Film title: KONGENS NEI (THE KING’S CHOICE)  
Length of the film: 2. 13min  
Country of origin: Norway  
Main Producer (s): Stein B Kvæ and Finn Gjerdrum / Paradox  
Co-producing countries: Ireland, Denmark an Sweden  
Co-producers: Jackie Larkin, Lesley McKimm  
Executive Producer: Henrik Zein  
Executive Producer: Peter Garde  
Production Manager/Line producer: Kaare Storemyr
TOTAL BUDGET: 8.106 522 mill. €

DIGITAL PRODUCTION CHALLENGE II
LISBON 2016

Director: Erik Poppe
Cinematographer/DoP: John-Christian Rosenlund FNF
Editor: Einar Egeland
Production Designer: Peter Bävman
Set Designer/Art Director: Åsa Nilsson
Colorist: Kaj Ivanovic, Sandra Klas
VFX Supervisor: Arne Kaupang
Post-production Manager: Mette Høst Hansen, Stein B Kvae
Shooting locations/countries: Norway, Sweden and Denmark.
Motto from the cinematographer:
• “Reality show” first take approach
• Cinema verite shot in 1940

Specificity of the postproduction:
Budget: 1.583 927 mill. € including
700 000 € for the VFX
What is the final destination?
What is the final destination?
When the head of department are occupying different locations (some on-set, some off-set - in several countries at the same time, shown in the presentation by different colors) it lead to different strategies of workflows.

Distances between shooting locations, post and editing room are changing the approach to design a workflow.
Production: KING’S CHOICE

Shoot

Production

Editing

Postproduction

The post-production doesn’t occupy a central place in the workflow

VFX
Production: KING’S CHOICE

Shoot

Production

Postproduction

Editing

VFX

35 mm - 70 mm
Film Projection

SD - HD - 2K - 4K
Digital Projection

SD - HD - UHD - 8K
Broadcast TV
DVD - Blu-Ray

INTERNET PROTOCOL
Internet - VOD
Mobile

OTHER SCREENINGS
360° - Hologram
3D - AR/VR
(Virtual Reality)
Another concept of workflow mainly controlled by the shooting (on set crew) with a on/near set system to control and share the images with a creation of metadata.

Gives a possibility to keep the artistic signature (and technical information) from the filmmakers on set through out the workflow all the way to final destination.
Production: KING'S CHOICE

**Shoot**
- Freq: 25p
- Spherical 1.2.3.5 extracted
- ARRI AMIRA UHD 12-bit
- ProRes 4:4:4:4
- 85%
- PANASONIC VARICAM LT
- 5% AVC intra 4K 10-bit 6:2:2
- 7%
- ARRI ALEXA for VFX
- RAW
- 8%

**Production**

**Postproduction**

**Grading**
- DaVinci Resolve

**Editing**
- AVID

**VFX**
Production: KING’S CHOICE

Shoot
- Freq: 25p
- Spherical 1:2.35 extracted
- ARRI AMIRA UHD 12-bit
  - ProRes 4.4.4
- PANASONIC VARICAM LT
  - 4K
  - A/C intra 4K 10-bit 4:2:2
- ARRI ALEXA for VFX RAW
  - 8%

QC
- Set Report
- Metadata
- Camera file
- Scene/Slate/Take
- Tags
- Circled/best take
- Take notes
- Scene/notes

On set Color
Grading in Rec. 709
Da Vinci Resolve Lite 11.1
- Create color graded QT or H264 and DNXHD with sound and all available Metadata

Production

Postproduction
- Grading
- Da Vinci Resolve

VFX
- AVID

Editing
Production: KING’S CHOICE

Shoot
- Freq: 25p
- Spherical 1:2.35 extracted

Set Report Metadata
- Camera file
- Scene/Slator/Take
- Tags
- Circled/best take
- Take notes
- Scene/notes

Data verification
- By DRYLAB

QC

On set Color Grading in Rec. 709
- Da Vinci Resolve Lite 11.1
- Create color graded QT or H264 and DNxHD with sound and all available Metadata

H264
- With all related camera Metadata and guide sound with 1:2.39 guide border

DNxHD
- With camera Metadata full frame 1:1.77 (16/9)

1:1.77 allows re-timing in post

Production

Postproduction

Grading
- Da Vinci Resolve

Editing
- DNxHD
  - With camera Metadata full frame 1:1.77 (16/9)

VFX

AVID

35 mm - 70 mm
Film Projection

SD - HD - 2K - 4K
Digital Projection

SD - HD - UHD - 8K
Broadcast TV
DVD - Blu-Ray

INTERNET PROTOCOL
Internet - VOD
Mobile

OTHER SCREENINGS
360° - Hologram
3D - AR/VR
(Virtual Reality)
Production: KING’S CHOICE

Shoot
- ARRI AMIRA UHD 12-bit ProRes 4:4:4:4
- PANASONIC VARICAM LT 5% AVC intra 4K 10-bit 4:2:2
- ARRI ALEXA for VFX RAW

85%
Spherical 1:2.35 extracted

7%

DRIYLAB

Freq: 25p

Set Report Metadata
- Camera file
- Scene/Slate/Take
- Tags
- Circed/Best take
- Take notes
- Script/notes

By DRIYLAB

Data verification

QC

On set Color Grading in Rec. 709
Da Vinci Resolve Lite 11.1
Create colors graded
- QT or H264 and
DNxHD with sound and all available Metadata
- DNxHD with camera Metadata full frame
1:1.77 (16:9)
- 1:1.77 allows editing in post

H264
- With all related camera Metadata
- Camera Metadata
- CamReport Metadata
- Additional Metadata reported directly in Dailies Creator
- Generated encrypted H264 with metadata with guide sound-track

Dailies Creator

Production

Postproduction

Grading
Da Vinci Resolve

Editing

VFX

DNxHD
- With camera Metadata full frame
1:1.77 (16:9)

AVID
Production: KING’S CHOICE

Shoot
- Freq: 25p
- Spherical 1.235 extracted
- ARRI AMIRA, UHD 12-bit, ProRes 4:4:4
- PANASONIC VARICAM LT 5% AVC intra 4K 10-bit 4:2:2
- ARRI ALEXA for VFX
- RAW

Dailies Viewer
- Set Report
- Metadata
- Camera file
- Scene/Shot
- Take notes
- Circled/best take
- By DRYLAB

Drylab
- QC
- Data verification

On set Color Grading in Rec. 709
Da Vinci Resolve Lite 11.1
Create color graded QT or H264 and DNxHD with sound and all available Metadata

H264
- With all related camera Metadata and guide sound with 1:2.39 guide border
- DNxHD
- With camera Metadata full frame 1:1.77 (16/9)
- 1:1.77 allows editing in post

Dailies Creator
- Combined:
  - The graded image
  - Camera Metadata
  - CamReport Metadata
  - Additional Metadata reported directly in Dailies Creator
  - Generated encrypted H264 with metadata with guide sound-track

Dailies Viewer
- Distributed through cloud & local wi-fi
- H264 Encrypted dailies
- Distributed through local wi-fi

Production

Postproduction

Grading
- Da Vinci Resolve

Editing
- Dailies Viewer

VFX
- AVID
- Dailies Viewer

INTERNET PROTOCOL
- Internet - VOD
  - Mobile

360° - Hologram
- 3D - AR/VR
  - (Virtual Reality)
Same image shared all along the workflow through Encrypted Dailies Viewer on Ipad 2, controlled in terms of color.
Shoot
Freq: 25p
Spherical 1:2.35
extracted
ARRI AMIRA UHD 12-24
ProRes 4:4:4
PANASONIC VARICAM LT
5% AVC Intra 4K 10-bit 4:2:2
ARRI ALEXA for VFX RAW

Production: KING’S CHOICE

Drylab
DRYLAB

QC

Production

Dailies
Viewer

Dailies
Viewer

Set Report
Metadata

Camera file
Scene/Slate/Take
Tags
Circled/best take
Take notes
Scene/notes

On set Color
Grading in
Rec.709
Da Vinci Resolve Lt. 11.1
Create color graded
QT or H264 and
DNxHD with sound
and all available
Metadata

H264
With all related
camera Metadata
and guide sound
with 1:2.39 guide
border

DNxHD
With camera
Metadata full frame
1:1.77 (16/9)
1:1.77 allows
eframing in post

Dailies
Viewer

H264
Encrypted
dailies
Distributed
trough cloud &
local wi-fi

Amazon Server
H264 ENCRYPTED DAILIES

Dailies Creator
Combined:
• The graded image
• Camera Metadata
• CamReport Metadata
• Additional Metadata reported directly in Dailies Creator
• Generated encrypted H264 with metadata with guide sound-

ALE w/ metadata and TC

Dailies
Viewer

Internet Protocol
INTERNET PROTOCOL
I
nternet - VOD
Mobile

OTHER SCREENINGS
360° - Hologram
3D - AR/VR
(Virtual Reality)

35 mm - 70 mm
Film Projection

SD - HD - 2K - 4K
Digital Projection

SD - HD - UHD - 8K
Broadcast TV
DVD - Blu-Ray

Editing

Dailies
Viewer

AVID

VFX

Da Vinci Resolve

Da Vinci Resolve

Postproduction

Dailies
Viewer

Grading
Production: KING’S CHOICE

Shoot

- 85% ARRI AMIRA UHD 12-bit ProRes 4:4:4:4
- 7% PANASONIC VARICAM
- 5% AVC intra 50:10:10:10:2:2
- 8% ARRI ALEXA for VFX RAW

Freq: 25p Spherical 1:2.35 extracted

Postproduction

- AVID

Dailies

- Creator
  - Combined data
    - The graded image
    - Camera Metadata
    - CamReport Metadata
    - Additional Metadata reported directly to Dailies Creator
    - Generated encrypted H264 with metadata with guide sequence

- Viewer

Better communication between departments

- Grading
  - Da Vinci Resolve

- VFX

- Editing
  - AVID

- Production

- Digital Projection
  - SD - HD - 2K - 4K
  - SD - HD - UHD - 8K
  - Broadcast TV
  - DVD - Blu-Ray

- Internet Protocol
  - Internet - VOD
  - Mobile

- Other Screenings
  - 360° - Hologram
  - 3D - AR/VR (Virtual Reality)
Production: KING’S CHOICE

Shoot

DRYLAB

Production

Dailies Viewer

Postproduction

Dailies Creator

- The graded image
  - Camera Metadata
  - CamReport Metadata
  - Additional Metadata reported directly to Dailies Creator
  - Generated encrypted H264 with metadata with guide sequence

Grading

Da Vinci Resolve

Better communication between departments

Dailies Viewer

VFX

Dailies Viewer

Editing

Dailies Viewer

AVID

internet protocol

INTERNET PROTOCOL

I

internet

VOD

Mobile

OTHER SCREENINGS

360° - Hologram

3D - AR/VR (Virtual Reality)

Broadcast TV

DVD - Blu-Ray

SD - HD - 2K - 4K

SD - HD - UHD - 8K

35 mm - 70 mm

Film Projection

Digital Projection

35 mm - 70 mm
Production: KING’S CHOICE

Shoot
- ARRI AMIRA (UHD 4K)
- PANASONIC VARICAM LT (4K)
- ARRI ALEXA for VFX
- RAW
- 85%
- 7%
- 8%

Set Report
- Metadata
- Camera file
- Scene/Slate/Take
- Tags
- Scene/note
- Note
- Take by DRYLAB
- Data verification

On set Color Grading in Rec.709
- DaVinci Resolve Lite 11.1
- Create color graded QT or H264 and DNxHD with sound and all available Metadata

DRYLAB

Amazon Server
- H264 ENCRYPTED DAILIES
- Distributed through cloud & local wi-fi

Dailies Creator
- Color grading project metadata
- With all related camera Metadata and guide sound with 1:2.39 guide border
- DNxHD
- With camera Metadata full frame 1:1.77 (16:9)
- 1:1.77 allows reframing in post

H264 Encrypted dailies
- Distributed through local wi-fi

Dailies Viewer

Postproduction

Grading
- HDR ACES
- DaVinci Resolve

Confo

Production

Editing
- VFX
- HDR ACES
- AVID

Back up
- SAN-Sync
- Quantum LTO drives

EDL

35 mm - 70 mm
- Projection
- Digital Projection
- Film Projection

SD - HD - 2K - 4K
- Broadcast TV
- DVD - Blu-Ray

INTERNET PROTOCOL
- Internet - VOD
- Mobile

OTHER SCREENINGS
- 360° - Hologram
- 3D - AR/VR
(Virtual Reality)
This diagram don’t reflect the steps of exchanges of Open EXR files between the different facilities during grading and finishing.
Production: KING’S CHOICE

**Shoot**
- **Spherical 1:2.35**
- **25p**
- **HDR**
- **ACES**

**Set Report Metadata**
- ARRI AMIRA UHD 12-bit ProRes 4:4:4:4
- PANASONIC VARICAM LT 5% AVC intra 4K 10-bit 4:2:2
- ARRI ALEXA for VFX RAW

**Production**
- **Editing**
  - AVID
  - All RAW material, always available on the Ipad

**Dry Lab**
- **QC**
  - **85%**

**Dailies Viewer**
- **On-set Color Grading in Rec. 709**
  - DaVinci Resolve Lite 11.1
  - Create color graded QT or H.264, and DNxHD with sound and all available Metadata

**Postproduction**
- **VFX**
  - Dailies Viewer with direct access to Ftrack and Shotgun
- **DSM**
  - **HDR ACES**
  - **Mapping in Rec 709**
  - Grading 1 day

**Grading**
- **HDR ACES**
- **2K DCP**
- **25p**

**Amazon Server**
- H264 ENCRYPTED DAILIES
- Distributed through cloud & local Wi-Fi

**Dailies Creator**
- H264
  - With all related camera Metadata and guide sound with 1:2.39 guide border
- DNxHD
  - With camera Metadata full frame 1:1.77 (16:9)

**INTERNET PROTOCOL**
- **SD - HD - 2K - 4K**
- **SD - HD - UHD - 8K**
- Broadcast TV
- DVD - Blu-Ray
- Internet - VOD
- Mobile

**360° - Hologram**
- 3D - AR/VR (Virtual Reality)