THE NORWEGIAN D-CINEMA PROJECT

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NORWAY

- Population: 4.6 mill
- 214 Cinema Operators
  - 149 Municipally owned representing 80% of B.O.
- 420 Screens
- Total Admission: 12mill
- 2.6 adm./capita
- Avg. Ticket Price: 9€

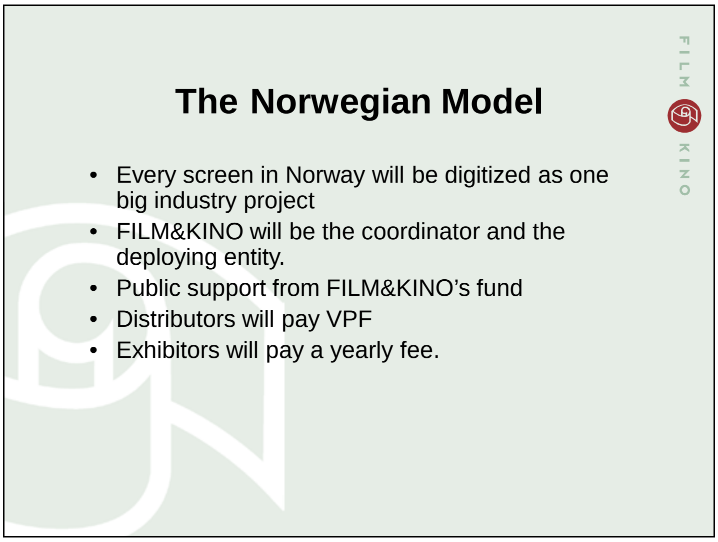
Norway is a small country in the outskirts of Europe, with no chance to find a commercial solution to finance digitalization for most of our screens.
We understood that a long time ago, and realized that we had to find our own financing model.

DCinemaAlliance (DCA)

- Formed 2004 by 4 of the largest cinemas, FILM&KINO + other players in the industry. The distributors joined later.
- Wanted to design a model to digitize every screen in Norway
- First report early 2005
- Reformed after summer 2005
- Has been the driving force to create the Norwegian model
- It is now an advisory committee for FILM&KINO

- The D-Cinema Alliance was formed in 2004 by 4 of the largest cinemas, FILM&KINO, The Norwegian Film Institute and some companies who were involved with digital content in cinemas. The distributors were not part of the group in the beginning, because we feared that they would not support the idea, and try to stop the project. We still talked with some people amongst the distributors. Those who had expressed a positive attitude.
  The rumors about DCA spread quickly, and soon the distributors wanted to join, and to contribute to find a Norwegian financing model.
- Our aim was to design a model to digitize every screen in Norway, financed mainly by the exhibitors and the distributors, with a minor support from FILM&KINO.
- DCA presented its first report early 2005. The distributors were far from ready to make any kind of agreements, and pulled out of DCA. At that time there were no international agreements or other accepted financial models. And the technology was far from ready, so thank God that we did not implement this first model.

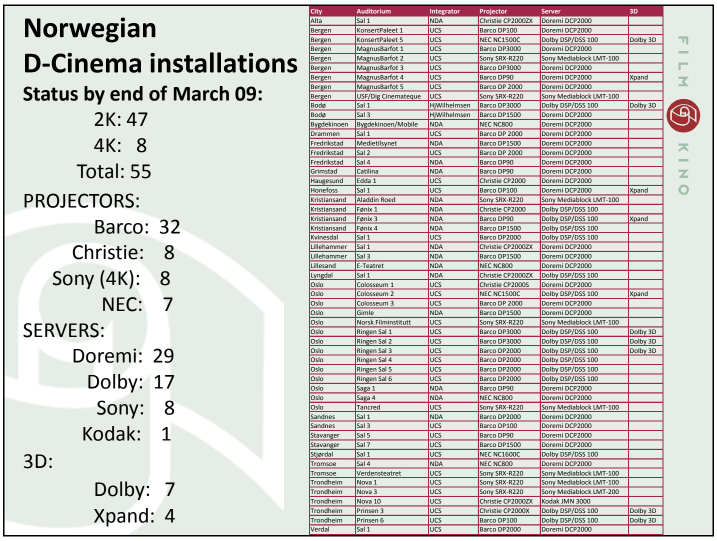
- In summer 2005 DCI presented its specification version 1.0. This combined with VPF models being introduced, made us reform the digital cinema alliance early fall. Since then DCA have been working seriously developing our project.
- DCA is representing all major parties in the industry, we all agree, and has been the driving force to create the Norwegian model.
- And it is now an advisory committee for FILM&KINO



The Norwegian model is based on these elements:
- Every screen in Norway will be digitized as one big industry project
- FILM&KINO will be the coordinator and the deploying entity.
- Public support will come from FILM&KINO's fund
- Distributors will pay VPF
- Exhibitors will pay a yearly leasing fee.

The idea is simple, but implementing it is more complicated than we expected.
I would like to present some of the elements in our project, and hope I am not discouraging you from starting similar projects. We hope that the experiences we make can inspire and help others to find solutions, not the least for the small exhibitors.

I would like to emphasize that since we have not signed any agreements yet, there might be some changes both in the model and in the figures I use for this presentation.



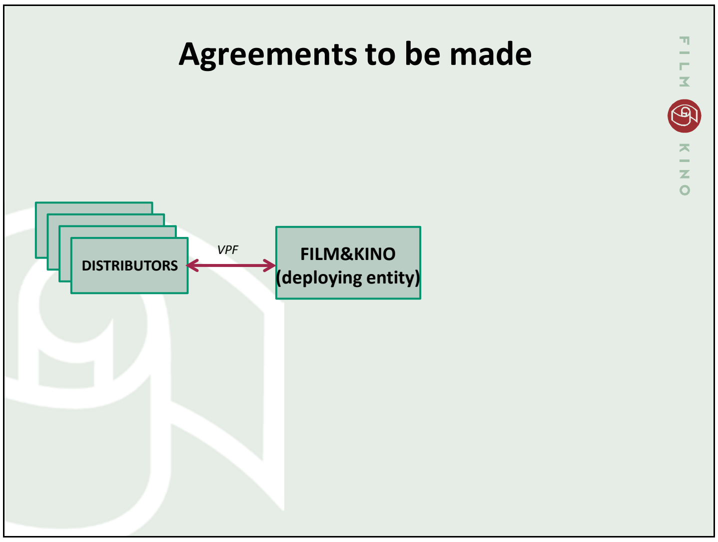
City	Auditorium	Integrator	Projector	Server	3D
Alta	Sal 1	NDA	Christie CP2000ZX	Doremi DCP2000	
Bergen	KonsertPaleet 1	UCS	Barco DP100	Doremi DCP2000	
Bergen	KonsertPaleet 5	UCS	NEC NC1500C	Dolby DSP/DSS 100	Dolby 3D
Bergen	MagnusBarfot 1	UCS	Barco DP3000	Doremi DCP2000	
Bergen	MagnusBarfot 2	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Bergen	MagnusBarfot 3	UCS	Barco DP3000	Doremi DCP2000	
Bergen	MagnusBarfot 4	UCS	Barco DP90	Doremi DCP2000	Xpand
Bergen	MagnusBarfot 5	UCS	Barco DP 2000	Doremi DCP2000	
Bergen	USF/Dig Cinemateque	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Bodø	Sal 1	HjWilhelmsen	Barco DP3000	Dolby DSP/DSS 100	Dolby 3D
Bodø	Sal 3	HjWilhelmsen	Barco DP1500	Doremi DCP2000	
Bygdekinoen	Bygdekinoen/Mobile	NDA	NEC NC800	Doremi DCP2000	
Drammen	Sal 1	UCS	Barco DP 2000	Doremi DCP2000	
Fredrikstad	Medietilsynet	NDA	Barco DP1500	Doremi DCP2000	
Fredrikstad	Sal 2	UCS	Barco DP 2000	Doremi DCP2000	
Fredrikstad	Sal 4	NDA	Barco DP90	Doremi DCP2000	
Grimstad	Catilina	NDA	Barco DP90	Doremi DCP2000	
Haugesund	Edda 1	UCS	Christie CP2000	Doremi DCP2000	
Honefoss	Sal 1	UCS	Barco DP100	Doremi DCP2000	Xpand
Kristiansand	Aladdin Roed	NDA	Sony SRX-R220	Sony Mediablock LMT-100	
Kristiansand	Fønix 1	NDA	Christie CP2000	Dolby DSP/DSS 100	
Kristiansand	Fønix 3	NDA	Barco DP90	Dolby DSP/DSS 100	Xpand
Kristiansand	Fønix 4	NDA	Barco DP1500	Dolby DSP/DSS 100	
Kvinesdal	Sal 1	UCS	Barco DP2000	Dolby DSP/DSS 100	
Lillehammer	Sal 1	NDA	Christie CP2000ZX	Doremi DCP2000	
Lillehammer	Sal 3	NDA	Barco DP1500	Doremi DCP2000	
Lillesand	E-Teatret	NDA	NEC NC800	Doremi DCP2000	
Lyngdal	Sal 1	NDA	Christie CP2000ZX	Dolby DSP/DSS 100	
Oslo	Colosseum 1	UCS	Christie CP2000S	Doremi DCP2000	
Oslo	Colosseum 2	UCS	NEC NC1500C	Dolby DSP/DSS 100	Xpand
Oslo	Colosseum 3	UCS	Barco DP 2000	Doremi DCP2000	
Oslo	Gimle	NDA	Barco DP1500	Doremi DCP2000	
Oslo	Norsk Filminstitutt	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Oslo	Ringen Sal 1	UCS	Barco DP3000	Dolby DSP/DSS 100	Dolby 3D
Oslo	Ringen Sal 2	UCS	Barco DP3000	Dolby DSP/DSS 100	Dolby 3D
Oslo	Ringen Sal 3	UCS	Barco DP2000	Dolby DSP/DSS 100	Dolby 3D
Oslo	Ringen Sal 4	UCS	Barco DP2000	Dolby DSP/DSS 100	
Oslo	Ringen Sal 5	UCS	Barco DP2000	Dolby DSP/DSS 100	
Oslo	Ringen Sal 6	UCS	Barco DP2000	Dolby DSP/DSS 100	
Oslo	Saga 1	NDA	Barco DP90	Doremi DCP2000	
Oslo	Saga 4	NDA	NEC NC800	Doremi DCP2000	
Oslo	Tancred	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Sandnes	Sal 1	NDA	Barco DP2000	Doremi DCP2000	
Sandnes	Sal 3	UCS	Barco DP100	Doremi DCP2000	
Stavanger	Sal 5	UCS	Barco DP90	Doremi DCP2000	
Stavanger	Sal 7	UCS	Barco DP1500	Doremi DCP2000	
Stjørdal	Sal 1	UCS	NEC NC1600C	Dolby DSP/DSS 100	
Tromsoe	Sal 4	NDA	NEC NC800	Doremi DCP2000	
Tromsoe	Verdensteatret	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Trondheim	Nova 1	UCS	Sony SRX-R220	Sony Mediablock LMT-100	
Trondheim	Nova 3	UCS	Sony SRX-R220	Sony Mediablock LMT-200	
Trondheim	Nova 10	UCS	Christie CP2000ZX	Kodak JMN 3000	
Trondheim	Prinsen 3	UCS	Christie CP2000X	Dolby DSP/DSS 100	Dolby 3D
Trondheim	Prinsen 6	UCS	Barco DP100	Dolby DSP/DSS 100	Dolby 3D
Verdal	Sal 1	UCS	Barco DP2000	Doremi DCP2000	

In 2006 FILM&KINO's general assembly financed 2 pilot projects with 19 screens, which later was extended to 32 screens in 21 complexes. Both large and small cinemas were included, and in some complexes there are two or three installations to be able to move the film from one screen to another without the need for a 35mm print.

This project inspired some exhibitors to buy systems on their own, counting on being part of the national rollout project in the future.

In addition, the Norwegian Film Institute has made a project with digital cinemateques in 7 cities. All of them have fully equipped DCI systems, 4 of them even with Sony 4.

Altogether there are now 55 installations in Norway, all of them 2 or 4K D-Cinema grade systems.



FILM&KINO will be the coordinator and the deploying entity for the project.
Since our project includes every screen in Norway, and there are no other deals available for the exhibitors, we could have made a very simple agreement to collect Virtual Print Fees. But that is not how it works.

We will have to sign individual agreements with each of the six Hollywood studios.
Each of them has to be different, and very secret. We cannot tell anybody what's in there.
We have signed Non disclosure agreements to secure this.
Our intention is to treat all distributors equal.

The studios don't normally make agreements with somebody representing less that 500 screens. But since we are going to digitize every screen in the country, in one big operation, they find our project so interesting that they are willing make an exception.
And for the moment, it seems like global digitalization is a bit slow, especially in the US, because of the financial crisis. That puts us in a better position, since we have the financing in place.

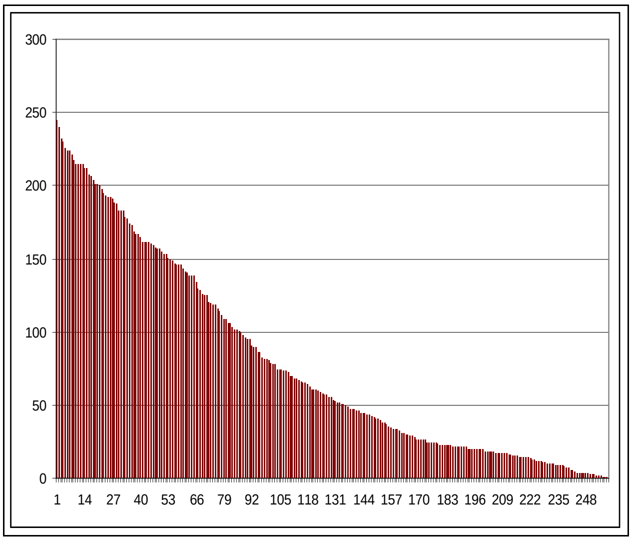
The studios are not making special agreements for us. We have to write our project into their templates that they are using for agreements with other and larger deployment groups. Many issues do not apply to our project.
But it is not within their systems to take out elements that already are in there. We have to follow their rules.

We have made great progress, and the first agreements are about to be signed very soon.

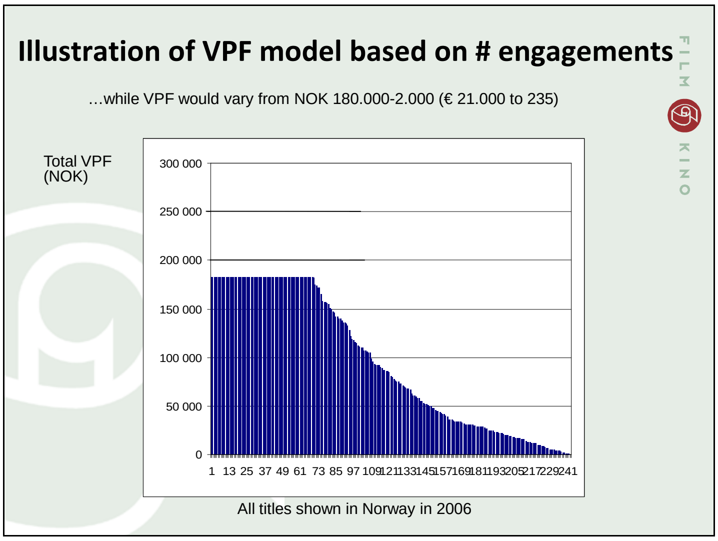
With all the other independent distributors we will sign a general agreement that contains many of the same elements as with the studios, especially regarding VPF.

Our model is based on distributors paying VPF per engagement.
One engagement applies for a whole complex. If the movie is shown in more than one screen, or if it is moved around the complex from screen to screen, it will all count as one engagement, and be covered by one VPF.

We will sign 8 years agreements with the studios, but our calculations are based on six years pay down period. And when the distributors have paid their share of the project, there will be no more VPF.



We have made a calculation based on number of engagements for all 258 titles that were distributed in Norway in 2006.
Ice Age 2 had 240 engagements, and a few titles were only screened in one complex.
This diagram shows how many engagements each title had.
We have done the same analyze for titles distributed in 2007 and 2008, and they are very similar.



To get a wider distribution of the big titles, we have suggested a cap on the VPF.
After 90 engagements, there will be no more VPF for that title.

Based on our model, approximately one third of the distributed titles will reach that cap, and be available for all the small cinemas, without any fees.

All use of the supported equipment must contribute to the payment.
If exhibitors use the equipment to show alternative content, there will be an Alternative Content Fee, an ACF, for this use.
We suggest that there should be no difference between screening of feature films and other content. What matters is how many times the content is screened.

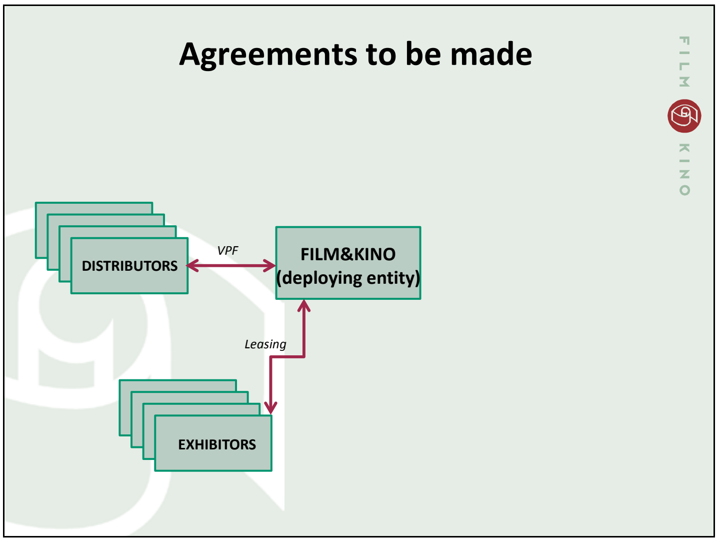
In our model the ACF is a PerShowFee, and is 25 % of a VPF.
One screening of content generates one ACF.
Two screenings two ACFs and three screenings three ACFs.
After 3 screenings, the ACF will turn into a VPF, and the content is treated like a movie.
For example: If an opera is screened three times, it will generate 3 ACFs. The next screening the 4 ACFs will equal one VPF, and there will be no more fees for that opera in that complex.

On the other hand, if a movie is screened 1-3 times in a complex, the distributor can pay ACFs instead of a VPF for the screenings. This way we can make art-films more available for the small exhibitors in small places where they are screened only one, two or three times.

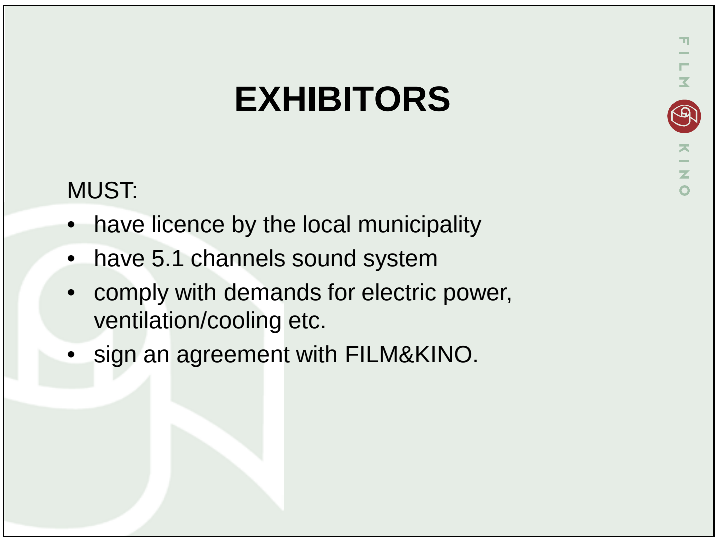
We have to agree on how many existing systems that can be included in the agreement when we start the rollout, and how many system that can be added after the rollout period is over.

I cannot, and am not allowed to go through all the elements in the agreements, but the VPF-agreements are the fundament. Without them there will no project.

We want to sign with at least 3 or 4 of the studios before we can make all the other agreements in our big digital rollout project.



We will also have to make agreements with each of the participating exhibitors, and we expect that to be very close to all the existing cinemas in Norway. Some of the very, very small ones, those who would have no chance of surviving the next few years anyway, might give up.



To participate in the digitizing project, each cinema must satisfy certain conditions.

In Norway a cinema operator must have a license from the local municipality to run a cinema. In the old days this was a mean to prevent private cinema operators to establish themselves in competition with the municipally owned cinemas. Today it is more a formality to get this license.

The DCI-specs demands 5.1 channel sound system. That is left-center-right channels in front, left and right surround. Plus a dedicated subwoofer channel which only covers the very low frequencies and therefore is called a 0.1 channel.
Our system does not cover costs that exhibitors may have, to upgrade their sound.

Cooling and ventilation are very critical factors with digital cinema. If a d-cinema projector gets hot, it stops and will not run until the temperature is acceptable. Some cinemas will have to upgrade their ventilation systems and get additional cooling to be able to run digital cinema. Costs for this are not covered by our project.
Also upgrades they might need to increase electric power are something exhibitors will have to pay themselves.

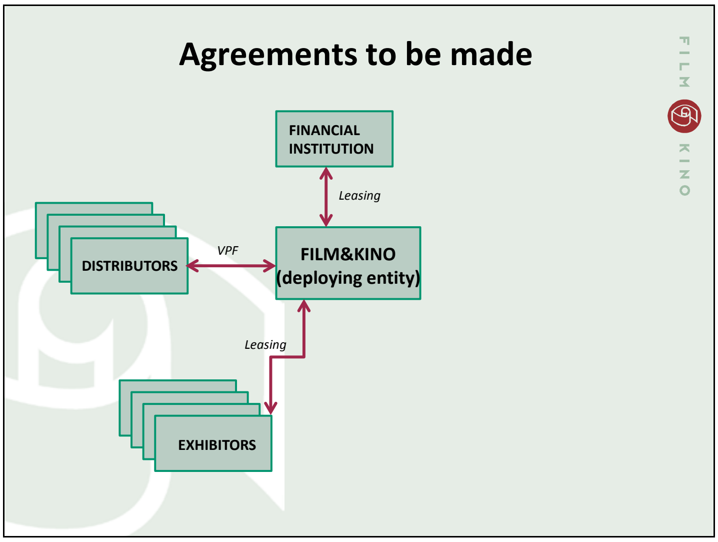
We have made a site survey to give exhibitors feedback if we believe they will have to make upgrades before digital equipment can be installed. We also have a data base with details about every screen in Norway.

And they will of course have to sign the agreement with FILM&KINO.

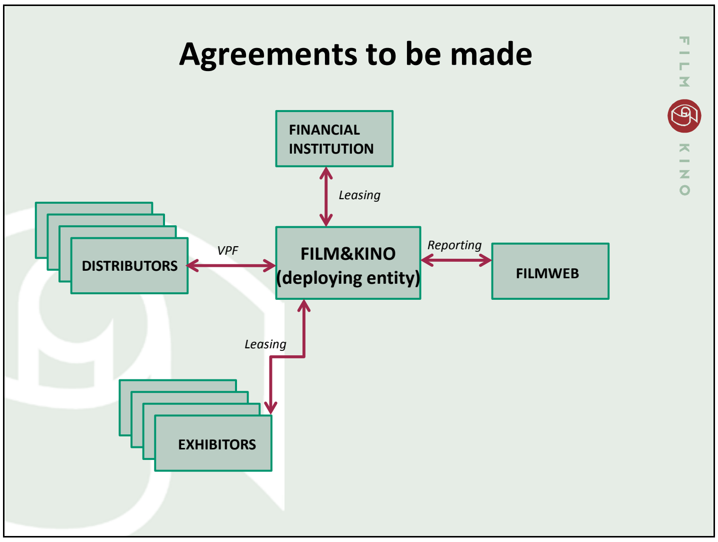
There are a lot of issues in the distributor's agreements that relates directly to the exhibitors, so the exhibitor agreement will have to contain many of the same elements as the agreements with the distributors.

Likewise there are a lot of elements with the system integrators that involves the exhibitors, and must be reflected in our agreements with them.

There are of course a lot of other elements in this agreement.



FILM&KINO's general assembly has allocated 12 mill € from our fund to support the digitizing project. To finance the rest of the cost for all the installations, we will negotiate a leasing agreement with a financing body.
We have explored the possibilities for such an agreement, and we are convinced that we will find a good solution, even with the situation the financial world is in for the moment.

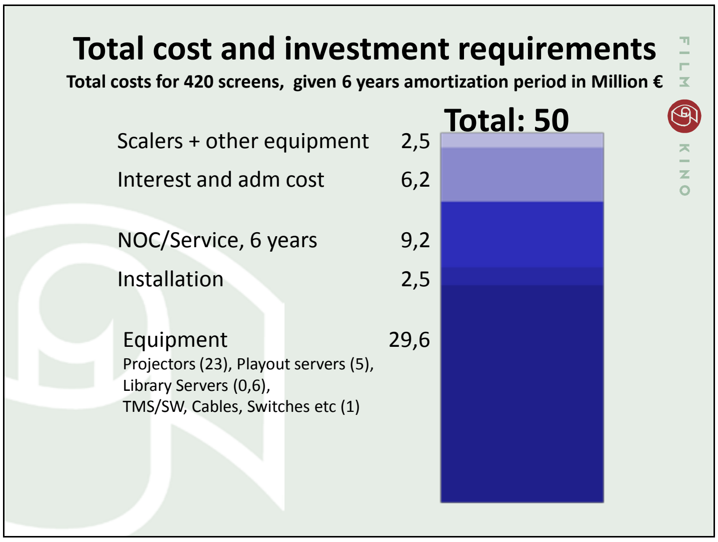


The studios have detailed specifications for the reporting regime that has to be implemented in our agreements.

Many years ago, together with some of the largest exhibitors and the distributors FILM&KINO made a web portal called Filmweb. Besides being the main portal for information about movies and cinemas for the public, and the place to buy your local cinema tickets, all reporting between exhibitors and distributors goes through Filmweb's report-server.
This gives us a unique tool to calculate VPFs and make reports regarding box office and other data related to attendance, bookings and so on.

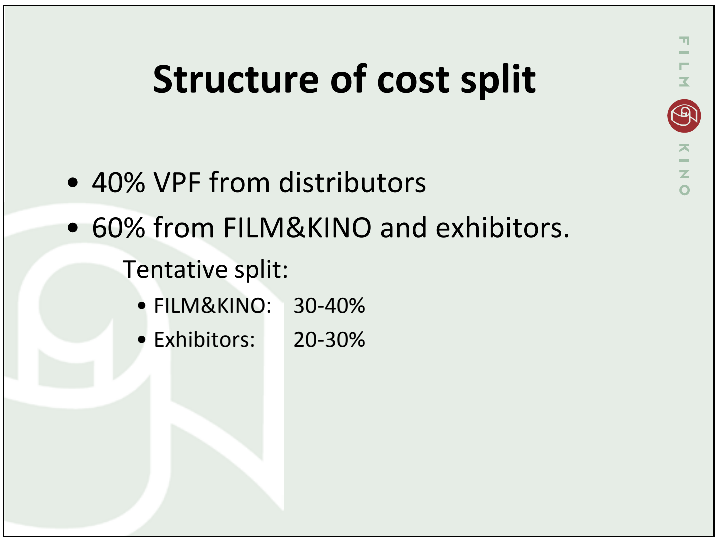
Reports regarding use of the equipment, status, failure reports etc will have to be part of the service we demand from the system integrators.

Reporting use of the system for other than screening feature films must be developed, and can be confirmed by the reports from system integrators.

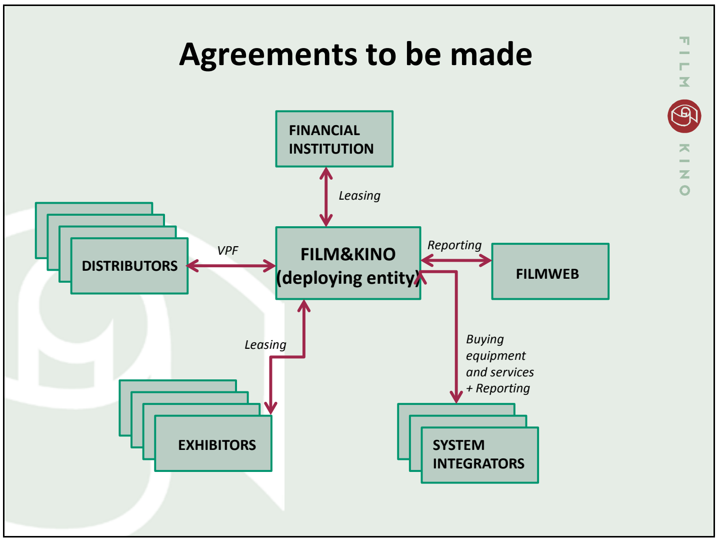


We have made calculations for how much the digitizing of our 420 screens will cost. Our calculations are based on prices paid for the systems already installed:
* Supported equipment, consisting of Projectors, servers, TMS etc is estimated to cost 29,6mill€
* Installations 2.5 mill €
* NOC-fee and Support and Service over 6 years: 9.2 mill €
* Financing and administration costs: 6.2 mill €
* and other equipment that all systems will have, but not as part of the supported system, is estimated to 2.5 mill €.

The prices are expected to come down, both because the prices on d-cinema equipment is falling in general, and because we expect to get better deals when we are buying many systems. We will all benefit from that.
But for now, we have to be conservative in our models.



Our model is based on distributors paying 40% of the cost, and exhibitors and FILM&KINO 60 %. The split between FILM&KINO and the exhibitors is depending on how much our income allows us to pay beyond the 12 mill € already in place. Tentative split is 30-40% FILM&KINO and rest paid by the exhibitors.



Our site survey was also made to register screen size and projection throw, so I could calculate the needed light output and the type of zoom lens for each screen.

The easiest would be to make one tender for all screens in the project, and let one bidder take it all. But then we would end up with a monopoly, and there would be no choice for the exhibitors to change later. We do not want this to happen; we want to have a real competition in the future, after all the screens are digitized.

With a large portion of public money involved, we have to follow every tender rule both in Norway and the EU. They are made for the typical situation, where one bidder takes it all, and not made for a project like ours.
It is very frustrating that these rules are one of the main obstacles to make a buying process that everybody, included the system integrators would prefer.

We have evaluated various models, and gone through a lot of alternatives, but there seems not to be any models giving us an ideal solution.
Somehow we will have to split the buying process into smaller tenders.

After discussion with the exhibitors, we have concluded that the most important decision is not what type of projector or server they will get, but will be the choice of system integrator. Most system integrators can offer a variety of systems, included both 2K and 4K systems.

Price is one of the most important criteria when selecting equipment and system integrator. That favors as few tenders as possible, with many systems in each of them.
But it is also important to give exhibitors some degree of control over the system they are going to get installed.
We will therefore make separate tenders for the 5 largest exhibitors, and then we will divide the country into 4 regions: East, South, West and North. That will give us a total of 9 tenders.

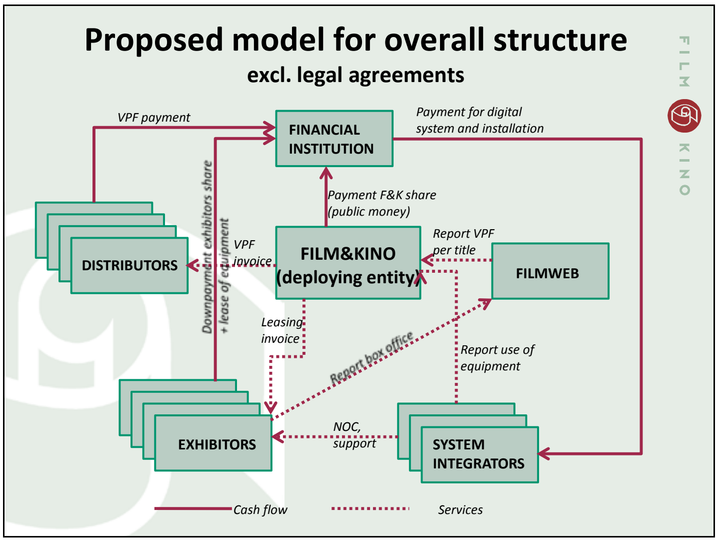
The system the cinemas will get will be a basic system. That is a system that fulfils all the demands in the DCI specs, SMPTE standards and specific demands that any of the studios might have.
One of the criteria is that it must be 3D-ready. This includes that both the projector and server must be capable of showing 3D content without having to exchange any of the major parts.
In our opinion it also demands that the projector has enough light for 3D systems.
A 3D ready d-cinema projector must be capable of delivering about 25 foot-lambert on a 2D screen, or 80% more light than a regular 2D system.

The 3D system itself, with hardware, software and glasses will not be included in the supported system, but will be an option the exhibitors can buy themselves.

Exhibitors will also have other choices: They can buy a 4K system instead of a 2K system, or they can upgrade to servers with more storage capacity, or a system with higher light output to make 3D presentation even brighter.
They will have to pay the difference between a standard supported system and the upgrades themselves.

All the major parts: Projectors, playout servers and library servers, will be bought with extended warranty, to be sure that the studios will deliver content for 8 to 10 years. This is expensive, but without it some exhibitors might not be able to finance a later upgrade, and there would be a risk that some of the screens would be black.

The tender will also ask for services that a system integrator must deliver.
- They must have a Network Operation Center and have telephone support from morning till late night.
- They must have qualified technicians who can give on-site response within accepted time.
- They must present a training program to teach the technical staff how to operate their systems.
- They must have a survey and reporting system according to the studio’s demand.
Plus a lot of other services.



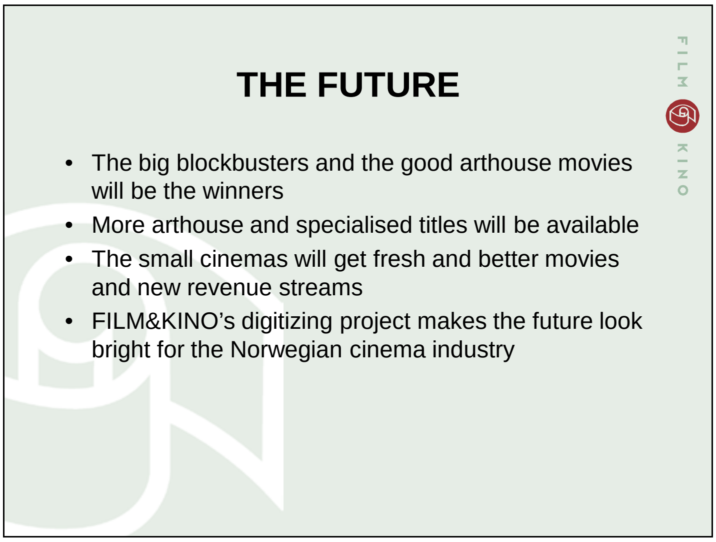
When all agreements have been signed, and the tender process is finished, we will have a model that looks something like this.

The system integrators will get payment for installations and services from the financing body.

Exhibitors will report their box office to Filmweb, who will generate reports for FILM&KINO.
The system integrators will report the use of the equipment, failures, cancelled shows and so on.
Based on these reports, FILM&KINO will send invoices per title to the distributors to collect VPFs.

FILM&KINO will send invoices to the exhibitors for the leasing of the equipment, and exhibitors will pay their share to the financing institution.

FILM&KINO will pay their share partly up front and the rest in rates according to the leasing agreement with the financing partner.



We believe that the big blockbusters will be even bigger when we have digitized all our screens and numbers of prints no longer is a limiting factor.
But also the good art house movies, the good European movies and other types of good specialized films will get a bigger audience, since exhibitors can program their screens according to what their patrons want to see, and not when a print is available.
The loosers we believe will be the mediocre Hollywood movies. They have had a big marketing budget and a lot of prints, and have taken their market shares in a hit and run fashion. There will be less room for this type of films in the future.

We believe that the digitalization also will lead to more art house and specialized films in distribution. But also movies that never will have an audience in the cinemas might try to get distribution, and a lot more people selling their films. Like in the old days when the distributor travelled around the country with a whiskey bottle, and at the end of the evening made the cinema manager sign the rental agreement. It can be difficult for the local cinema manager to pick the right movie…

For the small cinemas we foresee many new possibilities. They will get new movies at the same time as the premiere in Oslo, and can customize screenings for various groups of audiences.
F.ex. on Tuesday evenings they can have screenings of new European films and gather people in the community who like that.
Small cinemas will also be able to show live alternative content, like sports, opera, concerts etc.
This way cinema will increase their status as a meeting place for people in the local community.

Our project has created a lot of optimism, and the whole industry in Norway is now very focused on the transition and looks forward to a future that looks very bright.