Greetings

Shuichi Fujisawa, Head of NHK Science & Technology Research Laboratories

I would like to express our deep appreciation for your having taken the time to attend this opening ceremony of the general public open house at the NHK Science & Technology Research Laboratories. I am Shuichi Fujisawa, and I became Head of STRL upon the appointment of my predecessor, Keiichi Kubota, to the NHK General Managing Director/ Executive Director-General of Engineering. I would like to express my determination to do my best in operating this research laboratory. I sincerely ask for your continuous support.

The NHK Science & Technology Research Laboratories is hosting its 66th annual open house. The first open house was in 1947, and it has been 82 years since STRL was founded in 1930. This celebration has only been possible though your continuous support, for which we are truly grateful.

This year's theme is "An exciting new world". It reflects our desire to work on new, appealing research that will meet the expectations of our viewers and make progress toward mature broadcasting after the completion of digitization and features 36 research projects.

With regard to Hybridcast®, which will present convenient new services by taking advantage of the characteristics of broadcasting and broadband communication, we cooperated with receiver manufacturers and commercial broadcasters to create an exhibit designed to show an application. The exhibits featuring Super Hi-Vision (SHV), which will convey the ultimate sensation of reality in 2D, cover a wide field, from fundamental technologies to a 145-inch full-resolution plasma display and a full-spec 120-Hz image sensor. Our exhibits on a human-friendly broadcasting technology feature a voice to sign-language translation CG system.

In the lecture segment of the open house on May 24, I will explain our latest three-year research and development plan. Lectures will also be given by research engineers in charge of their respective research projects on Hybridcast and SHV.

In conclusion, I would like to ask for your continuing guidance and support. It has been an honor to have you here today. Thank you.

From Lectures

Lecture 1

NHK STRL 2012–2014 R&D Plan

Shuichi Fujisawa, Head of STRL

In NHK corporate plan for 2012–2014 fiscal years, our core mission is that NHK, as a trusted public broadcaster, will continue to deliver distinctive programs and services, as well as strengthen our broadcasting capabilities in order to build a prosperous and secure society, and promote the development of culture of the new era. At STRL, we are playing our part in putting this plan into practice. In particular, we have summarized our 3-year plan with the basic policy of imagining where broadcasting could be after ten or twenty years, and — through a consistent process of research and development from theory to application and from devices to systems — increasing the quality of broadcasting and making things more convenient for viewers.

Specifically, with a view to expanding our broadcast services after the analogue switch off, we will promote research and development aimed at establishing a technological infrastructure for services that combine broadcasting and communications, and working towards the realization of highly immersive broadcasting systems such as Super Hi-Vision and 3D television. To ensure that all viewers can enjoy broadcasts in comfort, we will introduce enhanced features, conduct research and development of broadcast technology with a full complement of user-friendly services, and develop technology that will allow us to achieve our goal of providing everyone with a rich user-friendly viewing experience.

Lecture 2

Deployment of Hybridcast®

Hisakazu Katoh, Deputy Head of Media Planning Bureau

Hybridcast® is a system we have been developing at STRL to support cooperation between broadcasting and communications. This year we are presenting it at the Open House for the third time since it was first proposed in 2010. A variety of proposals for services that combine broadcasting and communications have been made both in Japan and in other countries. The system we propose uses broadcasting for high-quality, reliable delivery of the same content to multiple destinations, and uses communication for the delivery of large amounts of information individually tailored to each recipient. In this way, it can exploit the benefits of both types of media to the greatest possible extent. We have also developed this system to provide viewers with greater freedom, convenience and safety in their use of content provided by broadcasters. In other words, Hybridcast is an environment where information can be used in new ways based on collaboration between broadcasting and communications after the digital switchover has taken place.

At NHK, our corporate plan for the 2012–2014 fiscal years specifically includes "the priority objectives of developing and providing new services that combine broadcasting and communications", and "establishing technologies and service platforms that are compatible with new media environments". Hybridcast is an important means for achieving these goals. In this lecture, I will discuss the current situation of Hybridcast R&D, our work on standardizing this technology, and our future plans.

Lecture 3

Super Hi-Vision (SHV) R&D and the London Olympics

Yoshiaki Shishikui, Head of Advanced TV Systems Research Division

Our Super Hi-Vision broadcast technology can transmit pictures and sounds that are so realistic it feels as if you are actually there. At STRL, our research and development is geared towards starting up Super Hi-Vision broadcasts in 2020. This research and development is also one of the priority objectives of our corporate plan for the 2012–2014 fiscal years, which is aimed at the development of a next-generation ultra-realistic broadcast system. Super Hi-Vision is a system that combines ultra-highresolution video with three-dimensional audio, and in order to broadcast it we are developing and standardizing new technologies for each stage of the process from program production through to transmission and home viewing. We are also actively demonstrating Super Hi-Vision so that viewers can feel excited about the launch of this new broadcasting service.

In this lecture, I'll show the current state of R&D and our future targets for each constituent element of this system in the context of our road map towards the implementation of Super Hi-Vision. I'll also discuss the Super Hi-Vision public viewing at this summer's London Olympics, where we will be collaborating with other organizations from around the world –including the BBC and OBS (Olympic Broadcasting Service)– and bringing together the results of developments that have been made so far.