

# Aiming to create a hub city of shipbuilding culture and shipbuilding industry cluster core hub

## 'Shipbuilding Industry Promotion Vision of Onomichi City'

In March 2012, the City of Onomichi drew up its Shipbuilding Industry Promotion Vision of Onomichi City. The goal of this plan is to assure that the shipbuilding and marine equipment industries, two of Onomichi's core industries, remain competitive into the future, and to maintain and develop them into industries that are able to continuously provide support to the city's economic development. The plan gives two future visions for the city, namely a 'sustainable and competitive shipbuilding industry core hub' and a 'hub city of shipbuilding culture', and states that the public and private sectors will work more closely together in an effort to realize those visions.

Given changes to the shipbuilding industry environment, the City of Onomichi set up a public-private exploratory committee in October 2011, which compiled the Shipbuilding Industry Promotion Vision of Onomichi City based on analyses of official research data and questionnaires given to various local business operators.

According to that Vision, looking at the City of Onomichi's industrial composition by number of employed workers indicates that 32.9% work in secondary industries, to which shipbuilding belongs, making it one of the highest percentages in all of Hiroshima prefecture. The manufacturing industry, to which shipbuilding belongs, makes up approximately 70% of Onomichi's entire secondary industry sector, revealing its status as one of the city's important core industries.

Looking at the data by number of businesses, the transportation machinery industry, also to which the shipbuilding industry belongs, saw a decrease in number of places of operation from 90 in 2006 to 75 in 2010. In Onomichi, the percentage fell from 20.5% to 18.2%. By number of employees, the number of workers in the City of Onomichi's manufacturing industry rose from 128,000 in 2006 to 136,000 in 2010. The transportation machinery industry, however, experienced a decrease from 34.1% to 31.2%. This prompted the conclusion that the number of shipbuilding industry workers was falling faster than the number of places of operation.

The yearly production value for Onomichi's shipbuilding industry for 2008 was approximately Y186 billion (about Y110 billion from the shipbuilding industry and Y76 million from the marine equipment industry), meaning that it accounted for almost entirety of the transportation machinery industry and approximately 30% of the entire

city. The total induced production value within Hiroshima brought about by production activity of Onomichi's shipbuilding industry is estimated at approximately Y141 billion. Induced production value combines the production spillover of raw materials, parts, and office services within the prefecture with the production spillover of raw materials, parts, and office services related to the consumer goods industry brought on by the increase in employee income. Based on the induced production value figure, it was clear how far-reaching the impact was on all industries in the prefecture, including ships, ship repairs, and steel. Based on the above, Onomichi's shipbuilding industry has an estimated total effect of approximately Y327 billion for the prefecture.

Similarly, it is possible to estimate the induced production value within the City of Onomichi based on the total prefectural induced production value (approximately Y141 billion) by using its portion of employees and cargo value by industry, which results in approximately Y21 billion, indicating that the total effect within the City of Onomichi of Onomichi's shipbuilding industry is an estimated Y207 billion.

The next thing to do was analyze how Onomichi's shipbuilding industry affects tertiary industries. The total spillover to tertiary industries of the prefecture's induced production value (Y141 billion) is approximately Y67 billion, and the total spillover to tertiary industries of the City of Onomichi's induced production value (Y21 billion) is approximately Y10 billion, resulting in an induced production value of about 50%. Tertiary industries that are particularly affected by the shipbuilding industry include automobile and machine repairs, commodity rental services, railway transport, research retail, and offices services such as finance, accounting, wholesale, insurance, and banking. These facts clearly indicate that shipbuilding is a significant industry to the City of Onomichi, prompting the abovementioned future visions for the city, namely becoming a 'sustainable and competitive shipbuilding industry core hub' and a 'hub city of shipbuilding culture'.

The City of Onomichi conducted questionnaires and interviews with various business operators, from which it extracted seven challenges currently facing the city's shipbuilding industry. In order, they are: (1) finding more opportunities to increase order volume by improving shipbuilding facilities, (2) improving competitiveness by streamlining and cutting costs, (3) improving competitiveness by tapping into new categories and markets, (4) improving added-value by advancing research and development, (5) exhibiting more collective strength through inter-corporation collaboration, (6) securing, stabilizing, and fostering sustainable technicians and skilled workers, and (7) creating a mutually beneficial and harmonious relationship with the environment.

The following table of solutions is presenting to tackle these seven challenges with the goal of realizing the abovementioned future visions for Onomichi.

To realize the vision of a shipbuilding industry cluster core hub, 'the city will continue to increase its competitiveness by improving sophistication of both its production and logistics environments, while also improving added-value items such as high credibility and technical prowess through improved partnerships between companies.' To realize the vision of a hub city of shipbuilding culture, 'the city will attempt to boost its regional strength as its foundation for industrial promotion with regard to the Maritime City of Onomichi'. The City of Onomichi plans having the public and private sectors work together in order to achieve these visions.

# Solutions & Promoted Projects for the Problems surrounding Onomichi's Shipbuilding Industry

[In order to realize "Core Hub for sustainable and competitive shipbuilding industry cluster"]

Directionality of Problem Solutions			Working body	Approaches
Enhancing competitiveness by improving production & logistics environment	Boosting capacity & efficiency of production base	Sophistication of well-designed production base	SB Industry	Scrutiny of necessary production base
				Securing of necessary production base
			Onomichi city	Support for private reclamation works
				Study on request for easing of regulations
				Request for enhanced infrastructure base
	Enhancing supply chain by utilizing the sea and bridges	Function enhancement for coastal shipping	SB Industry	Enhancement of loading/shipping function
			Onomichi city	Support for training/procurement of coastal shipping seafarers
			SB Industry	Request for related organs
Onomichi city			Request for arrangement/projects of port/harbor facilities	
	Promotion of port/harbor facilities	SB Industry	Request for related organs (cut in Honshu-Shikoku Bridge fare)	
	Promotion of road improvement along Setouchi coast line	Onomichi city	Promotion/advancement of road improvement works	
Improvement of added value by reinforcing partnerships	Improvement of added value by enhancing R&D capabilities	Development of sophisticated specifications	SB Industry	Joint research by marine industry and universities, etc.
			Onomichi city	Creation of matching opportunities
			Dispatch of information on advanced cases/various systems	
		Upgrade of production technology and facilities	SB Industry	Study on business integrations/alliances
			Onomichi city	Creation of matching opportunities
				Support for securing industrial site along coastlines
	Improvement of added value by enhancing safety measures	Creating manuals/offering courses for accident prevention	SB Industry	Drawing up manuals, providing courses
			Onomichi city	Safety measure enhancement support by using Innochima TC
		Enhancement/usage promotion of hands-on safety training facilities	SB Industry	Enhancement/usage promotion of safety training center
			Onomichi city	Safety measure enhancement support by using Innochima TC
	Improvement of added value by enhancing human resources network	Personnel exchanges and sales promotion within shipbuilding industry	SB Industry	Holding study/research meetings among enterprises
				Participating in conventions
			Onomichi city	Support for holding study/research meetings
				Support for PR activities utilizing conventions, etc.
	Enhancement of manpower supply function at Innoshima Technical	SB Industry	Support for facility enhancement at Innoshima Technical Center	
		Onomichi city	Support for facility enhancement at Innoshima Technical Center	

[In order to become "Hub city for shipbuilding culture"]

Enhancement of regional strengths that support the Maritime City Onomichi	Enhancement of regional strengths via cooperation with education	Enrichment of shipbuilding & maritime data library, and dispatch of such information	SB Industry	Cooperation with media inquiries, provision of materials/data
			Onomichi city	Enrichment of materials/data libraries
				Information dispatch via Maritime City Onomichi Website
		Promotion of the maritime industry's ideas	SB Industry	Reinforcement of internship
			Onomichi city	Implementing history/culture courses and offshore seminars
				Implementing maritime learning seminars
	Enhancement of regional strengths by uniting with the region	Creating shipbuilding city		Support for marine school courses
			SB Industry	Yard tours, opening to the public of launching ceremonies
			Onomichi city	Foreign trainees' involvement in community activities
			Onomichi city	Creating occasions for regional communication
				Promoting development of cities where young people settle down
	Enhancement of regional strengths by uniting with tourist promotion entities	Creating industrial tourism capitalizing on shipbuilding industry's resources	SB Industry	Nurturing personnel who escort industrial heritage
			Cooperation with passenger ship associations, etc.	
Onomichi city			Support for setting up industrial sightseeing courses	
			Support for promotion of passenger ship utilization	