



FORUM ENGINEERING (7088 JP)

Nippon Investment Bespoke Research UK Ltd

CREATING A FLOW OF  
MECHATRONIC ENGINEERING  
HUMAN RESOURCES VIA  
PROPRIETARY AI-BASED SKILL-  
MATCHING TECHNOLOGY

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## CONTENTS

Contents.....	1
Creating a Flow of Engineering Human Resources.....	2
The engineer temporary staffing market.....	2
Competitors.....	3
Cognavi Technology.....	3
Business Model.....	4
Cognavi Staffing.....	4
The key variables for the staffing service’s earnings.....	5
Cognavi Career Change.....	7
Cognavi Graduate.....	7
Cognavi College.....	8
Cognavi Talent Management.....	8
FY20 Earnings.....	9
FY21 Outlook.....	11
Risk Factors.....	12
Corporate Governance.....	12
Shareholder Return.....	12
Financial Summary.....	13
General disclaimer and copyright.....	15

## CREATING A FLOW OF ENGINEERING HUMAN RESOURCES

Forum Engineering (7088 JP, hereafter Forum) is one of the leading staffing service providers which specialises in electrical and mechanical engineers. The firm's core area of expertise is in matching job-seeking engineers with its corporate clients for their specific skills. This is done through its proprietary AI-based skill matching technology *Cognavi*.

### The engineer temporary staffing market

The overall market for engineer temping services in Japan has steadily grown since the enactment of the Worker Dispatching Act in 1985. Due to the rather rigid nature of Japan's traditional employment system, labour costs at Japanese companies have been mostly fixed than variable, compared to global peers. The launch of the Act encouraged Japanese manufacturers to adapt to the idea of using temporary engineering staff.

Based on the 2015 national census conducted by the Ministry of General Affairs, there are ca. 640,000 mechanical and electrical engineers in Japan. Forum estimates that ca. 40%, or 260,000 engineers, are employed as temporary staff. After the post-Lehman crisis dip in the temporary staffing market for mechanical and electrical engineers, signs of recovery became evident from 2013 as activity at Japan's manufacturers picked up. Furthermore, manufacturers gradually shifted to more flexible employment systems. According to Yano Research Institute's [YRI] 2020 "Human Resources Business – Present and Future Report", the human resources market size specifically for engineers, for which the staffing fee exceeds ¥2,000/hr, was ca. ¥1.1trn (+6.5% YoY) in CY2020. This group includes not only electrical and mechanical engineers but also IT engineers, and construction and civil engineers.

There are several reasons behind the steady growth in demand for temporary engineering staffing among electrical and mechanical manufacturers.

- Japanese blue-chip manufacturers' continued investment in R&D: The trend has been apparent since 2013 when global manufacturers recovered from the Lehman crisis.
- Shift in technology such as digitalisation and electrification: The rapid rise in technology such as IoT and EV requires skills that companies have not yet fully developed in-house.
- Global competition that companies face and pressure to improve profitability: Manufacturers could stabilise the swings in their profitability by hiring temporary staff when needed and releasing them when they do not need the extra manpower.
- The number of engineers will unlikely grow: It is often the case that graduates with science, technology, engineering, and mathematics [STEM] degrees (ca. 17% of graduates) tend not to choose electrical and mechanical engineering careers nowadays. Many STEM graduates choose to do postgraduate studies, take positions in the public offices, or reluctantly work part-time at jobs that do not require engineering knowledge. After the Lehman Crisis, 50% of the STEM graduates in 2011 chose non-engineering jobs according to a survey by the Ministry of Education and Science [MES]. This trend will likely lead to the scarce supply of engineers in the future.

Forum believes there are four main reasons why STEM graduates are not choosing engineering careers:

#### 1. Limit on Career Paths

High-calibre engineers are more inclined these days to choose careers outside their field of expertise – such as finance, trading companies and consulting – as their career paths within Japanese manufacturers offer too few opportunities for promotion. Indeed, it is rare that an engineer has been promoted to an executive position or considered a potential board member candidate. Under Japan's remuneration system in which seniority is rewarded, engineers are often paid less than those who work at HQ simply due to the lack of promotion opportunities.

#### 2. Preference by employers

In general, Japan's larger corporations prefer hiring generalists as opposed to specialists. Labour laws in Japan have restrictions on layoffs and redundancies. Therefore, many companies, even ~~those~~ blue-chip manufacturers, tend to prefer employing generalists who can be allocated to various job types rather than having engineers with specific skills as they are considered less flexible in adapting to different tasks, therefore cannot be reallocated to different departments when their jobs are no longer needed. Employers also prefer graduates from "brand" universities with a

social science focus. Such preferences also limit the success rate of skilled engineers getting on the shortlist for job interviews.

### 3. “Desired employer ranking” can cause lost opportunities

These days, graduates are drawn to B2C companies as they are well-known and highly regarded and STEM graduates are no exception to this trend. There are many B2B Japanese companies that have global top market share, for example, in machinery or auto parts but the popularity of those firms as top places to work among job-seeking graduates is ranked lower than the likes of Tokyo Disney Resort operator Oriental Land. This is mainly due to the fact that the students may not be aware of them and so by not applying, can cause lost opportunities.

### 4. Lack of collaboration between STEM universities and the manufacturing industry

Historically, there has been a divide between universities and corporates in Japan. Because of this, a university syllabus does not often reflect the skillset and knowledge desired by manufacturers. Such a divide originated from the perception that corporates should not access the research capabilities of universities that are subsidised by the Ministry of Education and Science [MES]. Moreover, Japanese universities rarely receive donations from corporates, so there is a lack of support when it comes to guiding students to potential employers. Because of this divide, students are therefore less likely to be able to visualise how their skills and knowledge might be received by B2B employers.

### Competitors

In the engineering staffing market, Forum Engineering is ranked among the top five in sales. Among the listed companies in Japan, its competitors include MEITEC (9744 JP) and its subsidiary MEITEC Fielders, Techno Pro Holdings (6028 JP) and Altech Corporation (4641 JP). However, several of these competitors have a wider remit, therefore, unlike Forum, they are not solely focused on providing temporary electrical and mechanical engineers. MEITEC for example, has an engineer staffing business that includes outsourcing service and focuses on the upstream areas of the engineering value chain. Although the regulatory barrier to entry in the market is not necessarily high, the track record with manufacturers and their ability to promptly dispatch engineers with the right skills prevents newcomers gaining a sustainable market share.

In Forum’s job referral services for both experienced engineers and new graduates, the firm competes with online job information providers such as Indeed Japan Co., Ltd., a subsidiary of Recruit Holdings (6098 JP), Visional Inc (4194 JP), known for the job referral service *BizReach*, and Mynavi Corporation (unlisted).

### Cognavi Technology

With a long-term vision to offer a broad platform that supports a comprehensive suite of human resource services for engineers throughout their career life, Forum developed the *Cognavi* matching technology system. *Cognavi* technology incorporates Forum’s proprietary algorithm to match engineers accurately and efficiently to positions available at the engineering departments of its clients. *Cognavi* also incorporates artificial intelligence [AI] technology, such as *IBM Watson*, to dynamically grow intelligence over time. The system has incorporated Forum’s own extensive IM [Insight Matching] Dictionary of 135,000 engineering-related terms (as of March 2021). The IM Dictionary is used to create Skill Trees and Technical Trees based on functions, performance and attributes required for manufacturing. Skill Trees visualises the skills possessed by engineers, while Technical Trees exhibit the technical requirements that its corporate clients seek in their engineering departments.

The area where both Trees overlaps constitutes a Matching Tree. A matching score can also be calculated between engineering skills required by the employer and skills possessed by candidates. In addition, compared to the conventional hiring process, the use of quantitative matching often finds a skill match that neither the candidate nor the corporate might not have considered. With the *Cognavi* technology, Forum manages to simplify and significantly reduce the need for administrative process, such as meetings with employers to verify their needs and explain candidates’ skills and qualifications. The proprietary nature of *Cognavi* will also likely set the firm ahead of its competitors.



# Relational Lines that Organically Link Skill Keywords

Each skill is linked to the other related skills by relational lines, providing opportunities for clients and engineers to recognize potential matches between needs and abilities that they did not previously consider possible.

**4** Trees

"Product / part", "Technology and tool", "Job type / process", "Academic knowledge"<sup>1</sup>

**8** sectors

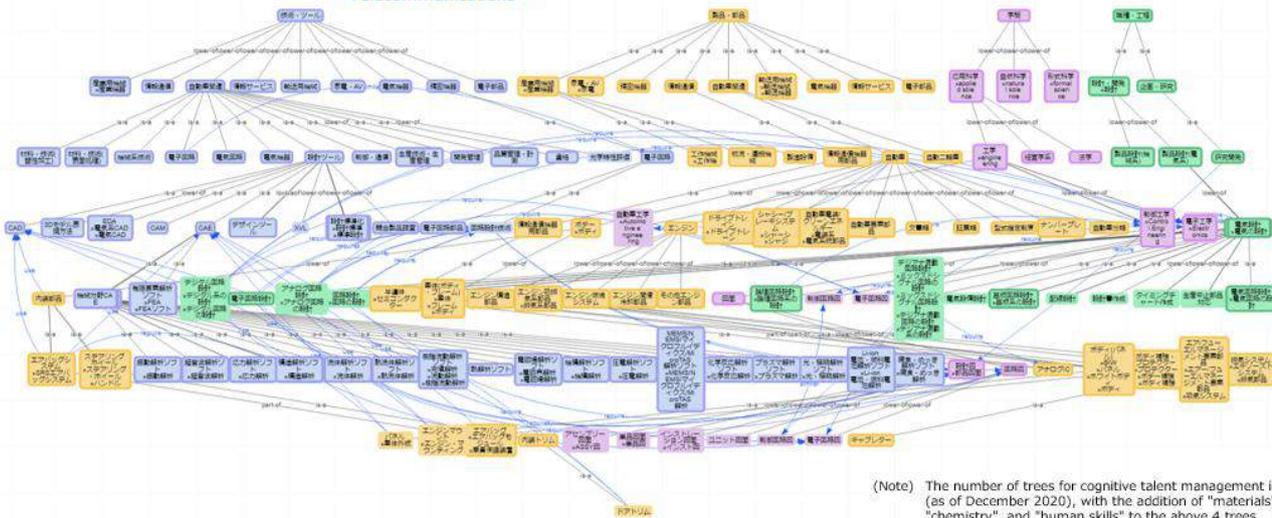
"Automotive", "Transportation machinery", "Industrial machinery", "Home appliances / AV", "Precision machinery", "Electric machinery", "Electronic components", "Telecommunications"<sup>2</sup>

**135k** terms

The number of terms that describe skills

**88k** lines

The number of relational lines between terms which detail value and mutual relationships



Source: Forum Engineering's FY20 results material with modifications by Nippon-IBR

## BUSINESS MODEL

The engineer temporary staffing service – *Cognavi Staffing* – utilises Forum's technology to create a life-long career value chain platform for engineers. Based on detailed tree diagrams that display technical skills, Forum Engineering provides the following five services:

*Cognavi Staffing* – an engineer temporary staffing service.

*Cognavi Career Change* – a web-based job referral service for engineers to find full-time employment (at Forum's corporate clients)

*Cognavi Graduate* – a web-based employment referral service for STEM (science, technology, engineering, and mathematics) graduates who are seeking their first full-time engineering job.

*Cognavi College* – a service that coordinates the improvement /education of skills for the engineers of its corporate clients by introducing them to courses at Japanese STEM universities.

*Cognavi Talent Management* – a service for its corporate clients that internally manage their own engineers.

Engineers register for free onto one of the five *Cognavi* services depending on their career stage. They can register according to their skillset just by selecting the appropriate technical key words from their smartphones, tablets, or PCs. Service user fees are charged to the corporates who use *Cognavi* to find engineering staff.

### Cognavi Staffing

In FY20, some 99% of Forum's sales were derived from engineer temporary staffing, which the firm refers to as *Cognavi Staffing*. Prior to the Lehman crisis, Forum offered wider temporary staffing services, not only electrical and mechanical engineers but also IT engineers, factory labourers and white-collar staff. However, from FY11, Forum changed its focus to just electrical and mechanical engineer staffing.

Forum dispatches its engineers, who are generally hired on the full-time basis by the firm, to its clients' companies on a temporary basis for an initial 3-month contract (renewable). As of March 2021, the firm employed 4,001 engineers and its client base expands across eight manufacturing industries (discussed further on Table 2 below).

### The key variables for the staffing service's earnings

The key performance indicators (KPIs) of the temporary staffing business earnings model covers three variables:

- Staff utilisation – how many of its engineers (employees of Forum) are dispatched to clients.
- Average working hours / engineers.
- Average staffing fee / hour / engineers.

**Table 1: Key Variables for Cognavi Staffing Segment (Engineer Dispatch Business) vs. GPM (%)**

	FY18	FY19	FY20	FY21CE	YoY (%)
Number of dispatched engineers (at end of each month)	4,630	4,287	3,780	3,710	-1.9
Staff utilisation rate (%)	98.1	96.0	89.3	92.7	
Average working hours (hours/month/person)	159.3	159.8	157.1	159.8	1.7
Average monthly staffing fee (¥/hour)	3,628	3,787	3,795	3,740	-1.4
GPM (%)	35.8	34.4	30.7		

Source: Forum Engineering FY20 Earnings Results Material

The above KPI components principally determine the revenues of the temporary staffing service. The firm charges corporate clients a dispatch fee determined by the age and level of skills of each engineer. As the table above demonstrates, the utilisation rate has the highest correlation with the gross profit margin [GPM]. This is because the firm can control the level of hiring as a core COGS component, to maintain high utilisation rates. Forum achieved a 30% GPM in FY20 compared to that of peers MEITEC (25.2%), MEITEC Fielders (22.4%), Techno Pro (25.4% – June-year end) and Altech Corporation (23.7% – FY20: Dec year-end).

*Cognavi Staffing's* business model comprises the following components:

#### 1. Primary focus in electrical and mechanical engineer dispatch

As the table below shows, Forum's main clients – those that are registered with *Cognavi Staffing* service – are in eight major manufacturing industries in Japan and operate a total of 1,227 factories / plants amongst them. Unlike competitors that tend to have a smaller number of large clients, Forum has much wider client base – the firm's top ten clients make up just 12% of total sales. By having a diverse client base, Forum is able to reduce the risk of being influenced by downturns to which one specific client might be exposed. Moreover, by not having to rely on a small number of large clients, the company is able to command pricing power. Forum's clients usually have more than 100 employees that provides a stable pool of work for engineers.

The breakdown of Forum's dispatched engineers by industry is as follows:

**Table 2: Breakdown of engineers dispatched by industry (as of March 2021)**

Industry	%
Automobile	28
Industrial machinery	25
Precision machinery	14
Transportation equipment	10
Electrical equipment	4
Consumer electronics	4
Electronics parts	3
Telecommunications	2
Others	10

Source: Forum Engineering

## 2. Demography of engineers

The demographic make-up of Forum’s engineers also has an impact on supporting the high level of GPM. While the firm aims to hire less experienced, younger engineers, so that the hiring cost remains lower, the staffing fee is based on the age of the dispatched engineer with an adjustment to reflect their skills and experience. The firm estimates that 40% of the nationwide electrical and mechanical engineers are in their 20s. This younger generation of engineers tends to have a higher turnover, which means they frequently seek job opportunities – unlike the older generation. The firm reckons that this cohort is in short supply given they are lower cost but have the potential for a longer career path.

While high staff turnover often leads to higher hiring costs, a review of the pay system following the implementation of “equal pay for equal work” for temporary staff from April 2020 onwards, Forum managed to lower its staff turnover from 18.6% in FY19 to 13.7% in FY20.

Age Group	%
20's	27
30's	34
40's	28
50's	11

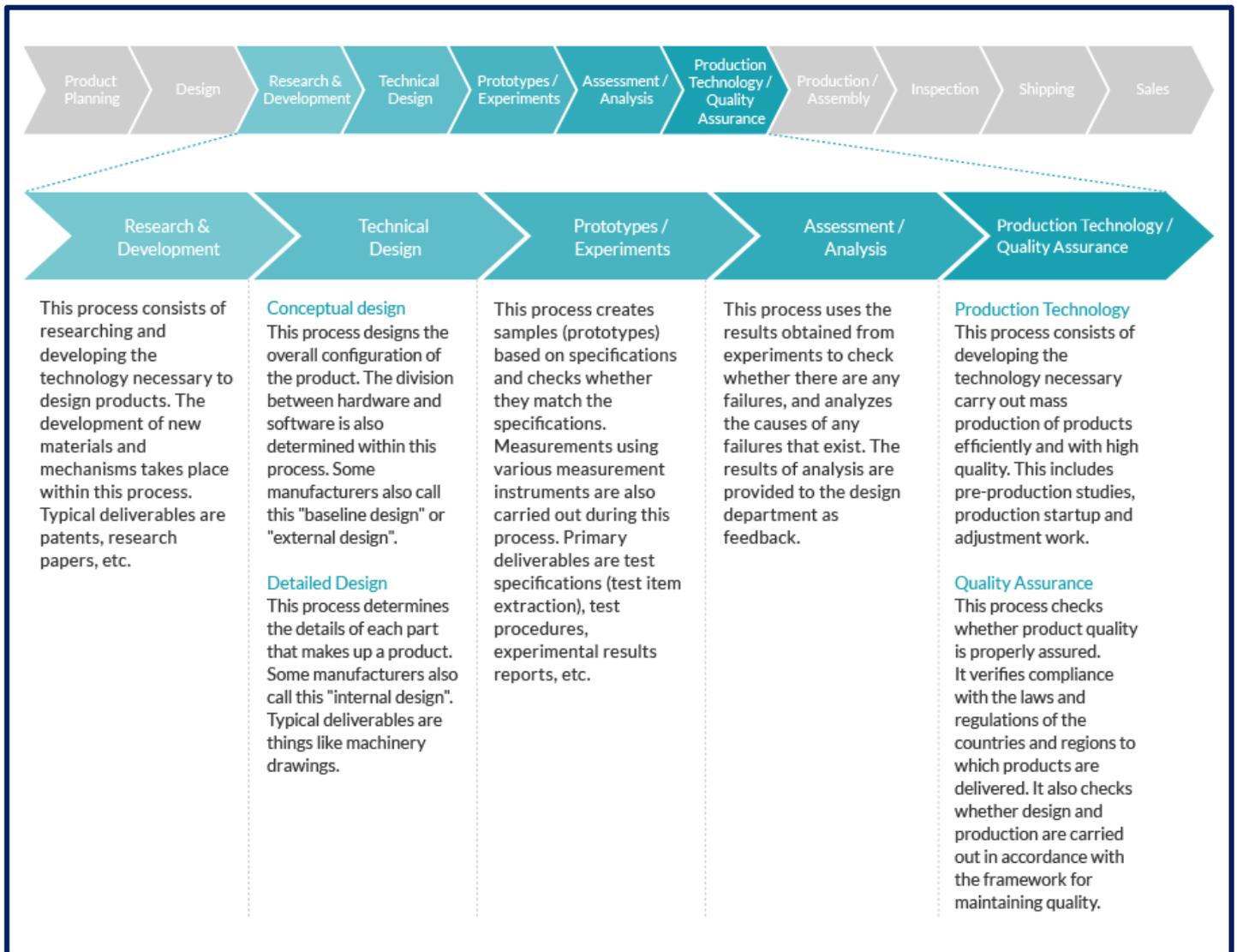
Source: Forum Engineering

## 3. Broader job type coverage

Forum’s engineers are principally dispatched to both ends of the production spectrum – the upper stream of the product development process, such as R&D, as well as lower stream, such as production technology / quality assurance. The firm dispatches engineers to a job that matches their skillset through its *Cognavi*'s Skill Trees. On average, engineers tend to work in the same position longer than the initial three-month contract and, in some cases, as long as three years because the engineers likely have been appropriately matched to the job.

Job type	%
Technical design, development	43
Experiments, assessment	16
Production technology	14
Quality assurance, quality control	11
IT	9
Planning, research	3
Others	4

Source: Forum Engineering



Source: Forum Engineering

### Cognavi Career Change

In the *Cognavi Career Change* service, Forum refers engineers for full-time positions to its clients' companies via its job referral website. Unlike its engineer temporary staffing service, the engineers who use this job referral service principally do not have an employment contract with Forum. However, since Forum's goal is to support an engineer's lifelong career, there are occasions when an engineer who is registered with *Cognavi Staffing* uses this service to find a full-time position with Forum's client companies. The firm receives a one-off lumpsum success fee of ¥1mil/successful placement from the corporate client. Forum might change the fee structure in the future, when the service gain more traction, to one where it charges an annual subscription fee while reducing the one-off success fee. As of March 2021, 1,373 business offices used *Cognavi Career Change* out of a possible target of 3,200 offices. In FY20, both job availability and successful job referrals decreased due to COVID.

### Cognavi Graduate

*Cognavi Graduate* is a web-based job referral service targeting new graduates with STEM degrees. Pricing for the service is the same as *Cognavi Career Change* – Forum receives a one-off referral fee of ¥1mil/successful placement from the client. For this service, Forum is also considering introducing a subscription element to the fee system once the service gains more awareness among both students and corporate users.

### Cognavi College

*Cognavi College* is Forum's skill improvement coordination service, where the firm connects Japanese STEM universities with its corporate clients. The aim is to provide engineers working at its corporate clients continuous learning opportunities for high-quality skills. The required knowledge related to engineering is becoming more complex every year. For engineers to stay current, many corporates provide in-house training programmes. By incorporating *Cognavi College* to the existing programmes, engineers can access even more specialised programmes taught by professors at STEM universities. Forum exchanged training contracts with seven universities in FY20, taking the total signed up to ten. Since the start of the service in Feb 2019, until Mar 2021, a total of 110 training courses were offered and 14 companies used the service. Here, Forum's clients pay a fee for the training programmes and a commission to Forum for connecting them with the universities.

### Cognavi Talent Management

*Cognavi Talent Management* was launched in Oct 2019, to target its existing corporate clients' internal talent management demands. The clients have already been using the other *Cognavi* services and have already input their technical engineering requirements into the system. By having their in-house engineers input their skill data as well, they can use the *Cognavi* matching technology to identify the best match for their engineers to a job within the organisation or for a specific project. *Cognavi Talent Management* can also present a numerical score to show the ratio of various technical engineering requirements versus the existing skills of the relevant teams of engineers. By visualising the level of skills required, corporates can make the optimal reallocation of staff and hire additional engineers to cover any gaps in skills.

The fee is paid on a monthly subscription basis depending on number of engineers. The majority of Forum's corporate clients employ 500 or fewer engineers, for which the firm charges ¥300,000/month. For corporates with 501~1,000 engineers, the charge goes up to ¥400,000/month, for over 1,000 engineers the charge will be ¥500,000/month. As of end of FY20, the firm had one client sign up to *Cognavi Talent Management* and there are currently eight prospective clients that have started the trial.

In addition, there are more than 100 companies that are considering using the service. However, the business development of *Cognavi Talent Management* has been slower than expected, majorly due to marketing restrictions under COVID. Since the system needs to be demonstrated directly on a face-to-face basis – and there is still the likelihood of prolonged restrictions under the Statement of Emergency closures – Forum reviewed its earnings plan for the service and took on an impairment charge of ¥301mil for the planned future income for FY21.

**Table 5: Cognavi Services (as of June 2021)**

	Service	Fee	Market size
<i>Cognavi Staffing</i>	Engineer temporary staffing. To provide electrical and mechanical engineers as well as IT engineers	Average fee per engineer per year: ¥7.33mil	Domestic engineer staffing market: ca. ¥920,000mil
<i>Cognavi Career Change</i>	Job referral service	Success fee of ¥1mil/engineer charged to employers. Periodical subscription fee is under consideration.	640,000 electrical & mechanical engineers
<i>Cognavi Career Change IT</i>	Job referral service	Successful placement fee of ¥0.5mil/engineer charged to employers + an annual subscription fee of ¥0.5mil/business site	940,000 IT engineers
<i>Cognavi Graduate</i>	Job referral service	Successful placement fee of ¥1mil/engineer charged to employers. Periodical subscription fee is under consideration.	39,000 new graduates from STEM universities
<i>Cognavi Talent Management</i>	Internal talent management for corporates	Monthly subscription: Companies with ≤500 engineers: ¥300K/month, 501~1,000 engineers ¥400K/mo, 1,000 or more engineers ¥500K/mo.	Existing clients who use other <i>Cognavi</i> services. Specialises in electrical & mechanical engineers

Source: Nippon-IBR based Forum Engineering FY20 earnings results presentation

## FY20 EARNINGS

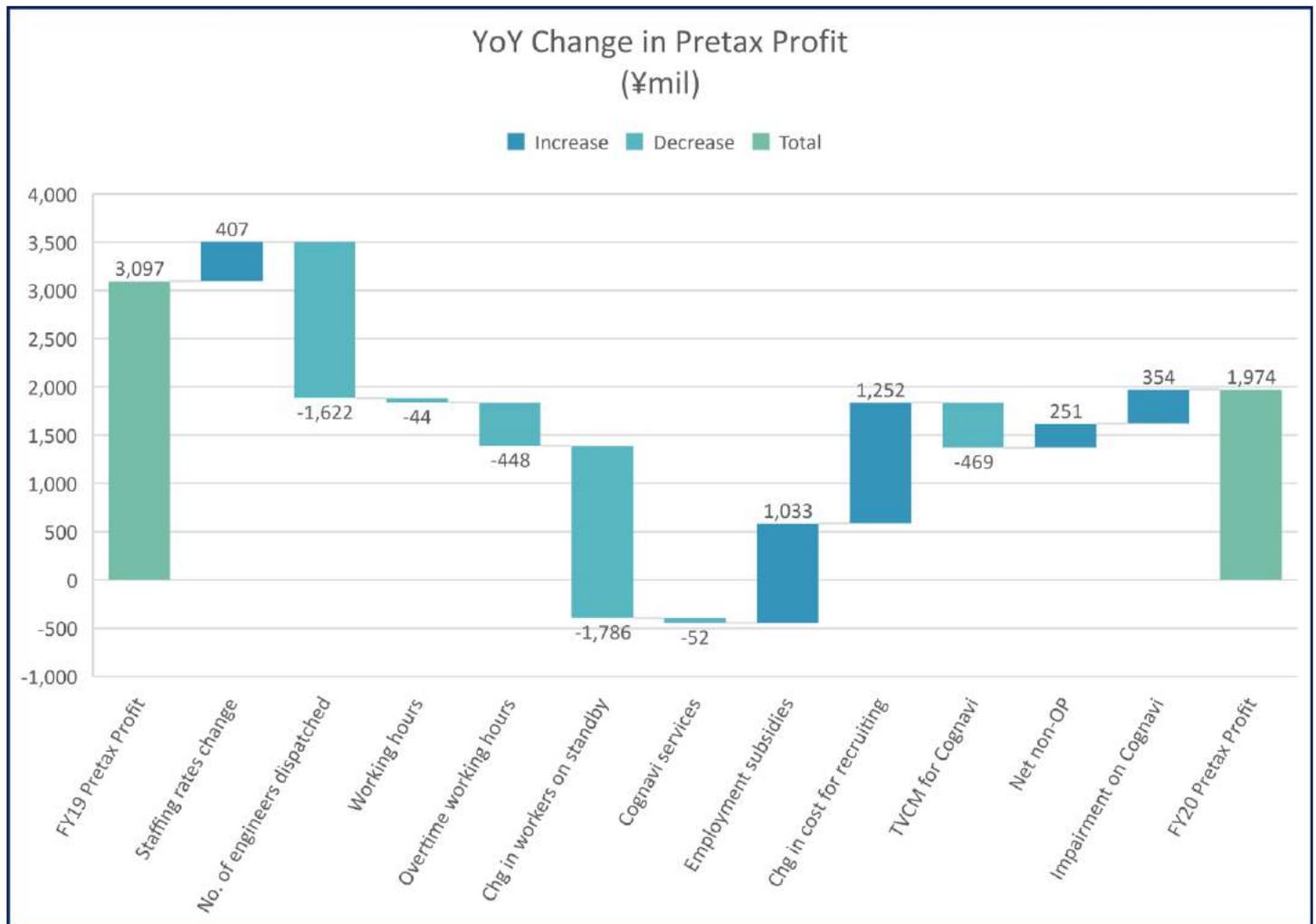
Forum Engineering reported FY20 operating profit [OP] of ¥2,349mil (-42.4% YoY) on sales of ¥27,728mil (-13.3% YoY). Both sales and OP overshoot the company forecast revised at the time of Q3 results by 1.0% and 18.6%, respectively. A primary reason for the better-than-expected OP was the government's Employment Support Subsidies (¥1,033mil), which is reported as an item deducted from COGS. The firm also recognised an impairment loss of ¥301mil for the *Cognavi Talent Management* platform on the back of restricted marketing which led to a delay in the earnings coming through.

Forum breaks down the impact of COVID (¥2,919mil in total) in FY20 pre-tax profit into the following factors:

**Table 6: COVID Impact to Pre-tax profit (FY20: ¥mil)**

Decline in number of engineers dispatched	-1,622
Decline in working hours	-44
Overtime working hours	-448
Increase in workers on standby	-1,786
<i>Cognavi</i> services	-52
Employment support subsidies	1,033
<b>Total Impact from COVID</b>	<b>-2,919</b>

Source: Forum Engineering FY20 results material



Source: Nippon-IBR based on Forum Engineering's FY20 earnings results material

There were three factors that affected the firm's earnings worth noting.

1. Employment support subsidies

The firm received ¥1,033mil from the government's employment support subsidy. This item is deducted in COGS. The amount reported in FY20 was the subsidy received from April 2020 to Jan 2021.

2. TV advertisement for *Cognavi*

TV advertisement costs were ¥469mil. The firm considers this as an investment to raise awareness of *Cognavi* brand.

3. Less hiring costs

The firm reported a decline of ¥1,252mil in SG&A, mainly thanks to a reduction in hiring costs. One of the core competences required for the temporary staffing business is to control supply and demand of human resources. In circumstances when production demand is weak, controlling hiring and maintaining the level of margin by allocating jobs to as many existing staff possible could be a key strategy going forward for the firm.

The operating variance for FY20 saw a rise in staffing fees (+¥407mil) and a reduction in SG&A including hiring costs (+¥1,252mil), though it did not sufficiently offset the decline in the number of engineers dispatched (-¥1,622mil) and an increase of staff on standby (-¥1,786mil).

At the time of FY20 Q3 results, the firm assumed that the demand for the core engineer dispatch business had bottomed in 1H. However, due to (1) the second Statement of Emergency [SoE] closures that lasted through to the middle of March and then (2) the third SoE starting only two weeks after the end of the second, the number of inquiries Forum received were ca. 400 inquiries/month. Although this figure is better than the bottom of the trend reported in Q1 at ca. 200/month, it is still less than half of the pre-COVID norm of over 1,000/month.

Demand for mechatronic engineers tends to correlate with manufacturers' R&D costs, in general. This is especially true in the firm's competitors such as MEITEC and Techno Pro, whose business model is contract-based. MEITEC, for example, focuses on the upstream end of the product development value chain, such as developing and designing products, and it is contracted to dispatch (usually) engineers to work on projects at one of its clients' companies. Engineers working at this level are usually highly skilled, hence MEITEC has a higher fee per engineer. According to the aforementioned YRI report, the average monthly staffing fee for MEITEC's engineers is ¥5,286/hour (+1.0% YoY) compared to Forum's ¥3,693/hour (+1.5% YoY) in CY2020. Techno Pro focuses on R&D outsourcing in the mechatronics area. It is a close competitor to Forum, but Techno Pro fared well as Japan's digitalisation shift took place thanks to its IT engineering dispatch segment. Both MEITEC and Techno Pro tend to focus on a smaller number of large clients because of the contract-based, R&D outsourcing business model. Because of this, their earnings will likely be influenced by the product cycle of their core clients.

In contrast, Forum's coverage of the product value chain is broad and varied, from the upper-middle stream to downstream end of the value chain. Its business model is to find the appropriate human resources to various job descriptions via *Cognavi* technology. It is based on the firm's view that there is always shortage of engineers, hence rather than dispatching a team of engineers to work on an entire project, the firm can allocate engineers to a niche area of demand, when and where they are needed. This led to the creation of the firm's skill matching feature – *Cognavi*. Usually, Forum's engineers are dispatched on a 3-month renewable contract but end up lasting for an average of 3years. The benefit of Forum's business model is that it is easier to negotiate staffing fees for a single engineer compared to a project-based group dispatch with a fixed budget. As a result, Forum's GPM (30%+) has been historically higher than that of MEITEC (26~27%) and Techno Pro (ca. 25%).

As noted above, the firm reported an impairment loss of ¥301mil for the *Cognavi Talent Management* platform.

## FY21 OUTLOOK

Forum is guiding for FY21 OP of ¥1,820mil (-22.6% YoY) and RP of ¥1,790mil (-21.3% YoY) on sales of ¥27,850mil (+0.4% YoY), based on the following assumptions and KPIs:

- Demand for engineers: Although the demand for engineers bottomed in FY20 Q4, a full recovery will not be seen until FY21 2H due to the ongoing SoE closures that has led to manufacturers reluctant to hire aggressively.
- Engineer dispatch contracts: Thanks to the continued structural shortage of engineers, demand for renewing ongoing contracts remains strong.
- Hiring by corporates: Due to a rapid digital shift by corporates, demand for workers with specific, advanced skills is rising.

FY21 guidance is based on the below assumptions:

- Average number of dispatched engineers (end of month): ¥3,710mil (-1.9% YoY)
- Average working hours (hours/month/person): ¥159.8 (+1.7% YoY)
- Average monthly staffing fee (¥/hour/person): ¥3,740 (-1.4% YoY)

Forum recognises the following uncertainties in its FY21 outlook:

1. Impact from semiconductor shortage: Although there will likely be just an indirect influence, some 30% of its engineers are dispatched to automobile-related industries which have been affected by the supply shortage.
2. A total of 4,001 engineers were hired by Forum as of the end of FY20. The firm plans to allocate the 500 staff it has on standby first before start hiring engineers again. However, given the current employment climate, it would take ca. 6 months to find jobs for them.
3. Forum's FY21 guidance includes 3-month equivalent of employment support subsidies (Feb, Mar and Apr 21) of ¥192mil. In principle, the subsidy will be paid up to a month after the SoE closure is lifted. Due to the ongoing third SoE closures, the subsidy will likely be paid for May and June, but that is not reflected in the current guidance. Without the subsidy, FY21 RP and NP will be ¥1,598mil (+28.7% YoY) and ¥1,086mil (+67.6% YoY) respectively.

The firm is planning to start hiring new staff in FY21, once the engineers currently on standby are allocated jobs. Meanwhile, over the past five years, Forum has not actively hire new graduates to be dispatched via *Cognavi Staffing* but it will begin to do so in FY21 as well.

The guidance for a 1.4% decline in staffing fees does not seem to have any particular reasoning behind it. Furthermore, number of dispatched engineers per month, estimated to dip 1.9% YoY, also looks to be on the conservative side. Historically, when the firm sees positive growth in the average working hours and an increase in overtime, the number of dispatched workers tends to follow suit. The temporary staffing business is primarily a cash generative business. Even under the temporary slowdown of the core business, Forum managed to generate free cash flow of ¥2,322mil (+15.1% YoY) in FY20. FCF will likely improve when the engineers in waiting are dispatched.

On the cost side, there will be a reduction in software amortisation costs due to impairment of *Cognavi Talent Management* in FY20. TV advertisement costs are not included in the FY21 budget as the firm realised that it has, so far, managed to sufficiently raise an awareness of the *Cognavi* brand via last years' TV advertisements among the middle management level generation at client companies. Subsequently, the firm should focus on boosting the use of its talent management system.

There is currently only one company that has started to use the platform for internal talent management and eight prospective ones who have decided to test the *Cognavi Talent Management* service. TV advertising has raised awareness among employers – i.e., those who are in middle management with the decision-making authority to hire engineers – but not much among younger engineers who might consider registering their skills for the future career opportunities. The firm reckons that it is important to make the *Cognavi Talent Management* platform attractive so that both employers and jobseekers gather in one place as it would likely further enrich the skill and talent trees and, therefore, potentially become another growth pillar for Forum.

Forum initially avoided proactively engaging with IT engineer temporary staffing services because of the highly volatile nature of the business. Techno Pro, for example, saw little negative impact under COVID thanks to its IT staffing service. The IT staffing service market already has several competitors. Forum plans to target niche demand by utilising *Cognavi*'s skill matching capabilities which have been built with AI learning to pick up IT engineering specific jargon and is separate from that of electrical and mechanical engineering. Forum's focus in the IT engineering temporary staffing service is to achieve a similar level of GPM to that of the mechatronics staffing service. The firm has just started marketing *Cognavi Staffing IT*, a referral service for IT Engineers seeking for jobs hence any potential revenue upside is not included in FY21 guidance.

## RISK FACTORS

While there are the usual risks associated with Forum's business that come from competition and trends in the job market, the following factors should also be considered:

- In the short-term, the longer-than-expected impact of closures due to COVID could further suspend R&D projects at client companies. Consequently, declines – not just demand for temporary staffing but also the renewal of existing staffing – are a real possibility and could lead to lower utilisation rates. The firm has high fixed costs in the form of engineer salaries for the *Cognavi Staffing* service, therefore, a decline in the utilisation rate will likely have a negative impact on profitability.
- A disruption related to information management / security. The *Cognavi* platform handles sensitive personal information so any leak or security breach could seriously damage the firm's credibility and reputation, therefore would be detrimental to the *Cognavi* platform.
- Over the longer-term, any fall off in interest among the younger generation with STEM degrees in electrical and mechanical engineering jobs even may adversely affect the firm's business model, especially in an aging population. There are ca. 180 STEM universities in Japan. To tackle this potential risk, Forum aims to build a favourable relationship with more than 100 STEM universities through *Cognavi College* job fairs organised via *Cognavi College*.

## CORPORATE GOVERNANCE

For the size of the company (market cap ¥250,000mil on 13 July 2021 (ca. US\$230mil)), Forum previously has a fairly large number of internal directors (currently eight members) on the board. To improve the balance between internal and external independent board members, the firm proposed the restructuring of the Board at the AGM held in June 2021, which was voted for. The changes will be:

- Reduce the internal board member from eight to four members.
- Increase the external, independent board members from two to three. The newly proposed external director will be the first female director.
- Set up a new team of executive officers outside of the Board, that includes three of the four internal directors that were removed from the Board. Those officers will be able to conduct day to day operations freely and will report to the Board.

## SHAREHOLDER RETURN

Forum aims to pay a stable annual dividend and maintain a 60% pay-out ratio. FY21 dividend will be ¥48/share. Due to the assumption that there will still be some negative impact of COVID, the firm will maintain the same dividend as in FY20. Should earnings fall short of the guidance, Forum will still be able to pay the said dividend given the abundant cash and stable cash inflow without needing hefty CAPEX.

Between 6 Nov 2020 and 30 April 2021, Forum planned to repurchase a maximum of 1.2mil shares (¥1,100mil in value). As of 30 April 2021, it has almost fully completed the buy-back (1,163,200 shares bought at a total cost of ca. ¥1.1bil). On 13 May 2021, the firm announced the introduction of transfer-restricted share-based compensation system to remunerate the internal directors and executive officers up to 150,000 shares in total. Treasury shares will be used in this remuneration system for the time being. The maximum annual remuneration amount for directors and executive officers, which is currently set at ¥1,000mil per year, will include remuneration made via allocation of treasury shares.

## FINANCIAL SUMMARY

<b>P&amp;L Summary</b>					
(¥mil / Mar yr-end)	FY17	FY18	FY19	FY20	FY21CE
Accounting Standard (J-GAAP)	Parent	Parent	Parent	Parent	Parent
Sales	34,496	34,591	32,115	27,728	27,850
YoY (%)		0.2	-7.2	-13.7	0.4
COGS	22,574	22,203	21,079	19,205	n/a
Gross Profit (GP)	11,922	12,388	11,036	8,523	n/a
GPM (%)	34.6	35.8	34.4	30.7	
SG&A	5,732	5,964	6,956	6,173	
Operating Profit (OP)	6,190	6,424	4,080	2,349	1,820
YoY (%)		3.8	-36.5	-42.4	-22.6
OPM (%)	17.9	18.6	12.7	8.4	6.5
Interest & dividend received	4	0	0	0	
Interest payment	2	0	19	72	
Investment gains & losses	0	0	0	0	
Recurring Profit (RP)	6,181	6,341	3,753	2,275	1,790
YoY (%)		2.6	-40.8	-39.4	-21.3
RPM (%)	17.9	18.3	11.7	8.2	6.4
Pre-tax Profit	6,182	6,446	3,097	1,974	
Tax costs	2,147	2,213	962	629	
Minority shareholder interest	0	0	0	0	0
Net Profit (NP)	4,034	4,232	2,135	1,344	1,220
YoY (%)		4.9	-49.6	-37.1	-9.3
Comprehensive Profit	0	0	0	0	0

Source: Nippon-IBR based on Forum Eng.'s presentation materials, YUHO and Toyo Keizai

<b>Balance Sheet Summary</b>					
(¥mil / Mar yr-end)	FY17	FY18	FY19	FY20	
Current Asset	12,325	14,168	13,616	18,101	
Fixed Asset	3,792	3,716	3,442	2,791	
Tangible	280	217	494	509	
Intangible	2,081	2,370	1,614	895	
Investment and others	1,429	1,127	1,333	1,386	
Total Asset	16,117	17,884	17,059	20,893	
Current Liability	5,267	4,963	4,216	8,823	
Fixed Liability	39	8	0	0	
Net Asset	10,810	12,913	12,842	12,070	
Capital	90	90	105	117	
Capital Surplus	102	102	117	129	
Retained Earnings	10,618	12,720	12,619	12,666	
Treasury Shares					-842
Minority Interest	n/a	n/a	n/a	n/a	n/a
Shareholders' Equity			12,842	12,070	
Shareholders' Equity Ratio			75.2	57.7	
Interest-bearing Debt			0	0	

Source: Nippon-IBR based on Forum Eng.'s presentation materials, YUHO and Toyo Keizai

<b>Cash Flow Summary</b>				
(¥mil / Mar yr-end)	FY17	FY18	FY19	FY20
Operating Cash Flow	2,510	5,133	2,893	2,695
Depreciation	481	678	713	680
Goodwill Amortisation	0	0	0	0
Change in Sales Receivables	13	263	224	503
Change in inventories	0	0	0	0
Change in Accounts Payable	0	0	0	0
Investment Cash Flow	-1,133	-683	-895	-373
Free Cash Flow	1,377	4,450	1,998	2,322
Finance Cash Flow	-1,862	-2,271	-2,359	2,806
Cash and Cash Equivalent	7,530	9,709	9,348	14,478

Source: Nippon-IBR based on Forum Eng.'s presentation materials, YUHO and Toyo Keizai

<b>Per-share indicators</b>					
(¥ / Mar yr-end)	FY17	FY18	FY19	FY20	FY21CE
EPS	151.50	158.96	80.18	50.81	47.29
BPS	404.73	483.47	480.81	451.91	n/a
Dividend	80	84	48	48	48

Source: Nippon-IBR based on FORUM Eng.'s presentation materials, YUHO and Toyo Keizai

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