<u>Declaration the Opening of WCTR 2016 Shanghai</u> by Yoshitsugu Hayashi, President of WCTRS

Prof. Gang Pei, President of Tongji University, Mr. Jose Luis Irgoyen, Director of Transport & ICT Global Practice, World Bank.

Prof. Guangtao Wang, Former Minister of Construction, Distinguished Guests, and Ladies & Gentlemen!

It is my great honour to welcome all of you to 14th WCTR Shanghai. In 1972, soon after the Club of Rome started, it published a famous report "Limit to Growth", warning the world that Population would grow in an exponential manner, but that it seemed impossible for production of food or natural resources to keep up with this exponential curve.

In transport, in many developing countries, not only is population exponentially growing but also the population of Cars. But to exponentially increase road capacity is not possible.

In 1995, Ernst von Weizsaecker proposed in his Club of Rome report an innovative concept of "Factor 4", which means "Twice more GDP with half of energy use", namely making GDP/energy use - efficiency performance index 4 fold higher. This concept became a well-known barometer for solutions that achieve an energy efficient society.

How can we make GDP/CO₂ emission efficiency higher in transport? We need an idea for integrated and seamless transport systems to most enhance GDP as well as to minimize CO₂ emissions. In solving such problems, Shanghai is a remarkable city. Although she is one of the fastest and largest scale growing cities in the world and suffers from congestion, it has been solving the problems by innovative infrastructures such as 1) An integrated hub of air and rail in Hongchao, and 2) the world's longest metro system at 600km constructed in only 20 years, which has given hopes and confidence to developing cities, "Yes, We Can!"

Today, as income grows and society is ageing, people tend to seek for "Sufficiency" rather than "Efficiency". The numerator of Sufficiency index is Quality of Life (QOL), instead of GDP. In the Factor 4 paradigm, LED (Light - Emitting Diode) is an excellent invention. It has made the denominator of efficiency index much smaller. At the same time, it requires only a little electricity and therefore could give "Lighting" to the children in rural and poor villages in lowly developed countries and regions, which can enhance the children's future QOL, well-being.

In transport planning and policy making, we must consider that many Asian countries are rapidly aging and their shares of elderly population may exceed Europe's. Therefore, while Europe has reformed transport and cities to be suitable for elderly people over many years, Asian developing countries must now consider to design transport systems and cities as seamless and green to be suitable for an ageing society.

WCTRS is a forum to be able to contribute beyond any individual nation's interests, by providing advanced and universally applicable knowledge. WCTRS should become like Club of Rome, which can provide guide-ways to the happiness for the future generations.

Dear WCTRS members, please join in Special Interest Group (SIG) meetings to promote activities together between researchers and practitioners.

In ending my address, I would like to extend my sincere thanks to Tongji University for providing a timely opportunity to deeply think on "What we transport researchers can do?" in the inspiring City of Shanghai.

"Now I declare the 14th WCTR Shanghai open !!!"