

# Efforts Toward Erasing Anxiety over Radiation and Regional Recovery by Alpine

February 19, 2020

Alps Alpine Co., Ltd.

Ver1.1E

The logo for ALPSALPINE, featuring a stylized 'A' composed of two parallel diagonal lines followed by the word 'ALPSALPINE' in a bold, sans-serif font.

- 1. Company Profile**
- 2. Efforts Toward Erasing Anxiety over Radioactivity**
- 3. Efforts Toward Regional Restoration**

## **1. Company Profile**

## 2. Efforts Toward Erasing Anxiety over Radioactivity

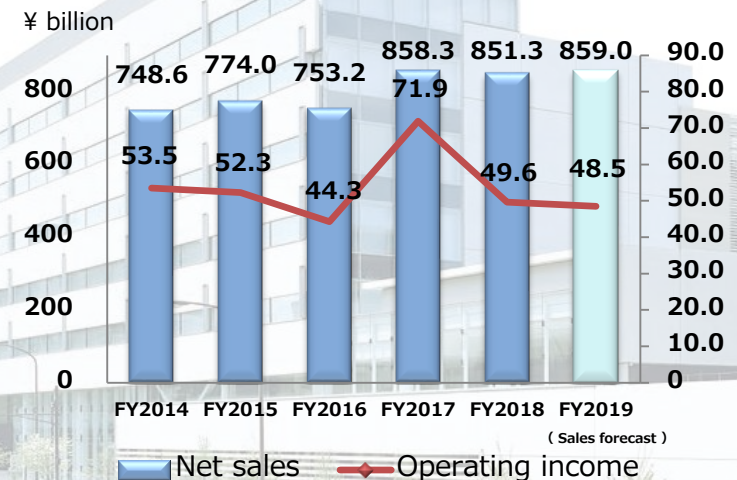
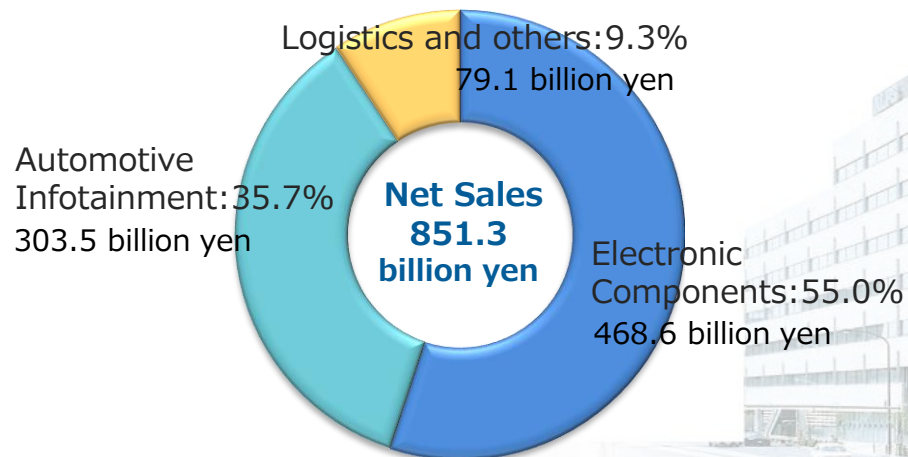
## 3. Efforts Toward Regional Restoration

# 1-1 Corporate Profile

## Basic Data

Data as of the end of September 2019

Name of company : ALPS ALPINE CO., LTD.  
 Head office : Outa-ku Tokyo  
 Representative Director : Toshihiro Kuriyama President & CEO, ALPS-COO  
 Nobuhiko Komeya Senior Executive Vice President, ALPINE-COO  
 Established : November 1, 1948  
 Capital stock : 38.730 billion yen  
 Company to consolidate : 87  
 Number of employees : 41,840  
 Former Alps Electric electronic components segment 21,468  
 Former Alpine automotive infotainment segment 13,192  
 Net Sales (Consolidated) 851.332 billion yen  
 Former Alps Electric electronic components segment 468.605 billion yen  
 Former Alpine automotive infotainment segment 303.593 billion yen



FY2019 Supposed exchange rate ¥110/USD, ¥125/EUR

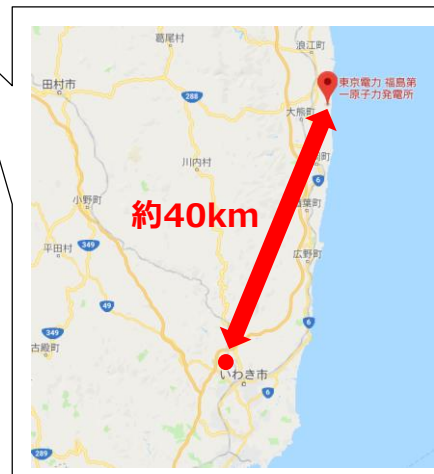
# 1-2 Corporate Profile (Iwaki-office, Fukushima)

①

Alpine Electronics Inc., currently Alps Alpine Co., Ltd. Iwaki-office, develops, manufactures, and sells **audio products for automobiles and information and communication products.**



appearance of the office

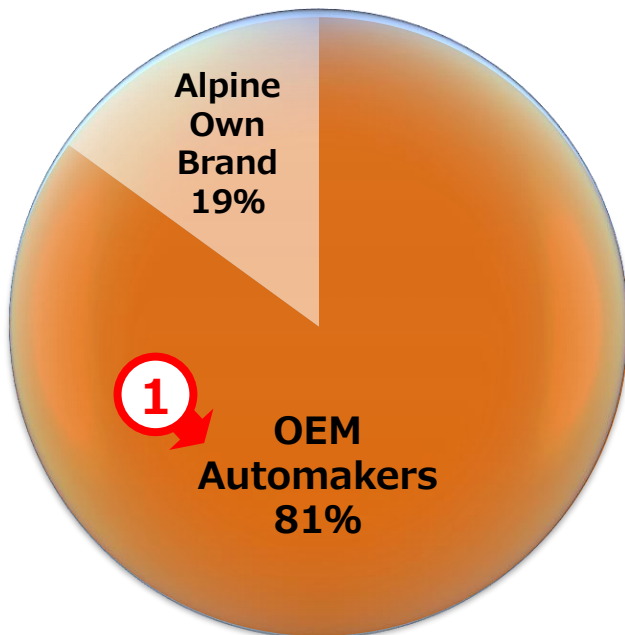


located to approximately 40km in distance in a straight line from Fukushima Daiichi Nuclear Power Plant.

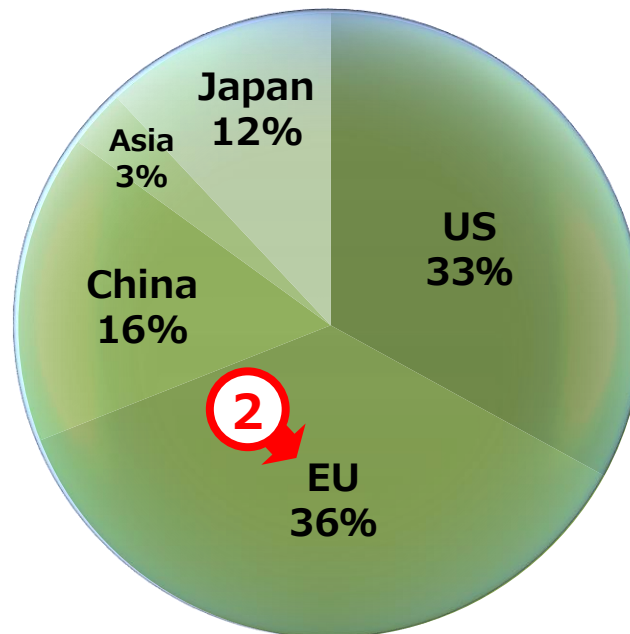
# 1-3 Corporate Profile : Financial Results

Consolidated Financial Results for the Fiscal Year Ended March 31, 2018

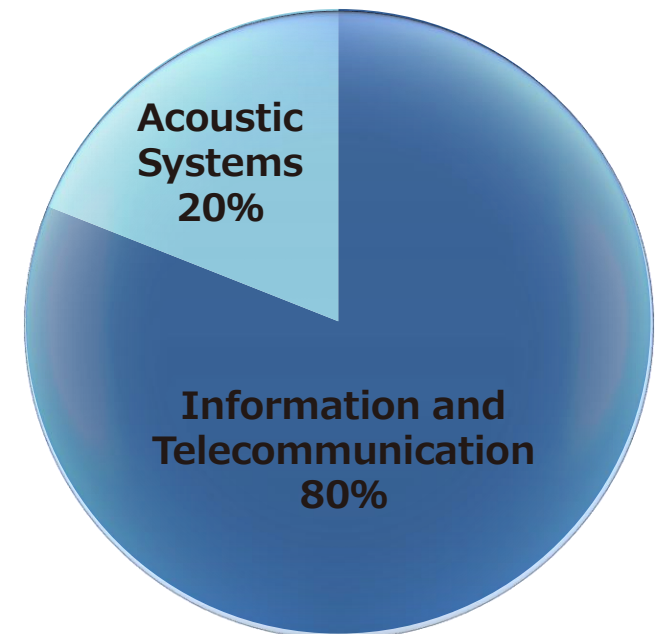
**Ratio of Net Sales by Business Segment**



**Net Sales by Region**



**Ratio of Net Sales by Product Segment**



1. Company Profile

**2. Efforts Toward Erasing Anxiety over  
Radioactivity**

3. Efforts Toward Regional Restoration



# 2-1 Increase of Employees who Quit the Company due to Anxiety over Radioactivity from the Nuclear Power Plant

① 11 employees quit the company due to anxiety over radio activity from the nuclear power plant in a half-year from April to September 2011.

## Comments from employees who quit the company between April and September 2011

Age	Sex	Family Structure	Reason of leaving
35	Male	Wife & 3 children (age of 7, 3, 1)	His wife became ill due to anxiety over the nuclear power plant. He worried about health of his children and decided to move.
38	Male	Wife & 1 child (age of 3)	His wife will give birth in Dec. He decided to move to wife's parent house (Saitama) considering his child(ren).
36	Male	Wife & 2 children (age of 9, 6)	He decided to move to his home town (Fukuoka) due to anxiety over the nuclear power plant.
34	Male	Wife	His wife did not agree with living in Iwaki due to anxiety over radioactivity.
26	Male	Single	He decided to go back to his parent home (Kobe) due to anxiety over the radioactivity from the nuclear power plant.
30	Male	Wife & 1 child (age of 10)	His wife disagree with living in Iwaki due to anxiety over radioactivity.
39	Male	Wife & 1 child (age of 3)	His wife and child moved to her parent house (Chiba) due to anxiety over radioactivity. He realized hardness of single life and decided to get a job in Chiba.
33	Male	Wife & 2 children (age of 8, 5)	His family evacuated to Saitama due to anxiety over radioactivity. Cost of living became doubled and decided to get a job in Saitama.

## Survey in November 2011

75 employees answered that they had problems related to radioactivity from the nuclear power plant.

12 employees answered that their families voluntarily evacuated due to radioactivity from the nuclear power plant.

②

Lack of persuasive information on safety about radioactivity seemed to make the employees quite the job

③

We took security and safety measures to reduce employees who quit the company due to the anxiety over radioactivity from the nuclear power plant.

**Start of activities to erase the anxiety**



# 2-2 Lecture on Influence of Radioactivity

- 1 ■ We gave a lecture to erase anxiety about life and health of employees and their families due to Fukushima nuclear accident, make them acquire accurate knowledge on damage caused by radioactivity and utilize it for their future life.

Held on : Tuesday, October 11, 2011

Participants : 190 persons

Lecturer 2 : Health risk adviser of radiation in Fukushima  
Prof. of Nagasaki Univ. Noboru Takamura

Contents : Difference between radioactivity and radiation  
(Becquerel and Sievert)  
Half-life (Physical half-life and biological half-life)  
External exposure and internal exposure  
Radioactive rays and health effect  
Radiation exposure, and food and water



Prof. Takamura

## ■ Others

Selection of food which does not cause internal exposure  
Mental effect affected by radioactivity  
Effective use of radiation meters  
Points of decontamination  
Somatic effect and important points



# 2-3 Special Lecture by Nagasaki Univ.



- An employee attended lectures to acquire accurate knowledge on influence of radioactivity before counseling employees and their families to eliminate anxiety over their life and health affected by radioactivity.

Schedule : November 7 – 10, 2011

Attendee : Yumiko Shiota (Alpine clinic nurse)

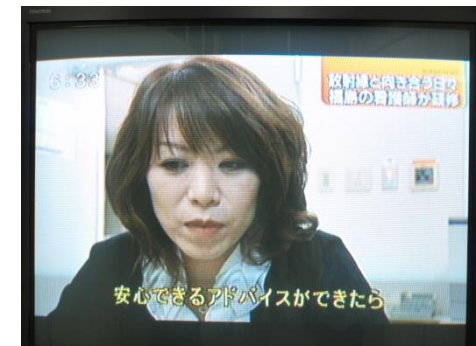
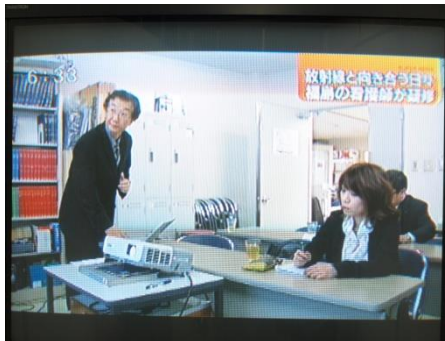
Contents : 1. Nagasaki Atomic Bomb and rescue,  
(Atomic Bomb Disease Institute: Associate Prof. Mine)

2. Radiation and basics of radiation exposure,  
(RI center: Prof. Matsuda)

3. Medical care for radiation exposure,  
(Internal medicine no. 2: Lecturer Usami)

4. Radiation exposure and health effect,  
(Atomic Bomb Disease Institute: Prof. Takamura)

5. Radiation exposure and mental health,  
(Neuropsychiatric: Prof. Ozawa)



## 2-4 Lecture and Private Counselling for Families

1

- We provided **private counselling** after the lecture and answered various questions such as food and children's health.

Held on :Tuesday, February 11, 2012

Participants :30 persons

Lecturer :Health risk adviser of radiation in Fukushima

**Prof. of Nagasaki Univ. Noboru Takamura**

Contents :External exposure and internal exposure  
Radiation and health effect  
Radiation exposure and food/water  
Somatic effect and mental influence





# 2-5 Installation of a Spatial Radiation Dose Meter

- We installed a spatial radiation dose meter in July to emphasize the safety and security to customers and employees. (From July, 2012)

## 1 "Visualization" of radiation dose



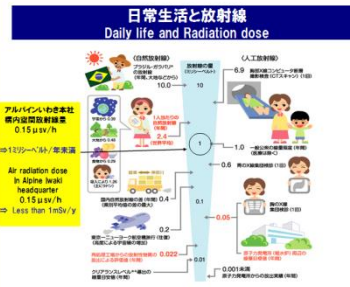
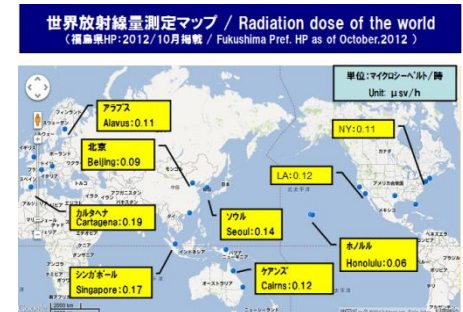
## 2 Reception lobby : Display image (Emphasizing safety to customers)



WELCOME



ALPINE



Display have been finished in Oct., 2016

1

# 2-7 Food Inspection

- 1 We have regularly inspected food used in the staff canteen since September 2012.  
The inspection results are made available to employees to emphasize safety and security.
- We serve dishes cooked using local food.

**放射能測定結果報告書**

アルパイン食堂 様

受付日 2018年7月20日

放射能測定結果を下記のとおりご報告いたします。

記

検体名 定食類

測定結果

測定核種	放射能濃度 (Bq/kg)
放射性セシウム	Cs-134 不検出
	Cs-137 不検出
	I-131 不検出
放射性カリウム	K-40 不検出

※) K-40は、地球の誕生時から地中に含まれている天然元素です。  
 ※) 検出限界値は20Bq/kg以下にて測定しております。

測定機器 T G 150 B ベクレルモニター  
 高分解能ゲルマニウム半導体検出器を使用 (株) テクノエ

特記事項

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 高分解能ゲルマニウム半導体検出器を使用 (株) テクノエ

特記事項

## Publishing on the internal DB

■ APN-IW 食堂提供品 (月1回測定: 20日)

2018年4月	2018年5月	2018年6月	2018年7月
180423-01_アルパイン食堂結果 (定食類) .xlsx	20180521_153148_定食類.xls	180621-01_アルパイン食堂結果 (定食類) .xlsx	180724-02_アルパイン食堂結果 (定食類) .xlsx
180423-02_アルパイン食堂結果 (麺類) .xlsx	20180521_163312_麺類.xls	180621-02_アルパイン食堂結果 (麺類) .xlsx	180724-03_アルパイン食堂結果 (麺類) .xlsx
2018年10月	2018年11月	2018年12月	2019年1月





# 2-8 Radiation Monitoring Processes

## ■ Radiation monitoring process certified by TUV Rheinland

Overseas customers drastically decreased after Fukushima No.1 Power Plant Accident (None from Europe: up to Tokyo if any)

Increase in expenses of overseas business trips to make arrangements with customers and concerns about harmful rumors

1

**Acquired a certificate of TUV Rheinland (most authoritative third party organization in Germany)**

- We acquired a certificate to provide secure and safe products for customers and assure secure and safe labor environment for the employees through reliable measurement of radiation dose



2

Start of activities to acquire the certificate in February 2012.

- 1) On-site survey (measurement of radiation dose)
- 2) Investigation of activities
- 3) Investigation related to radiation management standards
  - Spatial radiation dose measurement (equipment, procedures, archive)
  - Surface contamination measurement (equipment, procedures, archive)
  - Analytical procedures of radioactive substances

3

**Certificated acquired in October 2012**

We display the certificate in the reception lobby so that the customers understand it.

Certification have been expired in Oct., 2016



# 2-9 Check-ups of Internal Exposure

1

- We purchased a mobile whole body counter in October 2012 and started check-ups of internal exposure



Equipment :Chair-type whole body counter  
(made by Fuji Electric)

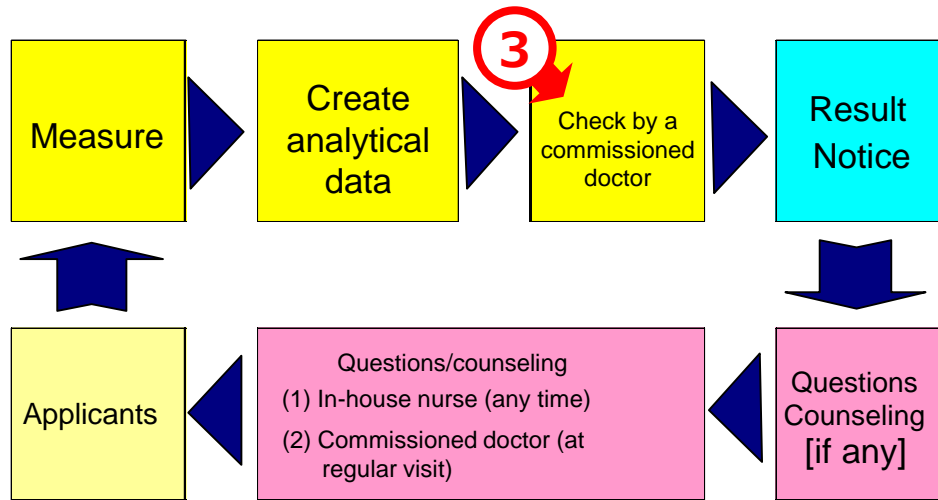
Detection limit :Cs134⇒200Bq  
Cs137⇒220Bq  
(Same value as Iwaki, Fukushima)

Analytical software: MONDAL3 < automatically  
calculates based on measured value/age  
Provided by National Institute for Quantum and  
Radiological Science and Technology



# 2-9 Check-ups of Internal Exposure

## ■ Mechanism to measure internal exposure dose



- Measure residual radioactive substances and calculate effective dose.
- For employees and their families of Alpine and Alpine Group

整理番号: \_\_\_\_\_ 平成 24 年 月 日

検査結果

検査実施機関: \_\_\_\_\_

氏名: \_\_\_\_\_ 様  
( , 平成 年 月 日生、H23年 3月 12日時点年齢: 歳)

検査日: 平成 24 年 月 日 (検査日時点年齢: \_\_\_\_\_)

全身検査

MONDAL3 software used  
Same soft as the city and prefecture

測定器	測定時間 (秒)	核種	測定値 (Bq)	預託実効線量 (mSv)	注 12)
立位型 WBC	180	Cs-134	検出されず	1 未満	
		Cs-137	検出されず		
備考					

(Cs-134, Cs-137 放射性セシウム)

あなたの体内の放射性物質の測定結果から、1年間日常的に摂取することにより、  
受けるとされる線量は、**約 1 mSv 未満** と推定しました。

注1) 成人では50年間、子供では70歳まで体内から受けるとされる内部線量を表す。

注2) 毎日継続して日常的に摂取したと仮定して線量を推定。

4

We make private diagnosis and counselling by Nagasaki Univ. Medical Dept., Prof. Takamura available  
(Health risk adviser of radiation in Fukushima)

via commission contract



# 2-9 Check-ups of Internal Exposure

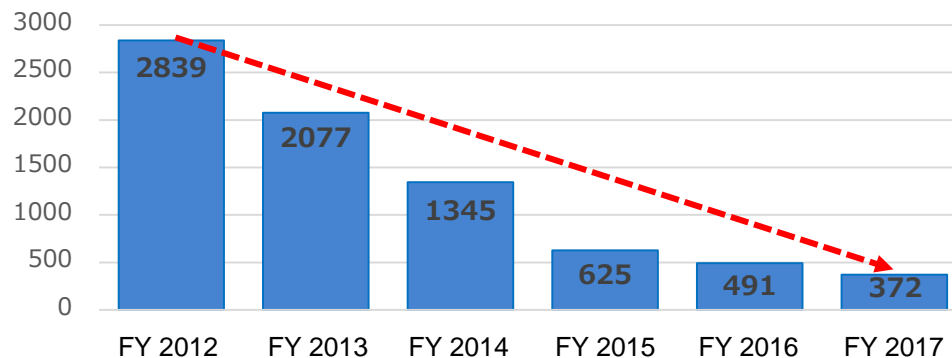
- ① State of implementation of check-ups for internal exposure  
(Annually done from October 2012)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY2017
Measurement period	Oct. 5, 2012 - Feb. 16, 2013	May 1 - Sep. 30, 2013	Oct. 31, 2014 - Jan. 17, 2015	Sep. 24 - Nov. 28, 2015	Nov. 8, - Dec. 17, 2016	Nov. 2019 -Feb. 2, 2018
No. of people measured	<b>2839</b> 1,761 employees 1,078 family members	<b>2,077</b> 1,339 employees 738 family members	<b>1,345</b> 1,000 employees 345 family members	<b>625</b> 419 employees 206 family members	<b>491</b> 389 employees 102 family members	<b>371</b> 300 employees 72 family members

②

The number of people measured is decreasing

No. of people measured

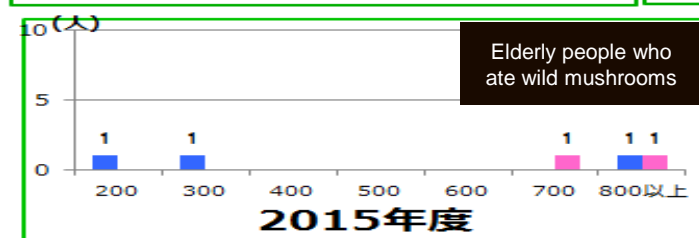
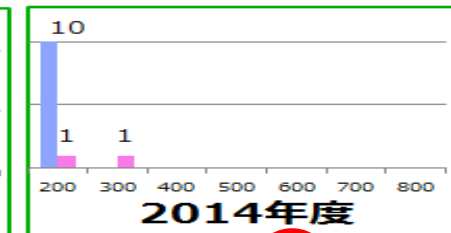
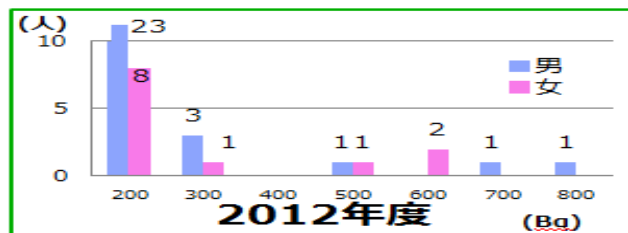
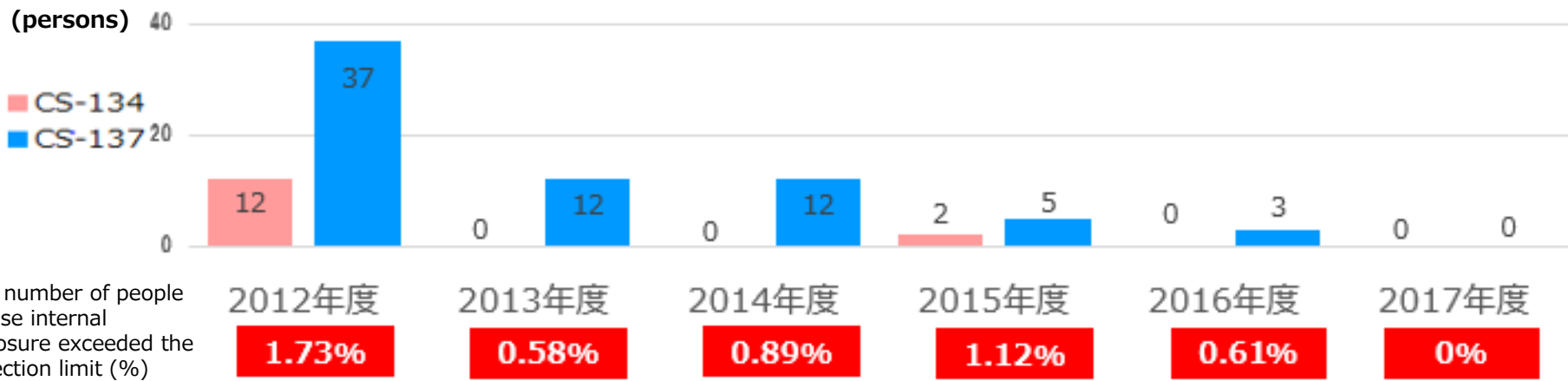


- (1) Detailed information on radioactivity was becoming available.
- (2) People feel a decrease of influence based on lots of information (lecture, data of radiation dose meter located in the yard, results of food inspection, websites of the prefecture and city).
- (3) Employees assume level of influence by taking check-ups as a representative.

# 2-9 Check-ups of Internal Exposure

- We have measured cesium 134/137 in the check-ups for internal exposure. The number of people whose internal exposure exceeded the detection limit and its prevalence are decreasing every year.

Detection limit Cs134: 200Bq Cs137: 220Bq (Same values are used in both Fukushima and Iwaki)

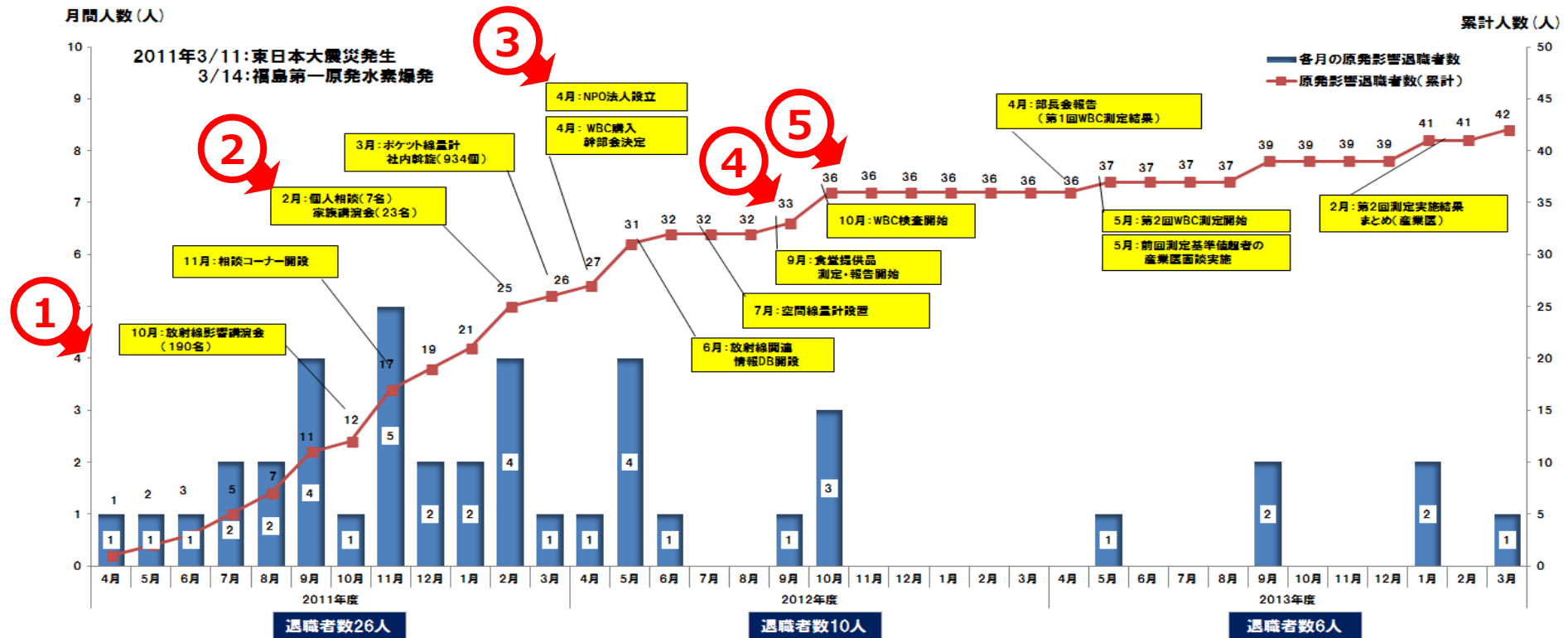


**1**

No detection  
FY2017

# 2-10 Transition of People who Quit the Company

## Transition of people who quit the company due to anxiety over radioactivity from the nuclear power plant from April 2011 to March 2014



While many employees were quitting the company due to anxiety over radioactivity from the nuclear power plant, we took various measures to erase the anxiety such as providing lectures and private counselling, establishing an NPO and inspecting food. As a result, the employees gradually stop leaving the company. In addition, we started the check-ups of internal radiation with the whole body counter and visualized the data, which reduced the anxiety and stopped the increase of people who quit the company.

1. Company Profile
2. Efforts Toward Erasing Anxiety over Radioactivity
- 3. Efforts Toward Regional Restoration**



# 3-1-(1) Cooperation with the NPO

## ■ Cooperation with the NPO, “Iwaki Environmental Systems” (1)

### 1 Participating as a representative company in establishing the NPO

- Iwaki Chamber of Commerce and Industry and other 19 organizations started activities of the NPO “[Iwaki Environmental Systems](#)” on April 2, 2012 [to attempt to assure regional safety, erase harmful rumors and restore the region](#).
- This was the first case that [major organizations in Iwaki cooperate and make efforts for NPO activities](#) and made a big impact at the preparation stage of establishment such as long-term interview by newspaper companies and broadcasters.
- The NPO makes efforts toward regional contribution and restoration from a short and long-term viewpoint by cooperating with the government and major companies as well as local government and entities such as dose monitoring in 5800 companies in Iwaki District and training of measurement leaders.

3

Business contents of the NPO	Detailed contents
1) Radiation dose monitoring	Monitoring in worksites and its support Processed food inspection. <a href="#">Inspection of radioactive substances contained in catering for nursery schools</a> <a href="#">Inspection of radioactive substances contained in catering for schools</a>
2) Rental service and management of radiation dose meters	Renting radiation dose meters owned by Iwaki City
3) Public relations concerning radiation	Call center (Inquiries about decontamination of houses, gutters by the road, etc.)
4) Planning and implementation of restoration events	Cooperation with companies and other organizations to contribute to restoration of Iwaki
5) Activities of new business for regional restoration	Activities for regional revitalization business

Food inspection



Call center



Monitoring





# 3-1-(2)

## Cooperation of Measurement for a Spatial Radiation Dose Map

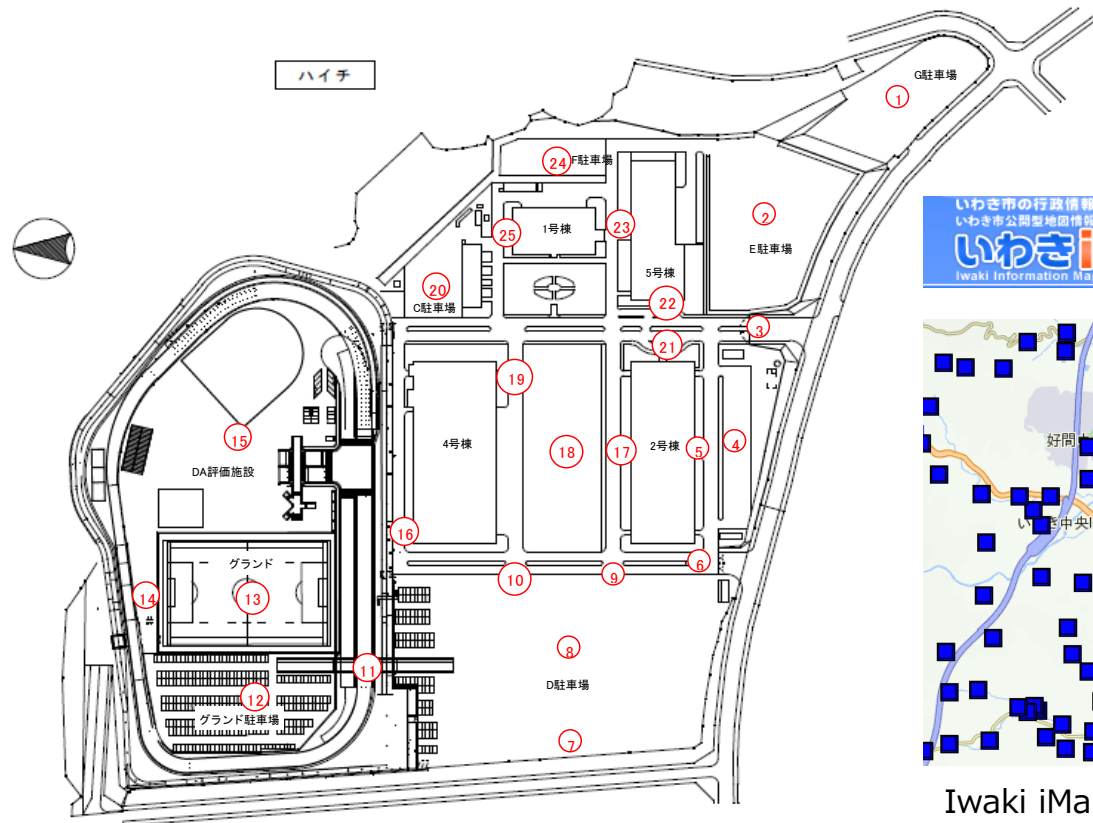
### ■ Cooperation with the NPO, “Iwaki Environmental Systems” (2)

We keep measuring spatial radiation dose in the yard (25 points).

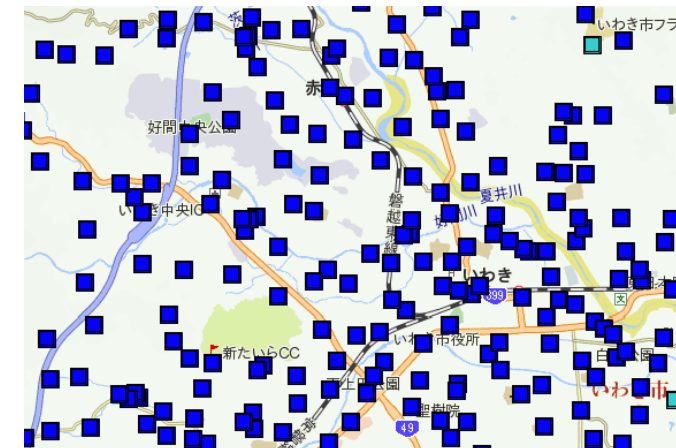
We measure the locations monthly and report the data to the NPO (160 companies in the city cooperate and report information to the NPO).

Iwaki City creates and publishes a spatial radiation dose map in the city regularly based on the information provided.

測定番号	測定値	測定地種類
1	0.14	アスファルト
2	0.11	アスファルト
3	0.13	アスファルト
4	0.11	アスファルト
5	0.11	アスファルト
6	0.14	アスファルト
7	0.11	アスファルト
8	0.09	アスファルト
9	0.12	アスファルト
10	0.11	アスファルト
11	0.08	アスファルト
12	0.16	アスファルト
13	0.19	土
14	0.16	アスファルト
15	0.15	アスファルト
16	0.12	アスファルト
17	0.12	アスファルト
18	0.23	芝
19	0.11	アスファルト
20	0.13	アスファルト
21	0.11	アスファルト
22	0.12	アスファルト
23	0.13	アスファルト
24	0.13	アスファルト
25	0.12	アスファルト



いわき市の行政情報をお届けします  
いわき市公開型地図情報システム  
**いわきiマップ**  
Iwaki Information Map  
テーマ:放射線量測定マップ



Iwaki iMap

<https://www.sonicweb-asp.jp/g-iwaki/>

■ We held Alpine Summer Festival on August 5, 2011

2) 1) Hula girl show with the cooperation of Spa Resort Hawaiians  
2) Local gourmet service (we requested restaurants in the area to open stores, 11 restaurants opened their booths in total)  
3) Invitation to town mayors of and local people from Hirono-city and Naraha-city.



# 3-3 Challenge School

## ■ August 2011 and 2012, We held Challenge School Charity in Iwaki.

We held a charity event produced by a former Formula-1 racing driver, Ukyo Katayama for school children in the city.

- 1) Aug. 4 and 5, 2011 : held at Chuodai-Minami Primary School and Yoshima Daisan Primary School.
- 2) Aug. 3, 2012 : held at Taira Athletic Park.



ALPINE presents  
Mobile Media Solutions

元・F1レーサー 片山右京氏がいわきにやってくる!

### 片山右京チャレンジスクール チャリティ in いわき

～チャレンジすれば、負けないんだ!～

応募要項  
このチャレンジスクールの目的は「挑戦すること」の楽しさを子供たちに体験してもらい、校庭や体育館にサーキットのコースを作り「かっこ」をしてもらいます。次に僕のアドバイスを聞いてタイムを測定し、徐々に子供たちのタイムが上がっていきますので、楽しみながらチャレンジする事の大切さが体験できます。僕がこれまで挑戦し続けてきた経験を、今回のスクールを通じていわきの子供たちと共有したいと思っています。

参加無料

8月3日(金)開催!!

◆会場/平市民運動場 (いわき市平正内町22)  
◆受付/12:30 ◆開校式/13:00  
◆スクール/13:30~16:00 ◆終了/16:30  
◆問い合わせ/福島民報社いわき支社 ☎(0246) 23-3232

主催/福島民報社 共催/KATAYAMA PLANNING 協賛/アルパイン 協力/いわき明星大学

片山 右京 (かたやま うきょう)  
1963年神奈川県横浜市出身。元F1ドライバー。山崎、古賀、藤田、Team UYOを運営するKATAYAMA PLANNING代表。富士レーシング活動の傍ら、子供向けのチャレンジプログラム「チャレンジスクール」を09年4月にスタートさせた。F1時代のリタイアを告げた「チャレンジング」の姿勢は「かたやまウキョウ」と呼ばれ世界で尊敬されている。

~Face a challenge, beat the challenge!~



## 3-4 Participation in Iwaki Restoration Festival

- An event of Iwaki city, [“Ganbappe!, Iwaki Restoration Festival”](#) was held on Saturday, October 1 and Sunday, October 2 in 2011 and [we participated in “Iwaki Odori”](#), a dance program in the festival.

Venue : 21<sup>st</sup> century Forest Park

Participants : [60 employees participated](#) as dancers



# 3-5 Cooperation to Iwaki Fire Brigade

■ Alpine Fire Brigade introduced a fire engine for chemical fire in March 2014.

① Alpine's disaster control manual specifies cooperation with local community and provision of equipment tools in the worksite for the fire brigades during rescue activities and recovery support in disaster.

② Equipment and tools that can be provided during rescue activities in disaster.  
(1) 1 fire engine for chemical fire, (2) 4 operators for the engine, (3) one 2-ton truck,  
(4) Other stocks...Satellite phones, helmets, blankets, etc.





# 3-6 Donation of Navigation Systems to Futaba 8 Village Council

- 1
- Nov. 2014, We provided 8 Alpine's car navigation systems in total when donating compact commercial vehicles for multi-purpose to Futaba 8 Village Council.



# 3-7 Waseda University volunteer activity support

- Sep. 2015, We held an assembly accompanied with Iwaki Volunteer Work by American Football Club of Waseda Univ.

We Invited 99 American football members from Waseda Univ. and 3 staff members from the volunteer center, 102 volunteers in total, and explained efforts toward regional recovery and restoration from the earthquake.

We also had a diner party with them and local people who supported the volunteer work at a canteen in the company.



Dishes cooked with local food were immediately consumed.





## ■ Cooperation to NSRA

Date: Thursday, Feb. 4, 2016

- ① Nuclear Safety Research Association  
Commissioned by MHLW\*<sup>1</sup> in FY 2015  
Project of expert development to respond to workers suffered by radioactivity during emergency work in the nuclear power plant

“Introductory training (Radiation control course)”

- ② Contents  
Operation of a radiation dose meter with a whole body counter and offering of the vehicle for a lecture to view the data.

Attendee : 13 persons

- 2 NSRA staff members
- 2 Japan Atomic Energy Agency members
- 8 trainees (medical staff)

\*1 MHLW: Ministry of Health, Labor and Welfare



## ■ What do we leave from the experience of the earthquake disaster?

①

### Definite understanding of the radiation

- Radiation is invisible (Difficult to cancel the uneasiness)
- Visualization by numbers is only way to feel customer relieved.

②

### Continuation of company activity is biggest contribution

(Desired to restore early and contribute to the area asap)

- Preparation to disaster (BCP, Initial action manual, Water, Gas, etc.)
- We were able to restore our office/plant by support of Iwaki-city in 2 weeks

## ■ What we want to convey in future, or outside of stricken area

We cannot wait for outside support (lose future business!)

- It takes long time if we wait for outside support. (Do revival in ourselves.)
- Cooperation with local administration, company and inhabitants are essential. (Difficult to be settled without cooperation)

③ Inveterate concern from EU car manufacturer (Experience of Chernobyl)  
→ **We want to convey widely that Fukushima is already alright !**

**Thank you for your kind attention.**