

The Fiscal Year ending March 2019 (2018 April ~ 2019 March) Business Results



Ichikawa Plant

 **TOYO GOSEI**

May 17th 2019

Business Results for FY2019

Business Highlight for FY2019

- The revenue of 22,975 million yen was the highest record (comparison with previous year +2,438 million yen,+12%).
- As the prior cost increase for photosensitive materials production capacity expansion was well compensated by sales increase and other cost improvement, the profit increased.
Operating profit was 1,559 million yen (comparison with year-on-year +258million yen,+20%)、Ordinary profit was 1,567million yen (comparison with year-on-year +478million yen, +44%), Net profit was 1,171 million yen (comparison with year-on-year +307 million yen,+36%).
- Ordinary profit & Net profit was the highest record.

(Million Yen)	Previous Year Same Period Result	Original Forecast	Result	Comparison with Year-on-Year		Comparison with Forecast	
				I/D Amount	I/D%	I/D Amount	I/D%
Revenue	20,536	22,500	22,975	+2,438	+12%	+475	+2%
Operating Profit	1,300	1,400	1,559	+258	+20%	+159	+11%
Ordinary Profit	1,089	1,350	1,567	+478	+44%	+217	+16%
Net Profit	863	830	1,171	+307	+36%	+341	+41%
Dividend per stock	10.00	10.00	10.00				
FX rate (Yen per USD)	¥111/\$	¥110/\$	¥110/\$				

The Business Result Summary of FY2019

■ Revenue

- ✓ 22,975 million yen (comparison with year-on-year +2,438 million yen, +12%)
- ✓ Photosensitive materials business for semiconductor & FPD (comparison with year-on-year +1,283 million yen, +11.3%)) and Chemicals business for electronic materials (comparison with year-on-year +1,149 million yen, +12.2%)) mainly contributed to the revenue increase. Chemicals business for Aroma chemicals & Logistic also kept good sales.

■ Operating Profit

- ✓ 1,559 million yen (comparison with year-on-year +258 million yen, +20%)
- ✓ Although prior cost of production capacity expansion for photosensitive materials (labor cost, depreciation and etc. +776 million yen) increasing, the operating profit was increased as volume sales merit in increased demand for photosensitive materials & chemicals well compensated despite of the cost increase.

■ Ordinary Profit

- ✓ 1,567 million yen (comparison with year-on-year +478 million yen, +44%)
- ✓ 162 million yen was counted as an extraordinary profit including exchange profit 33 million yen (comparison with year-on-year +97 million yen)).

■ Net profit

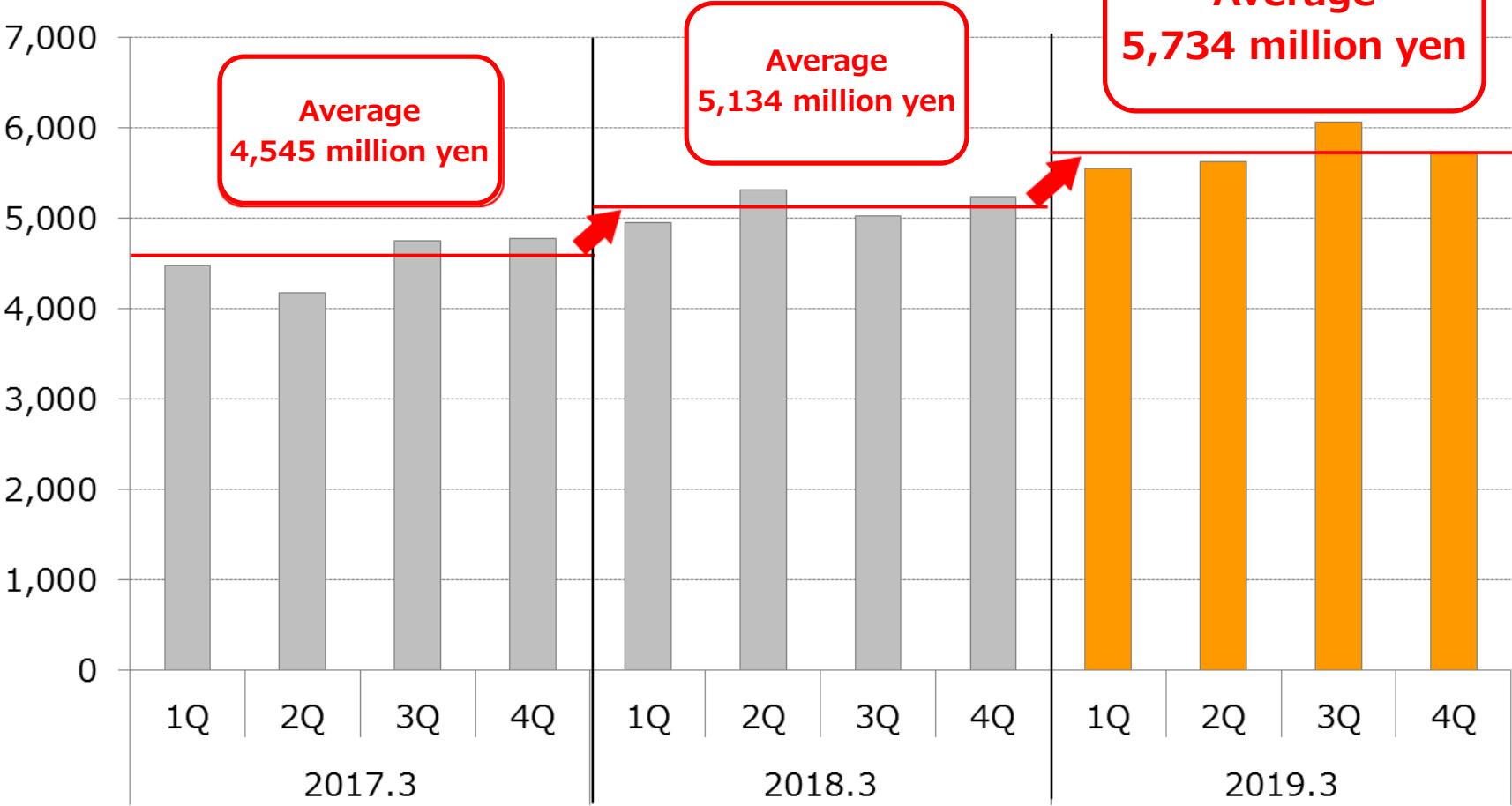
- ✓ 1,171 million yen (comparison with year-on-year +307 million yen, +36%)
- ✓ Ordinary profit & Net profit was the highest record.

Revenue transition by quarterly

- The quarterly average revenue was steadily increased to more than 57 million level as the Fiscal Year ending March 2019.

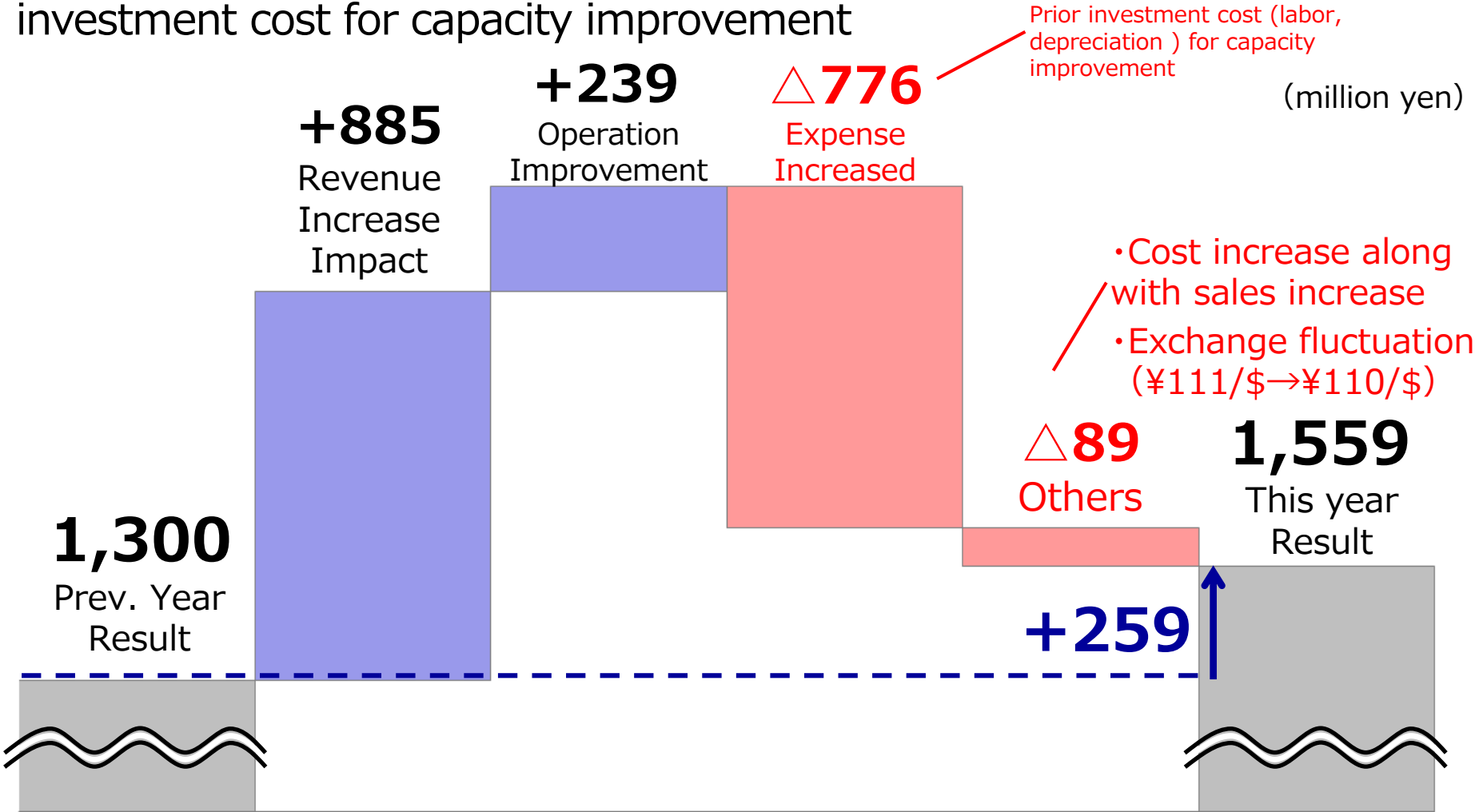
Revenue transition by quarterly

million yen



Operating profit, factors for increase/decrease

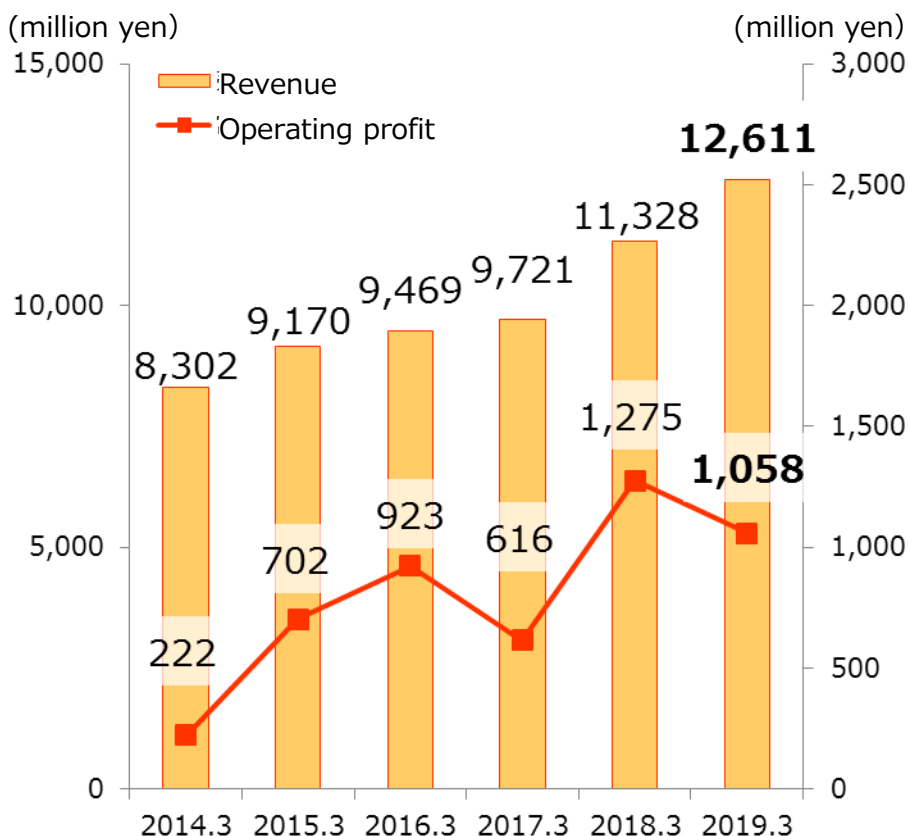
- Revenue & Operating profit was increased in spite of the spending prior investment cost for capacity improvement



Photosensitive Materials Segment

- Good sales for semiconductor and FPD have been continued.
- The profit was decreased comparison with the same period last year because of prior investment cost of production capability improvement.

Revenue・Operating Profit



Revenue : 12,611 million yen

(+1,283 million yen, +11.3% YOY)

- Good sales both for semiconductor and FPD application.
- Volume business for EUV application has started
- Sales for OLED was also good.

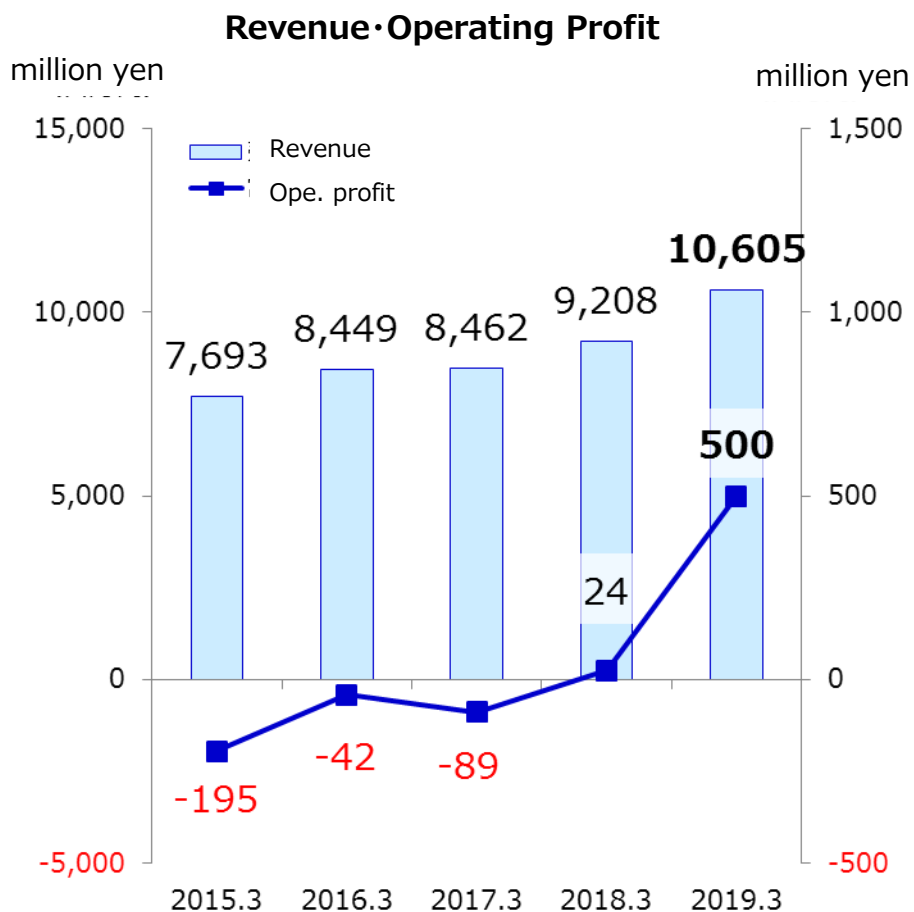
Operation profit : 1,058 million yen

(△216 million yen, △9.1% YOY)

- In accordance with capacity improvement, labor cost and depreciation increased 776 million yen, operation profit resulted in △216 million yen YOY as minimizing the profit negative impact due to better production output.

Chemicals Segment

- Fine Chemicals business for Electronic industry under the good circumstance contributed to the revenue increase
- Aroma and Logistics business kept in good sales and resulted in good segment profit improvement



Revenue : 10,605 million yen

(+1,149 million, +12.2% YOY)

- Ultra high purity solvent sales for electric business continue to increase, as shifting high value product portfolio
- Aroma Chemicals kept in sales growth
- Logistic business also kept high tank utilization rate.

Operating profit : 500million yen

(+475 million yen, +20.1 times YOY)

- Revenue increase contributed to the profit improvement

Profit & Loss Statement

- Revenue 22,975 million, +2,438 million +11.9% YOY
- Gross profit resulted in +435 million YOY, +10.6% YOY as absorbing prior cost for Photosensitive business capacity improvement
- Ordinary profit +478 million, +43.9% YOY due to mainly FX gain

(Million yen)	FY2018	FY2019	I/D AMT	I/D %
Revenue	20,536	22,975	2,438	11.9%
COGS	16,435	18,438	2,002	12.2%
Gross Profit	4,100	4,536	435	10.6%
Selling Exp.	2,800	2,976	176	6.3%
Ope. Profit	1,300	1,559	258	19.9%
Non-Op profit	64	162	97	250%
Non-Op Exp.	276	154	△122	△44.2%
Ordinary profit	1,089	1,567	478	43.9%
Extra-ord. P&L	114	△56	△171	—
Profit before Tax	1,203	1,511	307	25.5%
Tax	340	340	△0	△0%
Net profit	863	1,171	307	35.7%

[Gross profit +435]
After absorbing capacity improvement cost, resulted in better profit

[Non-Op profit +97,
Non-Op Exp. △122]
FX gain+33,
Insurance received+47

[Extra-ord. P&L △171]
Due to gain on sales of fixed assets asset in FY2018

Balance Sheets

- With capital investment for Photosensitive materials, tangible assets+1,981million yen, cash +2,886 million yen.
- Interest-bearing debt +3,524 million yen, Others (facility account payable etc.)+1,932 million yen.
- As net profit was increased in this year, shareholder's equity was increased +1,091 million yen.

(million yen)	2018.3end	2019.3end	I/D amt.
Current assets	12,617	17,228	4,611
Cash	2,525	5,412	2,886
Accounts receivable	3,695	4,314	619
Inventories	6,108	6,822	713
others	287	679	391
Fixed assets	17,511	19,637	2,125
tangible assets	16,585	18,566	1,981
Intangible assets	331	417	86
Inv.& other assets	595	653	58
Assets total	30,128	36,865	6,737
Liabilities	22,345	28,024	5,679
accounts payable	2,872	3,094	222
interest-bearing debt	14,460	17,984	3,524
others	5,012	6,945	1,932
Net assets	7,783	8,841	1,057
Shareholder's equity	7,738	8,830	1,091
valuation/translation difference	44	11	△33
Liabilities & Net Assets Total	30,128	36,865	6,737

[cash + 2,886]
Increased by capital spending payment preparations temporarily, under the influence of end of month holiday

[Accounts receivable + 619, Inventories + 713]
Working capital increased along with sales increase

[tangible assets+1,981, interest-bearing debt +3,524, others +1,932]
Increased for photosensitive materials of capacity expansion investment

[equity ratio]
24.0% (YOY △1.8pt)

Statement of Cash Flows

- **CF of operating activities** : 2,097 million yen, Due to the increased sales, Sales credit and Inventories increased.
- **CF of investing activities** : Δ 2,499 million yen, Due to the execution of capital investment, the expenses increased.
- **CF of financing activities** : 3,268 million yen, Fund preparations for the future payment.

(million yen)	2018.3rd	2019.3rd	Increase
CF of operating activities	2,327	2,097	Δ 229
Profit before income taxes	1,203	1,511	+307
Depreciation	1,687	1,944	+256
Increase (decrease) in account receivable	Δ 512	Δ 619	Δ 107
Increase (decrease) in inventories	Δ 219	Δ 713	Δ 494
Increase (decrease) in accounts payable	687	222	Δ 465
Others	Δ 520	Δ 247	+273
CF of investing activities	Δ 880	Δ 2,499	Δ 1,619
Free Cash Flows	1,446	Δ 401	Δ 1,848
CF of financing activities	Δ 761	3,268	4,030
Effect of exchange rate change on cash and cash equivalents	Δ 25	20	+46
Net increase (decrease) in cash and cash equivalents	659	2,886	+2,227
Cash and cash equivalents at end of period	2,113	5,000	+2,886

2020 March ending Projection

2020.3 ending Projection

- Expecting production & sales increase after production capacity improvement in last 2 years
- Better profit in accordance with sales increase
- Assumed FX rate ¥107/\$
- Increase dividend to yearly 20yen as double from FY2019

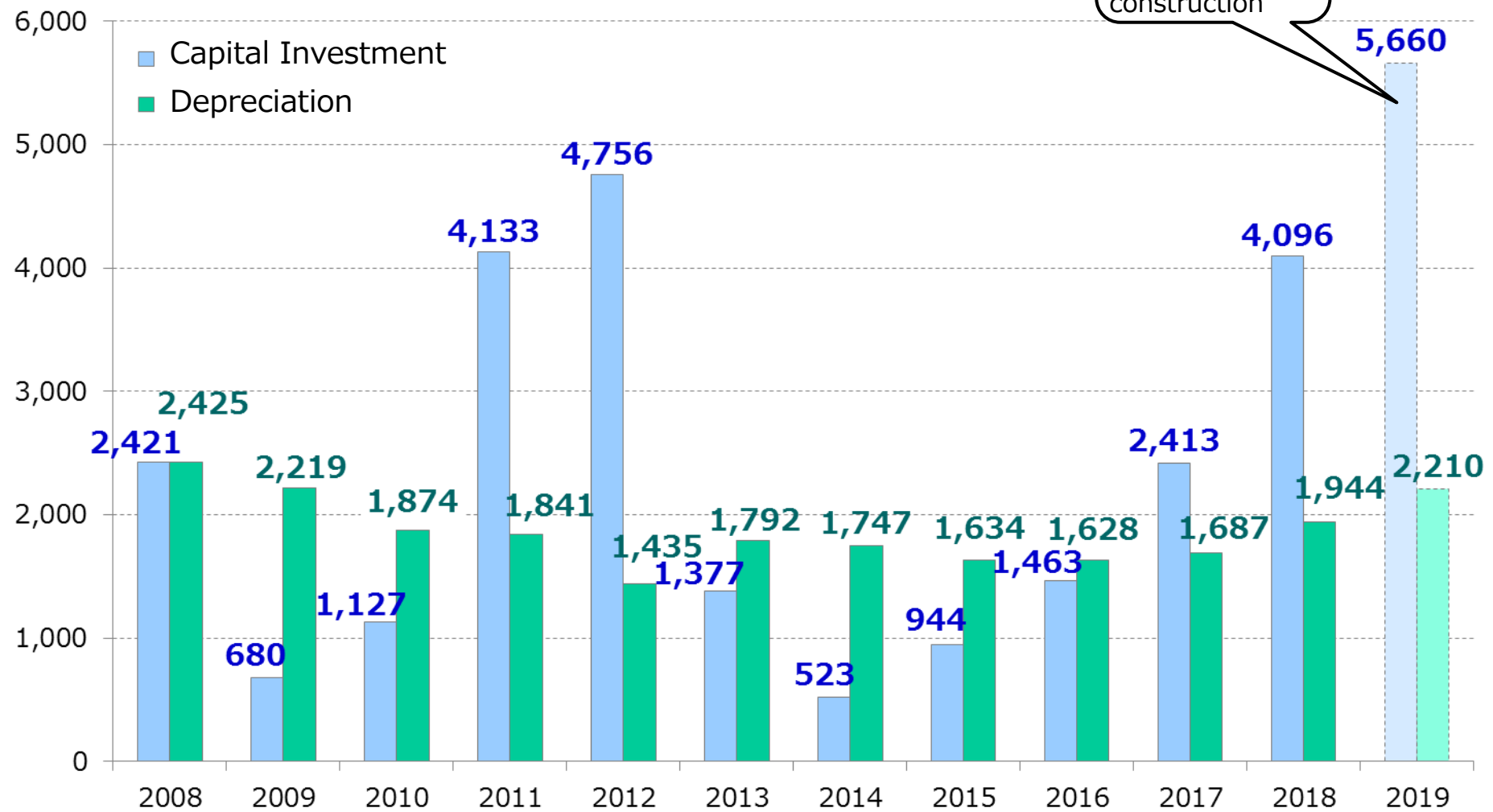
	2019.3 Ending result (million yen)	2020.3 Ending projection	Comparison with Last year result vs projection	
			I/D Amt	I/D %
Revenue	22,975	25,500	2,525	+11.0%
Operating profit	1,559	1,800	241	+15.5%
Ordinary profit	1,567	1,700	133	+8.9%
Net profit	1,171	1,600	429	+36.6%
Earnings per share	147.54	201.58		
Dividend per share	10.00	20.00		
FX rate (USD)	¥110/\$	¥107/\$		

Capital Investment & Depreciation History

million yen

Capital Investment & Depreciation

Increase by new production building construction



Projection

Future Outlook

Market Trend

- ✓ Usage of Electronic Device in Daily life continue to expand
(5G, big data, AI, IoT, EV etc)
- ✓ In line with minimizing device structure and improving performance, high purity and functional materials are being required more in the market.

Customer's Requirements

- ✓ More requirements for Ultra high purified materials especially for EUV application
- ✓ Few technology companies can meet small lot size with challenging production process which is getting common in the advanced technology market

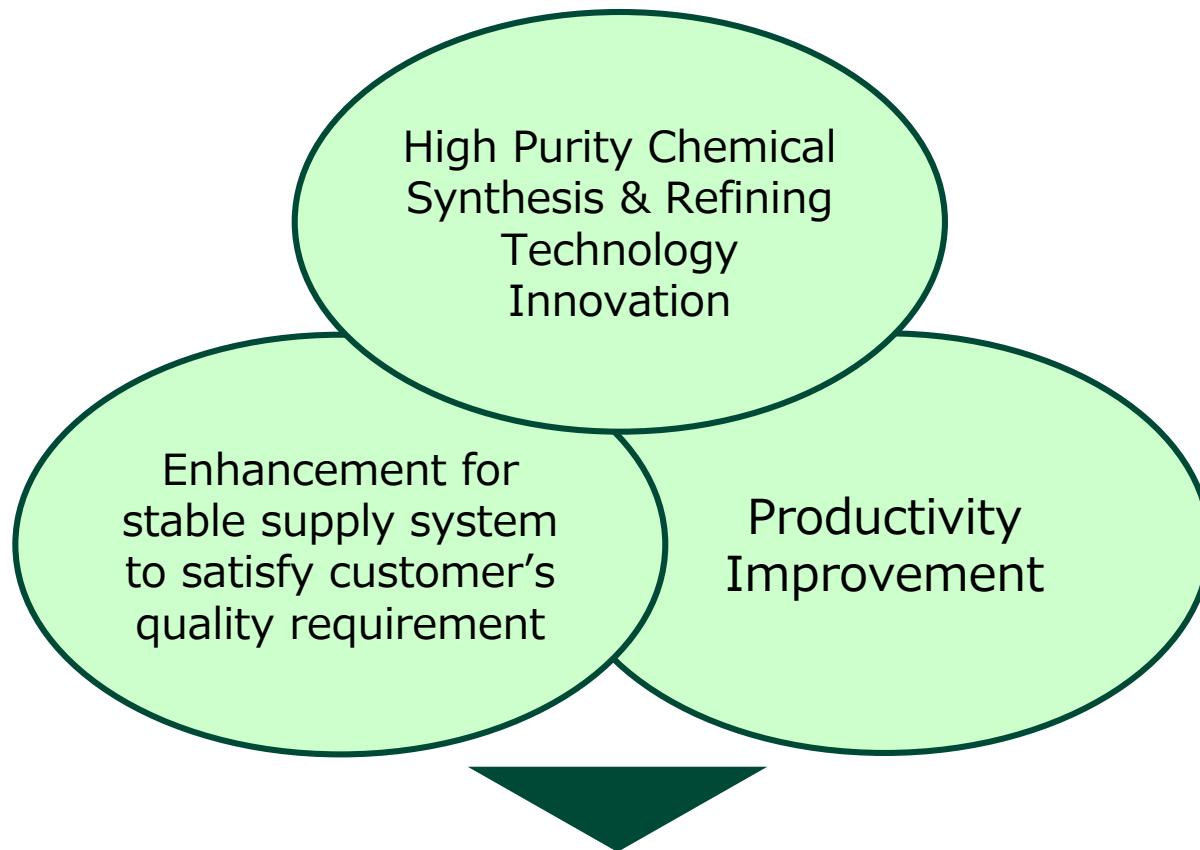
Challenge for market demand

- ✓ Full utilize our experience for distillation in 70 years and photosensitive materials in 40 years for customer's quality requirement

Measurements

- Development of advanced purification technology
- Secure production capacity
- Productivity improvement

TGC300 Concept & Vision

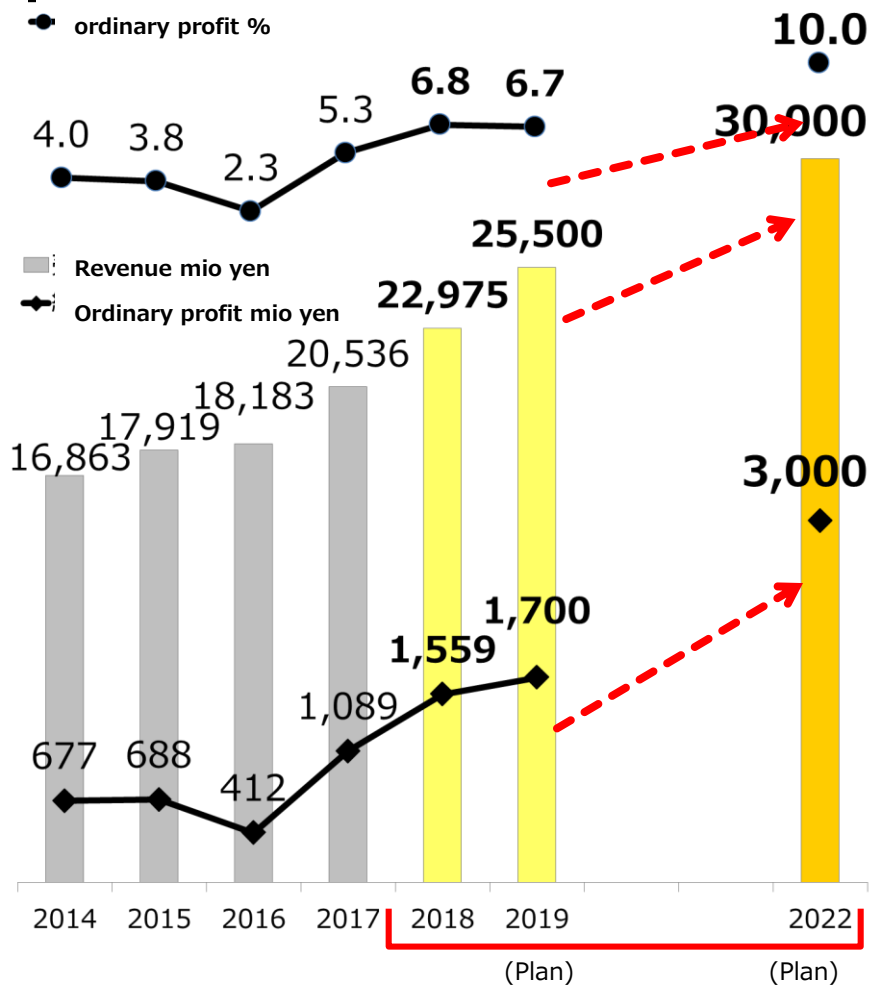


■ Vision of TGC300

Sincerely proving solution for customer's agenda and technical issue by unique approach, become world #1 "DANTOTSU"(ultra outstanding) company in high quality and productivity.

TGC300 progress

• Medium-term management plan「TGC300」 is on going as we planned



Medium-term management plan

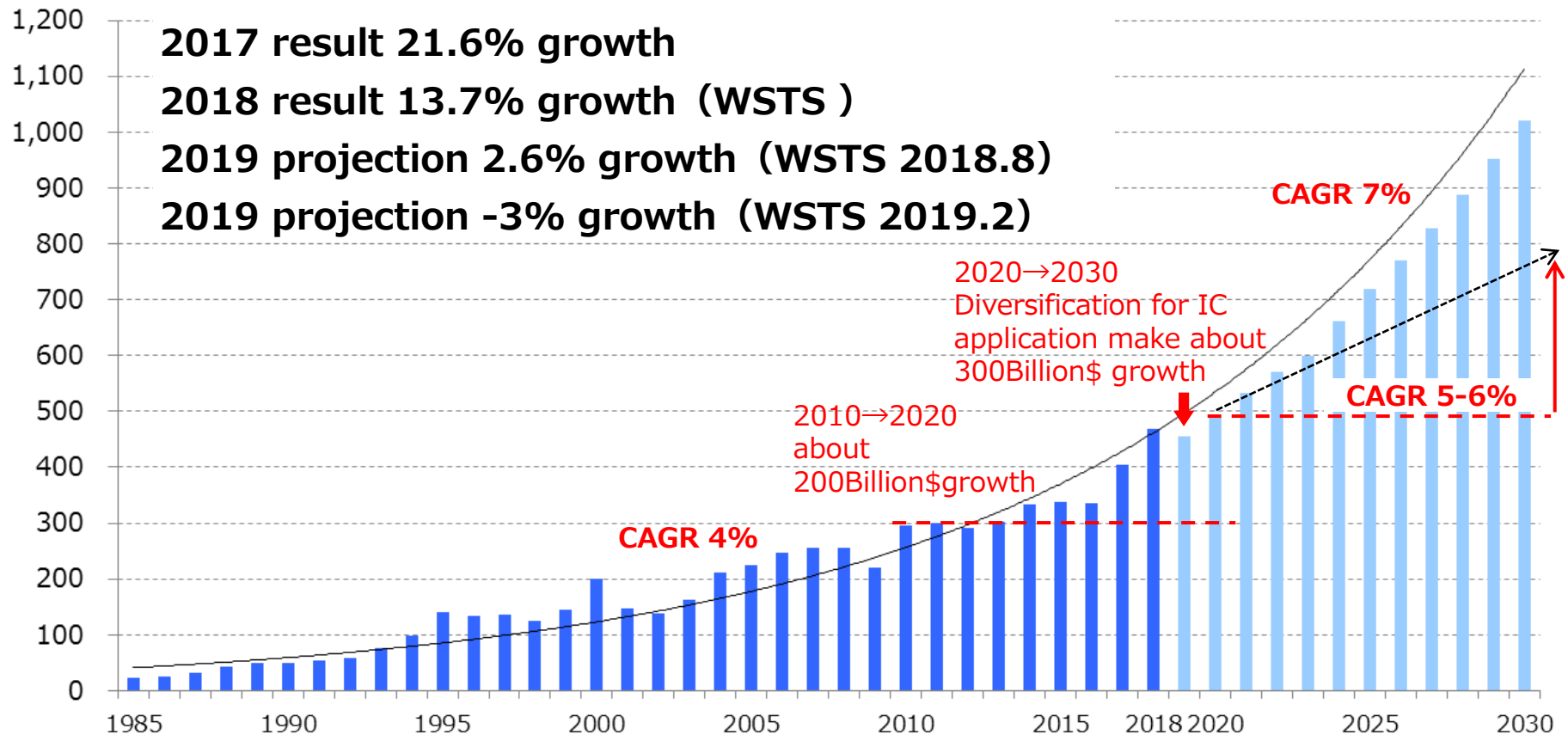
- 1st year resulted as beyond plan (Revenue+2%、ordinary profit+16%)
- For the supply increase of photosensitive materials, now proceeding of capital improvement as planned
 - ✓ Improvement of existing facility→Completed
 - ✓ New plant building→to be completed summer in 2020
- Medium-term management plan is on going as we planned

Semiconductor Market Development & Projection

- Semiconductor market is going bottom out
- Process material demand tend to expand as following semiconductor production investment
- Keep solid demand for products even in Semiconductor market slowing down

World IC Market Sales

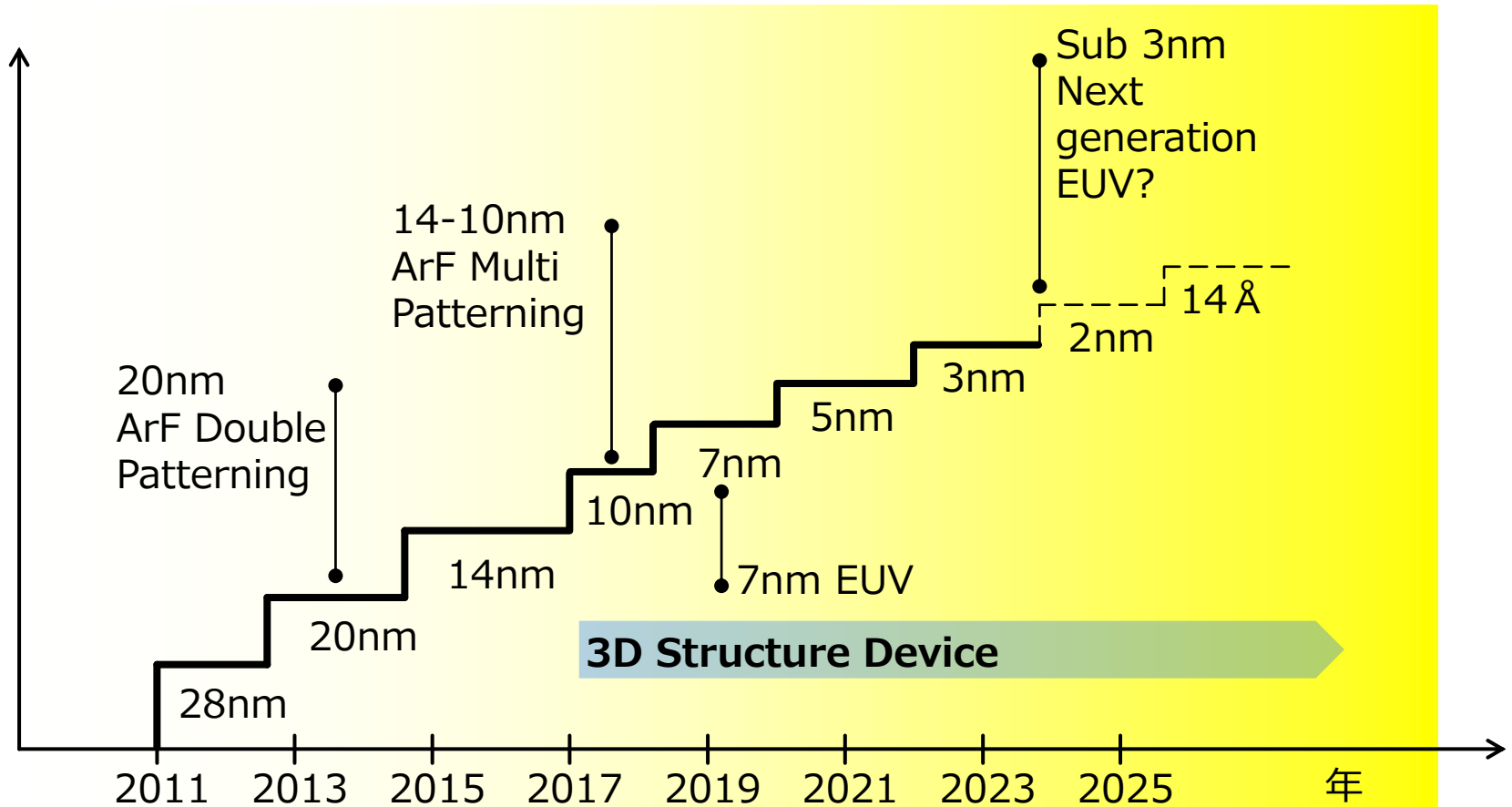
(Billion USD)



Source: WSTS & Fuji Chimera Research Institute, Inc

Lithography Technology Down Sizing

- Semiconductor Node (Line Width) continues to be down size to 7 nm as mas production at Year 2018
- Suppose to be down size to 2 nm level in 2025
- In accordance with line width down size, 3D structure, severe quality control for process materials, surging need more high purity photosensitive materials



Outlooks: Photosensitive materials Application, Wave length and Line Width

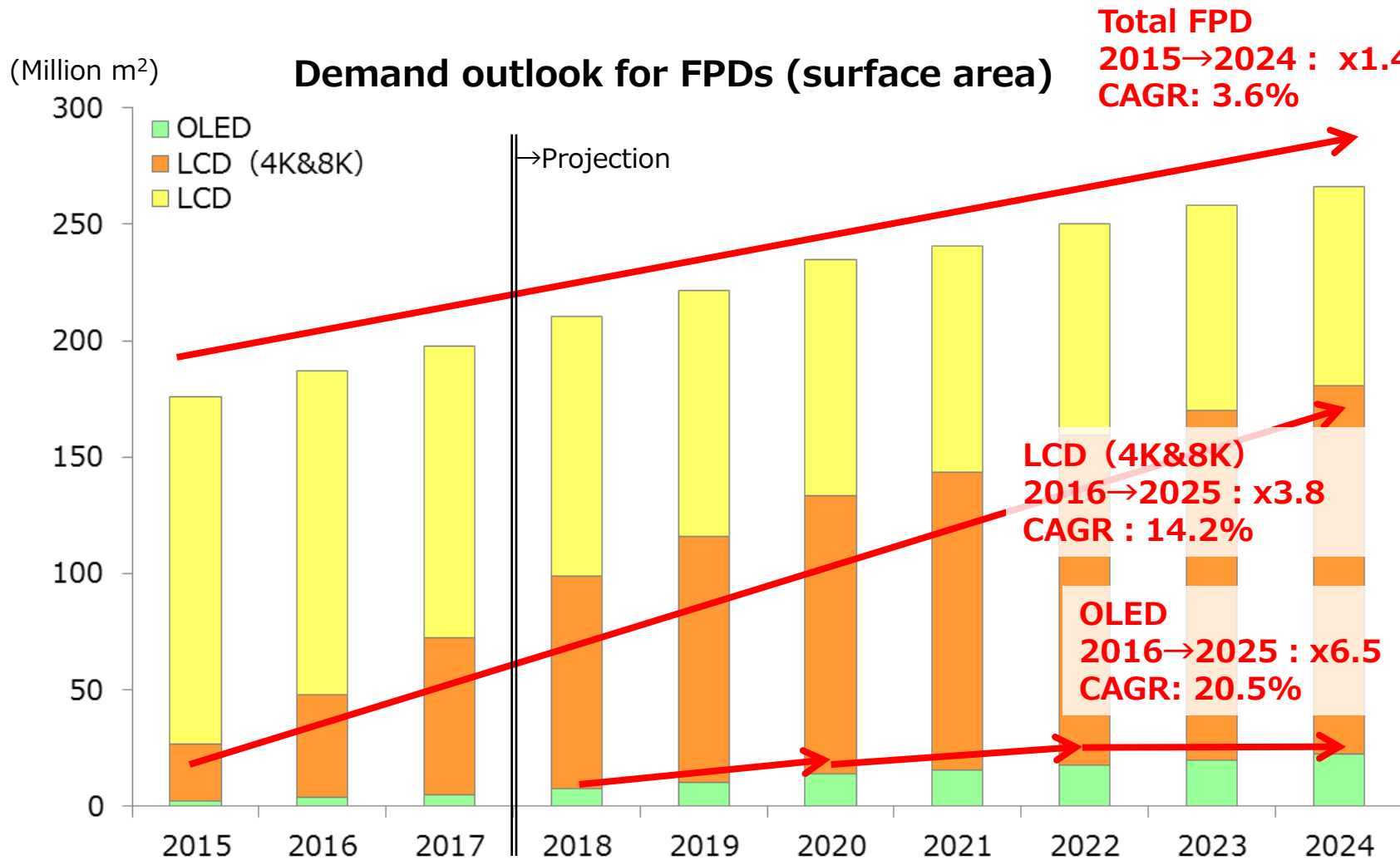
- Photosensitive material both legend (mainly FPD application) and advanced generation (mainly Semiconductor application) still keep strong demand from the market
- Started mass production supply for EUV materials in FY2019
- TGC continue to improve quality of photosensitive materials and diversifying product line up to satisfy customer's needs

		FPD		Semiconductor								
		g + h + i line	I line	G line	I line線	KrF	ArF	ArF Immersion	ArF DP	ArF MP		
				EUV								
Line width	Line	~2,000nm	~1,000nm	~700nm	~200nm	~110nm	~65nm	~45nm	~22nm	~7nm	~2.1nm	~?
Application	TV and general display	Advanced Panel	IGBT, LCD Driver, LED			DRAM / NAND FLASH Memory				Next Gen. DRAM		
			Advanced logic LSI				Next Gen. Logic LSI					
Market	Emerging countries' demand	Smartphone and high resolution TV	Gradually shrink	Expanding	Gradually expanding	stable	expanding mass production			Under development	Beyond 2025 ?	



FPD market development & projection

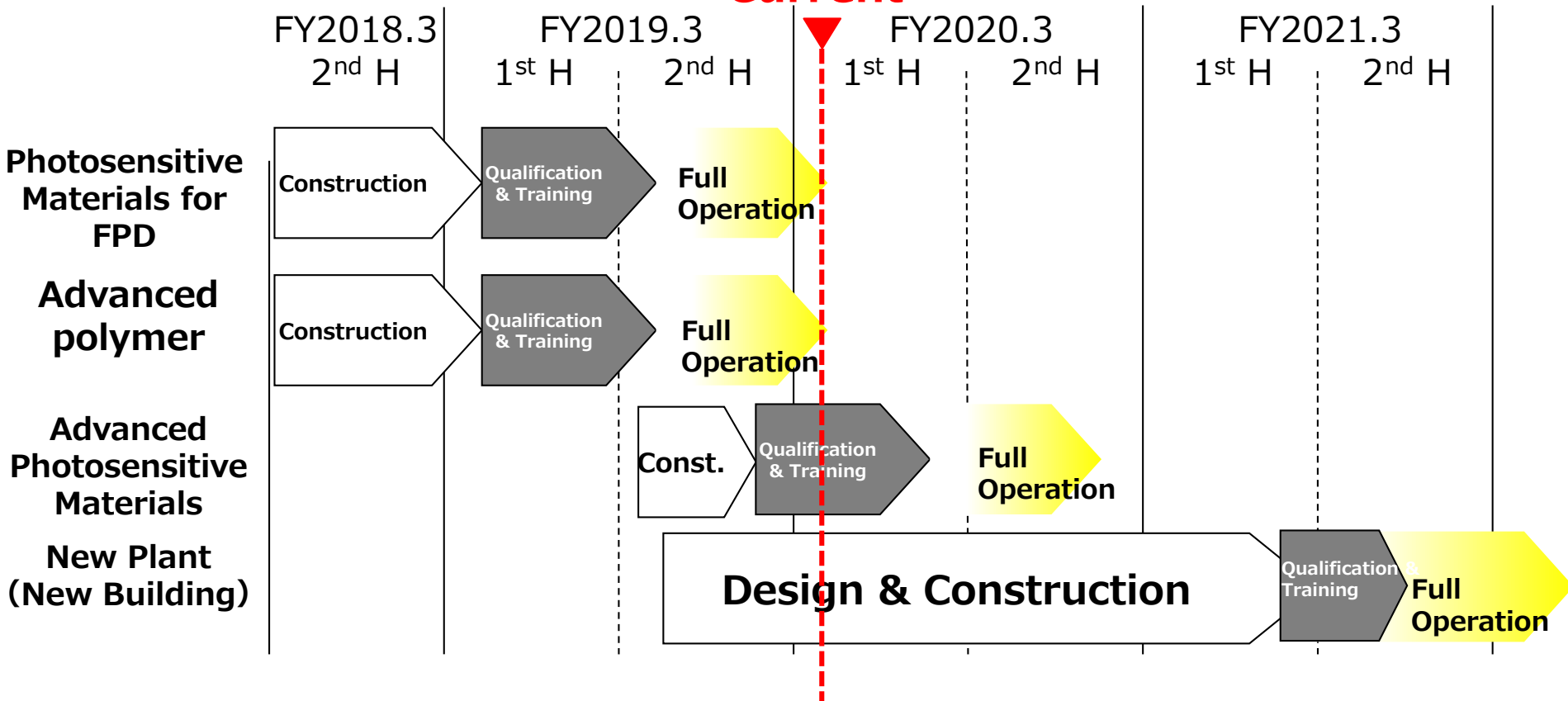
Demand for FPD photoresists continues to expand, driven by expanding FPD production in China. The shift to higher resolution screen is supporting a significant increase in demand for high-grade photosensitive materials.



Key Strategy : Photosensitive Materials Capacity Up Investment

- On going capacity up project to meet continuing increased demand from the market
- Completed 1st phase as PAC(FPD) and advanced polymer production capacity up as well as 2nd phase as PAG (advanced materials)
- On going 3rd phase for new production as to be completed in 2020.

Current



- Advanced materials (PAG) capacity up completed by Feb 2019
- Plan to ship products in 2nd Half of FY2019 after customer's qualification process.

Chemical News on May 8, 2019

東洋合成

感光材の供給体制強化

先端半導体向け増設完了

東洋合成工業は先端半導体向け感光性材料の供給体制を強化する。感光材主力生産拠点の千葉工場（千葉県東庄町）で進めてきた増強工事が完了、4月から稼働した。投資額は約14億円、これにより感光材の生産能力は3割以上拡大する。同工場では2018年春にディスプレイ向け感光材を増強したほか、20年夏完成をめどに感光材新工場を建設する計画。一連の計画が完了すれば、17年時点に比べて旧世代、先端向けを含めた感光材の生産能力は約2倍に高まる見通しだ。

20年に新工場、能力2倍へ

感光性材料は半導体・ディスプレイの製造に用いられるフォトレジストの主原料で、東洋合成工業は感光材事業の主要製品として世界市場で高いシェアを有している。半導体分野では今後、IoT（モノのインターネット）力年中期経営計画で戦略



投資枠120億円を設定し、電材関連を中心に積極投資する方針を掲げている。このなかで急増する需要に対応するため、3力年計画で感光材事業に集中投資している。第1弾として千葉工場で昨

感光材第3工場の増強ラインは4月に稼働した（写真は反応設備）

約70億円を投じて新工場「感光材第4工場」の建設を進めている。新工場は先端向け、旧世代向けに対応するマルチ設備とする計画で、20年夏までの完成を目指す。18年から3度にわたる感光材の増強での感光材生産能力は17年比で約2倍となる見通し。

同社は感光材事業で、5線、1線プロセスなどの旧世代からARF（ラジカル）、EUVといった先端世代まで対応したレジストポリマーやナフトキノリン系のポリ型感光材、また化学増幅型レジストに用いる光酸発生剤（PAG）と幅広く展開。化成品事業ではフォトレジスト向け高純度溶剤を手がけており、全売上高に占める電子材料関連の比率は約7割を占める。拡大する世界需要に対応し供給体制を整えるとともに、高品質・生産性の両立に重点を置いた取り組みを強めている。（児玉和弘）

- Electronic material (solvent) for photoresist, semiconductor process and other electronic device production have good sales development with the operation rate improvement at each plant
- Secure additional production capacity by productivity improvement activities for future demand



Aroma Plant

- Stable business growth in Flavor & Fragrant demand increase
- Suitable for big lot size



Ichikawa Plant

- Mother plant
- Produce both Aroma materials and Electronic materials
- Applicable for small lot size production

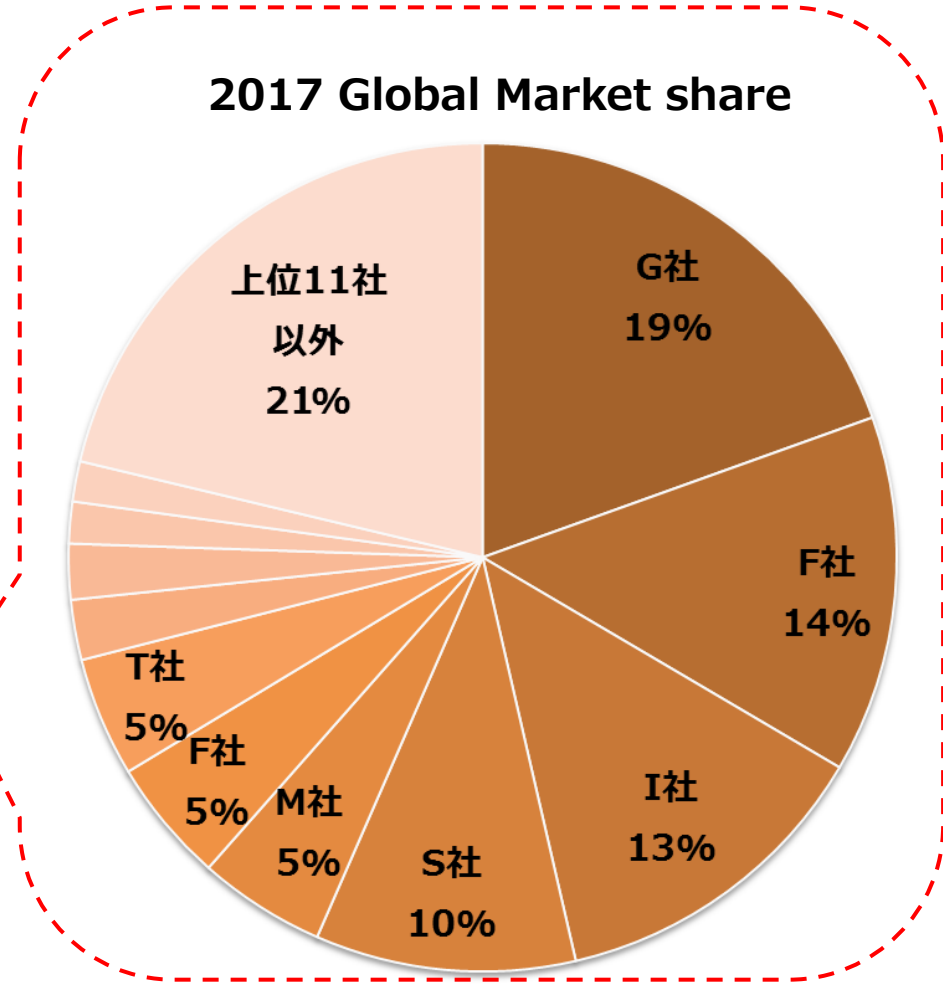
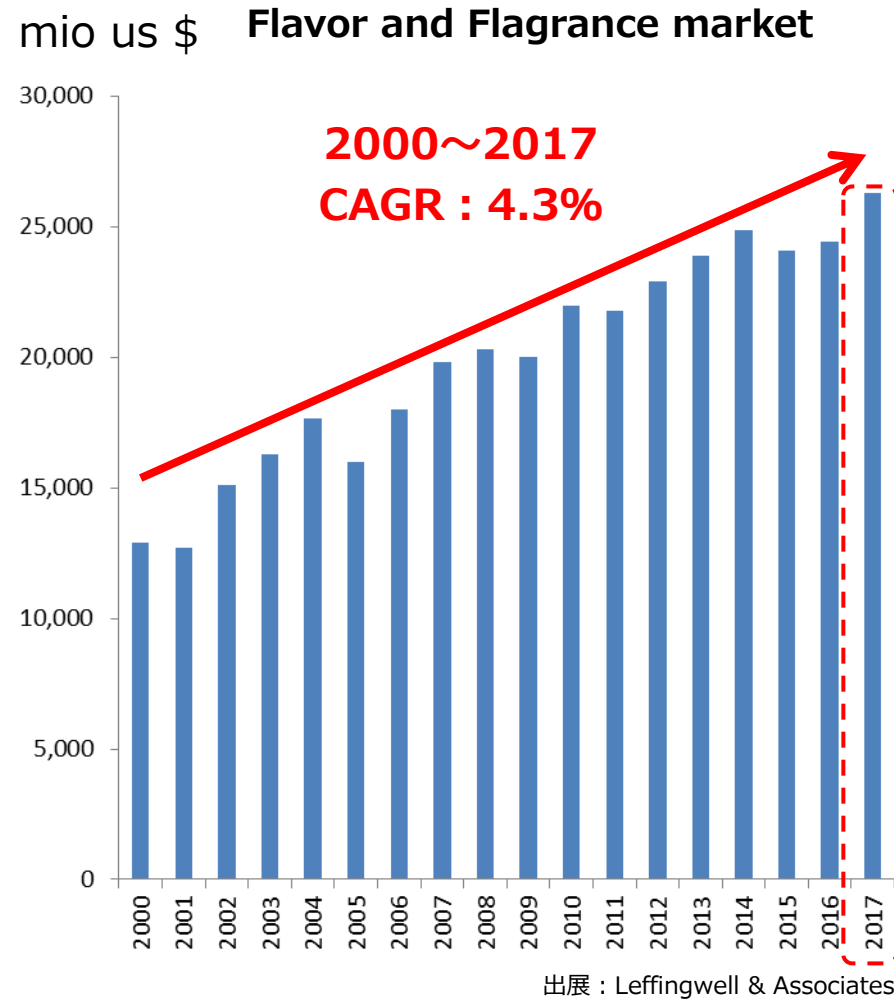


Awaji Plant

- Supply mainly for west Japan customers
- Mainly producing electronic materials as big lot size

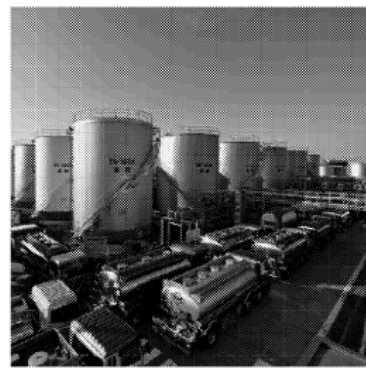
Chemical business: Aroma materials

- Flavor and Fragrance market growing in CAGR 4.3%、continuing the same level as growth level
- 70% of Global Market is occupied by top 7 leading companies



Chemical business: Logistic Chemical Tank terminal

- Enhanced customer satisfaction as advanced chemical company standard QC and analytical technology
- Takahama Tank Terminal keep high operation rate as the biggest chemical tank terminal in Tokyo bay area



液化石油化学製品を求めてローリーが列をなす

関東自動車道につながる
自動車道(外環道)や東
海自動車道(東環道)や
日本海事検定協会(東京
検定協会)と連携し、
品質検査と分析の工程
が必要。一般的には新日
油槽所から車で2分ほ
ど移動すると、東京外環
道(外環道)や東海自動車
道(東環道)や日本海事
検定協会(東京検定協会)
と連携し、品質検査と分
析の工程が必要。一般的
には新日油槽所から車で
2分ほど移動すると、東
京外環道(外環道)や東
海自動車道(東環道)や
日本海事検定協会(東京
検定協会)と連携し、品
質検査と分析の工程が
必要。

素の現場力 東洋合成工業 高浜油槽所

午前6時。江戸川の河口に位置する高浜油槽所に、数十台のタンクローリーが並んだ。1時間後には次々に構内を後にする。運ぶのはインキ原料やトルエンなどの有機溶媒。国内外の石化メーカーが生産したものだ。合成は、合成繊維の精製や化成品を使った塗料原料が主力。半導体基板に回路を描くフォトレジス

中堅化学メーカー、東洋合成工業の高浜油槽所(千葉県市川市)は、樹脂原料や塗料用有機溶剤など液体石油化学製品の貯蔵・物流を担う。世界シェア首位クラスの素材も手掛けるメーカーとしての品質管理や汚染分析のノウハウを注入。東京湾に面し、高速道路にも近い地の利を生かし、関東一円の石化産業を陰で支える。

原料物流 石化産業支える



分析室では運搬物の汚染の有無などをその場でチェックできる

材(感光性樹脂)用感光液は世界首位クラスで、液体や有機EL材料も手掛ける。高浜油槽所を拠点とする貯蔵・物流事業も、収益源の多様化をにらみ1971年にタンク11基でスタートした半世紀近い歴史を持つ。この分野でまず重要なのが、規模と立地だ。油槽所は東京ドームよりも少し狭いほどの敷地に65基のタンクが並び、合計5億5400万リットルを貯蔵可能。タンクローリーに石化製品を供給するブラスを25レーン持ち、毎時最大90台に供給できるのは日本で「最大級」(ロジスティック事業部の渡辺宏一事業部長)だ。油槽所から車で2分ほど移動すると、東京外環道(外環道)や東海自動車道(東環道)や日本海事検定協会(東京検定協会)と連携し、品質検査と分析の工程が必要。一般的には新日油槽所から車で2分ほど移動すると、東京外環道(外環道)や東海自動車道(東環道)や日本海事検定協会(東京検定協会)と連携し、品質検査と分析の工程が必要。

品質管理にメーカー知見



Over view of Takahama Tank Terminal Biggest Chemical Tank Terminal Tokyo gulf area



New QC and Analytical Lab (completion in 2018 May) Improved QC ability and service

・中央が担うが、東洋合成では自社の分析チームを配備している。どのタイミングでも敷地内で分析できれば顧客の信頼度も高まる」と渡辺事業部長。2018年5月には分析室を拡張し、より精緻な分析ができる機器を追加した。拡張前は製品の汚染の有無しかわからなかったが、今では具体的にどの物質が汚染されているかを科学的に解明可能。汚染の原因を明らかにすることで、責任の所在や今後の対策を明確に顧客に提示できる。一方、今後の課題は地震対策だ。東京湾岸で懸念されるのが、大地震による液化現象。11年3月の東日本大震災では、護岸周辺が隆起するなど被害があった。

独創的な視点で世界へ

Individual Development, to the global Chemical

東洋合成工業株式会社

(見通しに関する注意事項)

本資料の業績予想は、現時点において見積もられた見通しであり、これまでに入手可能な情報から得られた判断に基づいております。

従いまして、実際の業績は、様々な要因やリスクにより、この業績予想とは大きく異なる結果となる可能性があり、いかなる確約や保証を行うものではありません。

Appendix

資本政策・株主還元

- 2020.3期は、年間配当20円へ増配を計画。
- 株主還元方針に変更なし。
安定配当を基本とするものの、成長性、財務バランス等を総合的に勘案し決定する。

