

High Speed Rail Conference held in Commemoration of the 50th Anniversary to the Tokaido Shinkansen

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Special Lecture

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“The Son of the Spirit of Stephenson, the Father of the Shinkansen, Shinji Sogo and His Template that Changed the Railway World.”

(Transcript)

Greetings, Chairman of IHRA, Masafumi Shukuri. That's a very hard act to follow, well done. JR Groups Central, West, Kyushu, excellencies, delegates, friends, ladies and gentlemen, and particularly, my good friend Chairman Emeritus Kasai; great to be sitting alongside him today. I am fresh from Nagoya, and the JR Central New Museum, and so I recognize our host of yesterday Toshiharu Kaneko, because he allowed me to ride and drive a Shinkansen simulator. But I'm also conscious that tomorrow, we will be with Morris Newman, the professor, with many of us, riding the Maglev, and we thank our hosts in regard to that. Indeed, it is tremendous to see the international linkage, and network, and people, represented here, encasing from the Indian Parliament, many others, former congressmen, parliamentarians and it reminds me from my days as an ambassador in Rome, international diplomacy is all about just three words: protocol, vitriol and alcohol.

Shinji Sogo, great game changer he was, creator of the Shinkansen he was. He created the template that changed the railway world. In the history of the modern world, few people have impacted in a way as to create a permanent set of exemplar changes. There was George and Robert Stephenson from the United Kingdom, you could say Bill Gates and Steve Jobs from the computer world, but underplayed, greatly undervalued, there was Shinji Sogo, or Old Man Thunder. Less well-known worldwide, but undoubtedly one of the great game changers of the world, after the industrial revolution. His contribution has been, in many ways, as the undoubted creator of the Shinkansen, to the point that places as far afield as Portugal and Spain have made Sogo-related decisions. Firstly, to switch gauge for high-speed rail operation, to crash avoidance, dedicated track, to Stephenson-standard gauge. And secondly, absolutely imposed that related principle of safety, that so dominates the thinking of Shinkansen, explained to us this morning. So welcome to all of you, to the 50th anniversary of the Shinkansen. Five decades of very successful operation, fortified by the exemplar template laid down by Shinji Sogo, and commencing operations in October 1964. Of course, since then, JNR has been privatized, has been split up, and JR Central, today has that core Tokaido mainline, which so dominates, is so profitable, so important today.

Let's just go back a little, and see this man Shinji Sogo. April 14th 1884, he was born on Shikoku island, in a modest rural family, and son enough was at school, showing signs of determination and stubbornness. He regularly organized school strikes. Something I never go to do, was bold enough to do. Then along came four lucky breaks that greatly set up Shinji Sogo for his trailblazing

way as a man of action. As you can see, he was a man of action. There he is swinging the hammer to get things underway. Now, you might say lucky breaks is an unfair term with regard to Sogo, because he made so much of any break that came his way. Firstly, his eldest brother, who was the eldest son of the family, was ordered home to run the farm, and family business, despite on the school front showing good promise. The eldest brother reluctantly stayed at home, but his generous condition was he would do that if his brother Shinji Sogo was allowed to pursue higher education right through, to Tokyo. Secondly, Shinji underperformed with his studies in Tokyo to some extent, until he happened to meet and was challenged by the president of the New Railway Agency at the time, the organization that later became JNR, and his name, Shinpei Goto. He said to Sogo “do not go to the Agricultural Ministry, the “Nokyo,” but consider the New Railway Agency, and if you graduate in the top five, I will actually employ you. Sogo lifted his game and graduated fifth, and so in July 1909, he began his long career with railways, initially as a lawyer. The third break was to gain some overseas experience and work at an early stage. So at the age of 33, he took up a year or more, working and studying in the U.S.A., including with various railways directly and typically learnt much, even though it was the period of the Great War, or World War One. The U.S.A. had, eventually in April 1917, declared war on Germany, and it joined with the Allies including Great Britain, Australia and Japan, and the Empire fighting Austria and Germany. But the fourth break, from building on that American experience, building on his education, was the incredible and horrific earthquake, that took place in Tokyo in September 1923, and it saw Sogo appointed to the Capital Restoration Agency, an argue for merit-based promotion and appointment. He worked with Enzo Ota to help in the art of building some artful bridges across the Sumida River, some of which exist to this day. So those four breaks meant a great deal, and launched Sogo.

But, then along came a bad patch, after a raft of corruption and bribery charged were floating around, it lead to Sogo’s arrest in the Diet building, in January 1926. But Sogo, on appeal, was eventually found to be absolutely not guilty, and all charges were dismissed in April 1929. Three years he was under suspicion, but he bounced back. Shortly afterwards, Shinji Sogo, took a job with Mantestu South Manchurian Railways, operating in standard gauge, and so began a complex period, that in the time available, I’ll simply observe that Sogo always sought the best holistic way forward. But events mainly of the military kind took over; after the Manchurian Incident, and war, when he returned to Tokyo, he helped run and organization of volunteers until the end of World War Two, when he became, on his own terms (by this stage he had perhaps a little ego, and a lot of determination), but he was made Mayor of Saijo, back on the island where he was born. Again, typically, he moved quickly, to create a win-win outcome, with a new harbor for Saijo, and par of the equation was growing rice on reclaimed lands. In 1946, it was back to the railways, and after a series of horrific rail accidents and ferry disasters, Sogo was summoned and at age 71, appointed President of JNR. Age 71, appointed President of JNR. And he became that great game-changing president. He immediately threw himself into revamping JNR, but also winning commitment and approval for the trailblazing Shinkansen project, complete with double-track standard gauge on the new Tokaido mainline. Upon his appointment, there was some pushback, and a comment made that it was like pulling an old locomotive out of the museum, and of course, with Sogo, it was

anything but. Because he was holistic, he was futuristic, and by incredible maneuver, attained agreements for the Shinkansen, the massive Shinkansen, most notably from the Diet.

Remember, there were three main options on the table, each with key support groups. Firstly, duplicate or quadruplicate the existing Tokaido mainline, so four narrow gauge tracks from Tokyo, to Nagoya, to Osaka. Secondly, there was the possibility, an option, of creating a new corridor for two narrow gauge tracks, two new narrow gauge tracks on a shorter alignment, again Tokyo, more tunnels, to Nagoya, to Osaka. And then the third option was to build two dedicated tracks, in standard gauge, with the principle of crash avoidance to operate at high speed. And it was the third option, the Shinkansen that came alive. I guess though, at the time, there was an easy fourth option for a 71-year-old President of JNR, and too often this happens in the world today: do nothing, and just let the problem slide into the future. That was never for this giant of a man, Shinji Sogo. He made clever use of seminars and briefings of many key officials, plus briefings in details of the more modern-thinking members of the Diet, heading toward Cabinet or those going up ultimately to the Prime Minister position. All of this made a difference. Ultimately, the key overall committee resolved in favor of that third option, Sogo's template and concept. The reasons given are relevant, and were noted by the railway world, most notably in France, although they rarely admit it, but also in Germany and elsewhere. Shinkansen, as we learnt this morning, enabled mass transportation over other options. It was fast and time-saving was significant, it was cost-effective, it was safer than other options when it was operated at high speed, it would thoroughly modernize railway services, it would employ advanced technologies, and it mitigated and, to a large extent given the transport task between Tokyo and Nagoya, and then on to Osaka, eliminated the gauge hiatus. Cabinet formally approved that option and the whole project, on the 19th of September 1958. There were still aspects to be sorted, for example the Shinkansen route needed to bypass Gifu and Ogaki by using an extra new tunnel, and of course, all hell broke loose, and political pressure was applied. There are kinks all over the Australian railway system, where politicians interfered, and by the way, Australia invented 22 different railway gauges, we have some competence on this subject. Crazy. Well, the fight was on to put a kind, that would cost 15 minutes, to bring the Shinkansen closer to the magnificent center of Gifu, one of the most-beautiful centers I've been to in Japan.

But, don't underestimate Sogo. He knew what mattered. He knew the best holistic approach was to go straight, but he did allow a compromise, a magnificent station, where on average a train stops every month, well, a couple of times a day, called Gifu-Hashima, and I've now just been banned from Gifu-Hashima for the rest of my life, but that station works and it was the correct call, because it meant there was a 15 minute saving over the overall route between Nagoya and Osaka. Within months on the 20th April 1959, you saw the groundbreaking ceremony on the screen as we speak. And construction was underway over 500km Tokyo to Osaka, but tests requiring a surprising figure, 2,915 acres for the corridor, over half to be purchased, the rest was held by JNR or the Governor. So moving along, in May 1959, Sogo was appointed to a record second term as JNR President, but with another dreadful big accident on the old system and with budget criticisms (there were always budget criticisms), he eventually stepped down and completed a second term but did not seek a

further renewal. Just at the time, that the trial Shinkansen units were running successfully on test tracks, and overall operation commencement in sight. In the time available it's not possible to dive into every aspect of Sogo, a family man, and the Shinkansen, but it is possible to extract the key dimensions, that I leave you with, that made a big difference and rippled around the world.

Firstly, the key principle was followed to build to a standard versus building to a budget. To build to a necessary standard, as opposed to a compromised outcome due to budget limitations. That dimension is too often overlooked in Australia and other countries of the world. And I'll just repeat it. He, Sogo, established the key principle that was to build to an adequate standard, versus building to a compromised outcome. His handling of the Diet was brilliant, necessary, and perhaps not always by the book. Secondly, it was to pursue a holistic approach, whereby the Shinkansen would stand alone, but with all its components upgraded to high-speed railway requirements, and no compromise, and no level crossings, and advantages flowing from that. Thirdly, it was to develop a trustworthy team to get the job done, and with delegated power to deal with the enormous tasks created by the project, double braking systems, earthquake warning systems, the in-cabin signaling and so forth. And finally, it was if you like, a certain stamina and stubbornness, a determination and decimation that few possess in their 70s. But he was younger than Winston Churchill when he was Prime Minister for his last term. Old Man Thunder delivered, successful high-speed rail. Lucky breaks early on, but making the best of those breaks, a holistic approach, and other countries, notably France, Germany and South Korea, of course latched on. And so away went those original-series "O-Units" you see before you. And it was 4 hours 10 minutes in 1964, and of course, that quickly switch through to a brief period of double-decker operation, and I saw a diner car, a double-decker car yesterday, down in a Nagoya museum. Torkel Patterson kindly has brought so many international people together here, it reminded me that that was also a great period of travel on the Shinkansen, in a previous conversation, but of course it had to be fine-tuned. So the flexibility of Shinkansen is to try something, evaluate it over years, and then go back to the sleek, smart, single-decked 700A Series dominating today, as they sweep along the coastline of Japan. 6 hours 50 minutes, became 4 hours 10 minutes became 2 hours 25 minutes. Ladies and gentlemen, passengers '64: 23 million, passengers 2014: 149 million. It says it all, and perhaps it's demonstrated, 60 trains a day to 342 trains a day. Someone should make a tapestry out of the slide on the right. So we salute Shinji Sogo, we say "job well done" in boosting connectivity and productivity, with an absolute dedication, with crash avoidance. A giant game-changer who changed the railway world for the better, forever. Thank you.