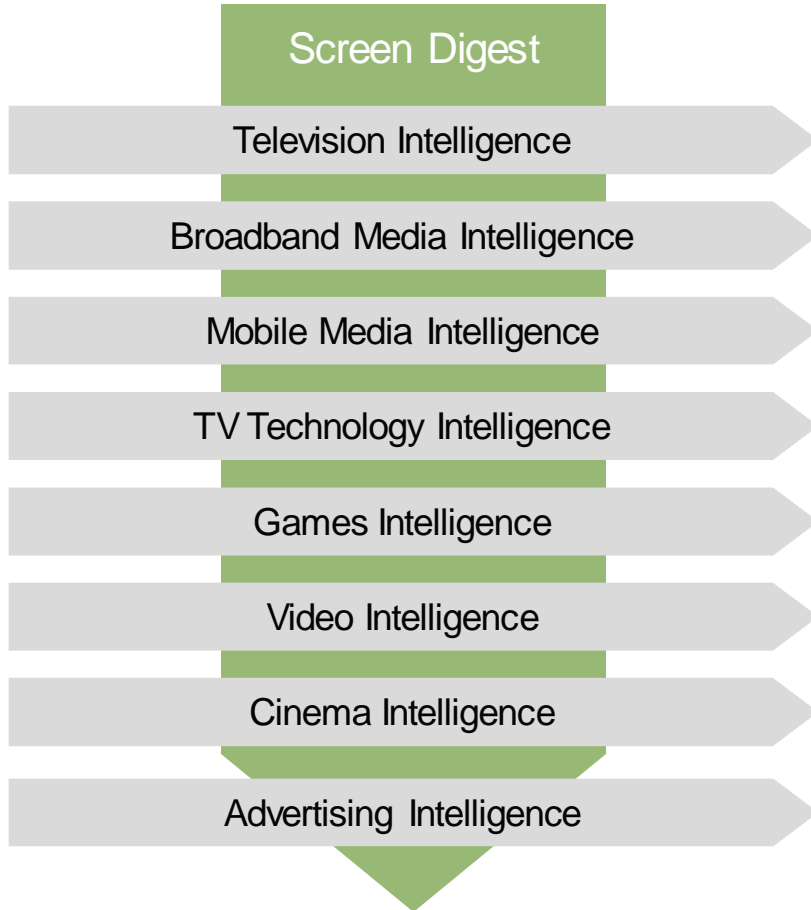

Bringing 3D to the home: The outlook for 3D Blu-ray Disc

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Screen Digest**

**Video Entertainment 2010
Munich, 19 October 2010**

Screen Digest overview



Background

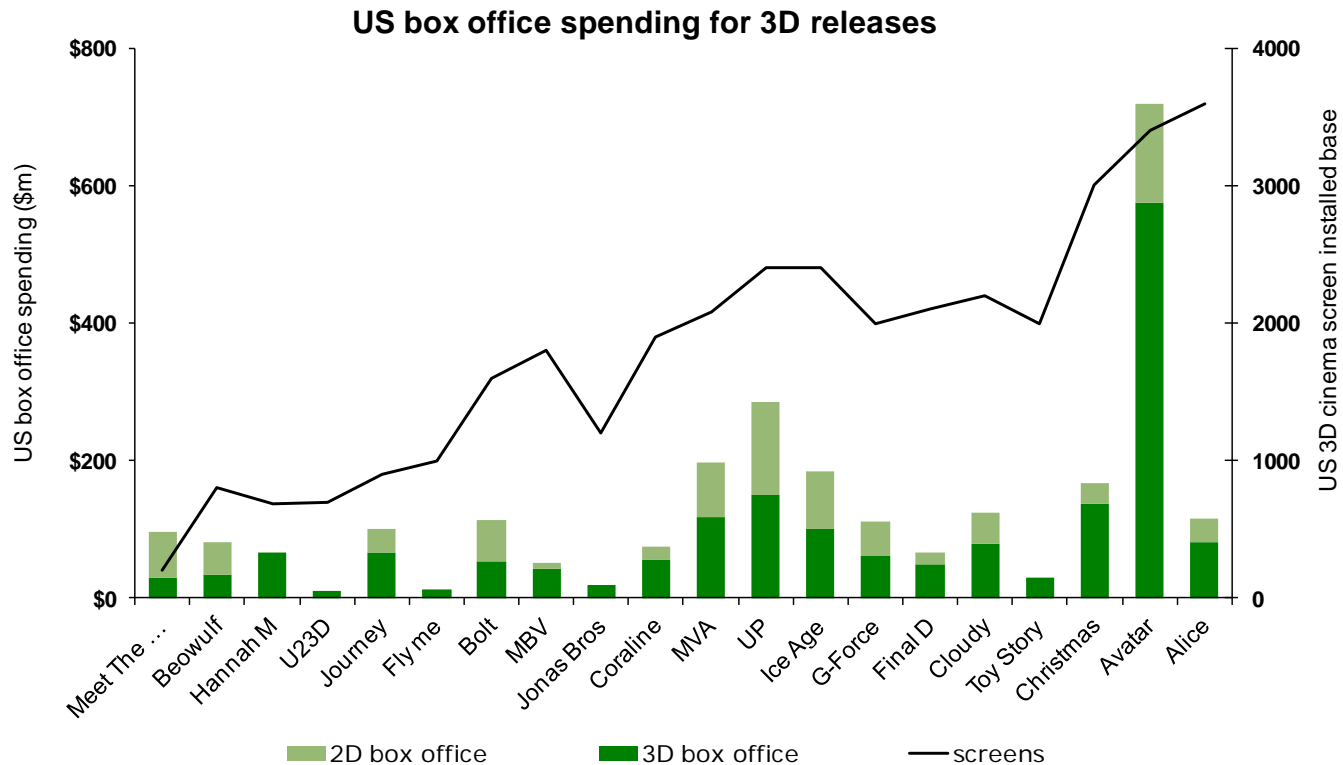
- Over 50 full time analysts looking exclusively at the global media industry
- Over 35 years of experience tracking and forecasting media markets worldwide
- Detailed models and granular data for established and emerging markets by operator as well as the total market
- Constantly updated forecasts throughout the year, not just at quarterly or half yearly intervals
- Experienced and long established senior analysts in every sector

Agenda

- Why home 3D is important to home video
- How BD fits into the 3D ecosystem
- 3D TV forecasts
- Building the 3D BD slate
- The role of 2D-to-3D conversion
- Preliminary 3D BD forecasts for US and Germany

Why is home 3D important to the home video industry?

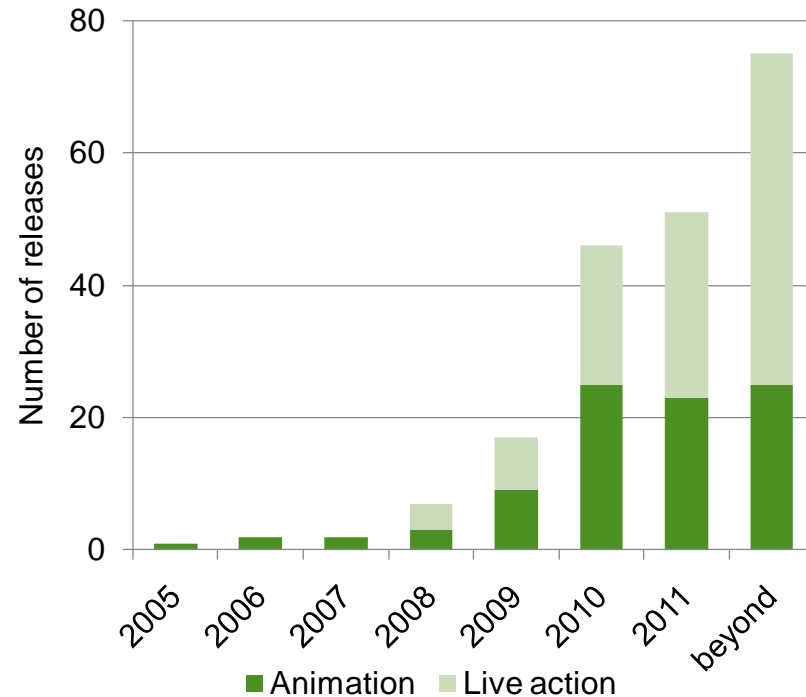
- Theatrical 3D has proved popular with consumers
- On average 3D adds around **21%** to box office spending
- The hope is that 3D can boost Blu-ray and a physical video industry in decline



3D movie releases are ramping up

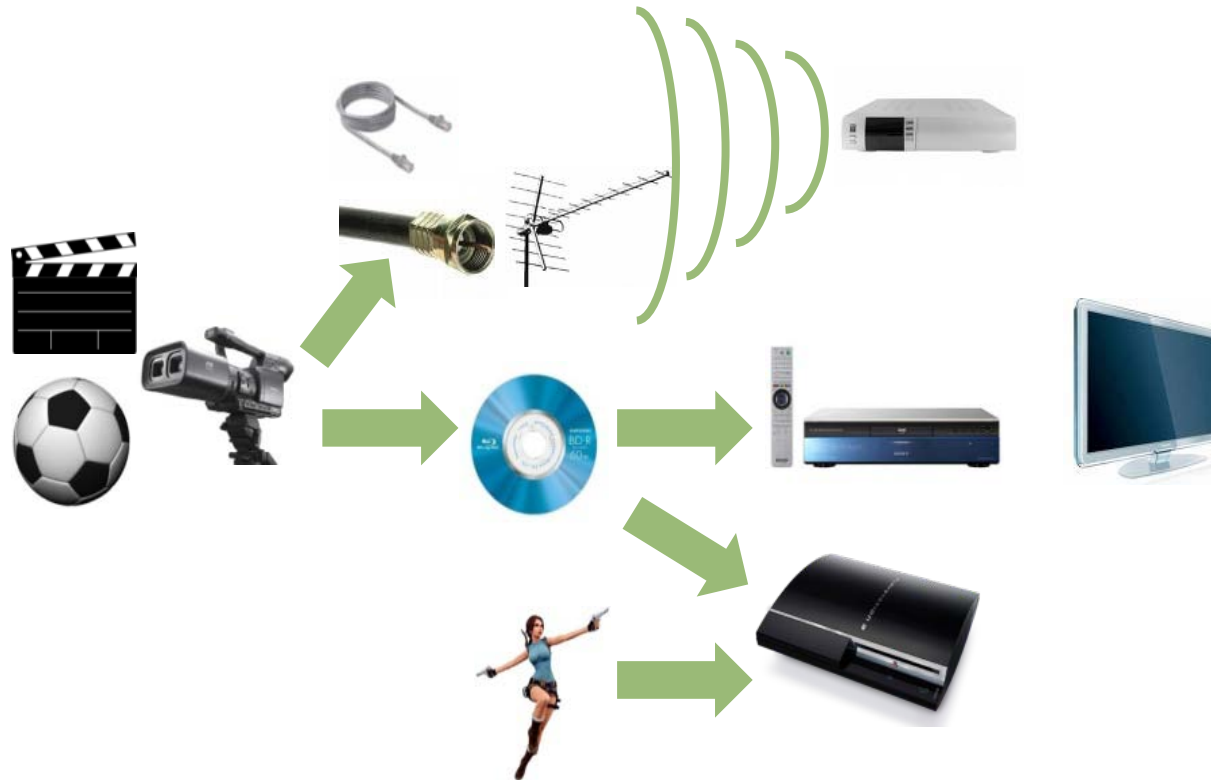
- Number of 3D titles to increase four-fold in second half of 2010
- Live action's share of total 3D theatrical releases to increase. E.g. *Tron: Legacy*
 - Live action genre is important to early adopters

3D theatrical release schedule



Like HD, a new 3D ecosystem is being developed to deliver 3D to the home

- New hardware is being developed and new techniques learnt at all stages of production and the supply chain



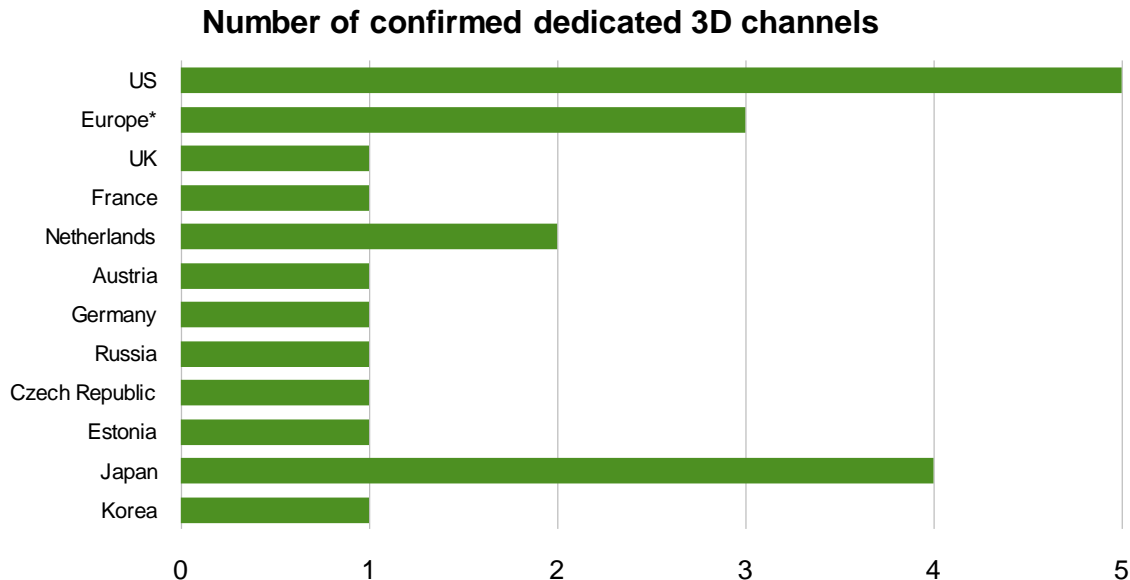
All components of this ecosystem are falling into place: Hardware

- No format war since multiple groups have been involved in establishing 3D standards
 - All BD players will work with all 3D TVs
 - However, all 3D TVs will not work with all glasses
- Hardware manufacturers are fully backing 3D
 - Over 100 3DTV models and around 30 3D BD players launched worldwide
 - Both active shutter and passive polarised technology
 - PS3 3D video update released September 2010



All components of this ecosystem are falling into place: Delivery

- Over 20 dedicated 3D TV channels announced worldwide
 - But sports will feature on 80% of 3D TV channels
- BD supply chain is in place
 - Larger authoring houses and replicators already 3D-enabled
 - Indies following suit

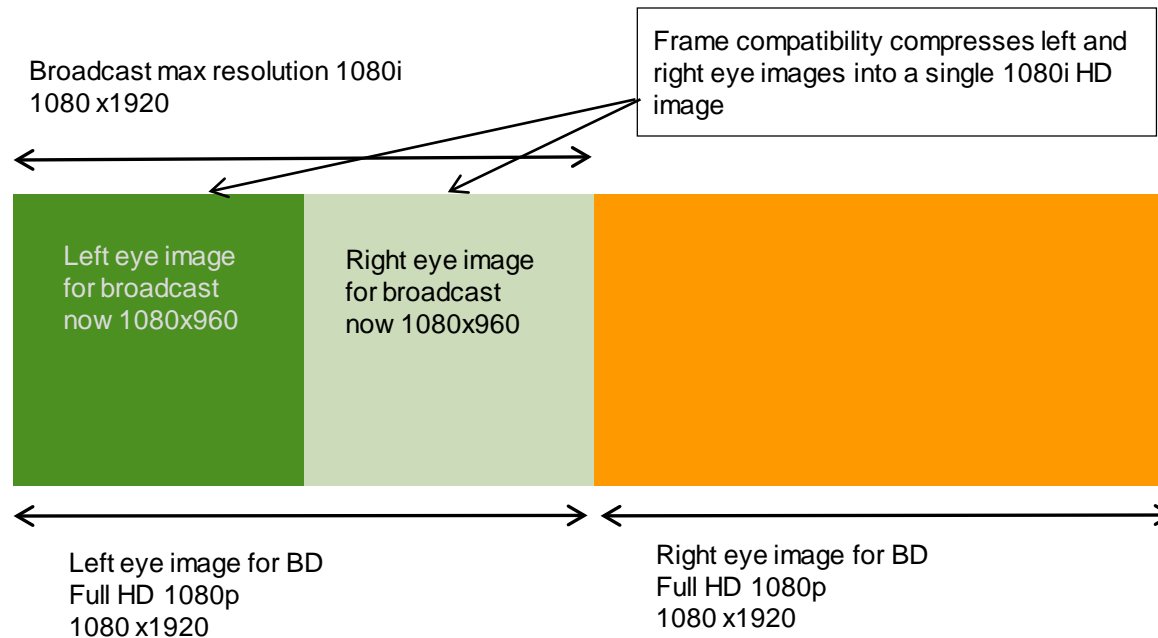


* European satellite providers Eurosport and Eutelsat



So where does Blu-ray fit into this? – 3D needs Blu-ray

- BD currently offers the best quality home 3D experience
 - Full 1080p to both eyes (better than today's broadcast 3D)
 - 3D BD can 'fill gaps' in 3D broadcast schedules
- If studios stick with existing windows BD could get 3D movies ahead of broadcast 3D
 - But 3D titles will also be exploited on pay-per-view



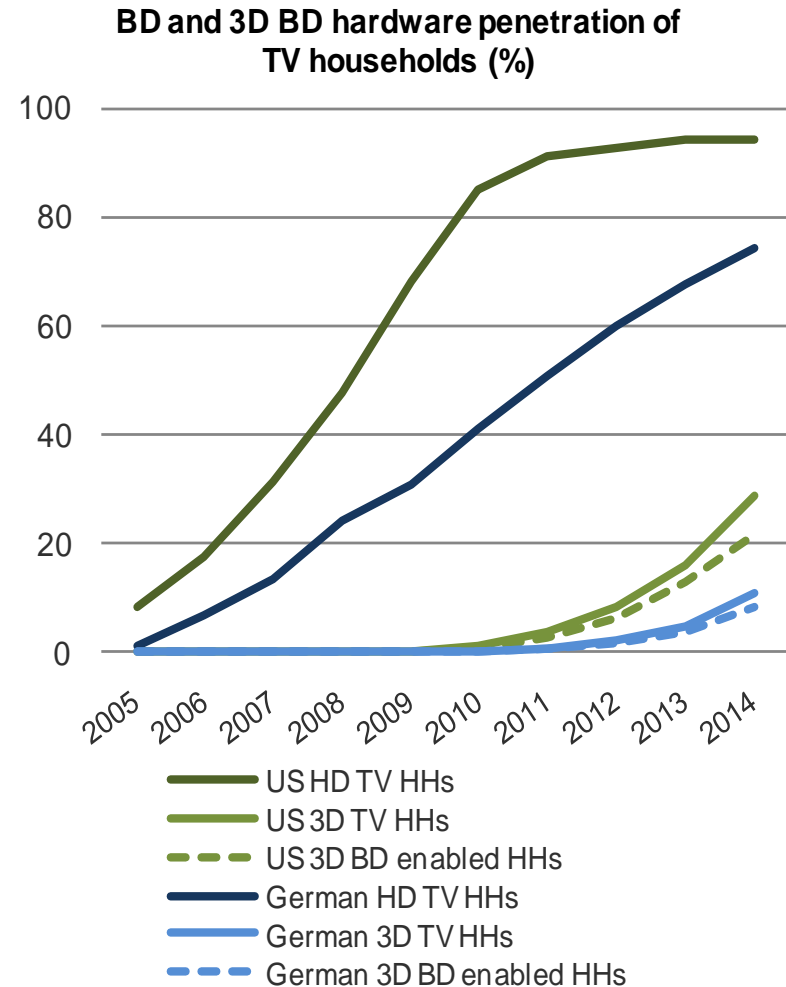
So where does Blu-ray fit into this? – Blu-ray also needs 3D

- An opportunity to position physical media at the cutting edge of new technology
- Blu-ray must not let TV dominate home 3D, like it did with HD
- 3D can help maintain BD's premium position and price in the face of deep DVD discounting



3D TV displays and glasses will drive 3D BD adoption

- A '3D BD enabled' home must have TV, BD player (or PS3) and glasses
- Most BD players released from 2011 will be Profile 5 (3D) compliant
- PS3 will not be a Trojan horse for 3D (as it was for BD) until 3D TVs are commonplace

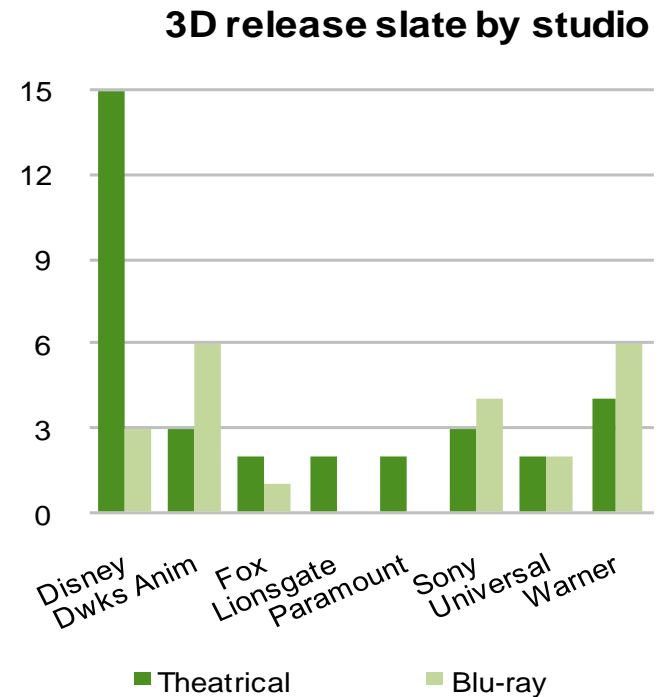
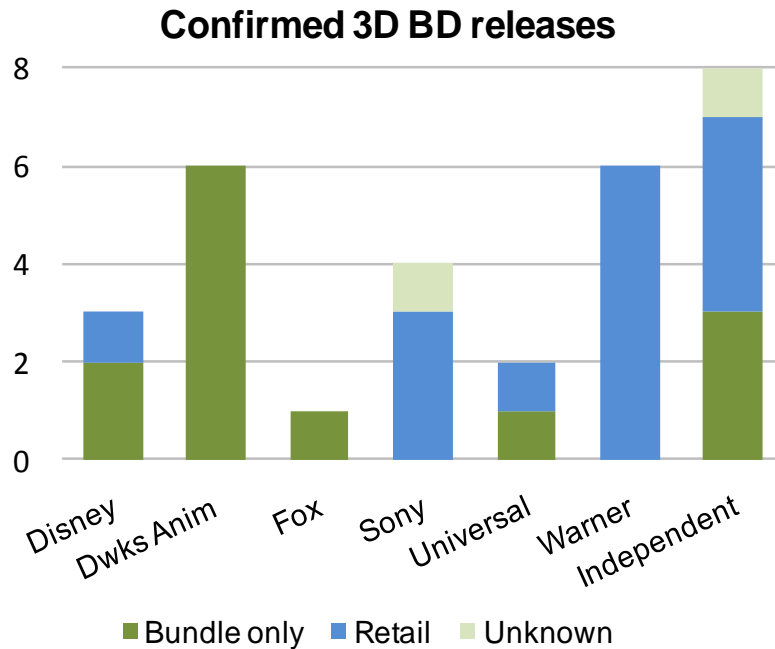


But content availability will be critical too

- 30 titles have been confirmed for 3D BD in the US in 2010
 - Includes 18 major studio movies
- Based on latest available data, about half will be available at retail while 13 will be exclusively bundled with hardware
 - Situation has improved since early September 2010
- But a standard bay in retail stores holds around 25 titles
- Studios remain tight lipped, but we expect to see most of these titles in Germany with a few extras
 - E.g. *StreetDance 3D* will be released in December 2010

Two different strategies seem to be emerging

- DreamWorks Animation, Sony and Warner are spearheading the 3D BD slate
- Other studios are being more cautious



Note: based on available data as at end September 2010

Another key strategic decision: single or dual 3D SKU?

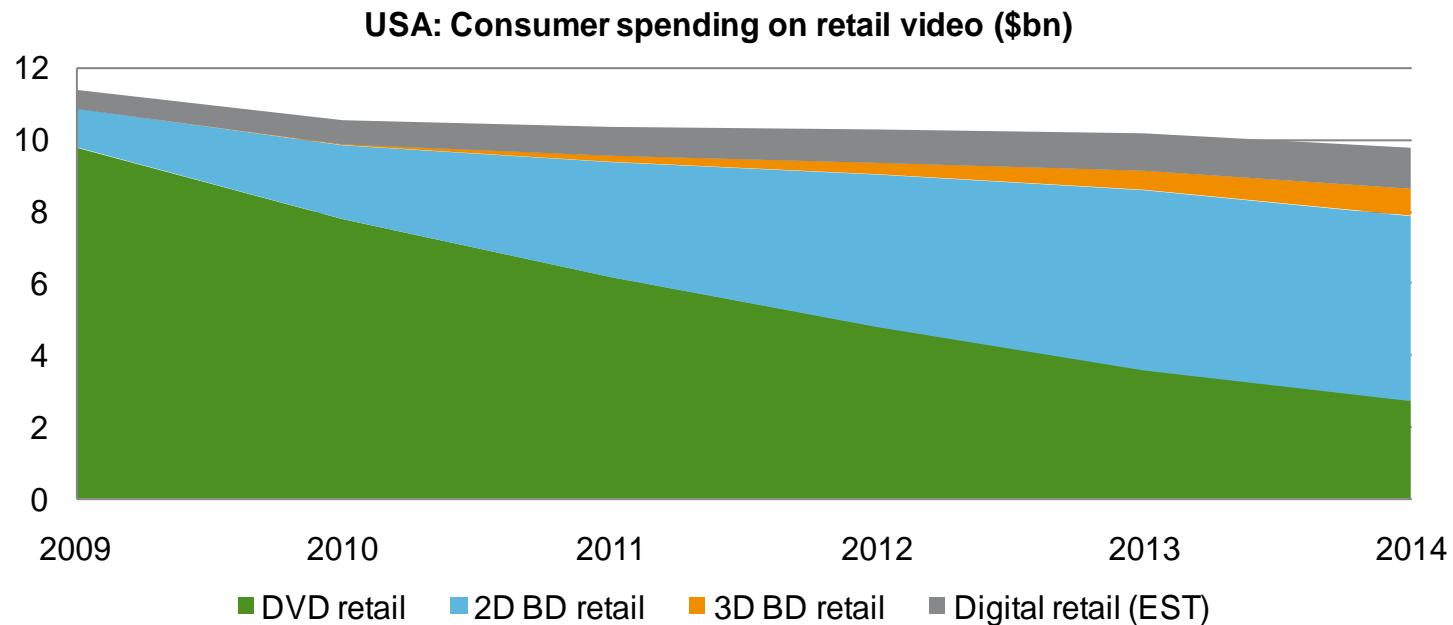
- Indies more likely to adopt single SKU release strategy
- Studios moving towards a dual SKU release (2D BD and 3D BD)
- But single SKU release has advantages:
 - More appealing to retailers
 - Could operate as a 'Trojan horse' encouraging home 3D adoption further on

Where does 2D-to-3D conversion fit into this?

- Conversion must be of a high standard to avoid damaging perception of 3D
- Industry seems to be recognising this
 - Warner's change of strategy from *Clash of the Titans* to *Harry Potter and the Deathly Hallows: Part 1*
 - Plus *Order of the Phoenix* and *Half-Blood Prince*
- Many 3D films created through a hybrid process. E.g. Disney's *Alice in Wonderland*
- Relatively few catalogue titles will justify the cost of high end conversion

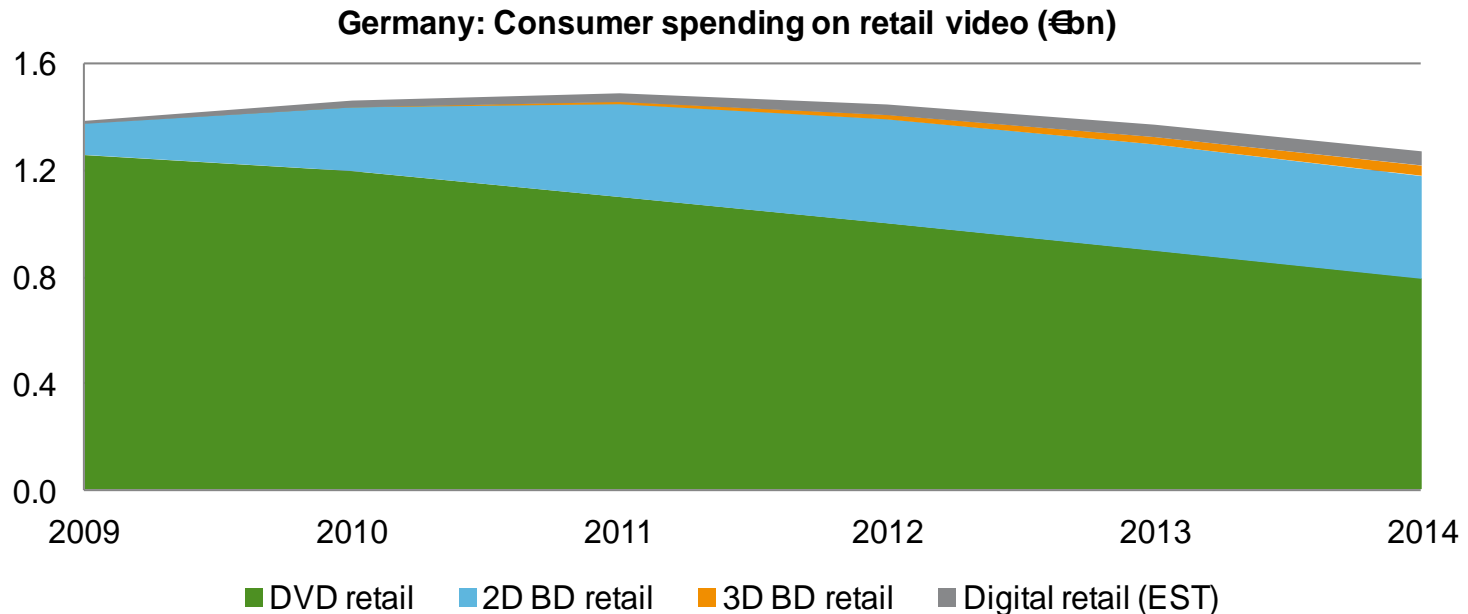
How will 3D BD contribute to total video spending?

- Higher average prices for 3D product will help maintain BD's price premium over DVD
- Based on current title slate, 3D BD will account for 13% of US consumer spending on buying BD by 2014



3D could be the killer app BD has been waiting for

- In Germany 3D BD will account for 9% of consumer spending on BD by 2014
- HD alone hasn't given BD the edge it needed to match early DVD take-up, nor has digital copy ... with the right promotion, 3D could be exactly what BD has been waiting for



Thank you!

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