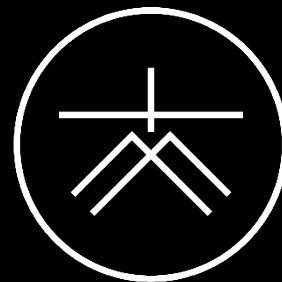

Significance of Small and Medium-sized Enterprises' Addressing SDGs



大川印刷
OHKAWA PRINTING, SINCE 1881

Tetsuo Ohkawa
Representative Director

Corporate Profile

Head Office: Totsuka-ku, Yokohama

Year of Establishment: 1881, Years in Business: 137 years

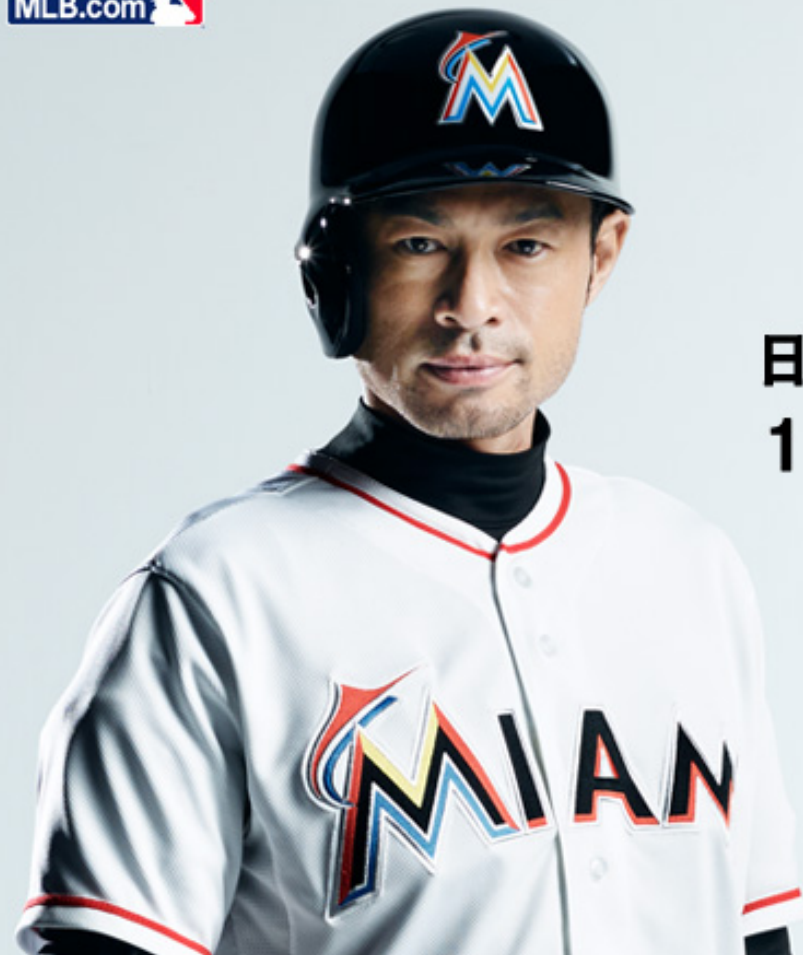
Capital: 20,000,000 yen, Number of Employees: 36 (as of November, 2018)

We have been in operation with “Social Printing Company” as our public mission since 2005.

We have been the only case of achieving Zero Carbon Printing in Japan with all the CO₂ emissions to be generated through its annual printing business preliminarily offset.

Selected as one of the leading small and medium-sized enterprises eligible for a project of the Ministry of the Environment that assists these enterprises' efforts to address 2-degree goal and RE100 initiative, we aim at achieving RE100 within this year.

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第2類医薬品



Excerpts from the original web pages of
respective companies.

Important Points to Be Conveyed in the Training

- **Backgrounds of Local Small and Medium-sized Enterprises' Addressing SDGs**
- **Business Plan for SDGs to Incorporate SDGs into Corporate Management**
- **Contents of Business Plan for SDGs**
- **Examples of Local Collaborative Efforts by Companies, Municipalities and NPOs**
- **Significance of Local Small and Medium-sized Enterprises' Addressing SDGs**

About SDGs (Sustainable Development Goals)



- Internationally common goals to be achieved in a period from 2016 to 2030
- The most distinctive feature of SDGs comprising 17 goals (as shown above) and 169 targets is that they are universally applicable to all countries including industrialized ones.

64 former employees of printing firms have claimed workers' compensation for their bile duct cancer as of the end of February in 2013 (including 39 who were already dead at the time of their claims), which caused a social problem.

(Excerpt from the article of Nikkei Shimbun on March 14, 2013)

Nikkei Shimbun, August 7, 2012

胆管がん 広がる「被害」

大阪市の印刷会社の元従業員らが相次いで胆管がんを発症した問題は、宮城や東京などの印刷会社にも広がり、埋もれていた「被害」が明らかに。印刷業界は「被害」が明らかになってきている。印刷業界は「被害」が明らかになってきている。印刷業界は「被害」が明らかになってきている。

全国24人 うち14人死亡



記者会見する印刷会社の元従業員ら
(7月31日、大阪市中央区)

印刷従業員 若手に多く 業務との関係調査

胆管がん 肝臓でつくられた胆汁を十二指腸に流す胆管にできるがん。初期には自覚症状がほとんどなく、胆汁の流れが悪くなることで黄疸(おうだん)の症状が出て見つかることが多い。外科的切除のほか放射線治療や化学療法も用いられるが、発見が遅れると治療は難しいとされる。独立行政法人国立がん研究センターの統計によると、2010年に胆管がん胆のうがんと含むで死亡した人は約1万7千人。罹患(りかん)率は、死亡率ともに50歳代以降で増加し、70歳代がピークとなっている。

胆管がんは6日、取材に「連絡先が不明の元従業員もいるが、どのように健康状態を把握するかは検討中」と説明。ただ洗浄剤中の化学物質と発症については「因果関係は不明」としている。

発症者や遺族を支援する関西労働者安全センター(大阪市)によると、この印刷会社の従業員で最初に発症が確認されたのは1996年。発症者はいずれも色見本などの試し刷りを行う校正印刷作業に従事していた。

地下1階の作業場は外窓がなく、一部の有機溶剤を使う際に義務付けられている排気装置も最近まで設置されていなかったという。元従業員は「湿気が膨張しないよう

閉め切られ、洗浄剤の刺激臭が立ち込めていた。洗浄剤のふたも開けっ放しだった」と話す。

当初は「特殊な環境で被害が広がっただけ(ある印刷工業組合)との見方があったが、その後、厚労省の調査で宮城、東京、静岡、石川の4都県の印刷会社で、校正印刷ではなく一般印刷業務でも発症者が判明。さらに印刷部門外の発症者も確認され、7月末までに発症者は計24人(うち死者14人)に増えた。

判明した事例は発症年齢が比較的低い特徴があり、大阪市の印刷会社では20〜40代。大阪市立大学の久保正二准教授は「若い世代にこれだけ発症例があるのは統計的に考え

た結果、アスベストのように肺ではなく、胆管でがんを発症する患者が多い理由も不明だ。厚労省の担当者は「労災の疑いはあるが、因果関係などが分からない。調査を急ぎたい」としている。

Backgrounds of Local Small and Medium-sized Enterprises' Addressing SDGs

- The revision of the Charter of Corporate Behavior by the Japan Business Federation focused on the achievement of SDGs through Society 5.0 (2017)
- Publication of ISO20400-Sustainable Procurement (2017)
- Expansion of SRI (Social Responsibility Investment) and ESG (Environment, Society and Governance) Investment
→ Social demand for the disclosure of nonfinancial information

It was considered to be inevitable that suppliers and business partners required us to observe SDGs.

Business Plan for SDGs to Incorporate SDGs into Corporate Management



Business Plan for SDGs: Matrix of Challenges by Importance

Interests of stakeholders

Ohkawa Printing's 2018 Business Plan for SDGs

Interests of stakeholders	Extremely important	<p>[7. Affordable and Clean Energy]</p> <ul style="list-style-type: none">Realization of printing business through RE100 (Renewable energy supply through the installation of solar panels and the contract with Minna-denryoku) by Tanaka <p>[15. Life on Land]</p> <ul style="list-style-type: none">More than 50% use rate of FSC (Forest Stewardship Council) certified paperProduction of FSC recycled paper by Kikuchi and MatsuoRenewal of respective calendars by Sugimura <p>[9. Industry, Innovation and Infrastructure]</p> <ul style="list-style-type: none">100% no VOC use (by 2020) by SatoAssessment of the states of machines in machine maintenance by Ueda	<p>[8. Decent Work and Economic Growth]</p> <ul style="list-style-type: none">Healthy management, improvement in working conditions and reduction in overtime by Otaki, Minowa and ShimizuCreation of jobs and customers in place of attachments (seals and labels) by SatoReview of costs and prices and creation of unit price table by HoraiIncrease in the levels of salaries by Tanaka <p>[12. Responsible Consumption and Production]</p> <ul style="list-style-type: none">Improvement of quality assurance and management by FukuyoAchievement of zero emission by Ito and TakahashiPromotion of marketing more than just introduction of a company by HoraiStudy on 2D and 3D by Okada	
	Important	<p>[17. Partnerships for the Goals]</p> <ul style="list-style-type: none">Participation in external seminars and publication by KajiwareAcceptance of interns by Tanaka <p>[6. Clean Water and Sanitation]</p> <ul style="list-style-type: none">Research on the treatment process of dampening water discharged from printing machines by Printing Department	<p>[5. Gender Equality]</p> <ul style="list-style-type: none">Collaborative work with the Yokohama Gender Equality Center by KajiwareRose project by Imai <p>[4. Quality Education]</p> <ul style="list-style-type: none">Enhancement of training for human resource cultivation by Nakahashi, Moroboshi and InoueImprovement of skill and knowledge in printing, bookbinding and peripheral work by Sato, Takahashi, Sasaki, Haraguchi and Sakurai <p>[8. Decent Work and Economic Growth]</p> <ul style="list-style-type: none">Promotion of high-spirited and proactive work place by KusamaImprovement of evaluation system by the members of management improvement committeeYoung café by Ueda	
	Moderately important	<p>[4. Quality Education]</p> <ul style="list-style-type: none">Creation of exciting program to experience typographical printing by Ugajin, Shimizu and MinowaAcquisition of the certification of First Grade Printing Engineer (Sasaki)Acquisition of the certification of Second Grade Printing Engineer (Ueda)	<p>[4. Quality Education]</p> <ul style="list-style-type: none">Implementation of a workshop with the president as an instructor by President Ohkawa	
		Moderately important	Important	Extremely important
Level of influence on Ohkawa Printing				

Formulation of business plan through a bottom-up process getting full participation of the employees

→ Promotion of activities motivated by the sense of participation among employees while eliminating the sense of being pushed to work to the extent possible

目標 8 包括的かつ持続可能な経済成長及び全ての労働者が完全かつ生産的な雇用と働きがいのある人間らしい雇用（ディーセントワーク）を促進する

ターゲット

5 ジェンダー平等を実現しよう

男女共同参画センター横浜との協働
ベラ（6月20）カード仕様・価格表・販売
横浜ソーシャル映画祭（1回20~30名）外部との交流
短編シネ + 懇談会 → 新規と交流
社内 = ジェンダー平等とは（当事者を囲んだ）
10-11-12-13-14
外部との平等参加計画

4.7印刷・Photo文化研究
ジェンダー平等

【新人教育】 12.8.1
各セクションの教育制度の確認及び確立
履歴書の有無

PSM, FSC, CSRなどの知識を
全従業員を得る事による持続可能な
企業の信頼性と品質を
維持する

(FSC) 50










大川印刷

OHKAWA PRINTING, SINCE 1881



Project Teams for the Ohkawa Printing's 2018 Business Plan for SDGs

 [7. Affordable and Clean Energy]	 [8. Decent Work and Economic Growth]	 [8. Decent Work and Economic Growth]	 [12. Responsible Consumption and Production]	 [12. Responsible Consumption and Production]	 [12. Responsible Consumption and Production]	 [15. Life on Land]
RE100 printing project	Young café project	SDGs Fun to Work project	Zero emission 2020 project	Project for promoting marketing more than just introduction of a company	Quality assurance team	Project for branding FSC Ohkawa, the first case in Japan



RE100 project



Young café project

Zero Carbon Printing, the Only Case in Japan



事業活動CO₂ゼロ化

大川印刷 炭素相殺仕組み活用

大川印刷（横浜市戸塚区、大川哲郎社長、045・812・1131）は、1日から事業活動で発生する二酸化炭素（CO₂）排出を実質ゼロにする。他の場所で削減したCO₂量をクレジットとして調達し、自らの排出を打ち消すカーボンオフセット（炭素相殺）の仕組みを活用する。事業全般で発生するCO₂全量のゼロ化は印刷業界で初という。

工場やオフィス、印刷物の輸送などで発生するCO₂をゼロにする力をつける。ゼロ化のために国の「J-クレジット制度」を利用する。北海道下川町と山梨県の森林保全で排出を抑えられたCO₂量や、家庭用太陽光発電システムの導入によるCO₂削減量をクレジットとして調達し、175トンを相殺する。

大川印刷はクレジットの購入を通じて、印刷事業と密接な森林資源の保全を支援できる。同社から印刷物を調達する企業や自治体も間接的に環境保全に協力できる。印刷物に「CO₂ゼロ」が分かる環境配慮に取

かるマークを表示する。2015年末には石油系溶剤0%インクの普及活動が評価され、地球温暖化防止活動環境大臣表彰を受賞した。

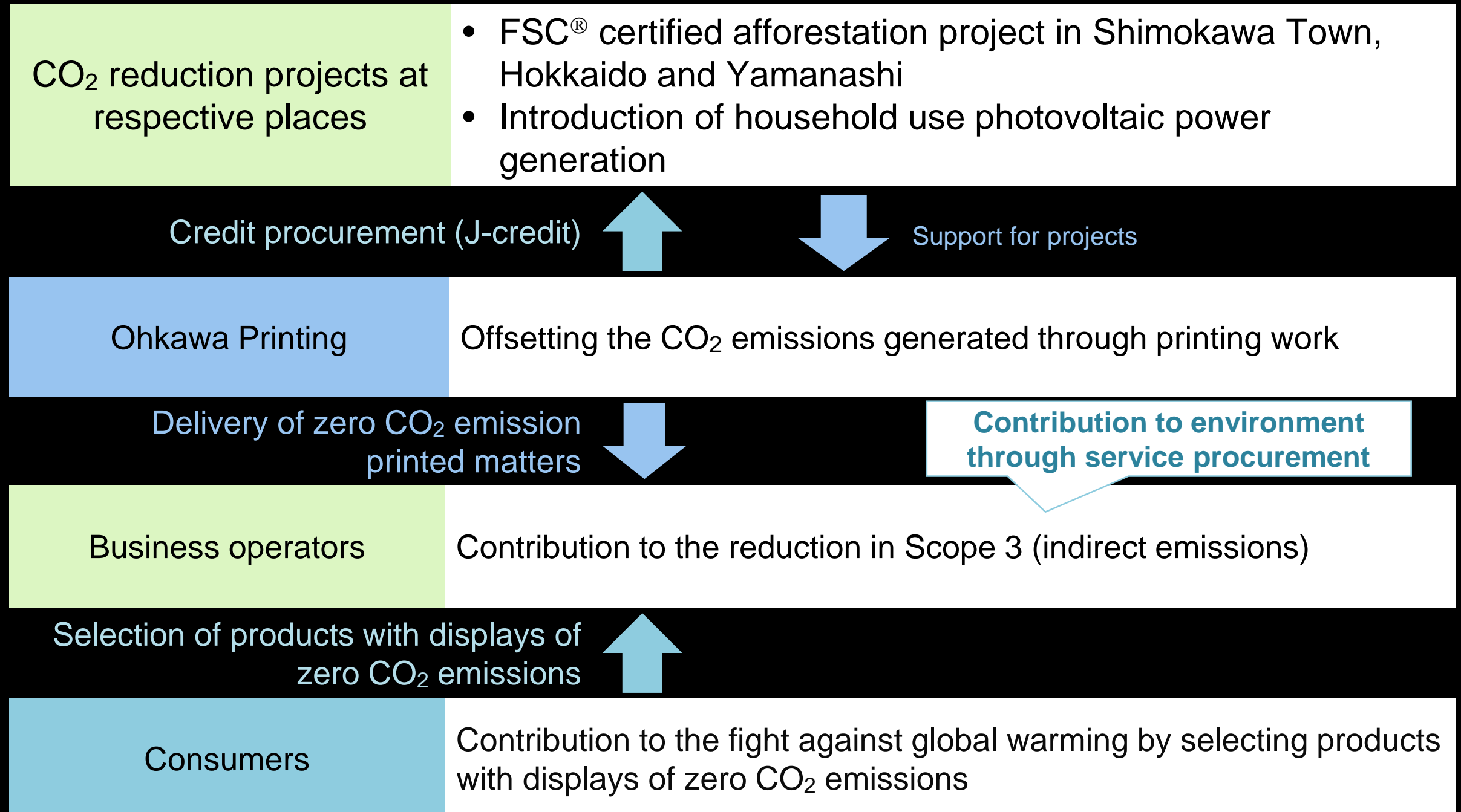
事業のCO₂排出量 100%カーボン・オフセットの仕組み

各地のCO ₂ 削減事業	・北海道下川町、山梨県の森林育成 ・家庭用太陽光の導入
クレジット調達 ↓ プロジェクトの支援 ↑	
大川印刷	印刷事業に関わるCO ₂ 排出量をゼロ
CO ₂ ゼロ印刷物を納品 ↓ 調達により環境貢献 ↑	
顧客事業者	CO ₂ 配慮をPR

Zero Carbon Printing



A mechanism to offset all CO₂ emissions generated through printing work



Effects of Zero Carbon Printing



CO₂ offset amounts by projects

	2016	2017	2018 (planned)
Power supply through household use photovoltaic power generation system	165 t	159 t	167 t
Projects for enhancing forest biomass at many places including Gomionsen, Shimokawa Town, Hokkaido	5 t	5 t	1 t
Project for enhancing Yamanashi prefectural forest biomass as countermeasure against global warming	5 t	5 t	1 t
Yokohama Blue Carbon Project		1 t	1 t
Total	175 t	170 t	170 t

Installation of Solar Panels with No Initial Investment Cost



- Completion of the installation of solar panels on the head office building in July



日本経済新聞

太陽光発電 横浜の事業者向け 初期投資 負担ゼロ

ソーラーフロンティア

太陽光電池製造・販売のソーラーフロンティア（東京・港）は横浜市内の事業者向けに、初期投資の負担ゼロで太陽光発電システムを導入する事業を始める。発電システムは同社の費用負担で事業者の敷地内に設置。事業者は消費電力の一部を太陽光発電から購入する。設置や維持管理には市内の工務店などを使う。正月など工場が稼働

い、地域での関連ビジネスの創出にもつなげる。第1弾として大川印刷（横浜市）と発電容量90キロワットのシステムの導入契約を締結した。契約期間は17年間。6〜7月をめどにシステムの設置を終え、稼働する予定だ。

ソーラーフロンティアは太陽光パネルで発電した電力を大川印刷に売

している期間の余剰電力は固定価格買い取り制度で電力会社へ売電し、契約期間内に設置・維持管理にかかる経費を回収する。

事業には横浜市内で再生可能エネルギーの普及に取り組む事業者などで構成する市地球温暖化対策推進協議会も参加する。ソーラーフロンティアはパネルの設置・維持管理などに同協議会関連の事業者を使う方針だ。

日本経済新聞_2018年3月6日（火）朝刊

Selected as One of the Leading Small and Medium-sized Enterprises Eligible for a Project of the Ministry of the Environment that Assists These Enterprises' Efforts to Address 2-degree Goal and RE100 Initiative



- Setting of SBT (Science Based Target)
- Calculation of emission amounts in Scopes 1 and 2
- Selection of a Scope 3 category, either an emission amount per product or service or contribution to emission reduction
- → **Achievement of RE100 printing company (within this year)**

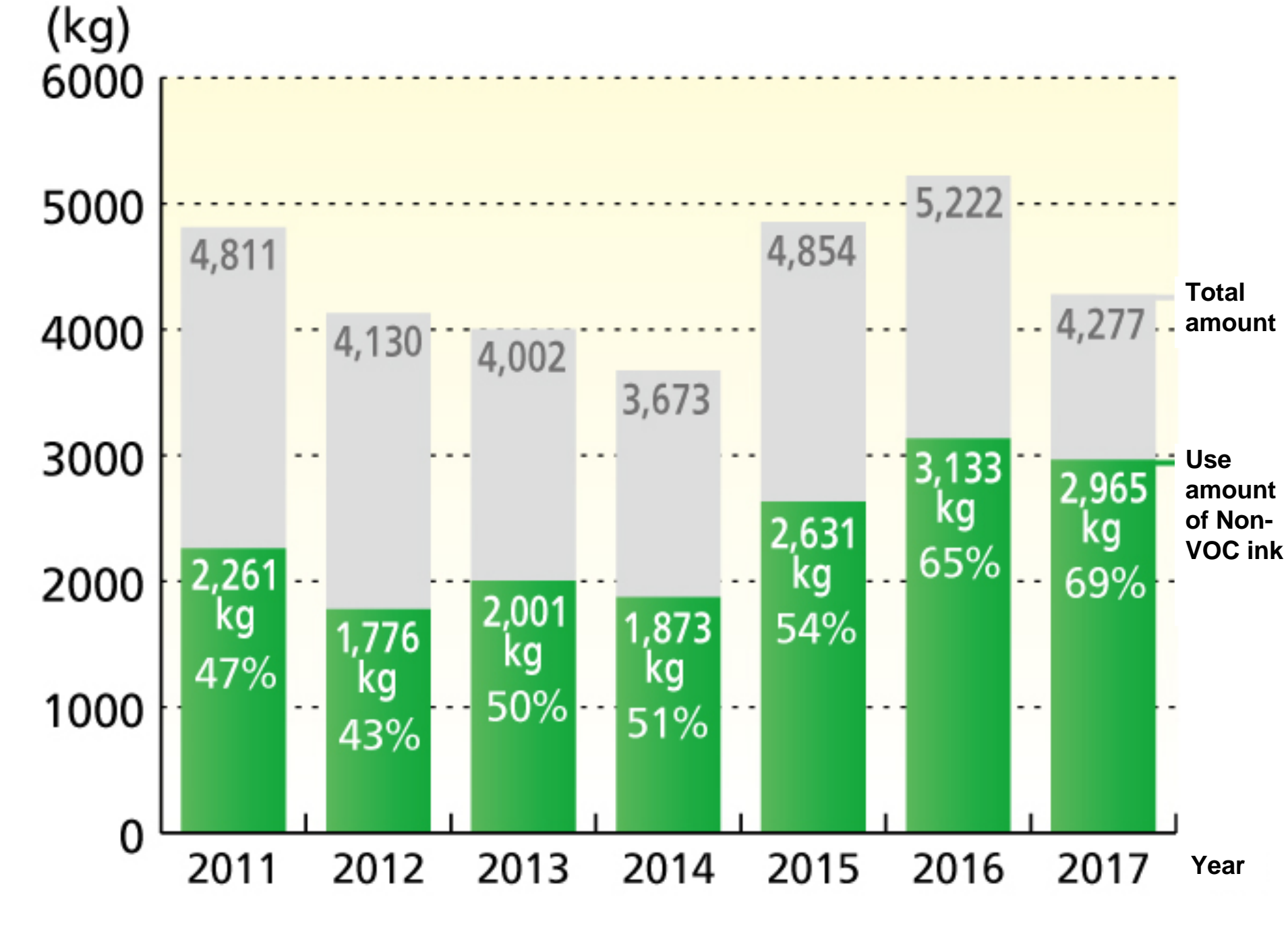
Effects of SDGs: Human Resource Cultivation and ESD



1. I realize the significance of environment conscious attitude toward individual work in a company because it has a strong relation to global issues.
2. I thought that SDGs are the key words to select a place of employment for my child (a high school student) when a guidance counselor told us that every company looks animated now because of 2020 Olympics but we have to look for companies which will be flourished even after 2020.
3. Children's shopping behavior has been changed after knowing SDGs.



Sustainable Procurement: Use of Ink with No Inclusion of Petroleum Oil for 70% of Deliverables



* Ink with no inclusion of petroleum solvent has been used since 2005 (statistical data for such ink is available from 2008)

Production Amount and Share of Environment-friendly Planographic Ink (Unit: T and %)

	2011		2013		2015	
	Production	Share	Production	Share	Production	Share
Vegetable-oil-based ink	124,926	85.0	115,999	89.3	105,680	95.2
Non-VOC ink (excluding UV ink)	1,196	0.8	2,239	1.7	1,617	1.3

Non-VOC ink has accounted for only a few percentage points in the total ink production.

The percentage point was only 1.3 in 2015.

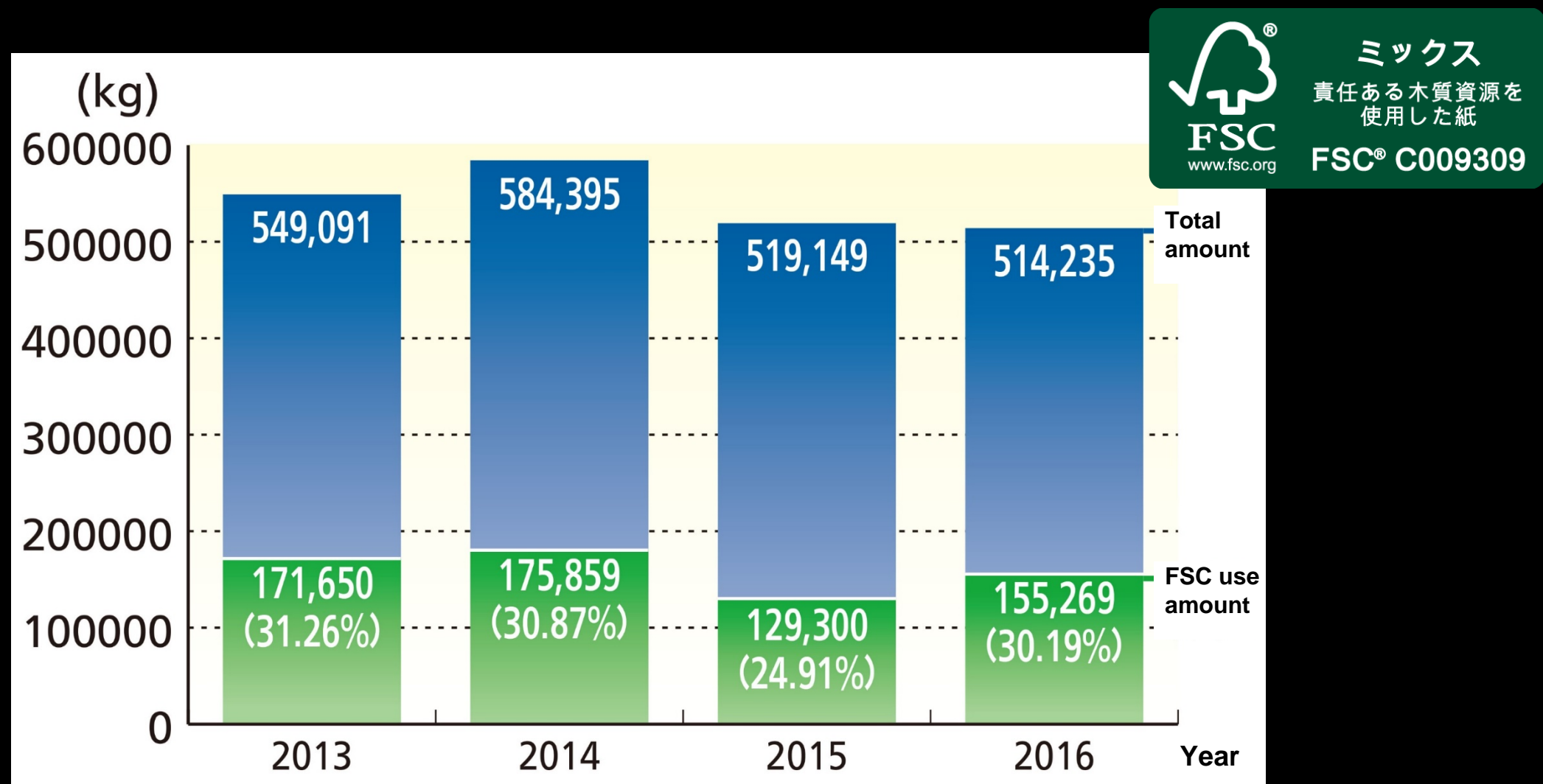
Sustainable Procurement: Effects of the Use of Non-VOC Ink



- Prevention of global environmental pollution and destruction
- Reduction in the use of fossil fuel
- Reduction in VOC (volatile organic compounds) responsible for air pollution
- Alleviation of the symptom of people with chemical sensitivity
- Employees' high marks for improved work environment
→ Safe and healthy workplace



Sustainable Procurement: FSC Use Rate of 39% in 2017



FSC certification system has been in operation since 2004 and the cumulative total number of deliverables with the display of FSC certificates reaches 3,869.

UV LED Printing and CCD Cameras



UV LED printing press can save more than 70% of electric power consumption compared to conventional printing presses.



Quick-drying performance of UV LED printing press = Shortening of working hours



導入された検査カメラ

ナンバリングされた印刷物

Significant reduction in defective printing = Shortening of working hours

Example of Community Activity: Exchange Meeting for SDGs through River Project



Purposes of the Exchange Meeting for SDGs through River Project

- Formulation of a flexible study group by local residents and companies along a river to experience the environmental issues associated with the river
→ Establishment of a partnership
- Correct understanding of and actions against the problems with waste plastic
- Fostering of people who act for SDGs not who think about SDGs
→ Production of activists for SDGs
- + Monitoring and curbing of greenwash
- → Horizontal development of this model activities for the promotion of SDGs throughout the country



Significance of Local Small and Medium-sized Enterprises' Addressing SDGs

Responding to the approach of the ICSB (International Council for Small Business), which is a major international authority of the research on small business, the United Nations designated June 27 as Micro, Small and Medium-sized Enterprises (MSMEs) Day in 2017.

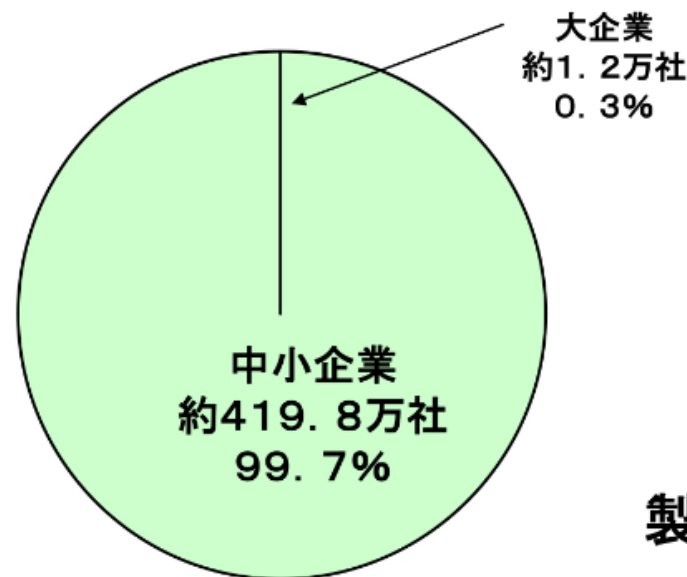
Participation of MSMEs accounting for 99.7% of all enterprises is of significance for promoting SDGs.

SDGs are higher incentives than CSR.

<1. 日本の中小企業>

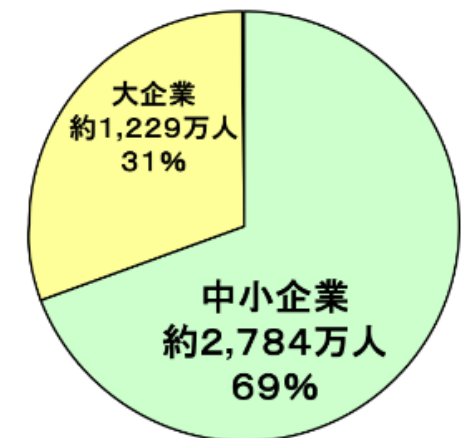
中小企業は、我が国421万企業のうち99.7%を占める。
従業員数・付加価値額(製造業)においてもそれぞれ7割、5割以上を占める。

企業数(421.0万社)



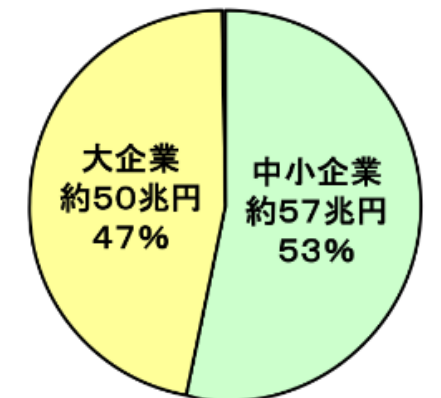
従業員数

(4,013万人)



製造業付加価値額

(108兆円)

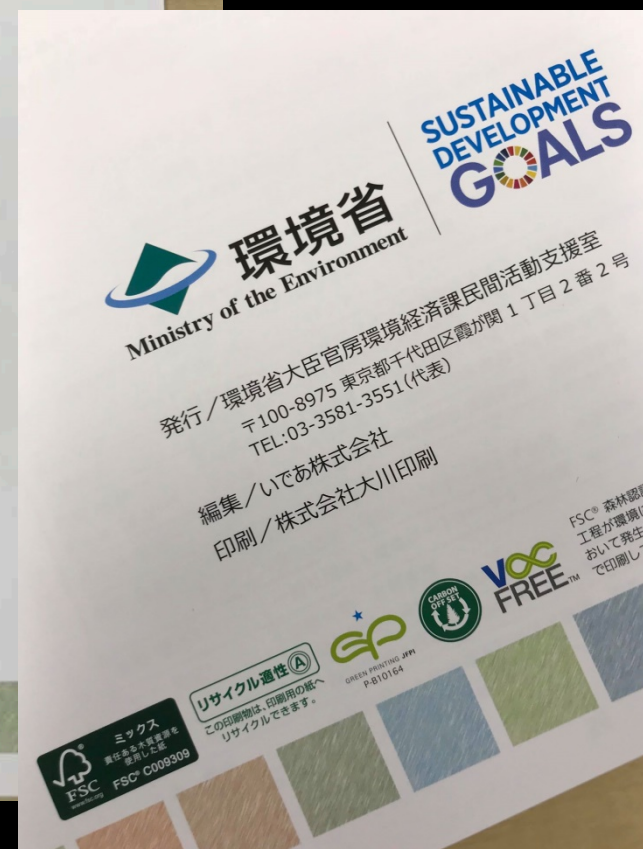
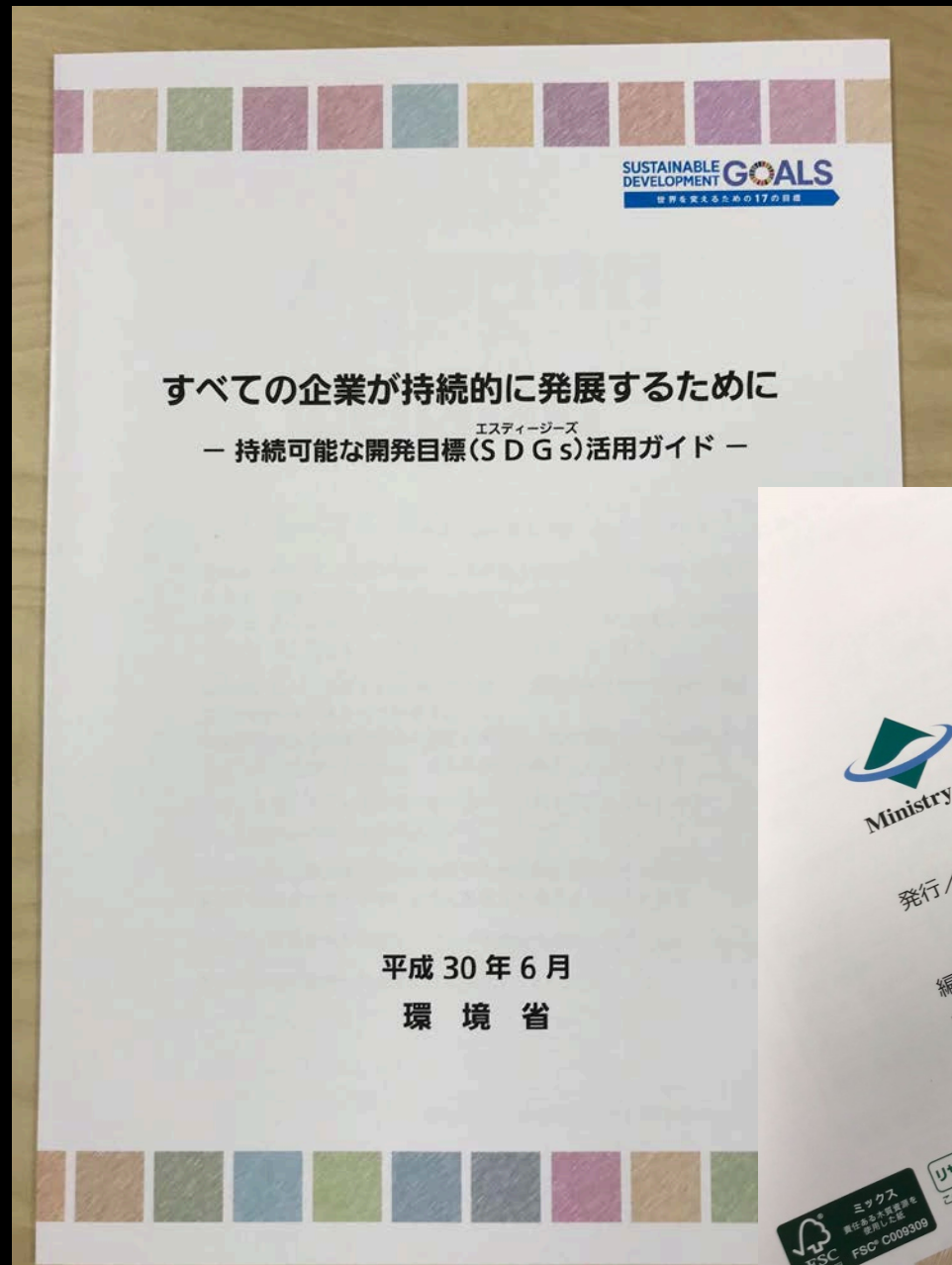


中小企業の定義／製造業：資本金3億円以下又は従業員数300人以下
卸売業：資本金1億円以下又は従業員数100人以下
小売業：資本金5千万円以下又は従業員数50人以下
サービス業：資本金5千万円以下又は従業員数100人以下

経済産業省「工業統計表」(2006年)

総務省「事業所・企業統計調査」(2006年)再編加工

SDGs Have Helped Win 36 New Customers Including 4 Listed Companies This Year



Factory Tour Is Available on Every Wednesday



<https://www.ohkawa-inc.co.jp/>