

# CSR Report of Hiratsuka Factory

<b>Business activities:</b>	Design, basic research, development and manufacture of aircraft parts, sporting equipment, adhesives and sealants, conveyor belts, marine hoses, fenders and other industrial products
<b>Total site area:</b>	999,000 m <sup>2</sup> (including Hamatite Plant, D-PARC and T*MARY)
<b>Number of employees:</b>	1,710 (as of March 2010)
<b>Location:</b>	2-1, Oiwake, Hiratsuka City, Kanagawa 254-8601, JAPAN
<b>Technical Contact:</b>	Administrations Group, Hiratsuka Factory (Environmental Management office) Tel: +81-463-35-9501



## Message from the General Manager



Toshiyuki Nishida

The Hiratsuka Factory has adopted its environmental policy toward achieving world-class strengths in technologies for protecting the environment, according to the norm of "dealing fairly with society and valuing harmony with the environment," which is stated in our medium-term management plan "GD100."

Under the policy, while further enhancing measures to comply with strict emissions regulations by minimizing emissions with adverse environmental effects, we are creating "a factory

with functions to prevent disasters and to secure safety (essential for local areas), and to make the overall environment cleaner" through various collaborations and communications with local administrations and residents.

In FY2009 we boosted our compliance activities while concentrating on three key areas: (1) improving safety and disaster prevention, (2) regional contributions and (3) regional communications. To this end, we engaged in a range of activities that included providing emergency response drills at the Hiratsuka School for the Blind and local government bodies under the Hiratsuka Disaster Prevention Instructor program, taking part in local events, hosting an electric vehicle assembly workshop, and holding a sixth discussion session with local resident associations.

Under the YOKOHAMA Forever Forest project for environmental protection and harmonious co-existence with the local community, the Hiratsuka Factory has planted 29,006 trees and donated some 15,000 seedlings to a nationwide planting program in Hadano City. By continuing these activities, we want to contribute to regional development and to live in harmony with local communities, always mindful that the factory is a chemical plant located in the center of the city of Hiratsuka.

## Environmental Initiatives

### Environmental Policy in FY 2010

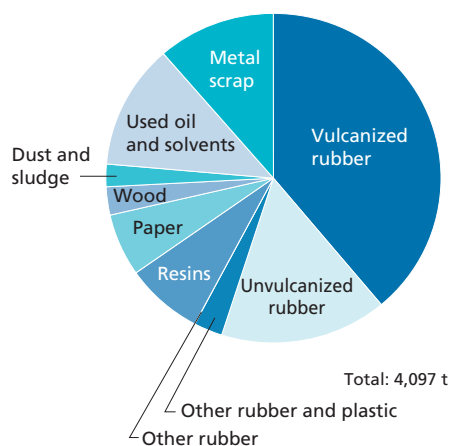
#### Yokohama Rubber asserts world-class strengths in technologies for protecting the environment

- (1) In order to realize sustainable environmental management, all business units and associated companies making up the Hiratsuka Factory family establish their own procedures according to their environmental management plans, and maintain and improve them.
- (2) We enrich people's lives and contribute to their greater happiness and well-being by devoting our wholehearted energies and advanced technology to the creation of beneficial products. As part of our social responsibility, we are continually making improvements so as to contribute to the environment and prevent environmental risk.
- (3) We observe relevant laws and regulations, and agreements on environmental preservation.
- (4) To protect limited global resources, we act to prevent the wasting of such resources as a part of waste-reduction(MD) activities and promote the 3Rs\*.  
\*Reduce, reuse, recycle
- (5) In order to embody this policy, being aware that the original activities of the factory indeed had environmental consequences, we have defined an environmental purpose, set environmental targets, formulated an environmental plan, and are implementing it.
- (6) We educate and enlighten all employees at the factory so that they thoroughly understand the policy and act accordingly.
- (7) We contribute to creating an attractive, prosperous society in harmony and fusion with the pleasant natural surroundings of Shonan Hiratsuka, living and working together with the local community.
- (8) This commitment has been declared to the public.

#### Breakdown of waste output in FY2009

All forms of waste are 100% reused through thermal and/or material recycling, typically into reconstituted materials, solid fuel and hotplates.

#### Breakdown of factory waste



## Environmental Initiatives

### PRTR substances

(Unit: tons /year)

**Hiratsuka Factory**

Designated No.	Specified chemical substance	Amount to treat <sup>*1</sup>	Emission <sup>*2</sup>	Transfer <sup>*3</sup>	Safety Evaluation: IV-2			
					Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
9	Bis (2-ethylhexyl) adipate	34.315	0.000	1.739				
16	2-aminoethanol	1.345	0.000	0.052				
24	Straight-chain n-alkylbenzenesulfonic acid and its salts	2.028	0.000	0.102				
25	Antimony and its compounds	8.564	0.000	0.342				
30	Bisphenol A type epoxy resin	56.917	0.000	1.150				
40	Ethylbenzen	1.053	0.073	0.000	C	0.7	A	73.0
45	Ethylene glycol monomethyl ether	18.604	3.836	14.768	B	383.6	D	3.8
63	Xylene	4.845	1.908	0.000	C	19.1	A	1907.6
100	Cobalt and its compounds	74.852	0.000	0.072				
115	N-cyclohexyl-2-benzothiazolesulfenamide	92.104	0.000	1.862				
129	Diuron or DCMU	2.646	0.000	0.277				
177	Styrene	2.220	0.000	0.478				
198	Hexamethylenetetramine	2.449	0.170	0.114	C	1.7	D	0.2
204	Thiuram or thiram	2.144	0.000	0.108				
227	Toluene	13.212	5.014	2.722	C	50.1	D	5.0
266	Phenol	2.631	0.000	0.130				
270	Ei-n-butyl phthalate	7.595	0.000	0.383				
272	Bis (2-ethylhexyl) phthalate	59.039	0.000	2.992				
282	N-(tert-butyl)-2-benzothiazolesulfenamide	54.814	0.000	0.171				
	<b>Total</b>	<b>441.376</b>	<b>11.000</b>	<b>27.462</b>		<b>455.2</b>		<b>1989.6</b>

(Unit: tons /year)

**Hamatite Plant**

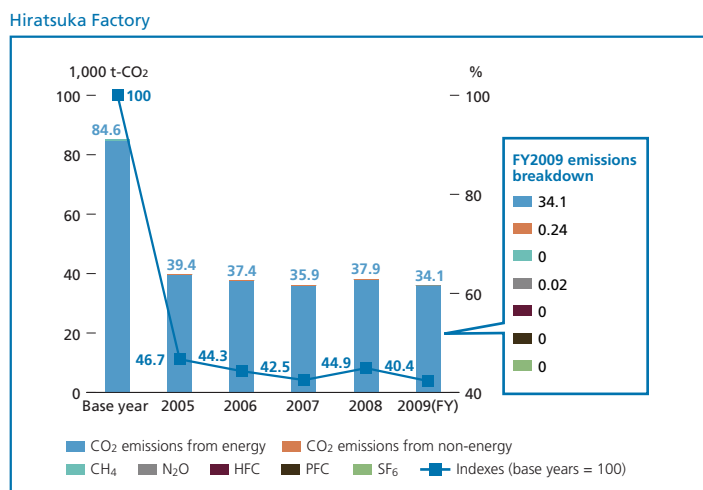
Designated No.	Specified chemical substance	Amount to treat <sup>*1</sup>	Emission <sup>*2</sup>	Transfer <sup>*3</sup>	Safety Evaluation: VIII-4			
					Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
24	Straight-chain n-alkylbenzenesulfonic acid	1.600	0.000	0.011				
30	Bisphenol A type epoxy resin	68.071	0.000	0.749				
40	Ethylbenzene	2.036	0.004	0.016	C	0.04	A	4
63	Xylene	18.302	0.037	0.146	C	0.37	A	37
93	Chlorobenzene	13.784	0.000	0.006				
120	MOCA	72.000	0.000	0.000				
176	Organic tin compounds	16.419	0.000	0.525				
204	TT	3.900	0.000	0.035				
227	Toluene	49.535	0.643	4.923	C	6.43	D	0.643
230	Lead and its compounds (lead monoxide)	1.445	0.000	0.000				
266	Phenol	14.764	0.000	0.118				
272	Bis (2-ethylhexyl) phthalate	52.023	0.000	0.422				
273	n-butyl benzyl phthalate	266.025	0.000	0.133				
293	Hexamethylene diisocyanate	4.662	0.000	0.000				
300	1,2,4-benzenetricarboxylic 1,2-anhydride	1.625	0.000	0.000				
311	Manganese dioxide	36.372	0.000	0.327				
338	m-tolylene diisocyanate	261.788	0.000	0.000				
	<b>Total</b>	<b>884.351</b>	<b>0.684</b>	<b>7.411</b>				

\*1: Amounts of 1 ton or more are listed (excluding dioxin). As for substances designated as Class 1 Specified Chemicals such as benzene, amounts of 0.5 tons or more are listed.

\*2: Emission = Air + public water + soil

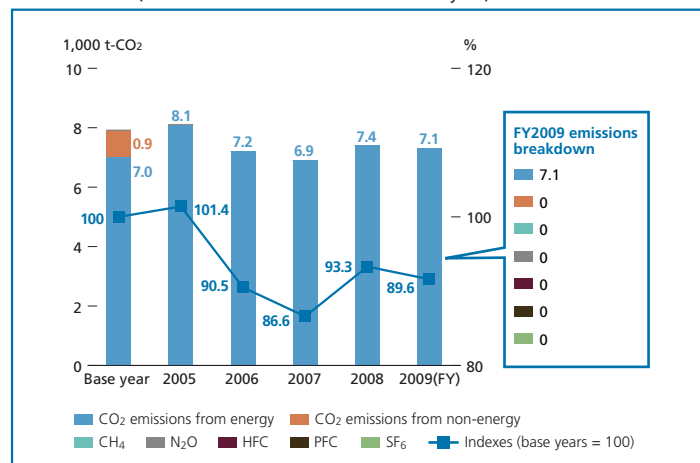
\*3: Transfer = Waste + public sewage

### Combined greenhouse gas emissions and their indices (base years = 100)



\* Base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.  
\* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry). Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment). Calorific heating values and emission coefficients have been revised in accordance with March 31, 2010 amendments to the Act on the Promotion of Global Warming Countermeasures.

### Hamatite Plant (11% reduction relative to benchmark year)



\* Base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.  
\* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry). Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment). Calorific heating values and emission coefficients have been revised in accordance with March 31, 2010 amendments to the Act on the Promotion of Global Warming Countermeasures.

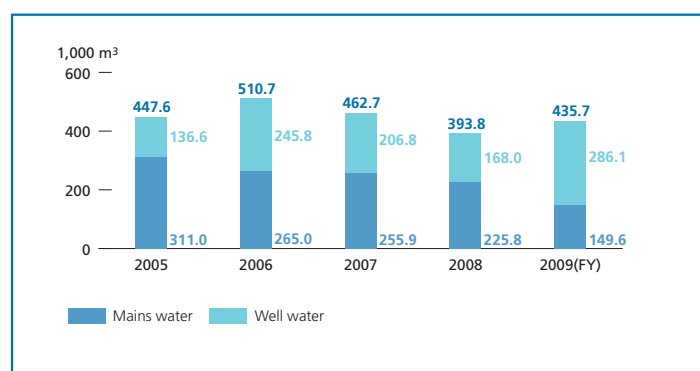
### Water-quality-related data (major facilities)

Water quality satisfies regulatory requirements as well as our own internal standards.

Drain	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Hiratsuka Factory	PH	5.7~8.7	5.8~8.6	7.4	8.1	6.1
	BOD density (mg/l)	300	285	49.3	210	6.0
	COD density (mg/l)	300	285	33.3	100	1.0
	SS density (mg/l)	30	28.5	2.9	8.0	Less than 1.0
Hamatite Plant	PH	5.7~8.7	5.8~8.6	7.4	8.0	7.0
	BOD density (mg/l)	300	285	36	94	18
	COD density (mg/l)	300	285	46	130	8
	SS density (mg/l)	30	28.5	3	4	1

\* According to the Hiratsuka Sewage Ordinance.

### Water consumption in Hiratsuka Factory (includes Hamatite Plant)



## Environmental Initiatives

### Air-quality-related data (major facilities)

Air quality satisfies regulatory requirements as well as our own internal standards.

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Hiratsuka Factory Boilers 1-4	NOx (ppm)	80	76	68	73	64
	Soot and dusts (g/h)	371	352	1.4	3.8	0.3
Hiratsuka Factory Boilers 5-6	NOx (ppm)	45	42.8	36	40	30
	Soot and dusts (g/h)	463	440	2	3.2	0.9
Hiratsuka Factory Cogeneration	NOx (ppm)	20	19	17.3	19	16
	Soot and dusts (g/h)	2,176	2,067	38	63	9
Hamatite Plant Boiler 1	NOx (ppm)	60	57	19	20	18
	Soot and dusts (g/h)	272	258	1	1	1
Hamatite Plant Boiler 2	NOx (ppm)	60	57	23	28	18.3
	Soot and dusts (g/h)	180	171	1.4	1.5	1.3

\* In accordance with the Air Pollution Prevention Law and Kanagawa Prefectural regulations.

Phasing out of incinerators

Hiratsuka Factory (Hamatite Plant):

Waste plastic incinerator shut down in November 2002

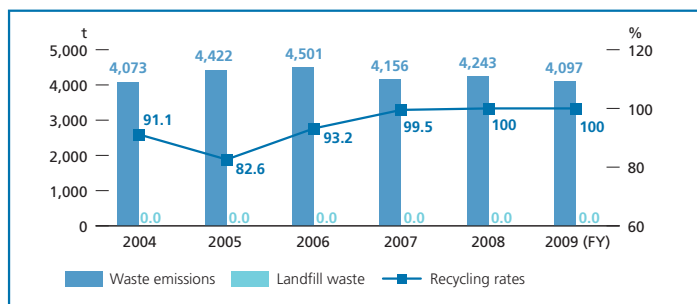
Hiratsuka Factory (Hamatite Plant):

Paper incinerator shut down in November 2002

### Waste output (includes Hamatite Plant)

Total zero emissions has been achieved since FY2004.

100% recycling and reuse of materials was achieved in FY2008, and this was successfully maintained during FY2009.



## Safety Initiatives

### Safety Policy in FY2010

#### Slogan

Be Aware—Know the Fundamentals and Be Professional—Working Together for a Safer Workplace  
(Annual motto of the Japan Industrial Safety & Health Association)

#### Basic Vision for Health and Safety

We strive to prevent workplace incidents, while at the same time creating a pleasant workplace and promoting employee health, through the leadership of administrators and supervisors and the cooperation of all employees in the Yokohama Rubber Group, predicated on the principle that health and safety represents the underlying basis of all corporate operations.

#### Objectives

Overall objectives

- (1) Eliminating LTI (Lost Time Incidents) as well as minor workplace incidents (not involving lost time)  
Stop, Call and WaitFull horizontal deployment
- (2) Eliminating traffic accidents and personal injury, eliminating work-related traffic injuries
- (3) OSHMS (Occupational Safety and Health Management System) certification

#### Health and Safety Policy

- (1) We strive to boost safety activities by ensuring that all employees in the Yokohama Rubber Group place safety as the top priority, with the participation and actions and cooperation of employees of all ranks and positions.
  1. All workers shall observe the rules and regulations of the workplace and implement safe work practices
  2. Administrators and supervisors shall take responsibility for ensuring the safety of employees, and shall not allow unsafe conditions and practices to pass unnoticed; shall act as models of safe behaviors and practices; and shall have a thorough appreciation of conditions in the workplace, including materials and equipment status.
- (2) We strive to ensure compliance with all health and safety legislation and government directives.
- (3) We strive to identify and eliminate latent hazards associated with work procedures and equipment using the PDCA cycle in the OSHMS (Occupational Safety and Health Management System), in order to reduce risks in an economical fashion.
- (4) We promote the 3 S's and the principle that neat and tidy work areas are the fundamental basis of health and safety.
- (5) We provide all Yokohama Rubber Group employees with training sessions and exercises in the importance of health and safety.
- (6) We strive to create a safety and comfortable workplace environment and promote the health of our employees.
- (7) As a member of the automobile industry, we are dedicated to the cause of reducing traffic accidents.

#### Action Principle

We must be alert to minor differences or changes in the immediate environment and see that these are rectified promptly.

### Workplace safety and disaster prevention, safety training and drills, emergency response procedures

We continue to strive to prevent workplace incidents using through risk assessment procedures. To this end, we have applied for certification under the Occupational Safety and Health Management System (OSHMS) procedures in accordance with the Ministry of Health, Labour and Welfare guidelines. In terms of disaster prevention, we installed an earthquake warning system and an employee safety verification system, and also provided standard First Aid practice sessions for all employees (including training in the use of AED equipment) at company expense.

We are committed to ensuring compliance with legislative requirements for the environment, health and safety, and disaster prevention. We actively encourage employees to attend education and training programs and obtain qualifications and certificates. We are working on human resources development and disaster prevention programs involving procedure documents and emergency response manuals as well as drills and exercises based on emergency scenarios such as fires, natural disasters and chemical spills.

### Key training programs and drills at Hiratsuka Factory

13.May.09	Semi-specialized training in organic solvents
May 26-28, 2009	Driving simulator sessions
16.Jun.09	Forklift driver training session
24.Jun.09	Earthquake warning broadcast drill
13.Jul.09	Motorcycle safety class
24.Jul.09	Handling Hazardous Materials training
27.Jul.09	Mental health class
10.Aug.09	Electrical safety class
1.Sep.09	Drill involving the FM Shonan napasa safety verification broadcast system
23.Sep.09	2nd mental health class
9.Nov.09	General disaster prevention drills
12.Nov.09	2nd forklift driver training session
November 4-13, 2009	Road safety classes
19.Feb.10	Disaster prevention and safety class
23.Mar.10	Disaster prevention workshop
12.Apr.10	Safety verification drill
Other training programs held throughout the year	Experiential training drills (1,664 participants), standard First Aid training (117 participants)



### Community feedback and the Company's response

Hiratsuka Factory is committed to close liaison with local communities. We have received noise complaints in the past, so we are strongly committed to environmental strategies as a key component of our operations. We ask nearby residents to monitor noise and odor levels, and we measure late night noise levels on a monthly basis. We consult with local residents on environmental issues prior to undertaking any construction work or operational changes near site boundaries.

### Discussions with local councils

Thirty-six representatives from resident associations in the surrounding area were invited to the sixth discussion session at Hiratsuka Factory, which took place in February 2010. The annual discussion sessions provide an opportunity to report on environmental and disaster prevention programs as well as incidents and issues over the course of the year, and to solicit feedback in a wide range of areas. Hiratsuka Factory also conducts guided tours upon request as part of our commitment to promoting exchange.



Discussions with local residents



### Electric vehicle assembly workshop

In November 2009, Hiratsuka Factory held a hands-on electric vehicle demonstration workshop in conjunction with the Japan Electric Vehicle Club for the benefit of Year 6 students from Sozen Elementary School in Hiratsuka City. The workshop was designed to promote environmental awareness and provide students with an enjoyable experience of making things.



### Assistance for regional disaster prevention programs

Thirty of the 52 disaster prevention instructors in the City of Hiratsuka are from the Yokohama Rubber Hiratsuka Factory. Our instructors were involved in the Japan Association for Safety of Hazardous Materials C block disaster response drills held in July 2009, as well as a combined disaster response drill by the towns of Tachino-cho and Sengen-cho conducted in November 2009. The instructors also assisted with fire and first aid drills at the Hiratsuka School for the Blind.



Emergency response drills at Hiratsuka School for the Blind



### Contributing to traditional events and other activities in the local community

Hiratsuka Factory is committed to volunteering and contributing its expertise to a range of local events and activities including the Hiratsuka Tanabata Festival, the Hiratsuka Environment Fair and the Sagami-gawa River Clean-up Campaign.

July 7, 2009	Hiratsuka Tanabata Festival
July 29, 2009	Japan Association for Safety of Hazardous Materials C block disaster response drill
July 23-28, 2009	Hiratsuka Environment Fair
August 10, 2009	Handicraft workshop
October 22-24, 2009	Hiratsuka Techno Fair
October 23, 2009	Hiratsuka Fire-Fighting Tournament
November 5, 2009	Sagami-gawa River Clean-up Campaign
November 8, 2009	Tachino-cho and Sengen-cho joint disaster response drills
November 13, 2009	Emergency response drills at Hiratsuka School for the Blind
November 28, 2009	Hands-on electric vehicle assembly workshop
Other monthly activities	Clean-up days in surrounding areas (total of 719 participants in FY2009)



Hiratsuka Tanabata Festival



Handicraft workshop



Hiratsuka Techno Fair



Fire-Fighting Tournament



Disaster response drills with resident associations

### Hiratsuka Factory Memorial Pavilion reopened as cultural facility

The Yokohama Rubber Hiratsuka Factory Memorial Pavilion was donated by Yokohama Rubber to the City of Hiratsuka, Kanagawa Prefecture, in 2004. The Pavilion has since been relocated and refurbished, and was reopened as a cultural facility in April 2009.

The formal title of the facility is the Former Yokohama Rubber Hiratsuka Factory Memorial Pavilion. However it is popularly known as the Hachiman-yama Western Pavilion, after its new home in Hachiman-yama Park in the Sengen-cho part of Hiratsuka. (This name was chosen via a public naming competition.) The Pavilion is the only surviving Western-style building from the Meiji era in the city of Hiratsuka and one of only a handful in Kanagawa prefecture, and it is listed on the national register of tangible cultural assets. In keeping with its museum role, the Pavilion features

exhibition rooms and reception rooms, as well as two spacious meeting rooms, one suitable for small-scale piano recitals and the other equipped with a kitchen and dining tables. The facility is also available for use by community clubs and associations.



Hiratsuka Factory Memorial Pavilion



The YOKOHAMA Forever Forest project, an initiative to mark the upcoming centenary of Yokohama Rubber in 2017, was launched at Hiratsuka Factory in November 2007. It involves a massive planting campaign that will see some 500,000 new trees planted at domestic and overseas production facilities of Yokohama Rubber by the year 2017.

November 2007: Phase 1 planting (3,500 participants, 27,000 trees planted)

October 2008: Phase 2 planting (150 participants, 1,481 trees planted)

November 2008: Care for Seedlings Day (1,200 participants)

November 2009: Phase 3 planting (100 participants, 843 trees planted)

November 11 has been designated the annual Think Eco Hiratsuka day. This year, 130 people attended a lecture by professor Akira Miyawaki from Yokohama National University.

March 2010: Tree planting at Hiratsuka Plant (20 participants, 430 trees)

March 2010: 15,000 seedlings raised at Hiratsuka Factory donated to the 61st National Arbor Day at Hadano. Hiratsuka Factory received a letter of thanks for this donation.



Former General Manager of Hiratsuka Factory Toshio Izawa hands a list of donated seedlings to Hadano City Mayor Yoshiyuki Furuya

### Employee perspective: Kenji Kishimoto

Every time I see how much the trees we planted have grown I feel the sense of responsibility we have to maintain forests and a pride in having been able to participate. This project is meant not for us but for our children too. The fruits of our labor won't appear immediately, but I want to stay aware of our mission for a long time to come.



### From the Project Office: Yasuhisa Kudo

From 2009 I have been operating as the secretariat for the YOKOHAMA Forever Forest project. Since the first phase 1 planting in 2007, some 3,620 volunteers have helped to plant a total of 27,850 seedlings. Our task now is to find the most effective way to encourage full participation in ongoing Forever Forest project events by bringing together the finest minds from within and outside the Company and striving to ensure that our committed community of forest creators is sustained into the future.

