successor of the projects of a humanoid robot. After founding the CYBERDYNE, he continued to receive a part of the funding from NEDO's successor project, Development of Basic Technology for Practical Applications of Human Assisted Robot with total budget 2.62 billion yen from 2005 to 2007. Until today, NEDO continues to play a critical role not only for establishing the robotics industry in Japan but also for CYBERDYNE. With the help of NEDO, the firm internationalized its activities into Germany, supported by the International R&D and Demonstration Project in Robot Field with 0.68 billion yen.

However, we should note that Professor Sankai never destroyed the existing system as a challenger. Rather, he inherited the legitimacy of it as an incumbent of the existing SAFs. After establishing CYBERDYNE in 2005, he used the past to strengthen the legitimacy. He coined the new term 'cybernetics', which was a key concept of his technology and received legitimacy for it from national support programs. At the same time, he started to connect his new technology to VCs and the potential capital they could provide to grow his business. Here, he referred to the future of an aging society and stressed his prototype included a key technology, 'cybernetics,' for resolving the problems that come along with it.

Furthermore, Professor Sankai attempted to stabilize the SAF of robotics by joining another SAF created by the Cabinet. Because of the few new and successful industries in Japan following the stagnation in the 1990s, robotics technologies developed by Japanese researchers caught an eye of the Cabinet. Even though the founder of CYBERDYNE did not specifically work on raising his fame, the Cabinet positively picked him up. He had chances to make recommendations to the Cabinet which sometimes accepted his advice about the new robotics industry. At the same time, he actively strengthened his storytelling to use a phrase of 'for the first time in robotics industry', though acknowledging that he realized some of it with the help of national support system. The Cabinet, in turn, emphasized the positive outcome of its support and the media widely announced it – creating a virtuous cycle. The meaning of robotics was making through interplay of Sankai and the Cabinet.

**The situation today:**

Today, CYBERDYNE is regarded as one of the best successful startups in Japan. Before establishing the company, Professor Sankai joined the unstable SAFs as a academic researcher and eagerly supported a governmental unit. After the EXPO, he founded CYBERDYNE and got legitimacy from governance units. He became the first entrepreneur in the robotics SAFs. CYBERDYNE went for an IPO at Tokyo Stock Exchange's Mothers' market in 2014, raising almost 65 million euros. Japanese robotics startups and big companies like Honda are incumbents of the robotics SAFs, but CYBERDYNE are relatively easier to receive a support from governmental units overtly and covertly. When CYBERDYNE tried to give the HAL into the field of healthcare, which was highly regulated, the Cabinet authorized an exception to their business from 2009. Along with the Cabinet policy, the Ministry of economy, trade and industry (METI) supported its entry of Europe. By the end 2017, almost 500 of HAL suits have been rented out to hospitals, not only in Japan but also in Europe.

However, his action triggered the emergence of new challengers. When CYBERDYNE tried to make a technological standard for the safe use in 2017. CYBERDYNE used a new national support program for creating a technological standard. Based on its program, they gathered not only incumbents but also new startups. Although the new entrants did not want to accept CYBERDYNE's standard, the governmental units, Japanese Industrial Standards Committee (JISC) and METI, strongly supported it. If argument was confused, CYBERDYNE discussed with METI and JISC before the next official meeting. As a result, the technological standard was concensassed mainly based on CYBERDYNE's idea. According to the interview with challengers, they did not satisfied but at the same time understood the purpose. CYBERDYNE stil utilized governmental units in the SAFs.

**Discussion and conclusion**

Entrepreneurs often act differently before and after starting up a company from the vantage point of the SAF theory. Before starting business entrepreneurs do not have enough resources and connections. In other words, they do not have legitimacy in business, therefore uses existing SAFs. However, after business going well an entrepreneur can tell own story to get or strengthen legitimacy (Lounsbury and Glynn, 2001). This transition process will illustrate deeply how entrepreneurs can craft narratives that will generate legitimacy for their ventures. With respect to this transition process, we have to pay attention to "anchor events" (Garud et al., 2014a, p. 1184) wherein diverse stakeholders can engage and coordinate their activities.

In the CYBERDYNE case, the development of the robotics industry is highlighted and historically embedded into the Japanese narrative contexts of robotics and demographic change. The founder of CYBERDYNE got started as one of the numerous members of the national robotics project. This

project, in operation since 1998, has become an anchor event for him. The founder of CYBERDYNE did not mold or shape reality, but built his narrative into the existing SAFs. He was one of the inconspicuous incumbent in the existing SAFs, but had some connection to other robotics researchers and a few governmental officials. He followed the national story until the World Expo in 2005. He adjusted his action to the project narratives. For example, he introduced the whole body suit robot that looks good for the purpose of exhibiting at the EXPO, although his research focused on the assisted robot for human limbs. The founder did not use his own words on the communication front. He just followed the project aim and helped its narrative to spread. In the first phase, he did not tell his own story, but joined in the national and academic discourse.

Only after establishing CYBERDYNE did Professor Sankai begin to tell a story of his own. As a result, the SAFs became stabilised. He used his former research experience. As a researcher he coined the term 'cybernetics' and received legitimacy for it from national support programs. He started to connect to VCs and the potential capital they could provide to grow his business. Here, he referred to the future of an aging society and stressed that his prototype included key technology for resolving the problems that come along with it. He did not explain much of the technologies in the investment interviews, but the first large fund provider decided to invest when they listened to this story with the clear intertextual link. The founder continued to tell the same story during investment interviews that followed. Most importantly, he co-created robotics narratives with government and media. Because of the few new and successful industries in Japan following the stagnation in the 1990s, robotics technologies developed by Japanese researchers caught the eye of government and the media. Even though the founder of CYBERDYNE did not specifically work on increasing his reputation, governments and the media picked him up positively. Former experience in the 'anchor event' also provided him with the required legitimacy in his business. So he had chances to make recommendations to the cabinet, which sometimes accepted his advice. The meaning of robotics grew through intertextual links between Sankai and the environment.

Our findings show research on entrepreneurship has to pay more attention to the existing unstable SAF. From the CYBERDYNE case, entrepreneurs did not necessarily make his or her own story to expand a business. Founder of the company utilized the existing rules legitimized by the governmental unit. After receiving a legitimacy in real time, he gradually started to manage multiple SAFs but not contradictory to the former SAFs. It is noted, however, that the circumstances will differ in politically unstable countries like dictatorship. If regime change happens, firms depending on the previous administration lost a legitimacy like the failure of ITT in Chile in the 1960s (Bucheli and Kim, 2014). New ventures are created within a specific historical context that may imprint subsequent developments and even cumulate in a path-dependent development (Marquis & Tilcsik, 2013; Schneiberg, 2007; Sydow, Schreyögg, & Koch, 2009). This imprinting effect is what makes

the original construction and, possibly, reconstruction of the entrepreneurial narrative so important, reaching far beyond its impact upon resources access in the present.