ITV PLC at this time do not have plans to broadcast 3DTV. Its present status is to create a viable technical and commercial framework so formal statements can be made regarding any broadcast plans for 3DTV. Accordingly our input/role regarding broadcasting standardisation.

ITV PLC as a producer of content is able to produce stereoscopic material (test as well as final format) and is open to consider production opportunities.
Introduction of 1st Generation stereoscopic television from a FTA broadcaster perspective

Evolution of broadcast audiences & production issues

Colin Smith, ITV PLC, Technical Analyst (colin.smith@itv.com)
UK based free to air commercial broadcaster (established in 1955)
EPG Position 103 for main channel – ITV1
Content Producer (Come dine with me, etc)
Global distribution arm
The only commercial broadcaster to reach mass audiences
Partner with BBC in FTA platform ‘Freesat’
Work started with 3D in November 2007. Public debut MIPCOM 08
Stance. 3DTV will start off requiring the viewer to wear glasses but we want auto-stereo at the same quality point as soon as possible. Dependent on commercial model.
Never presume too much what a consumer might find acceptable

**Stereobelt**: 1972. Invented by Andreas Pavel.

**Apple iPod**: 2008. Enjoyed by over 170M+ people.

Wiki: “Pavel approached electronics manufacturers such as ITT, Grundig, Yamaha and Philips with his invention, but the companies felt the public would never wear headphones in public for listening to music.”
What is 1st Generation 3D TV?

Extension of HDTV (same panel)
Full colour per eye
Requires glasses (passive or active)
High quality 3D experience
High quality 2D experience
Required before 3D TV without glasses can move forwards

Issue with the glasses – those funny 3D glasses?
Can you swim 3D?

If answer = yes (i.e. you start off with a full 3DTV channel)

If answer = no (i.e. you prefer 3DTV to start very gradually)

If answer = you are not ready or wanting to swim at all – this still affects you

Issue – this affects your need for the 3DTV content to be still viewed in 2DHD

If you’re not ready for a 100% full time 3DTV channel then needs differ
Producing 3D TV means a compromise.

If you believe you are not ready to be able to launch a full time 3D TV channel then it needs to co-exist with your 2D HDTV channel(s).

The production grammar of 3D often differs to 2D productions. With 3D you still can view in 2D but the editing style will differ. Some formats will be affected more than others. Some none at all. HDTV has resulted in compromised 2D consumption (eg Football) yet it is still enjoyable in SD.
Where are we now – this affects how we need to produce?

Display market – significantly HD Ready
Content gap with little HD content
Why? Business model – who pays for it
Focus is required still for 2DHD. 1080P50 for example
Significant momentum behind stereoscopic content
Yet as what? – a full time new channel, PPV or extension from HDTV
Tipping point or dividing point?
2DHD backwards compatible.

Evolution approach to glasses free 3DTV needs thought now.

Extension of existing EPG should be possible. Supporting hybrid channels and roadmap to full 3DTV channels.

The need to introduce gradually is vital. Accordingly 3DTV content will have to co-exist with 2DHD content.

Cannot force viewer to instantly put glasses on. Needs human action. Key on remote to activate 3D mode and be in 2DHD until then.
Ways to shoot stereoscopic 3D

Factors affecting production
Live or non live
Test material or final asset
Degree of backwards compatibility to 2D viewing required. FTA vital. PayTV less so.
Lifetime value
Audience – kids show different grammar from long form content
Distance from subject possible
Budget
What’s in Common?

All require a technical skill to be entertaining (a lot more than 2DTV)
Skills gap likely for period of years
Making 3D content can be easy but making good 3D content can be considerably more challenging
All shots work. Some better than others

Not everything has to have depth. Just as now with colour broadcasting we often have shots will little colour

Consider from story board to gain maximum benefit

Shots will effect rig type and camera selection

Tells story better – cuts through clutter

Perspective to increase impact
Product Launch
Not just technology. Any launch needs right message. Right business model. Right price point
Content gap is not easy to overcome in volume
Existing migrations to HDTV need to be maintained and any 3DTV content “optional”
Issue over glasses. Press find it easy to put over in a negative light
Issue over evolution. We have yet to bridge the HD content gap. That should not be affected
Issue over what real 3DTV might be. Roadmap from where we are today to lead to that point
Walk, then jog before you can run. Waiting for the future to magically happen overnight will deny your skill set from evolving.

This is possible now. Learn now.

Auto-stereo. Don’t stop to deny this – when it is technically and commercially viable.

How can this ever occur if the naming is not considered now?
Issue with backwards compatibility & timing

Quest for highest quality has to be balanced with migration and legacy planning. HDTV was helped by a mix between gaming consoles, BD/HD-DVD and DVB. Ideally the timescale framework should be aligned and in a way that lets the consumer be part of the process.

White paper design – a chance to create a new base line

This could be welcomed by all?
Format Suitability (firsts)

Films

Event Television

Sports

Nature Documentary

2D Archive (2D-3D Conversion)

Stage events (Eurovision etc)

Family action (fantasy)

CGI (children’s and adult)

Physical game show

News(?)
The issue with legacy equipment and legacy 3D as formats evolve

We market a program being both in SD and in HD. Yet to have the same for SD, HD and 3D would pose a problem as the migration from SD to HD is still early in terms of content migration. 3D as an extension to HD needs to protect the public facing message. You still need a proper HD format. 3D can be an extension of that.

This is not the right time to dilute the message of HDTV but it is the right time to start to consider how any 1st Generation 3DTV can be standardised in such a way that gives an evolution forwards.

The fact is we do have existing 3DTV customers to consider. To most FTA broadcasters we also have a HD content gap. 3DTV needs to be a solution to filling that gap and not another issue to contend with which to contend.
No action now – reduces options for the future.
Few options are possible without requiring DVB revisions (Side by Side, 2D+Delta & others). Two in the display and other in the STB. More DVB work is required for 2D+Depth.
Roadmap to auto-stereo 3DTV required.
Alignment to BD in terms of requiring new player/STB.
If we don’t align ourselves we can all end up losing out.