

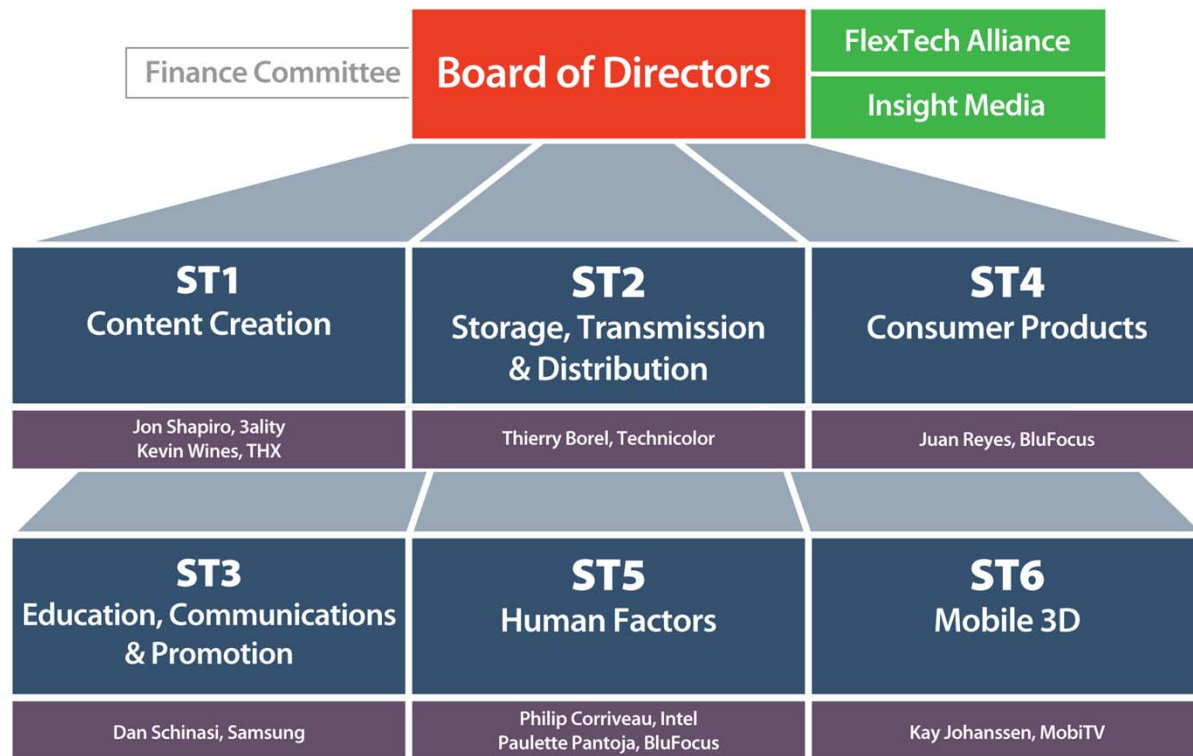
3D@Home Consortium Major Activities & Milestones

Heidi M. Hoffman
Managing Director



To speed the commercialization of 3D into homes
worldwide
and provide the best possible viewing experience
by facilitating the development of standards and
roadmaps
for the entire 3D industry— including content,
hardware and software providers AND consumers.

Structure





The collage displays various sections of the 3D@Home Consortium website, including:

- 3D@Home Consortium Home Page:** Features navigation links (Home, News, 3D Resources, From the Experts, Membership, About Us, Experience 3D), a steering team list, and a group email address section.
- 3D University.net:** Promotes accelerating the adoption of quality 3D into homes worldwide, featuring a 3D character wearing glasses and a "Learn about 3D" button.
- 3D Vision & Eye Health:** A section by the American Optometric Association (AOA) and 3D@Home, focusing on eye health and 3D viewing. It includes a video player for "AOA Releases Statement on 3D Entertainment" and text stating: "According to the AOA, there are 3 million to 9 million people with binocular vision problems. Viewing 3D TV and movies can help detect problems and open the door to treatments."
- 3D Display Technology Family Tree Poster:** A diagram showing the evolution of 3D display technologies.
- 3D Eco-System Interactive Diagram:** A diagram illustrating the components of a 3D ecosystem.
- 3D News & Blogs:** A section for the latest news and blog posts, including a post about the 3D@Home 3D Use Experience Technical Summit.

Member-Only

www.3DatHome.org

www.3DUniversity.net

www.3DEyeHealth.org

Mission: Uphold the need for quality 3D in the home by focusing on education, expert resources and the refinement of techniques for the professional content creation audience.

Projects:

- Creation of SteM - Standard Test & Evaluation Material
- Developed a Test & Evaluation Blu-ray Disc for use by members
- Education Initiatives
 - Authoring issues when re-mastering content for different screen sizes
 - New Products Tours & Demos
- Continued development of “From the Experts” on the website on creating great 3D content
- 3D Video Quality Glossary

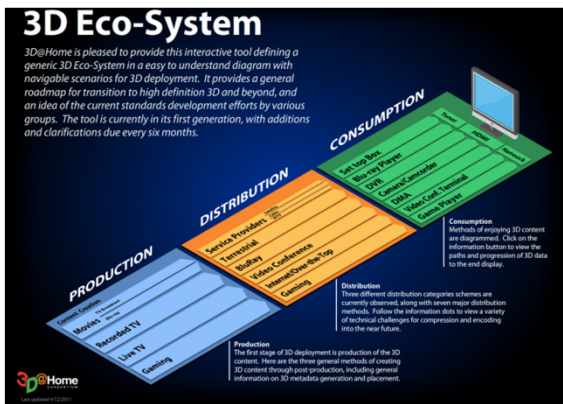


ST2: Transmission & Distribution

Mission: Develop useful definitions and guidelines for the successful storage, transmission and distribution of 3D content.

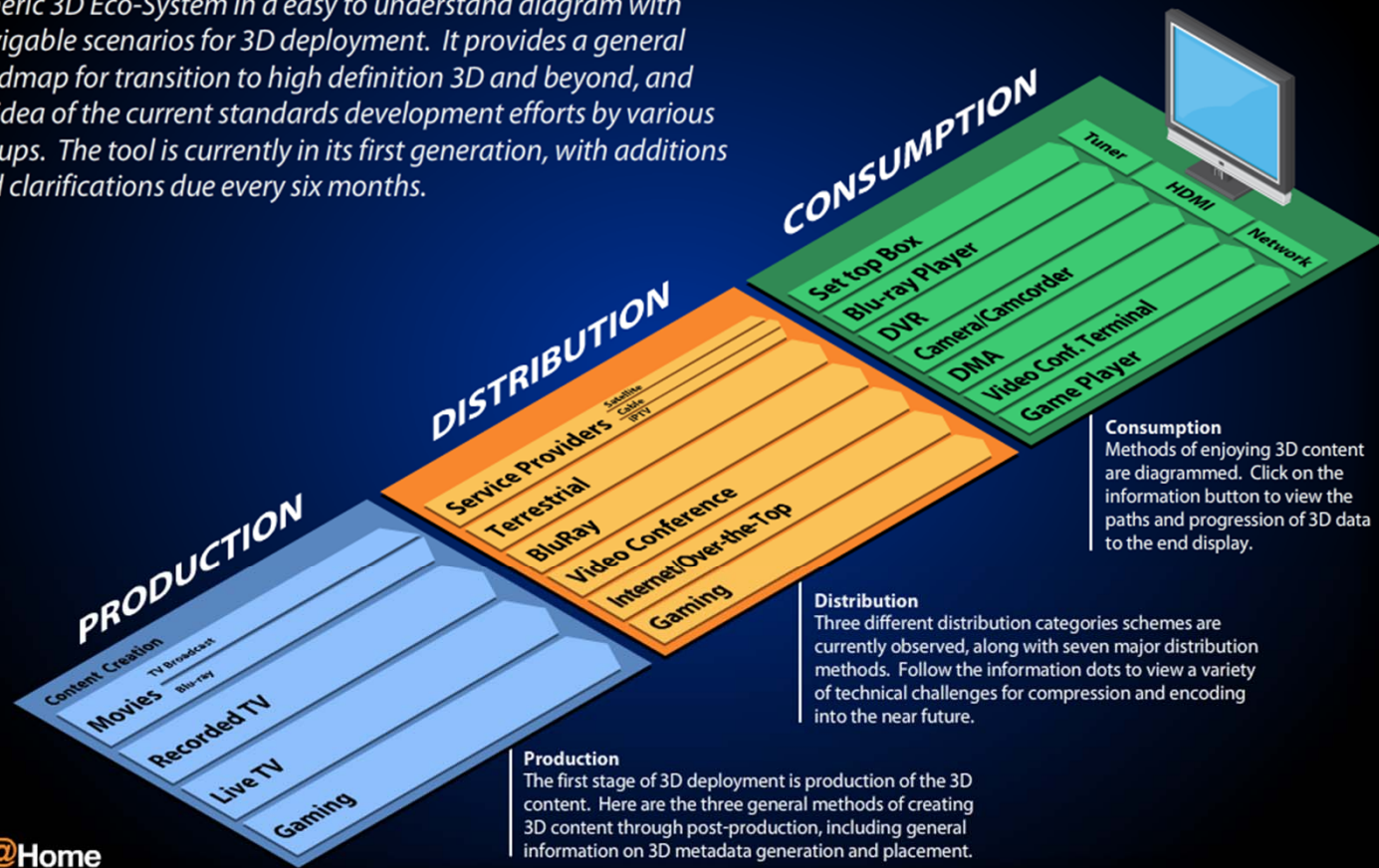
Projects:

- Eco-System Interactive Diagram
 - Metadata Workflow
 - Roadmap for transition to full HD
- Define needs for quality of signal flow
- Use Cases for CEA and SMPTE
- Webinar & seminar for carriers



3D Eco-System

3D@Home is pleased to provide this interactive tool defining a generic 3D Eco-System in a easy to understand diagram with navigable scenarios for 3D deployment. It provides a general roadmap for transition to high definition 3D and beyond, and an idea of the current standards development efforts by various groups. The tool is currently in its first generation, with additions and clarifications due every six months.



ST3 – Education & Communication

Mission: Accelerate consumer adoption and enjoyment of the 3D home experience through leadership, education and outreach

Projects:

- Communicate activities of other Steering Teams
- Consumer education
 - 3DUniversity.net
 - 3D & Vision & comfort issues
 - Bulletin Board outreach
- Host educational forums
- Support members' promotional and technical activities
- Messaging about the consortium and the industry



ST3 -- Comparing Technologies

Comparison of Active Plasma, Active LCD/LED & Passive Technology 3D HDTVs (as of May, 2011)

*May be less with side-by-side broadcast content

Feature	Active Shutter Technology Plasma	Active Shutter Technology LCD/LED	Passive Technology LCD/LED - patterned retarder
Lens Shuttering	Yes	Yes	No
Horizontal Viewing Angle	Wide	Wide	Wide
Vertical Viewing Angle	Wide	Wide	Restricted
Head tilt	Not an issue	Can be an issue	Can be an issue
2D image quality	Very Good	Very Good	Slightly compromised
Ghosting/Crosstalk	Very Good	Very Good	Very Good
Resolution per eye	Generally 1920x1080*	Generally 1920x1080*	1920x540 maximum*
Weight of eyewear	Good	Good	Very Good
Electronics in eyewear	Yes	Yes	No
Battery charging/replacement	Periodic	Periodic	Not necessary
Eyewear Interoperability	Generally an issue	Generally an issue	Generally not an issue
Cost of eyewear	From ~\$50 per pair – varies by manufacturer	From ~\$50 per pair - varies by manufacturer	From ~\$3 - price varies by manufacturer/supplier
Availability of eyewear	Primarily from TV manufacturers in a few styles. Some 3 rd party 'universal' glasses	Primarily from TV manufacturers in a few styles. Some 3 rd party 'universal' glasses	Primarily from 3 rd party suppliers in many styles similar to sunglasses

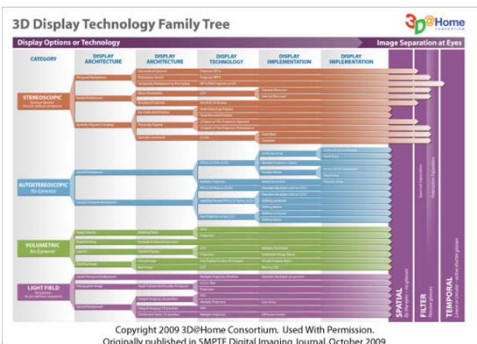


ST4: 3D Consumer Products

Mission: Identify, evaluate and make recommendations around the methods and products to enhance the 3D in home experience.

Projects:

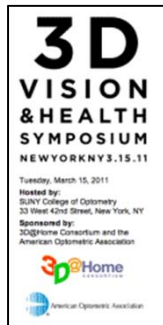
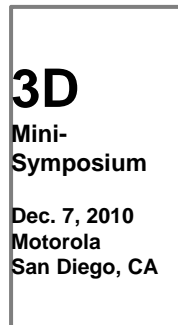
- Focused groups on autostereo – define the characteristics
 - 3DS, changes for age, ability to set the hardware to the use as a single user, add eye tracking
- Camera data transfer, editing tools for camera downloads for user-generated content
- Coordinate 3D glasses testing for chroma shifting (pre-standards work)
- Coordinating Plugfest activities with the CEA
- Updating 3D Family Tree



Mission: To assist 3D stakeholders in understanding the impact of viewing digitally-created stereoscopic and auto-stereoscopic images on the human physiology

Projects

- Literature search & catalog on Human Factors research
- Creation of super-matrix of test variables; use as common platform
- 2 research projects under consideration
 - 3D Study Program based on test matrix priorities
 - Testing Subjective Quality of 3D Content
- Creation or acquisition of content for distribution and testing (ST1)
- Summits for sharing information: 4th last month
- Support for 3D Vision Fitness Messaging Program from the American Optometric Association (AOA)
 - 3D in the Classroom Guidelines – Learn Well, See Well
- Support for first 3D Stereo Vision Clinic in Oregon



NEW!

Mission: Assist the handheld 3D device industry in bringing high-quality 3D to consumers

Public announcement – September, 2011

First Meeting – November 3, 2011 – San Jose, CA

Lead by Kay Johansson, MobiTV

Projects:

- Educate the wireless (carriers and OEMs) industry on 3D
- Explore the bandwidth impact
- Create recommendations for 3D application developers on utilizing 3D
- Communicate info on A/S and technology advancements and transitions

49 companies

Creation & Mastering

SONY

3ALITY

THX



Walt Disney Studios
Home Entertainment

PIXAR
ANIMATION STUDIOS

BluFocus
A BLU-RAY SOLUTIONS PROVIDER

technicolor

IMAX
3D

MEDUZA
-SYSTEMS-

Distribution & Transmission

Turner
A Time Warner Company

Discovery
COMMUNICATIONS

ESPN 3D

france telecom

astral

CISCO

eutelsat
COMMUNICATIONS

HARRIS

SES

Proprietary 3D Image Processing

DOLBY

sensio

SISVEL

Displays Systems

SAMSUNG

AUO

HOLOGRAFIKA

masterImage
The world's largest manufacturer of 3D displays

NVIDIA

setred

SPATIAL VIEW

TEXAS
INSTRUMENTS

VOLFONI
DIGITAL CINEMA

Materials & Accessories

CORNING

LC TEC

MARCHON 3D

OAKLEY

ChipSets, & Set Top Boxes

intel **SIGMA**

MARVELL

ST **quantumdata**

SAGEM

Trident

VIXS

XILINX

Labs & Government organizations

ETRI
Electronics and Telecommunications
Research Institute

HHI

工業技術研究院
Industrial Technology
Research Institute

SHARP
LABORATORIES OF AMERICA, INC.

Pacific
University
Oregon

Insight Media
DISPLAY EXPERIENCE™

FlexTech Alliance
for Displays & Flexible Printed Electronics

Liaisons & Relationships

Creation & Mastering

Distribution & Transmission

Displays Systems

Other Equipment

Governmental Initiatives

Human Factors



3D CONSORTIUM

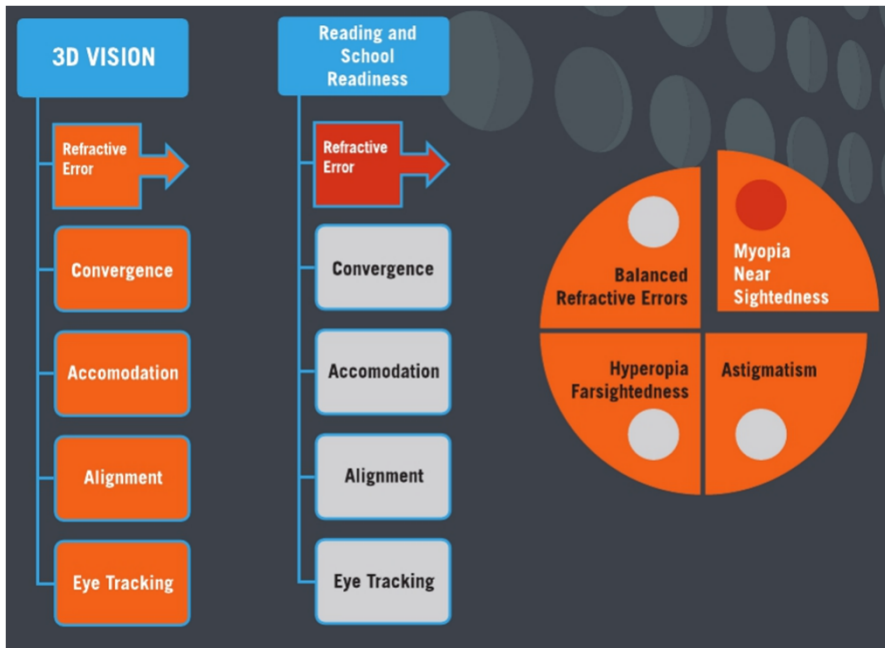
View the Video at www.3DEyeHealth.org

The Third Section from the top “The 3Ds of 3D Viewing”

Relationship with Eye Doctors

- Vision is a public health concern in U.S.
 - Eye Charts (school & pediatrician) only test for distance vision
 - Children do not get to care
- 'Seeing 3D' provides tests for several other vision issues
 - Binocular focus is critical to reading as well
 - Translates into quality of life
- Children's vision under 6 more readily responds to non-invasive vision therapy
- Thus.....

....AOA recommends children and parents watch 3D as a diagnostic tool for vision issues!



3D in the Classroom



American Optometric Association

- *Learn Well, See Well - 3D in the Classroom*
 - Educates teachers about 3D
 - De facto screening for vision issues
- Supported by studies in the U.S. & U.K.
 - 3D in the classroom improves retention
 - Pre & post testing of 3D: 86% increase
 - Pre & post testing of 2D: 52% increase
 - Improves focus
 - 5 min in 2D: 46% focusing
 - 5 min in 3D: 92%
 - 5 min of 2D: 95%
- Download and distribute at www.3DEyeHealth.org

In addition....

- AOA Creating a 'binocular vision kit' for 36,000 Optometrists in U.S.
- Public service announcements before movies and 3D programs
- Supporting the 3D Vision Eye Clinic in Portland/Beaverton Oregon USA
- Your assistance welcome in carrying this win-win message globally

Groundbreaking 3D Vision Eye Clinic Opens Thursday

4:00 AM PDT 10/6/2011 by Carolyn Giardina

SHARE   

 Like 10  Send

 Tweet 14

 Comments



Pacific University's College of Optometry and THX are joining forces to launch a facility that will provide diagnosis, treatment and research.

Do 3D movies give you headaches?



HIGHLIGHTS

- Educational tools & training available
- Production tools more sophisticated
- Baseline content available
- Many channels online
- Alternative content aggregators increasing
- Growing understanding for human factors
- Technology advancing rapidly
- Compression & encoding mostly understood
- Installed base rapidly increasing
- Special interest group coalescing
- Retail sales associates more knowledgeable
- Educational software developing & being implemented
- Consumers feeling more comfortable with concept

Time →

Content Creation

3D Movie Creation
3D Programming
Post Production
2D-3D Conversion

Distribution

Authoring
Satellite
Cable
Broadcasting
VOD & Streaming

Consumer Products

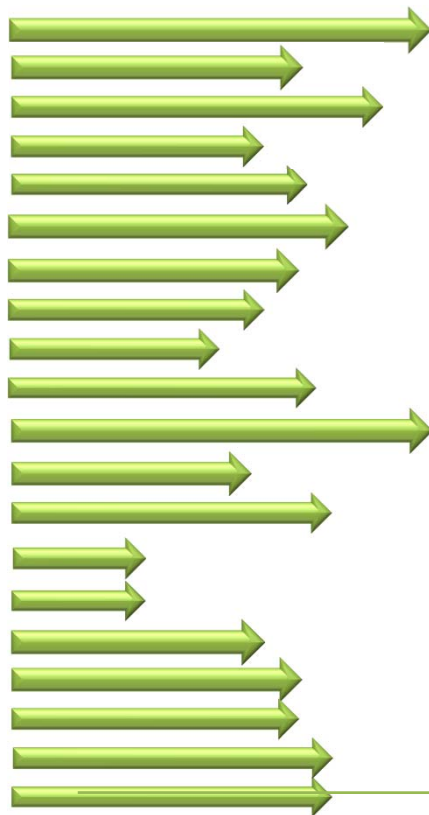
Game Boxes
Displays & Projectors
Audio/Video Boxes
Eyewear

Sales

Retail
eCommerce

Other Facilitators

Installers & Calibrators
Standards Bodies
Academic Community
Associations & Consortia
Analysts



CHALLENGES

- Some 3D creators don't yet understand nuances
- Many producers still want 'thrill ride' for every 3D shot
- Limited programs available
- Humans all perceive 3D differently
- Rapid technology advancement difficult to follow
- Retail experience not optimal
- Still a lot of misinformation and unsubstantiated rumors in press and in retail

Time →

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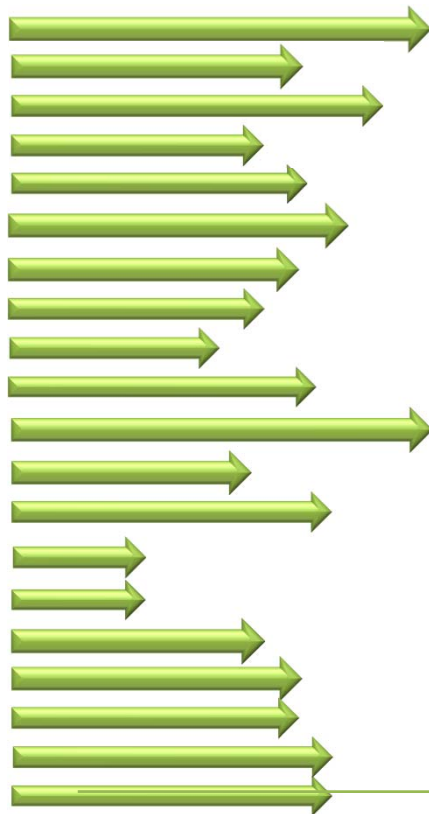
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**THIS IS WHERE
WE POSITION
3D@HOME**

Time →



Turning 3D into delicious & satisfying for all



Thank You!
Merci!

Membership Categories

	Board \$30,000	Leadership \$15,000	Basic \$5,000	Academic \$1,500	Advisor <i>Must sign Advisor Agreement</i>
Seat on Board of Directors	X				
Chair steering teams & projects – first right of refusal	X	X			
Attendees at quarterly meetings and online webinars	Unlimited	3	2	1	
Review white papers & tutorials	X	X			
Highlighted listing in online directory	Industry Directory	Ind. Directory	Industry Dir.	Academic dir.	
Contribute to Studies	X	X	X	X	X
Access to Member-Only (Kavi) Site	Unlimited	Unlimited	5 seats	1 seat	1 seat
Market & technology briefings by industry analysts	X	X			
Contribute to web content & development	X	X	X	X	X
ST participation	X	X	X	One ST only	one ST only
Attendance at Annual Strategic Planning Mtg.	X	X			
Primary liaison with other special interest groups (SIGs)	X	X	X	X	
Company briefing at full membership meeting	X	X	X	X	
Receive 3D test and evaluation content	X	X	X	X	