

A Preliminary study on support policies of overseas competitors to enhance competitiveness NPPs technologies exports in Korea

Woo Cheol Choi, Kinam Kwon, Jaechan Park, Jin Young Chung, Jungho Song, Tae hoon Jeon, Minsu Ju

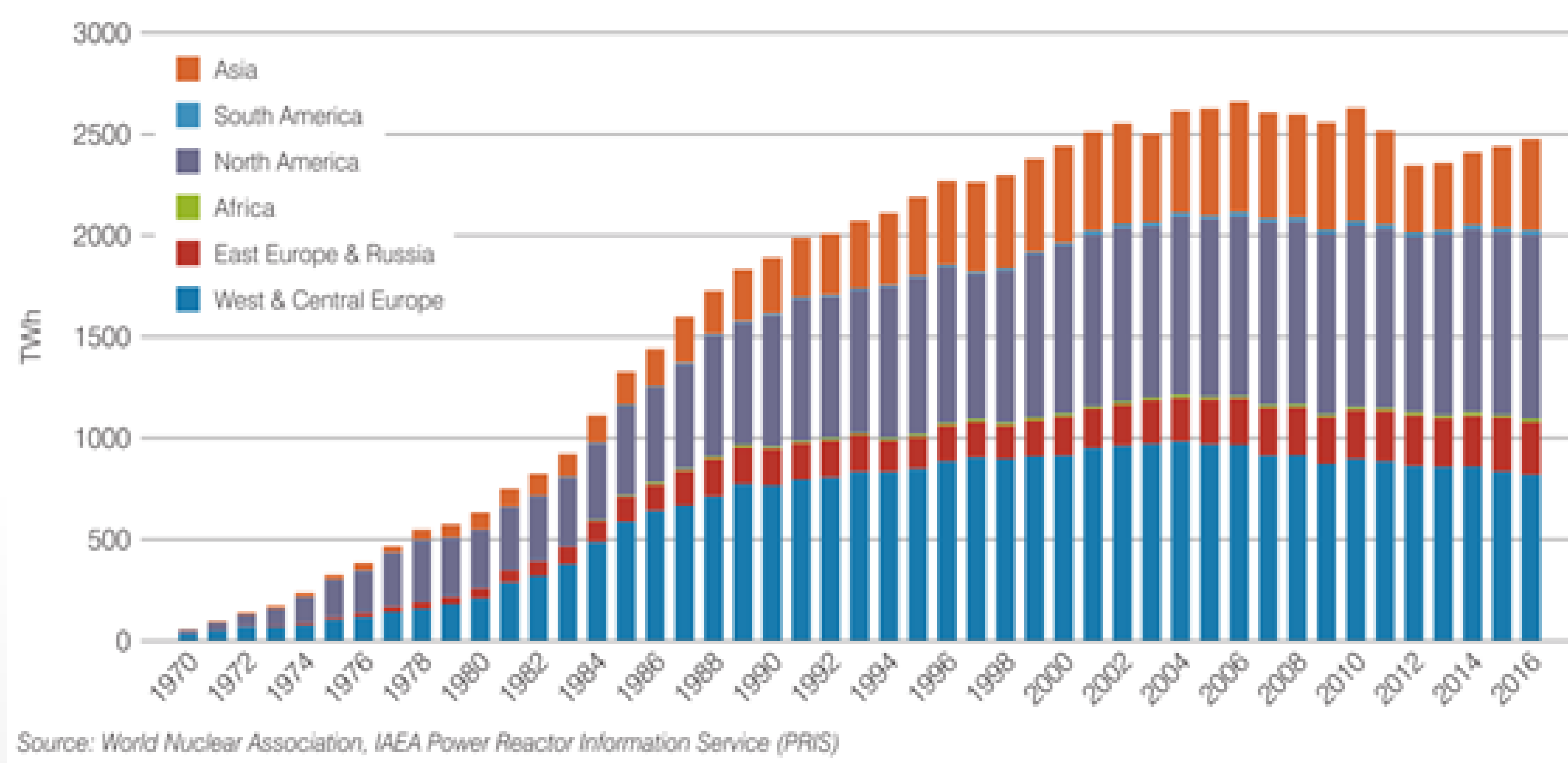
Corresponding author : minsuju@brncinc.co.kr



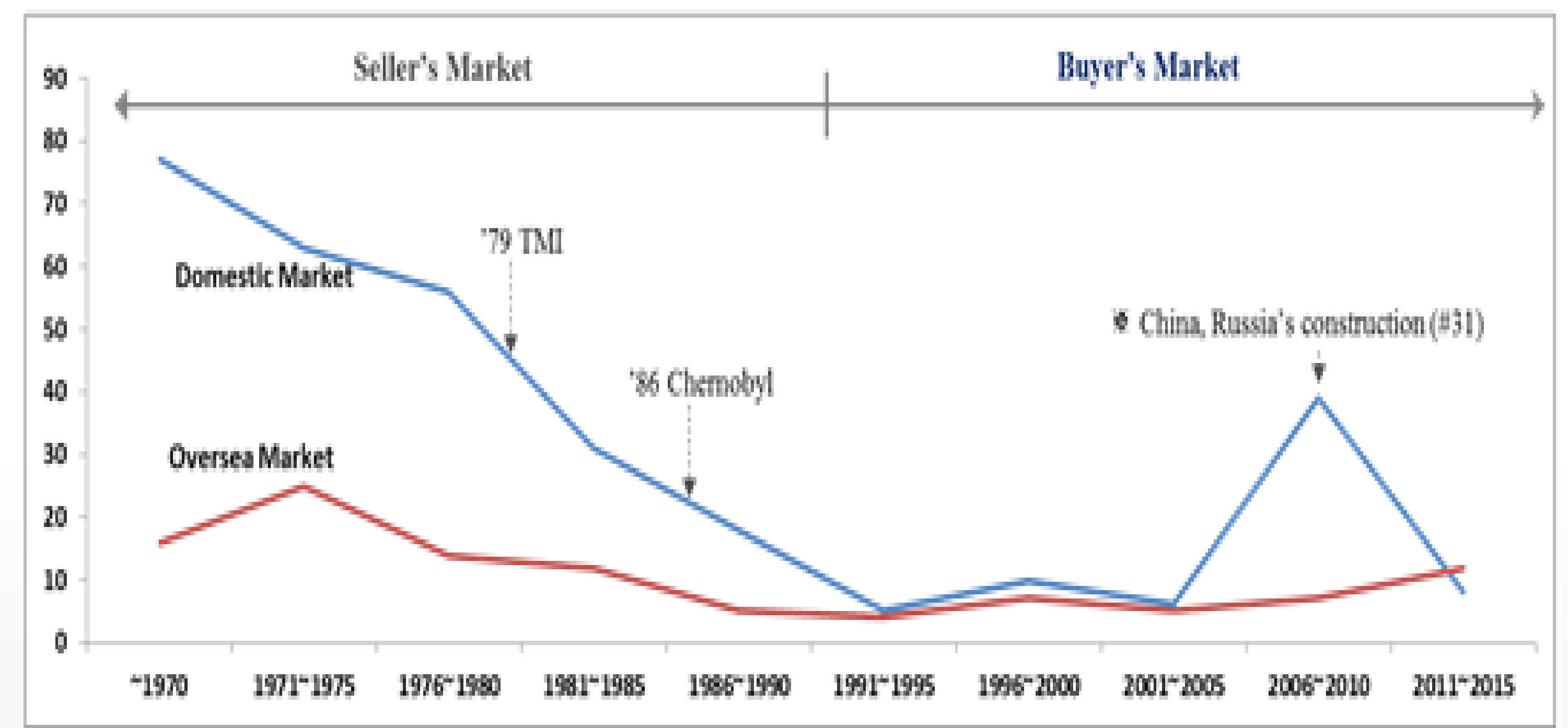
Introduction

In Korea, Energy conversion policy is in progress starting with the permanent shutdown of Kori Unit 1 in 2017. In this process, it has become difficult to create new markets for the domestic nuclear power industry, and in order to maintain the domestic nuclear power industry, it is necessary to technology secure world-class nuclear technology through participation in overseas NPPs projects. However, in the case of overseas large-scale nuclear power plant construction projects, there have been no additional project orders since the UAE received orders for four nuclear power plants in 2009. And since the Fukushima accident, the construction of new nuclear power plants has been delayed and decreased worldwide, making it more difficult to obtain orders for new projects. Therefore, in order to maintain the domestic NPPs industry, it is necessary to actively support the export of equipment and components and the entry into the operation and maintenance service market so that each company can enter the overseas market.

Method and Results



[Electricity production using NPPs]



[Change to a buyer's market in a seller's market]

Conclusion

It can be seen that Korea is the only country that has a high localization rate of more than 95% that is capable of exporting nuclear power plants, has a unique nuclear power plant type, and has an export output, except for the existing NPPs countries. From this point of view, Korea will high entry barriers to when targeting countries with source/original technology, but in other markets, even though it is in a competitive relationship with major NPPs suppliers, it depends on various strategic approaches through Market Segmentation. The possibility of exporting nuclear power plants remains open despite both opportunities and competition. First of all, in markets that require source technology based on the ability to manufacture major equipment such as SeAH Besteel and Doosan Heavy Industries, and globally recognized construction and construction capabilities such as Hyundai Construction, you can participate in overseas NPPs projects in a cooperative manner with source technology supplier countries Construct a strategy. In addition, for Southeast Asia and developing countries where power supply is urgent, a strategic approach to transplanting Korean-type NPPs price competitiveness and success stories is needed. Cooperation strategies such as manpower participation, efficient operation service technology, and maintenance engineering participation should be promoted for advanced countries with experience in operating NPPs

Current status of global NPPs generation capacity

Operating NPPs		Under construction NPPs		To be construction NPPs	
Unit	Capacity	Unit	Capacity	Unit	Capacity
443	391,358	52	54,695	157	163,287

NPPs Construction Market (\$ BN)

Operating NPPs	Under construction NPPs	To be construction NPPs
1,670	262	694

NPPs material and equipment Market

Operating NPPs	Under construction NPPs	To be construction NPPs
468	73	194