PRODUKTIONS- UND PROJEKTIONSTECHNIKEN FÜR IMMERSIVE MEDIEN

PRODUCTION- and PROJECTION for IMMERSIVE MEDIA

Market Overview, Introduction Scenarios and Business Models for 3D Cinema and 3D TV

Kemal Görgülü

3D Media Workshop, 16.10.2009

Bundesministerium für Wirtschaft und Technologie

FLYING EYE

Agenda

- Introduction
- Market Overview: Cinema
  - Worldwide D-Cinema and 3D installations in commercial cinemas
  - Box Office and 3D Film Releases
  - Business Models
  - Introduction Scenarios
- Market Overview: 3D-TV
  - Introduction Scenarios
- Business Considerations/Final Remarks

Agenda

- Introduction
- Market Overview: Cinema
  - Worldwide D-Cinema and 3D installations in commercial cinemas
  - Box Office and 3D Film Releases
  - Business Models
  - Introduction Scenarios
- Market Overview: 3D-TV
  - Introduction Scenarios
- Business Considerations/Final Remarks

Bundesministerium
für Wirtschaft
und Technologie

FLYING EYE

Introduction

- 3D "waves" in the 50's and 80's failed
  - Technological problems, especially in postproduction and exhibition ("eyestrain", "sickness" …)
  - Content availabilty, content "quality"
- For a long period IMAX screens and theme parks ("4D") were the only places for 3D exhibition
- Technically poor 3D TV emissions have been shown during the last two decades over and over again
  - Nothing which could have convinced the mass-market!
- Introduction of digital production, postproduction and projection systems / technologies changed the situation dramatically

Agenda

- Introduction
- Market Overview: Cinema
  - Worldwide D-Cinema and 3D installations in commercial cinemas
  - Box Office and 3D Film Releases
  - Business Models
  - Introduction Scenarios
- Market Overview: 3D-TV
  - Introduction Scenarios
- Business Considerations/Final Remarks

Worldwide D-Cinema and 3D-Cinema installations in commercial cinemas (Q2/2009)

- **Worldwide D-Cinema installations: approx. 12.000**
  - **North America: approx. 7.000 screens**
  - **Europe: approx. 2.700 screens**
  - **Asia: approx 2.100 screens**
  - **Other: approx. 200 screens**

- **Worldwide 3D-Cinema Installations: approx. 6.000**

- **2009 global 3D box office revenues: +1 bn US $ (56% from US 3D screens)**

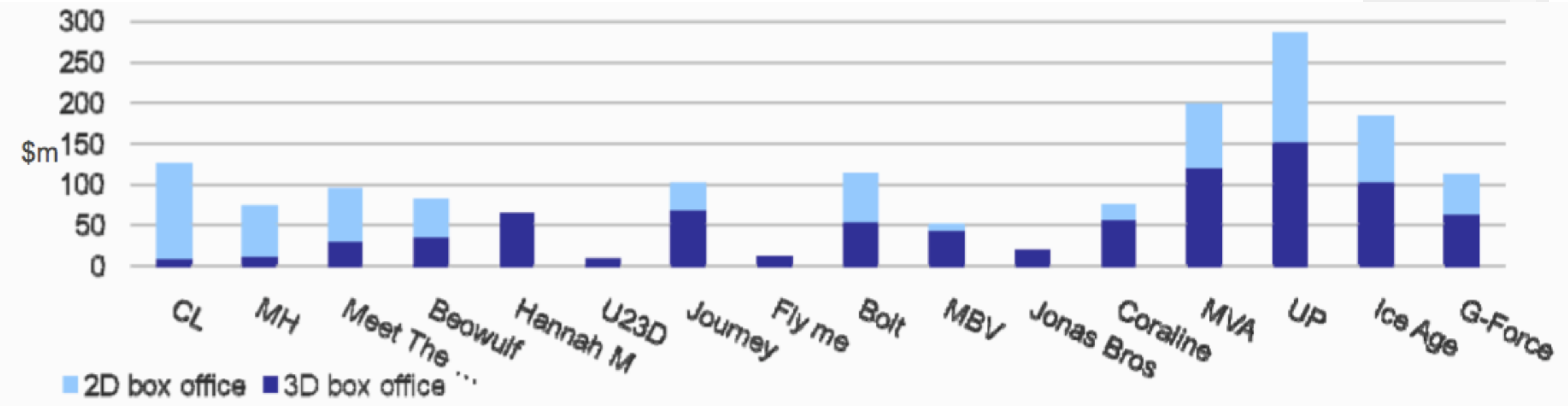
Bundesministerium für Wirtschaft und Technologie

Source: screen digest

FLYING EYE

Box Office and 3D Film Releases until 2010

- **Total box office split 2D/3D (US Screens)**
  - **Approx.: 3$ surcharge for 3D/ticket**



Source: screen digest

Box Office and 3D Film Releases until 2010

- Approx. 30 Films scheduled
  - 2/3 animation/CGI films
  - 1/3 live-action
- Hollywood Studios dominate, independents start to produce films as well

3D – Business Models for Cinema Exhibition

- **Investments for 3D equipment comes on top of D-Cinema installation costs (and exhibitors pay/take the initiative)**
  - **Some integrators include 3D-packages for roll-out programs**

- **Digital cinema roll-out with accepted business models (e.g. VPF-model) is the basis for future 3D installation increases**
  - **VPF Model is accepted in the market, but not the only business model**
  - **UK has started in the D-Cinema era with a publicly funded model**
  - **Germany and France are discussing/negotiating own business models**
  - **Third party integrators (Arts Alliance, XDC, Ymagis etc.) are offering models**
  - **European Commission is developing a plan for digital conversion of cinemas (expected 2010)**

Bundesministerium
für Wirtschaft
und Technologie

3D – Business Models for Cinema Exhibition

- 3D exhibition business models depend on the 3D projection technology used
  - Licensing Costs
  - Leasing of the equipment
  - Lease per film
  - Profit sharing (of each sold ticket)
  - Glasses are either provided by distributers or bought/washed by the exhibitor
- Premium pricing models make the investment in 3D exhibition technology very interesting for the exhibitor
  - Pricing based on fixed charge per ticket
  - Pricing based on flexible charges depending on content/event

3D – Business Models for Cinema Exhibition

- **3D plays currently a considerable part within the D-Cinema roll-out**
  - **3D offers an USP for cinema exhibitors**
  - **In contrast to "just" projecting digitally, 3D offers a really visible difference to the audience as well**
  - **Pricing models make 3D content exhibition in cinemas extremely interesting (up to 3 times more revenue/screen)**

- **3D drives digital roll-out!**

3D - Introduction Scenarios for Cinema Exhibition

PRIME
Produktions- und Projektionstechniken für Immersive Medien

- Hollywood pushes 3D movies
  - Planned/scheduled film releases show, that Hollywood is committed to current 3D “hype”
  - Supports D-Cinema business models (“VPF”-model)
  - Supports re-use of content (3D-versions of successful animation movies)
- 3D events for cinema exhibition
  - Concerts & Sports
  - (Premium) pricing models which are interesting for both, the exhibitor and the audience
- 3D games for cinema exhibition
  - Could be another alternative revenue stream for exhibitors (e.g. Asia)
  - There are interesting tests/offers in Europe (e.g. „Virtual Space Theatres“)

Bundesministerium für Wirtschaft und Technologie

FLYING EYE

Agenda

- Introduction
- Market Overview: Cinema
  - Worldwide D-Cinema and 3D installations in commercial cinemas
  - Box Office and 3D Film Releases
  - Business Models
  - Introduction Scenarios
- **Market Overview: 3D-TV**
  - **Introduction Scenarios**
- Business Considerations/Final Remarks

Market Overview 3D-TV

- No 3D-TV standards at the moment (ongoing discussions)
- Competing display technologies
- “3D-Ready”-TVs commercially available in the US (but not in Europe)
  - Content availability mainly on DVDs
- Major manufacturers are committed to offer 3D TV Sets (Panasonic, Sony, …)
- Tests show that 3D content production and distribution over existing broadcast-infrastructure is possible
  - Mainly sports but also alternative content such as concerts/opera etc.
  - Tests in sport area in Europe as well (IHF Word Championship, Rugby, ...)
  - BSkyB and Quantel started 3D TV test-emissions in 01/2009

Introduction Scenarios for 3D-TV

- **BSkyB announced launch of Europe's first 3D TV Channel in 2010**

- **3D-TV could be seen as the next innovation after HD**
  - **Application fits to technology move for displays (refresh rates, pixel increase, IP-TV)**
  - **3D games as door opener for 3D @ home?!**
  - **new presentation forms of 3D entertainment content?!**

- **Availability of *good quality* content is key factor for success**

Additional Considerations for 3D-TV

- 3D TV experience has to be as good as 2D TV
  - 3D function of TV sets should be disengageable
- Autostereoscopic 3D displays are still in a pre-mature state
  - Will the consumer wait until auto-stereoscopic displays provide a comparable viewing experience at home?
  - (Unrepresentative) survey at IFA 2009 showed that approx. 60% would watch 3D content on their TV with 3D glasses, 35% would only watch without glasses, 5% would not watch 3D TV at home

Agenda

- Introduction
- Market Overview: Cinema
  - Worldwide D-Cinema and 3D installations in commercial cinemas
  - Box Office and 3D Film Releases
  - Business Models
  - Introduction Scenarios
- Market Overview: TV
  - Introduction Scenarios
- **Business Considerations/Final Remarks**

PRIME Produktions- und Projektionstechniken für Immersive Medien
Bundesministerium für Wirtschaft und Technologie
FLYING EYE

3D – Business Considerations for Cinema Exhibition

PRIME
Produktions- und Projektionstechniken für Immersive Medien

- Common 3D acquisition and postproduction knowledge is still very rare among cinematographers/directors/ postproduction houses (compared to 2D)
- Artistical 3D film “language” is still under “development/ investigation” (how do I use the depth for telling the story?)

- Cost compared to 2D digital:
  - (Reasonable) higher production cost occur (depending on film project)
  - Comparable distribution cost (surplus ~10%)
  - Reasonable higher exhibition investment cost (up to 30%) and slightly higher operating cost
- Significantly increased box-office by now! Will this stay in place?

Final Remarks (3D Cinema)

- Since DCI specifications Digital Cinema is an ongoing worldwide reality
- Content producers make efforts to guarantee more content availability
- Audience seem to highly appreciate 3D cinema
- Exhibitors are willing to invest

- But: Current 3D cinema installation basis is not "Blockbuster-Ready" yet
- The current economical situation seems to slow down the market
- Forecasts of how fast 3D cinema exhibition reaches a critical mass is under current circumstances difficult

3D – Business Considerations for 3D @ home

- **3D Broadcast:**
  - technological hurdles (e.g. acquisition of live events)
  - artistical hurdles (e.g. where do I place the cameras in stadiums?)
  - availability of reliable (proven) end-to-end broadcast infrastructure?
  - acquisition/production/distribution knowledge within the broadcast value chain is still very, very rare

- **Cost compared to 2D digital**
  - Comparable distribution cost (over existing infrastructure; surplus ~10%)
  - Presentation cost depending on display technology:
    - 3D-ready displays for use with glasses with marginal additional cost
    - Autostereoscopic displays with significant higher cost

Final Remarks (3D-TV)

- **3D-TV is still far away of becoming a mass market reality**
- **Standardization bodies and manufacturers are making lots of efforts in order to make 3D-TV happen**
- **Will the consumer accept 3D TV?**
  - **Acceptance of 3D for varying viewing conditions and a wide range of display sizes?**
  - **Wearing glasses?**
  - **What kind of content is desired by the mass market?**

Final Remarks (3D-TV)

- It seems 3D-TV has the potential to be the next “big thing” after overall HDTV implementation
- It will be very interesting to evaluate future progress in the 3D-TV area on both, the technological and content side!

THANK YOU!

PRIME
Produktions- und Projektionstechniken für Immersive Medien

Bundesministerium für Wirtschaft und Technologie

FLYING EYE