

# Environmental Activity Policy and Plans



Yamaha Motor Group Environmental Policy			
<b>Slogan</b>	“In harmony with nature”		
<b>Fundamental Policy</b>	In order to preserve for the future the irreplaceable natural beauty of the earth, the Yamaha Motor group dedicates itself to conserving nature’s valuable resources and minimizing the impact on our environment. We are committed to enhancing the quality of life around the world by working in partnership with governments, communities, organizations and private citizens.		
Yamaha Motor Group Environmental Plan 2010			
	Natural environment	Group focus	Goals for 2010
<b>Efforts toward the Goals</b>	“Product/Service” and “Environmental contribution”	“Development of leading environmental products and technologies” “Promotion of health contribution business	The group focus are incorporated and promoted into the company’s business plan
<b>Issues</b>	“Greenhouse gases” and “ Climate change”	“Improvement of Fuel efficiency” “Energy saving” & “Clean energy”	30% reduction of CO2 in per unit of sales *
	“Environmental hazardous substances” and “Health and safety ”	“Reduction of exhaust gas” “Management and reduction of environmentally hazardous substances”	Satisfy self – imposed regulation value Specific Environmentally Hazardous Substances : Zero Emission
	“ Waste materials ” and “ Protection of resources”	Accomplish “3R” by “3E” “Reduce of water use” 3E: Easy to build, Easy to service, Easy to disassemble 3R: Reduce, Reuse, Recycle	Product and Factory: 100% recycling Achievement of “Long life”
<b>Systems</b>	Systems to Ensure Environmental Activities	“Establish group-wide EMS and manage the activities”	Coordination between group-wide activities and local activities
<b>Approaches</b>	Approach to environmental tasks	“Enhanced environmental awareness through continued education”	Every group member proactively conducting environmental activities with a strong motivation
	Harmonious coexistence with local communities	“Improvement of sensory environment” “Communications with communities”	Being Trusted and Loved by the Local Communities as a Corporate Citizen
	Information disclosure	“Proactive environment-oriented public relations”	Well received by the communities as a leading green company

\* Unit requirement: This refers to fuel consumption per unit in the case of a product, whereas in other cases, to the amount of energy used for conducting sales activities.

# 2009 Plans and Results

## Efforts toward the Goals

2009 Plans	2009 Results
Develop products and services in accordance with the “Pillars of Environment”	Developed products in accordance with the medium-term management plan for each business. Began discussions on environmental plans with a medium- to long-term perspective.

## Environmental Preservation Issues

		2009 Plans	2009 Results
Greenhouse Gases	1. CO <sub>2</sub> emissions assessment and reduction	Reduce by 1.5% per unit of sales (average annual reduction) for the entire group	Due to reduced production, target was achieved by 45 of the 110 companies planned.
	2. Improvement of fuel efficiency	Establish a goal for each product in each business division (average fuel efficiency improvement for all products in 2010: At least 28.5% increase against year of reference (1990))	Most products from the respective business divisions met the target, but there were some products for which the goal could not be achieved.
	3. Reduction of CO <sub>2</sub> emissions from manufacturing processes	Reduce the total volume by 27.0% (compared to 1990) in all manufacturing processes of Yamaha Motor	Reduced the total volume by 55.1% from the year of reference (1990)
	4. Reduction of CO <sub>2</sub> emissions from logistics/distribution operations	Reduce by 2.0%/year per unit of transported volume (by 2007 standards)	Due to the effects of the stagnating global economy, the unit volume (transported volume) increased by 4.8% (by 2007 standards), and the goal could not be achieved
Hazardous Substances	1. Reduction of exhaust gas from products	Meeting regulations ahead of schedule	Satisfied all regulations
	2. VOC reduction* <sup>1</sup> (2 companies* <sup>2</sup> )	Reduce by 50.0% compared to 2000 (per unit of painted area)	Reduced by 52.9% compared to 2000 (per unit of painted area)
	3. Promotion of green procurement	Promote green procurement at all business sites	Sites are currently acting on independent schedules toward the goal of “Elimination of specified hazardous substances in 2010”
	4. Adherence to laws and self-imposed operating standards	Expand operation of the system for collecting data on environmentally hazardous substances contained in parts (E-sis) to all 26 companies (1 company less than 2008 due to decommissioning)	The E-sis system began operating at all the 26 companies planned, and data compilation is in progress.

Waste Materials	1. Promotion of “3R” in product development	Achieve 95% reusability/recyclability	Achieved a product recycling rate of 95% with the exception of 1 product.
	2. Promotion of “3R” in manufacturing	Reduce waste materials for direct/indirect landfill disposal to 0 tons	Achieved: 0 tons
		Achieve recycling rate of 100% in manufacturing processes	Achieved: 100%
	3. Waste materials in the manufacturing processes (two companies*3)	Continue super-zero emission	Continuously achieved super-zero emissions
		Implement measures and effectiveness assessment	Promote sorting and selling the sorted materials on a continuous basis
	4. Establishment of recycling system for products in Japan	Call on respective sales outlets to conduct recycling activities. Implement motorcycle recycling	Activities calling for recycling were carried out at all sales outlets (3,598). Achieved the target set for recycling of motorcycles (118%)
		Maintain and manage the recycling system for industrial-use unmanned helicopters.	Increased awareness concerning standard disposal (163 helicopters were disposed of appropriately)
		Collect information and support the building of a lead-acid battery recycling system by SBRA*4	Currently participating in the Automobile Battery Recycling Task Force of the Japan Automobile Manufacturers Association
	5. Reduction of parts packaging materials	Reduce packaging materials, making 66% of packaging materials returnable	Made 69.9% of packaging materials returnable
	6. Promotion of recycling in sales channels	Collect and analyze information concerning the ASEAN region	Conducted “Eco-Partner” courses targeting management candidates for the ASEAN region; Held “Eco-Partner” briefings at five main Asian group companies
7. Reduction of water use	Investigate actual water use globally	Completed surveying from 70 companies (79%) against a target of 89 companies	

## System to ensure continuation of environmental activities

	2009 Plans	2009 Results
1. Setting up and operating Group EMS (ISO14001/Yamaha self-certification)	Make efforts for the global implementation of the Yamaha Motor Group Environmental Management Certification System (self-certification); implementation goal: 65 companies.	Six companies newly acquired EMS certifications (ISO 14001: 3 companies, self-certification: 3 companies) to reach a total of 61 companies, but the goal could not be achieved.
	Introduce a self-check system based on Yamaha Motor group's original Environmental Information Network system (G-YECOS) into 58 companies	67 companies completed the implementation of G-YECOS
	Integrate activities with the former Yamaha Marine Co., Ltd.* <sup>5</sup> and acquire certification	Integration of Yamaha Marine Co., Ltd. completed in April; acquired certification after undergoing an expanded audit in November
	Increase the number of environmental auditors to establish a 140-member auditor organization	Two auditor training sessions were conducted, and the number of environmental auditors increased to 211 (including interns)
2. Environmental risk management	Strive to reduce environmental risks through risk assessment and visibility	Although progress was made by making risks more visible through registering information in G-YECOS, the registration rate was low; efforts will be continued to increase the registration rate
3. Creation and use of environmental management support tools	Take measures to comply with the revised "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management thereof;" extend system operation to Yamaha Marine Co., Ltd.	Completed system modifications in response to the changes in chemical substances targeted by the revised "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management thereof;" operation of the chemical substances management system started at former Yamaha Marine Co., Ltd.

## Approaches

		2009 Plan	2009 Results
Approach to Environmental Concerns	1. Expansion of the Eco Life activity menu	Achieve 67% participation rate in eco-commuting.	Achieved 68% participation rate in eco-commuting; nine sites were registered under the “Excellent Eco-Commuting Business Site Certification” established by the Ministry of Land, Infrastructure, Transport and Tourism
	2. Expansion and support of diverse Eco activities	Firmly establish the Eco Point System	Participants in the Eco Point System were 316 (a 36% reduction over the preceding year)
	3. Fostering of “Eco Mind”	Introduce “management layer and general manager class training course” into training programs according to segment of employees	External lecturers conducted “management layer and general manager class training course” in November
Harmonious Coexistence with Communities	1. Coexistence with communities	Achieve participation of a cumulative total of 40,000 Yamaha Motor group people in the 40,000 People’s V Campaign	A cumulative total of 43,700 people (22,500 in the environmental field and 21,200 in the social contribution field) participated (achieved participation of over 40,000 employees for the second consecutive year)
	2. Corporate social contribution activities	Give lectures on corporate environmental initiatives at community events and schools	Gave lectures on corporate environmental initiatives at the Shizuoka Sangyo University and the Shizuoka Institute of Science and Technology
		Continue holding various types of training programs	Received environmental trainees from Koyo Junior High School, Iwata city
		Continue environmental activities in concert with local municipalities, research and educational institutions, and other corporations	Held activities such as Soma no Sato, beach cleanup and baby turtle-release days, Yamaha Forest, etc.
3. Coexistence with nature	Conduct research on ecosystem monitoring and prepare for implementation	Established an Environment Conservation Plan for preservation of rare wildlife living within the planned building site for Kikugawa Test Course; based on this plan, signed an Natural Environmental Conservation Agreement with Shizuoka prefecture	

Information Disclosure	1. Information disclosure and dialogue	Participate in events aimed at promoting communication with local communities	Held discussion sessions with local municipalities regarding the actual state of waste disposal activities by the company; exhibited products at environment-related events held by regional NPOs (communication with NPOs and local residents)
	2. Communicating environmental information in relation to products, technologies, and services	Exhibit environmental products at the Tokyo Motor Show	Exhibited environmental products (EC-03, EC-f, PAS er, etc.)
		Promote distribution of environmental product information	Continued distribution of environmental information about products through the company's website, such as oil separating system, FRP pool, and bio research as well as model-specific environmental information for motorcycles, "3R" design, and recycling systems

\*1: Emissions per unit of product area

\*2: Yamaha Motor Co., Ltd., Yamaha Motor Powered Products Co., Ltd.

\*3: Yamaha Motor Powered Products Co., Ltd., Yamaha Motor Electronics Co., Ltd.

\*4: Stands for Lead Acid Storage Battery Recycle Association

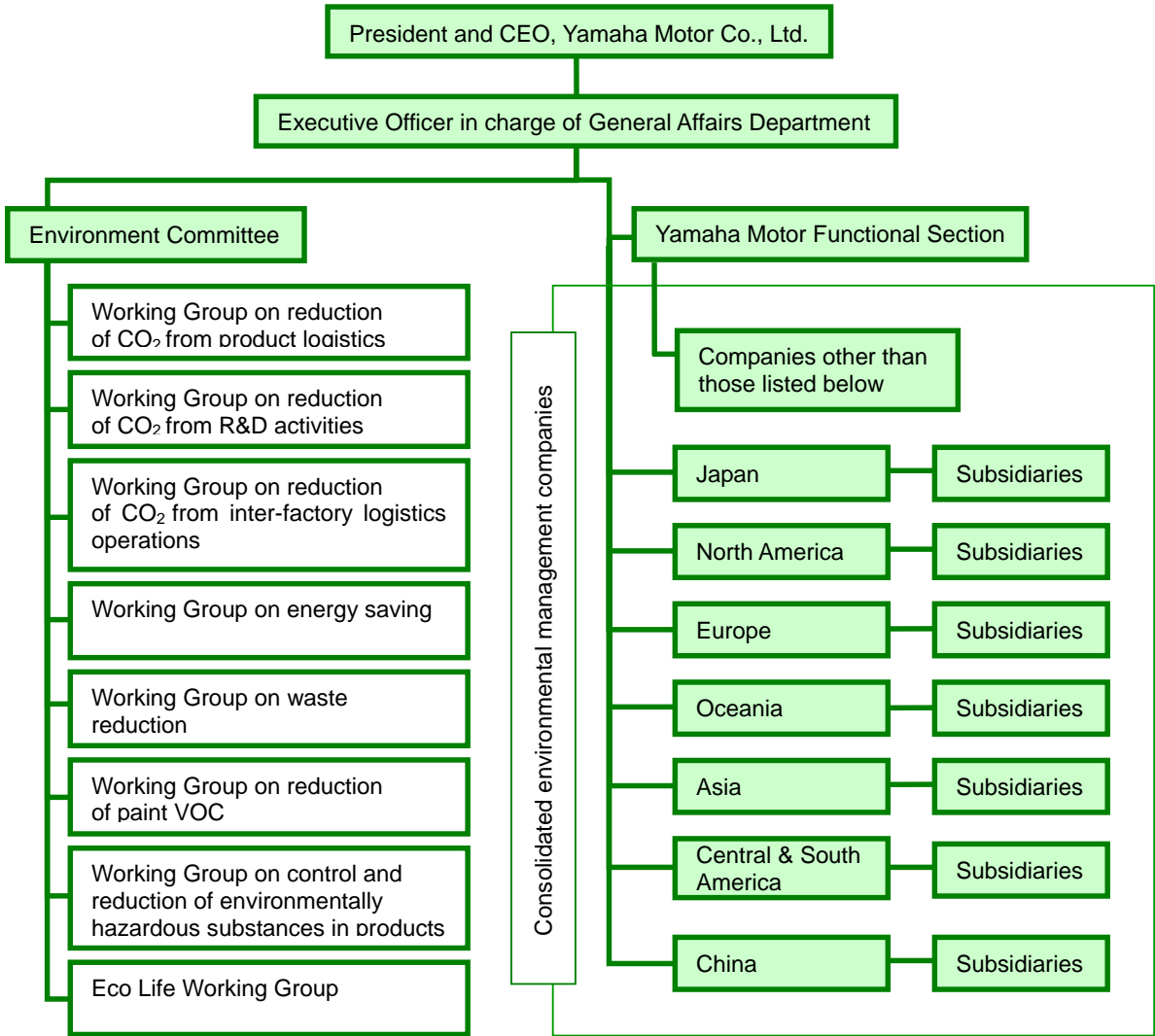
\*5: Merged with Yamaha Motor Co., Ltd. on January 1, 2009

# Environmental Management

## Organization for Promoting Environmental Management

The Yamaha Motor group has established an Environment Committee, accountable to the Executive Officer in charge of the General Affairs Department, to serve as the core organization for the group’s domestic and overseas environmental activities. This Committee deliberates on the group’s environmental policy and vision, medium-and long-term environmental plans, strategic investments related to environmental conservation activities, responses towards matters and issues pertaining to environmental monitoring, and other significant issues related to environmental management.

Yamaha Motor group’s Organizational Structure for Environmental Planning and Promotion



As of April 1, 2010

## Environmental Management System

In order to promote environmental conservation activities throughout the entire group, the Yamaha Motor group has established a consolidated environmental management system. In tandem with the introduction of the ISO 14001 environmental management system targeting mainly manufacturing companies, the group is also promoting the acquisition of the in-house standard YEMCS (Yamaha Motor Group Environmental Management Certification System), which began full-scale operation in 2008.

In 2009, two companies newly acquired the ISO 14001 certification while three companies newly obtained YEMCS, thus taking the total number of certified companies to 61 (55%) out of the 110 group companies (companies subject to consolidated environmental management).



Yamaha Motor Group Certificate of Environmental Management System

## Global Environmental Information Network System (G-YECOS)

The Yamaha Motor group is promoting the introduction of G-YECOS (Global Environmental Information Network System), a system developed in-house by the company, in an effort to improve the level of environmental conservation programs as a group by sharing information related to the ISO 14001 environmental management system, environmental performance and environmental program case studies.

The introduction of G-YECOS by domestic and overseas group companies has enabled not only the sharing of information between the Head Office and the various Group Companies, but also between the group companies themselves and allowed us to grasp the status of compliance with environmental laws worldwide as well as the results of environmental risk monitoring implemented by all group companies. This in turn has made it possible to carry out environmental activities more effectively.

In 2009, G-YECOS was introduced in 12 companies in Japan, North America, Central and South America, China, and other parts of Asia. As of the end of December 2009, G-YECOS was operating in 67 companies.



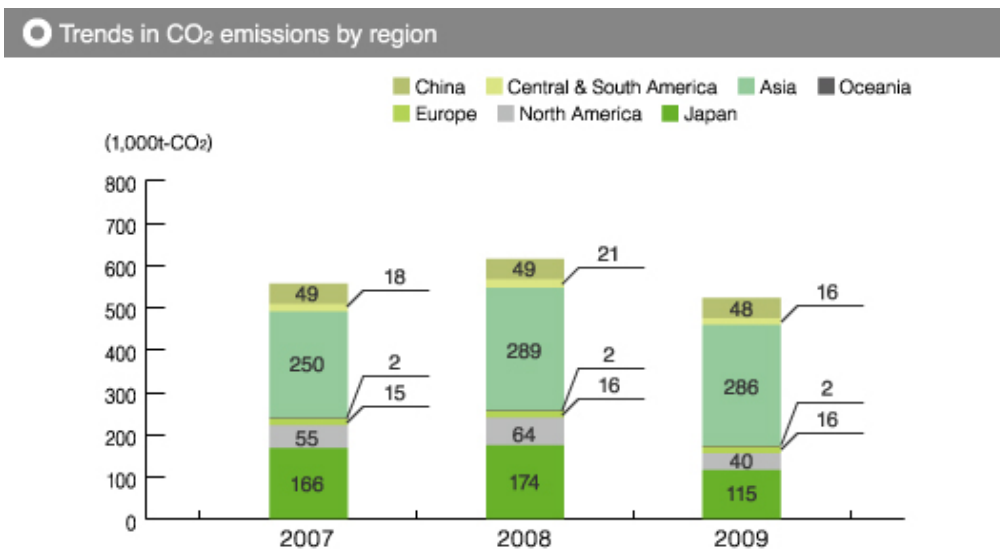
G-YECOS briefing at Skeeter (Skeeter Products, Inc: North America)



G-YECOS briefing at YDLA (Yamaha Motor Distribution Latin America: North America)



## Approach to Reducing CO<sub>2</sub> Emissions

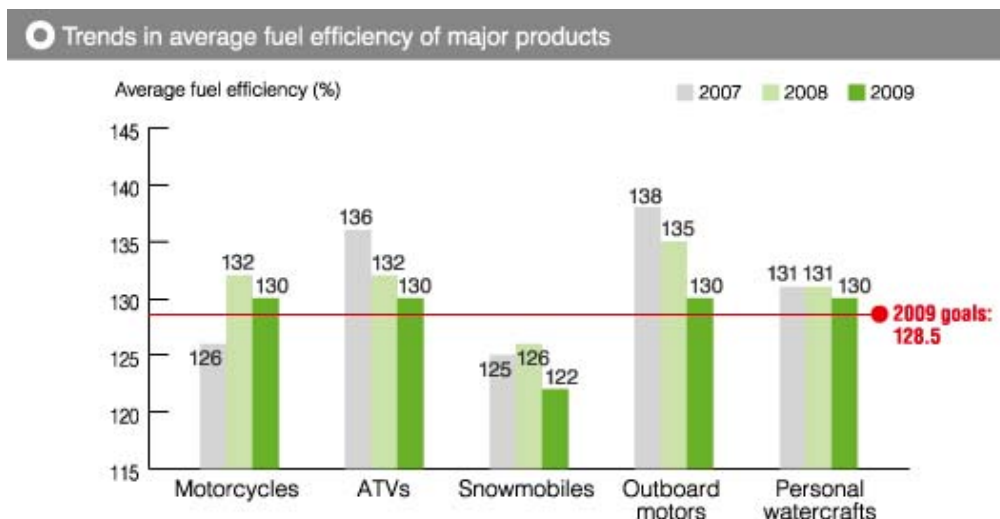


### Reducing CO<sub>2</sub> emissions from products

We comprehensively assess the environmental impact of our products throughout their entire lifecycles, including their development, production, usage, and disposal phases. Since the products manufactured by Yamaha Motor group emit the largest volume of CO<sub>2</sub> during the usage phase, we are actively taking steps to reduce the amount of CO<sub>2</sub> emitted during use.

### Improving the fuel efficiency of internal combustion engines

To reduce the CO<sub>2</sub> emitted during the usage phase of products employing internal combustion engines, the Yamaha Motor group has set the goal of 30% reduction for all such products by 2010. Although the 2009 goal had been a reduction of 28.5%, the recreational vehicle (RV) division, which makes snowmobiles, etc., was not able to achieve this goal because of the continuing effects of the change in the mix of products sold in response to rapid market changes in Europe and North America. Products from all other business divisions, however, essentially met the goal. In the New Medium-term Management Plan (2010–2012) announced in February 2010, Yamaha set a goal of 30% improvement in fuel efficiency by 2012, and 50% improvement by 2015 (compared to 2008) for motorcycles, and 30% improvement in fuel efficiency by 2015 (compared to 2007) for outboard motors, and will continue to work towards the reduction of CO<sub>2</sub> emissions by increasing fuel efficiency.



Motorcycles, ATVs, and snowmobiles use 1995 as the reference year; personal watercrafts and outboard motors use 1998 as the reference year.

## Developing vehicles powered by “Smart Power”

Yamaha Motor is developing electric motorcycles for market launch in the autumn of 2010. Amidst rising expectations for vehicles that do not emit CO<sub>2</sub> during operation, Yamaha Motor is taking initiatives towards all-out popularization of such vehicles in the medium to long term through research and development as well as establishment of a business structure. Also, with environment and health consciousness having become established trends, electrically power assisted bicycles have also been gaining rapid popularity, to the extent that some companies have adopted the bicycles for business use. In 2009, Yamaha Motor launched 14 new electrically power assisted models following a revision in the enforcement regulations of Japan’s Road Traffic Act in December 2008. Yamaha Motor continues to be engaged in the research and development of compressed hydrogen type fuel-cells and direct methanol type fuel-cells, which have the potential to become a new energy source in the future, and going forward we will intend to continue our activities toward helping achieve a sustainable society by developing a diverse range of products and technology.

## Approach to Recycling and Reusing Resources and Reducing Usage

### Example of “3R” design in products

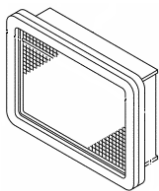
(Model launched in 2009)

#### [Seat]

Reduced weight by changing the seat base from steel to plastic resin

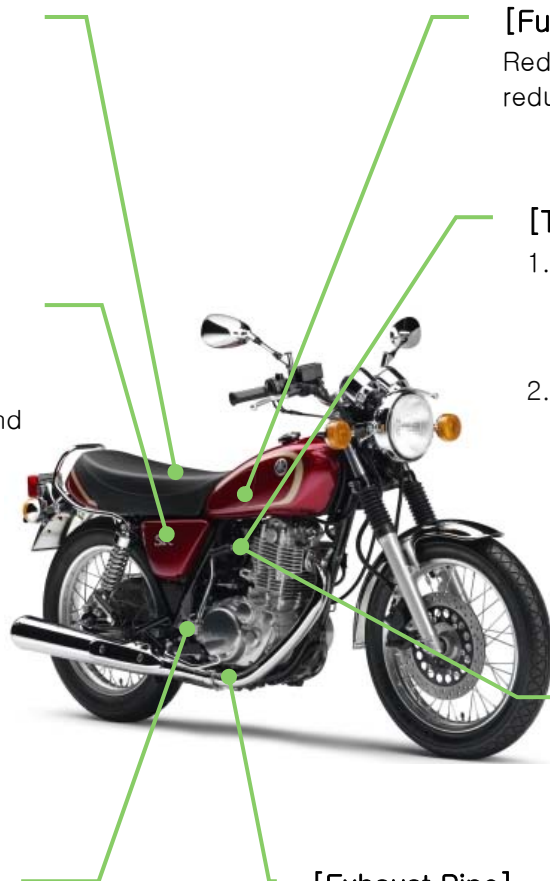
#### [Air-Cleaner]

Reduced weight by using a simplified air-filter element and reducing air-filter components structure



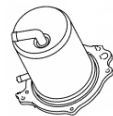
#### [Breather]

Reduced weight by eliminating the breather element



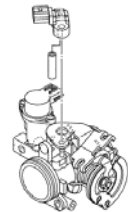
#### [Fuel Pump Casing]

Reduced weight by reducing size



#### [Throttle Body]

1. Reduced weight by reducing the size of the throttle as well as the ISC
2. Reduced weight by shortening hose length with closer fitted air-intake pressure sensor



#### [Throttle Body]

3. Reduced weight by integrating the pressure regulator and the delivery



#### [Exhaust Pipe]

Reduced weight by converting the 3-layer structure to a 2-layer structure