Radio TechCheck
The NAB Labs Newsletter for Radio Broadcast Engineers
NAB LABS
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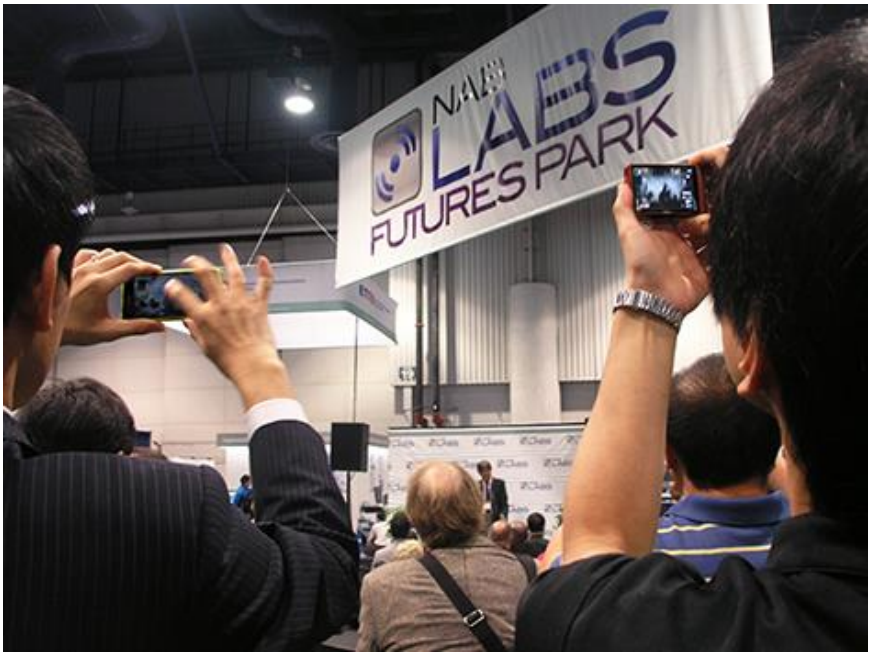
2015 NAB Labs Futures Park Highlights Emerging Technologies

This year's NAB Labs Futures Park will feature an array of exhibits covering a wide range of global technology developments of interest to broadcasters. Close to half of the Park's booths this year will feature first-time exhibitors, likely to expose attendees to brand new experiences.

NAB Technology SVP Lynn Claudy guides FCC Commissioners Ajit Pai and Michael O'Rielly as they tour the 2014 NAB Labs Futures Park

In its 2013 debut appearance, the NAB Labs Futures Park built upon the success of the International Research Park that was launched in 2010, as a special section of the NAB Show convention floor reserved for presentation of media-related research and development projects from around the world. Exhibits in the Futures Park represent current edge-of-the-art media technologies from governmental, academic and commercial research and development facilities. They are selected by NAB Labs for presentation in the Futures Park based on their relevance and interest to broadcasters, and typically include some historic firsts (see NHK's listing below for an example).



Attendees snap pictures at the annual Futures Park press conference. This year's press conference will take place on Monday, April 13 from 4:00 – 4:30 p.m. PDT.

Exhibitors scheduled to appear in the 2015 NAB Labs Futures Park include the following organizations (listed alphabetically, with brief descriptions of the work they will present and their country of origin):

Advanced Media Workflow Association – AMWA develops standard formats for media workflows tailored to specific production applications. (USA)

Astrapi Corporation - Astrapi presents a non-periodic, spiral-based signal modulation that is a patented, transformative innovation at the core of telecommunications. It provides new ways to combat noise and interference, and improves spectral efficiency, providing a mathematical basis that allows Moore's law to be applied directly to telecommunications performance. (USA)

DAVID Project - Four partner organizations in the DAVID Project, a European Commission-funded project for long-term preservation of A/V content, will show their progress in detection, restoration and avoidance of future deterioration. (Austria, Germany, UK)

Electronics and Technology Research Institute - ETRI will present demonstrations of an advanced multimedia system designed to cover a wide range of ATSC 3.0 service environment needs from RF transmission to

platform and applications, including Layer Division Multiplexing (LDM) transmission, Advanced Digital Signage and Fixed + Mobile UHD Hybrid 3DTV. (S. Korea)

Framework for Interoperable Media Services – FIMS is a joint effort of AMWA and the EBU, producing agile, service-based architectures that are adaptive to rapidly changing A/V production needs. Presentations and demonstrations by users and vendors will be made throughout the show. (USA/Switzerland)

goHDR/University of Warwick – goHDR/University of Warwick will present two step-changes in HDR video. First, a professional HDR video broadcast pipeline from an ARRI Alexa through the real-time HDR manipulation of Vicomtech's Tebas system to a Sim2 HDR display; and second, with AMD, a 3D real time Spherical harmonics lighting computation based on real-time HDR capture. (UK)

NHK – NHK will demonstrate 8K Super Hi-Vision in a special presentation theatre featuring a 350-inch screen and 22.2-channel sound, and showing new content – including highlights from the FIFA World Cup in Brazil. A highly portable 8K camcorder, a multiplexing scheme called MMT, a full 8K/120Hz production system, and a loudness meter for 22.2-channel audio will also be shown, along with a showcase of the ever-evolving lineup of 8K displays. (Japan)

NAB Labs - NAB Labs presents a series of on-screen scenarios for new services potentially enabled by a next-generation television broadcast system. The use cases include targeted advertising, localized emergency alerting and viewer-response interactivity.

NPR Labs – NPR Labs will show results of their current studies in compatibility of Single-Sideband Stereo with legacy FM stereo receivers, the effects of various MDCL modes on AM HD Radio reception and best practices for resolving LTE interference. Other projects to be displayed include designing loudness tools for public radio producers, a hybrid FM synchronous booster system and expanding upon recent RDS emergency alerting work. (USA)

Rochester Institute of Technology – One of the world's leading academic institutes on imaging technology, RIT will present and demonstrate current research being conducted by seniors in the Motion Picture Science and Imaging Science departments. (USA)

Swissaudec (ECMA-407) - Swissaudec, in co-operation with McGill University and EPF Lausanne, will display a full plug-and-play ECMA-407 (Scalable Sparse Spatial Sound System)-based UHD TV broadcasting chain with a 2D to 3D audio up-mix system. (Canada/Switzerland)

SymbolShifters - SymbolShifters will show their patented method for connecting traditional television broadcast to the digital universe of computers, tablets and mobile phones. The technology briefly embeds a scanable code, such as a QR, in the video stream and data linked to the icon is automatically harvested and stored locally for later retrieval by the consumer. (USA)

Vision III Imaging - v3® will show their parallax visualization (PV) R&D efforts. On display will be examples of their PV Forensic Video Toolset, v3 Game Code, v3 PV Computer Animation Toolset and examples of their parallax scanning stereoscopic v3D™ computer animation and live-action imagery. (USA)

The 2015 NAB Labs Futures Park will be in a new and expanded location in the North Hall of the Las Vegas Convention Center. Enter at Booth N8825.

Entrance to the 2014 Futures Park. Don't forget to stop by the Futures Park welcome desk for an NAB Labs giveaway after visiting the Park's exhibitors.