



DIGITAL ROLL OUT - Some issues

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INTRODUCTION

What happened in 2007?

- 2K projection with DCI Compliance will be the standard.
- Basic questions connected with the key management are not answered yet.
- Business model: no real progress has been made.

SITUATION IN THE USA

Roll out in the USA is well underway, principally through the work of one **d-cinema facilitator, Access IT** (it has just finished its **4000-screen conversion target**). However, the US cinema exhibitor grouping Digital Cinema Implementation Partners (DCIP), brought together by Regal, AMC and Cinemark, has yet to finish its deliberation about the best way to digitalize their screens. **Together these 3 exhibitors operate some 14200 screens, or about 36% of the market in 2006**, and DCIP's decision will have a major impact on how the digital cinema market developed in the USA.

The US experienced a growth rate in commercial d-cinema screens of 506,6% between 2005 and 2006. The USA has grown from an average of 2 digital screens per site at end 2005 to 4,8 at mid-2007.

In 2006: 101 digital releases.

SITUATION IN EUROPE

CINEMAS

- **6000 digital screens in the world, almost 1000 in Europe**
 - o UK: 300 screens (250 arthouse screens)
 - o Germany: 130 screens (commercial screens mostly via XDC)
 - o Belgium: 65 screens (Kinopolis, Utopolis...)
 - o France: 70 screens (Kinopolis, Europalaces, some independent cinemas, soon CGR)
 - o Italy: 42 screens (almost all commercials) - 3 leading groups: Arcadia, Giometti Cinema, Gruppo Furlan
 - o Russia: 35 screens
 - o Norway: 32 screens
 - o Netherlands: 27 screens
 - o Ireland: 31 screens

- Austria : 26 screens
- Switzerland: 14 screens
- Sweden: 5 screens (FHP circuit) (65 screens 1,3-1,4K : 12 owned by Folkets Fio / arthouse screens; 45 owned by the FHP circuit)
- Hungary: 1 screen
- ⇒ Progress in : UK, France, Norway (2nd phase of the Nordic project), Ireland, Belgium
- ⇒ Stagnation in : Portugal, Greece, Netherlands, Baltic's, Hungary, Czech Republic

CONTENT

- Number of digital releases in 2006: 183 (of which 101 by US Studios)
- Number of digital releases in 2006:
 - UK: 56 (6 Studio films) - in 2007, around 10% of the films were released digitally.
 - Germany: 17 (8 Studio films)
 - France : 11 (6 Studio films) - in 2007: 26 (22 studio films)
 - Belgium : 9 (4 studio films)
 - Luxembourg : 8 (3 Studio Films)
 - Austria: 8 (7 Studio films)
 - Norway : 7 (5 Studio Films)
 - Switzerland: 24 releases
 - Sweden (in 2007) : 29 (11 by Folkets Bio in 1,4K - Scandinavian and European Movies)
 - Italy (in 2007): 14 + 3 3D (Films released by Studio and by 01 Distribution)
 - Hungary: 1 in 2007 (Beowulf in 3D), 2 in early 2008 (I am Legend, Alien vs Predator), all distributed by Intercom.

⇒ **Very few European content is available compared to American content.**

But the insurmountable obstacle of exhibitor access to key content has been removed with four studios now backing a roll-out program and the building blocks for a mainstream market deployment are in place.

BUSINESS MODELL FOR EUROPE

Some key figures

The situation in Europe has the added elements of market complexity, differing cinema cultures and governments, all of which are keen to ensure that no players are left behind in the switch. This implies that a number of business models will be made available to European exhibitors and distributors, with the element of competition offering a choice of viable alternatives.

Some issues:

- **Fragmented European market: one solution does not fit all**
 - Model needs to be adapted to local market conditions (strong multiplex presence, average cinema turnover...)
 - even if based on the VPF, or other models, it needs to take into account :
 - fragmented distribution environment
 - smaller chains who do not have the same negotiating power

- **The model needs to assume :**
 - Contribution of the exhibitors
 - Flexible business models to suit market structures
 - Government will continue to play its role
- **The main D-cinema facilitators / third-parties:**
 - XDC (around 300 screens in Europe : Sweden, Belgium....):
 - Arts Alliance Media :
 - UK: 250 screens with the UKFC (Digital Screen Network)
 - First European d-cinema network to secure long term support from several US Majors (Fox, Universal, Paramount & Sony, Disney)
 - France: Agreement with the exhibitor's chain CGR - 400 screens will be equipped in 2008
 - Kinepolis:
 - 105 digital screens (307 screens in total)
 - 72 screens in Belgium, 19 in France, 14 in Spain

To use third parties between distributors and exhibitors will be more expensive. Another problem is *transparency* and - in the long run - a *growing influence on programming*, ruled by particular interests. Also, the weak spot with third parties is that the films running in circuits equipped by third parties have to be furnished by third parties; every other film outside the circuit will be charged a higher amount from third parties.

- ⇒ **Danger of vertical concentration:** the third parties want to control all the cinema chain, from digital postproduction to digital equipment. This could lead to the emergence of new networks based on technical distribution.
- ⇒ **The third parties aim at equipping the most rentable theatres** (cinema chains....): what will happen to independent screens with a small turnover?

Basic options to finance the digital roll out

1) Direct Agreement

- a. VPF? => difficult
- b. TIME-FEE? => Model suggested by Europa Cinemas
- c. Reduction of film rental rates?
- d. Up-front deduction from box-office?

2) Indirect Agreement

- a. Third Party models (AAA, XDC...) with VPF Model
- b. Creation of project corporations with participation of industry partners and public institutions => Model suggested by Europa Cinemas

The business models

The VPF Model

The VPF business model is a means of financing the conversion to Digital Cinema, where both distributor and exhibitor contribute over time towards the total cost of the digital projection and server equipment, funded up front by rollout entities like AAM. The VPF model has been used in North America, with over 4,320 digital screens installed to date, all using Doremi Cinema servers and Christie's digital cinema projection systems.

The way it works is:

- A third party pays up front for the digital equipment.
- Distributors and exhibitors pay over time to recoup the cost.
- Exhibitors sign up to agreed service & maintenance commitments, as well as paying a 'usage fee' to cover cost of lease.
- Distributors save money every time a digital (rather than 35mm) print is shipped, therefore;
- Every time a digital print is shipped, distributors pay a Virtual Print Fee towards recoupment of equipment. Around 15% of this VPF goes to the third party, the rest goes for the equipment.
- When cost is recouped, the cinema will own the equipment.

This VPF model will only be offered for the most profitable cinema houses (with a high turnover).

For the cinemas with a weak turnover and who don't have premieres, there is no saving effect of digitalization.

- **The time-fee model: time fee per screening** (Europa Cinemas)

- For example time fee per screening = 5€
- Film is shown 100 times
- Total time fee = 500€ (cf VPF)

Similar to VPF-approach, the concept can lead to distorted results as well.

- ⇒ It is necessary to create a *special system of tariffs* (maximum amount for the aggregate time-fee if the film is shown more often than the average; certain spread of tariffs depending on the number of screenings)
- ⇒ Advantages time-fee model:
 - Exhibitors: fair share of costs among the partners that trigger the costs (feature film, advertisements, other digital stuff)
 - Distributors: more flexible costs, finally depending on the success of the film.

- **Creation of a digital cinema fund (indirect relationship between exhibitors and distributors)**

- Distributors could choose between a VPF or a time-fee as the basic rule for their payments to the fund;
- Public subsidies can be integrated in the concept easily, if available
- Non profit-organization => less expensive to go digital
- More transparency

Comparison of costs

- 35mm print = 1000€
- Digital print = 100€ (the problem today is that it is very hard to know how much a digital print really costs - between 350€ and 0€!)
- Virtual print fee = 500€
- Average time fee per screening = 5€
- VPF = Time Fee when the movie is screened 100 times (around 3 weeks)

THE CURRENT MODELLS IN EUROPE

UNITED KINGDOM

- The Digital Screen Network: 250 screens equipped by AAM with the support of the UKFC (18M€) between 2005 and 2007 (Exhibitors loaned equipment in return for commitment to screening a certain percentage of 'specialised film' as defined on the UKFC website).
- No business model for commercial screens (Odeon Cinemas & Empire Cinemas) which are conducting their own beta tests of various equipment configurations in full digital multiplexes. Odeon recently stated his intention to install 500 digital 3D screens once their deployment is underway. Over three-quarters of the UK market should be digitalized by 2012.
- However, the UKFC is very aware that the proposed business models may exclude the smaller exhibitor and this is of concern. It is exploring with the industry ways to address this although it is unlikely to involve more funding.
- 10% of the movies are released digitally in the UK.

NORWAY

- Technology

2 tests on digital cinema are currently running in Norway: the Nordic Project and the Nordic Digital Alliance. These tests aim at experiencing the technological issues related to digital screening. 25 screens have been equipped yet.

- Financing model:

The costs will be shared between Distributors, Cinemas and FILM&KINO (representing public money).

Distributors will pay a share related to a realistic commercial VPF model in Norway.

The rest will be shared between cinemas and FILM&KINO.

No percentage share has been decided yet.

The public money has got 4 purposes:

- ✓ Support installation for all participating cinemas
 - ✓ Give all cinemas possibility to convert
 - ✓ Blockbusters available for everyone
 - ✓ Wider distribution of European, independent and arthouse movies.
- Chronology of the roll out

Before the roll out:

- Negotiation and signing of the financing model
- Full insurance regarding technology
- Digitalization of all the titles in distribution

All the cinemas should be digitally equipped in 2010.

SWEDEN

There has been a study with all different parts of the Swedish film business: distributors, cinema-owners and the Swedish Film Institute. The result is a huge report and a direct request from the Swedish Film Institute to the Department of Culture of the Swedish Government that they should make space for a digital rollout within the Cultural Budget. The answer so far is a big NO from the Government.

FRANCE

- CNC: After the Goudineau report, the CNC has launched an expert group dealing with both the technical and economical issues of the digital roll out. It has created a simulation pattern which takes into account several elements. There are 29 categories of exhibitors, 26 film categories, and 5 distributor categories.

- CGR: CGR Cinémas, a leading and expanding cinema chain in France (400 screens), is the first European exhibitor to sign up to a VPF-based rollout with AAM. The CNC has agreed to this agreement.
- Europalaces (Pathé + Gaumont) seems to be willing to equip directly its own screens and to create its own VPF to finance it. The problem is that this system connects the programming with the financing of the equipment and there's no clear rule for the amount of the VPF.
- Independent distributors and exhibitors: project of a gathering in an economical entity with the creation of a fund that has got the role of a third part and that gathers: distributor's contribution (VPF model), exhibitor's contribution, public funding (state, regional and European funds....)

GERMANY

- At this stage, Germany is developing without government intervention: smaller and medium-sized exhibitors have joined the pan-European network XDC. Germany has the highest number of commercial digital screens in Europe (132).
- The government is aiming to build a consensus on deployment and is exploring business models for the conversion. The FFA has asked Price Waterhouse Coopers (PWC) for a study on the digital roll out in Germany, but the different models proposed by PWC have not been agreed by German professionals.
Last proposition of Price Waterhouse Coopers: The 50 cent Model
- ⇒ 0,50€ per ticket extra DC Levy (with no filmrental on the 0,50€) to finance the roll out
- ⇒ Or raise the ticket price by 50 cents
- The FFA has now suggested:
 - To put 180M€ in the digital roll out in Germany
 - To let exhibitors and distributors find a common solution for the roll out

FRANCE/GERMANY

In fall 2007, the CNC and the FFA agreed on 3 objectives regarding the digital roll out:

- To maintain the diversity of the exhibition sector;
- To simulate the circulation of European movies in order to promote the diversity of the European creation;
- To guarantee a transparent environment for the film industry.

In order to achieve these objectives, the CNC and the FFA are convinced that it is necessary to protect the independence and diversity of programming and creation. This protection needs 3 principles:

- The quality and security of the digital screening
- The necessity of a technological norm shared by all the exhibitors
- The neutrality of technology regarding the relationship between the different actors of the cinematographic chain.

Other countries (Spain, Italy....) are willing to join this common declaration of the CNC and the FFA.

KEY ISSUES FOR THE INDEPENDENT DISTRIBUTORS

1) **Current Practice**

- How does it work actually with 35mm prints?
 - o The Distributor und the exhibitor agree on how the movie will be shown in the theater.
 - o The Distributor sends the print to the theater, once the run is over, the exhibitor sends the print to the next theater, following the orders of the distributor.
 - o The Exhibitor sends the figures of BO and ADM to the distributor and receives then the invoice.

- How does it currently work with digital prints?
 1. **Model without a third party: Example of Switzerland**
 - o The Distributor und the exhibitor agree on how the movie will be shown in the theater. The distributor has an agreement with several exhibitors.
 - o One or two weeks ahead of the release, the distributor sends out a hard disc with the movie: this disc is traveling around so that each theater can download the movie to the server.
 - o The Distributor sends a virtual key to each theater so they are able to screen the movie as per agreement. If there are changes in the agreement (move-over for example or longer run), a new key has to be sent.
 - o Rest as above.
 2. **Model with a third party: Example of UK with Arts Alliance Media**
 - o We are required to provide the third party creator of the Digital Cinema Master with a HD CAM SR of the film with a DA88 soundtrack and a STL subtitle file document. The costs are around £1000 per film hour to encode with a further £300 for the subtitle file to be converted to their CINECANVAS system.
 - o The film is then transferred by the third party to Digital Drives which are encoded and sent to the cinemas at a cost of £74.
 - o The main cost benefits will only be realized when all screens are digital, in a hybrid world the cinema may be able open on Digital but then would need 35mm for the film to continue in a smaller screen.
 - o The other main issue is with non opening bookings, as the delivery costs are much higher than moving a print overnight from cinema to cinema, this makes short bookings at small cinema not cost effective presently on digital, satellite delivery may in time change this situation.
 - o But basically, the bigger the release the bigger the benefits for digital.

2) **Current and future Problems**

- Why are so few European content available in digital?
 - o The producers are not providing the encoding.
 - o The encoding is still very expensive.
 - o Booking problem for independent films.
 - o Necessity to also have a 35mm print to ensure the whole life of the film in a multiplex.

- Vicious circle: the digital screens are in big rooms of big multiplexes => Only big blockbusters can be booked in these screens, not independent or European movies.
- For an independent distributor, the digital roll out means more costs:
 - **Larger releases (more print costs and more promotion costs):** if the distributor has planned a small or middle sized release, but exhibitors have high expectations for one movie and are very demanding of a print immediately (as the price of a hard disc is considered as insignificant)
 - Increasing print costs, as finally each hard disc costs, and only shipping around a small number is logistically not possible any more.
 - In addition every hard disc generates additional costs such as administration work, trailers, posters, stills also advertisement has to be enlarged.
 - **Transition period: double cost digital/35mm**
 - Necessity to provide screens that are digitally equipped and screens that are not.
 - Necessity to have also a 35mm print to ensure the whole life of the film in a multiplex.
 - **Not just print costs but also other costs:**
 - high delivery costs,
 - key generation costs,
 - reporting and invoicing,
 - commission of the third party if there is one (usually 15%)....
- ⇒ **For an independent distributor, it's difficult to afford these costs.**
- ⇒ Furthermore, **the proposed 10 years contracts by third parties** imply a very long financial engagement while during this period the setting of digital distribution may change completely.
- Risks of the digital:
 - **Digital releases may exclude some smaller arthouse exhibitors,** i.e. exhibitors which make a regular work on cultural diversity and program movies of independent distributors.
 - A very crucial question is the **booking:**
 - With **the third party model:** how can distributors and exhibitors keep **their programming freedom?**
 - **The greater flexibility** in booking provided by digital (as there will not be a print commitment from an exhibitor) could lead to a model with **high film turnover** where word of mouth has even less time to have an impact. This will harm small independent films disproportionately to more mainstream titles.
 - **Basically, the bigger the release the bigger the benefits for digital:** this is a problem for independent distributors.
 - Therefore, large releases might even be bigger than they are because the cost of a digital print is very low.
 - **Will there still be space for smaller films?**
 - **Will it lead to even shorter runs** as we have already now?
 - **Will it lead to even more released titles?**
 - The **third party model might lead to an acceleration of the film rotation in theatres:** the more films the cinemas run, the more VPF they get, and the faster the equipment costs can be recouped.

- **The price of the ticket could be raised**, sooner or later, to recoup new investments.
 - **All changes will be determined by American majors and commercial exhibitors:** Independent – at least at this stage – seem to have no real place in the decision making: who has got the financial strength to invest, simply invest.
- Advantages of the digital:
- **Cost savings for the distributors:**
 - Prints (when all screens are digital)
 - Physical distribution costs when the file is sent by satellite rather than on hard drives.
 - **Cost savings for the exhibitors:**
 - Prints assembly
 - Decrease of salary charges, especially in big cinema chains (the projectionist might also be the cashier...)
 - **Perfect quality** (it matches the original): screenings don't affect the quality, audio is not compressed.
 - Cinema in this way could regain its **“spectacular” nature**: big screen, perfect audio and image quality, 3D.
 - **Flexibility :**
 - **Of the programming** (flip side of the risk mentioned above): if films prove successful after a small initial commitment, cinema could bring the film back to play again and again building through word of mouth
 - **Of the subtitles:** possibility to present a majority of foreign film works in their original language versions without bringing about considerable additional costs for creating special 35mm copies.
 - **After the roll out, decrease of print costs** for the distributors.
 - **Opening of new possibilities to the film repertoire**
 - **New possibilities to the cost effective production of film versions with sound / subtitles** for potential cinemagoers who have bad eyesight or poor hearing.

3) Proposals

A. Financing of the equipment:

- **The equipment (server and projector) is basically an investment which has to be made by the exhibitors.**
 - **The distributors will also pay for the investments they have to make** in order to get this transition through (digital masters/transport/storage/key generation, etc.). If the distributors also need to pay a bit to HELP the exhibitors with their investments, this will be negotiable, but this will be only a relatively small investment towards the total costs of the equipment. Distributors should use **their potential savings for a better promotion of their movies.**
 - **Other sources of financing for the equipment:** Cinemas are not only winning money with movies, but also with advertisements, sweets and candy... Besides, advertising production companies will also save a lot of money with the disappearing of prints.
- ⇒ They should contribute to the roll out too.

- **Public money (National, MEDIA, Regional...) is strongly needed:**
 - o If public money could invest at least 40%/50% as a subsidy to exhibitors (so that they can own their material just as they own any other technical equipment), distributors and exhibitors could find a solution together to implement the roll out.
 - o Also, public money is the only guarantee that no cinemas, even the smaller ones or the ones with a low turnover but a high quality programming, will be left behind.
- **2K master:**
 - o Sales Agents must have a dialogue with producers to ensure that 2K masters are available to distributors
 - o Distributors should work together more on creating digital masters (i.e. such as the CN Films project)

B. Principles

- **All screens in a cinema need to be digital** or a further set of problems are created. In a hybrid world the cinema may be able open on Digital but then would need 35mm for the film to continue in a smaller screen.
- To keep interest costs as low as possible and to realize a reasonable installation period, **we suggest a period between 3 and 5 years** (depending on the country size) during which the installation and financing of the entire park should be carried out. Only this way can the cost-intensive hybrid operation of analogue and digital copies for distributors and producers be maintained within a clear framework.