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CineGrid

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A community!

- CineGrid is a non-profit international membership organization.
 - Members of CineGrid are a mix of:
 - media arts schools,
 - research universities,
 - scientific laboratories,
 - post-production facilities and
 - hardware/software developersaround the world
- connected by 1 Gigabit Ethernet and 10 Gigabit Ethernet networks used for research and education.





Mission

To build an interdisciplinary **community**
that is focused on
the **research, development, and demonstration** of
networked collaborative tools
to enable the production, **use** and **exchange**
of very-high-quality digital media
over **photonic networks**.

(<http://www.cinegrid.org>)





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Digital cinema

Cinema combines art and science, culture and commerce, increasingly digital.



Photo:
Naohisa Ohta



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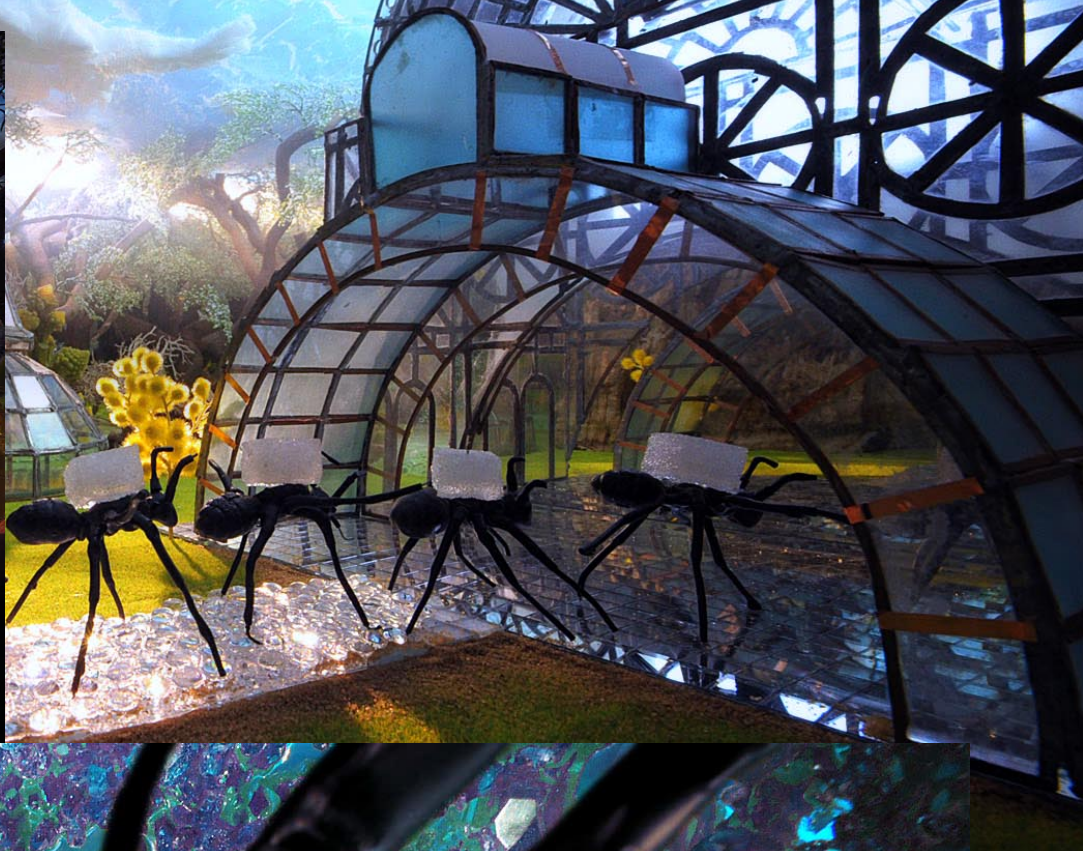
Holland Festival 2007



Era la Notte, June 20-21, 2007 (Live!)

Handelingen – Maarten de Heer





ARTHROPODS
Robin Noorda & Bethany de Forest

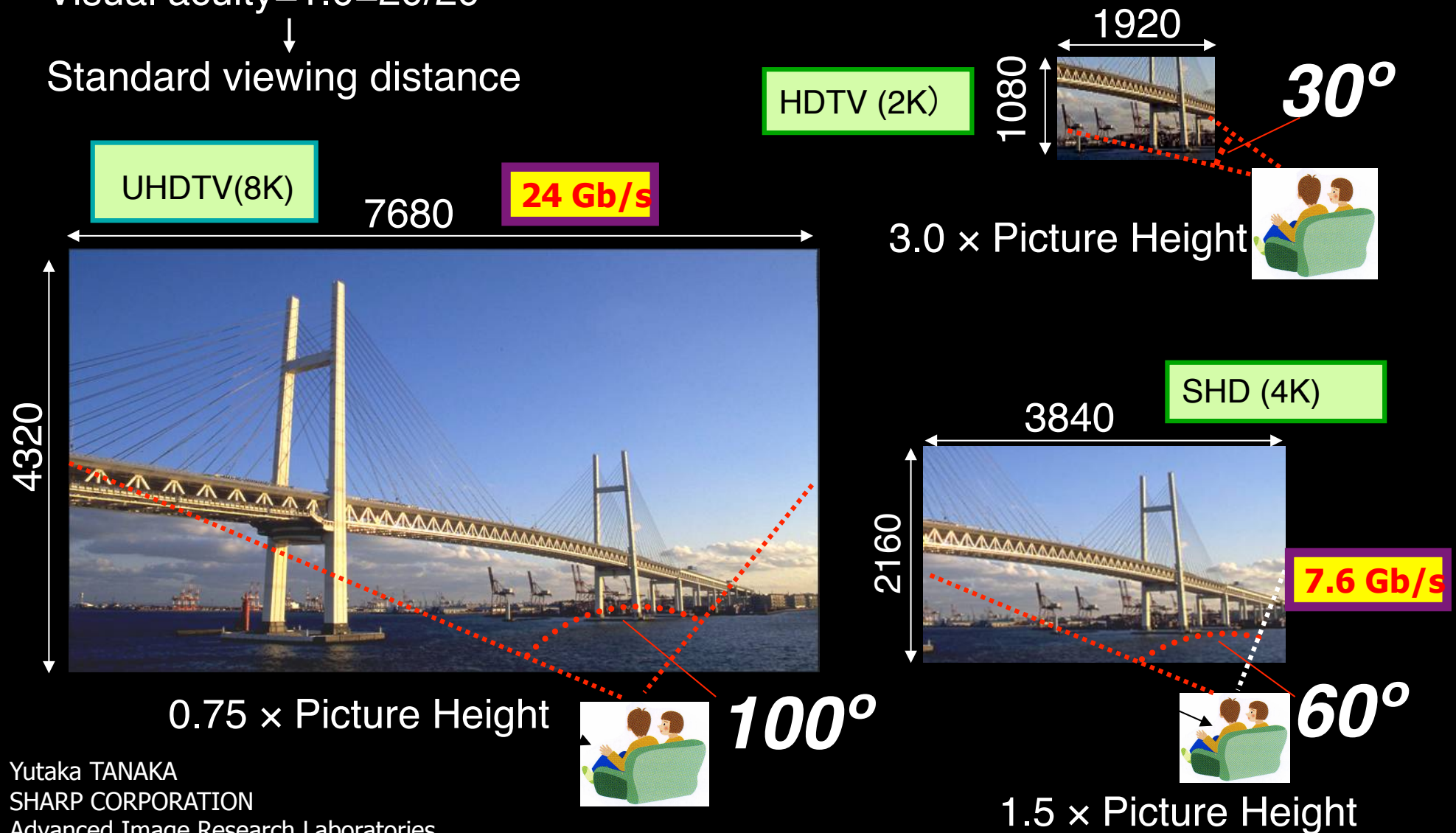
Why is more resolution is better?

1. More Resolution Allows Closer Viewing of Larger Image
2. Closer Viewing of Larger Image Increases Viewing Angle
3. Increased Viewing Angle Produces Stronger Emotional Response

Visual acuity=1.0=20/20

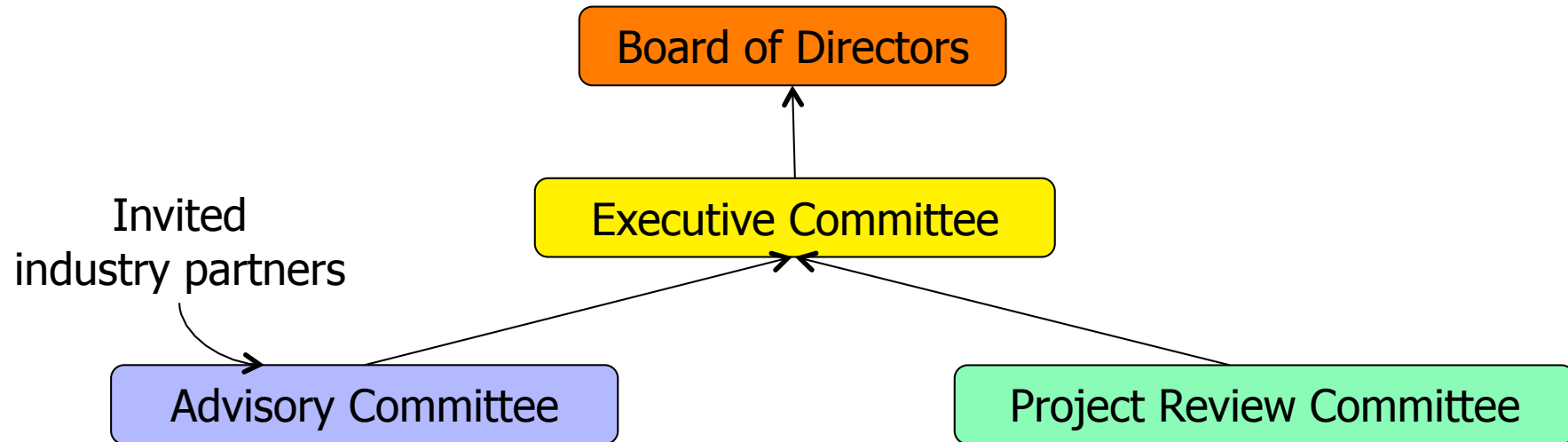


Standard viewing distance





Structure



Three levels of membership:

- Gold members
- Silver members
- Bronze members

Plus annual Corporate and Individual memberships.





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CineGrid offers

CineGrid Exchange is a distributed digital media repository:
includes artistic, entertainment, scientific, educational and
documentary materials
that can be used by CineGrid members non-commercially
with documented permissions from copyright holders as appropriate.

Currently seven sites:

- Academy of Motion Picture Arts and Science in [Los Angeles](#);
- California Institute for Telecommunications and Information Technology at [UCSD](#);
- Czech Republic National Research and Education Network in [Prague](#);
- Electronic Visualization Laboratory at the University of Illinois at [Chicago](#);
- Keio University Research Institute for Digital Media and Content in [Tokyo](#);
- University of [Amsterdam](#);
- Ryerson University Digital Cinema and Advanced Visualization Laboratory, in [Toronto](#).

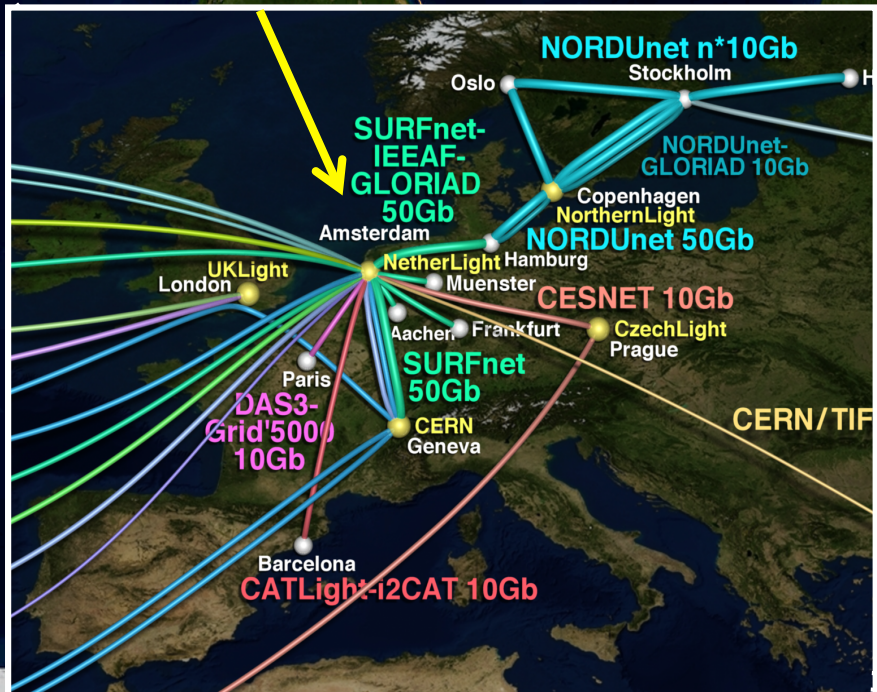
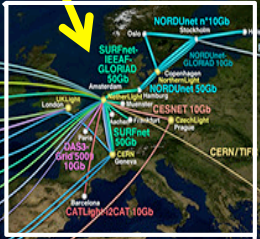
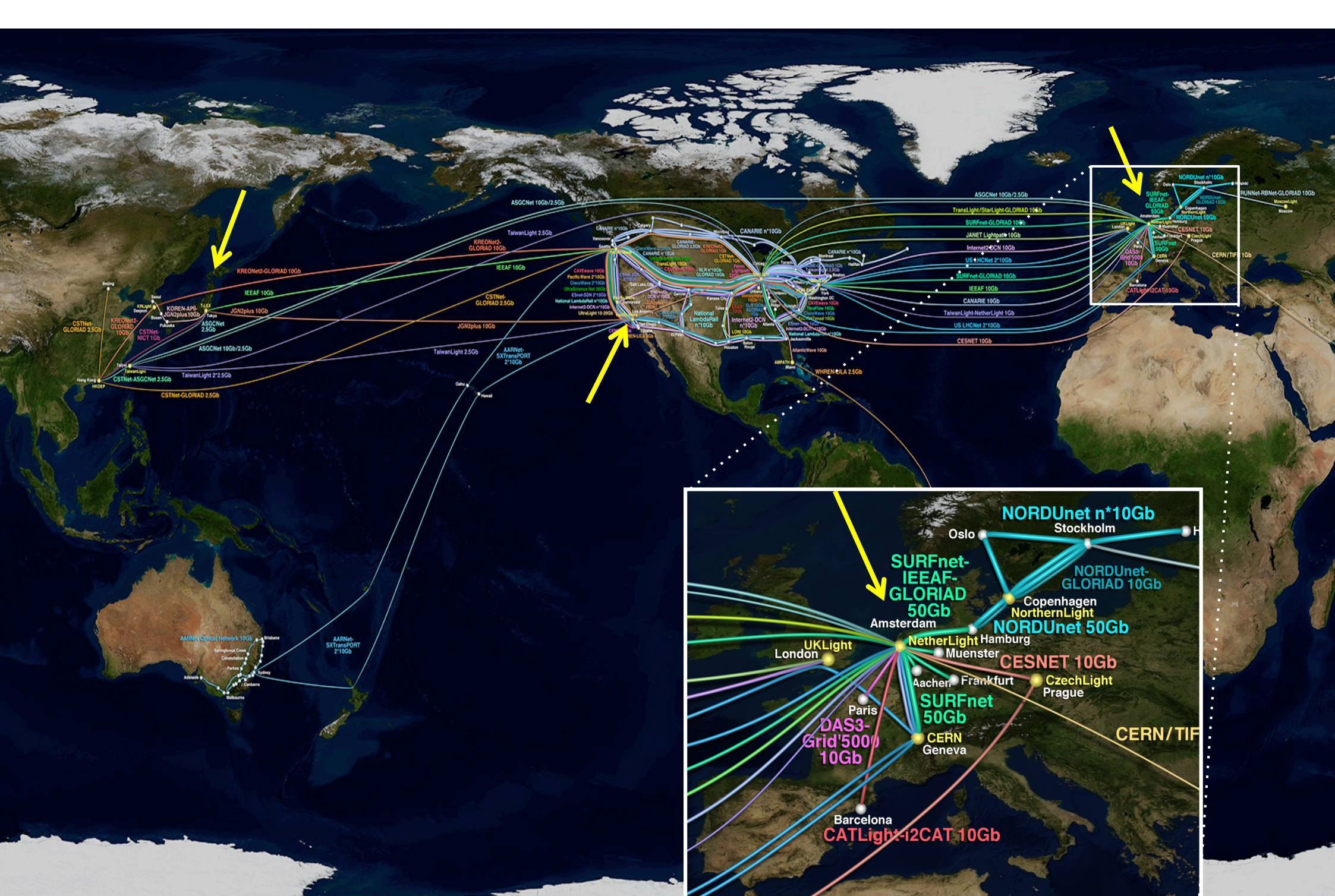


Format - Numbers - Bits (examples!)

Format	X	Y	Rate /s	Color bits/pix	Frame pix	Frame MByte	Raw Stream Gbit/s
720p HD	1280	720	60	24	921600	2.8	1.3
1080p HD	1920	1080	30	24	2073600	6.2	1.5
2k	2048	1080	24	36	2211840	10	1.2
SHD	3840	2160	30	24	8294400	25	6.0
4k	4096	2160	24	36	8847360	40	7.6

Note: this is excluding sound and these numbers are raw uncompressed data rates (frames*pix*bit/pix) excluding framing overhead!







CineGrid needs

The CineGrid community is addressing:

- Automatic/**dynamic provisioning of networks paths** among members
 - Paths must provide required QoS to support real-time streaming
- **Sharing of computing resources** for rendering coding/encoding
- Access to **storage facilities** to retrieve/save material
- **Development of workflows** to support the end-to-end usage scenarios
 - Usable by non experts
- **Metadata catalogues** to find content
- Line rate **streaming applications**

How (some of) these needs could be fulfilled by a VRC in EGI?





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Want to know more?

Contact:

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Prof. Cees de Laat (laat@uva.nl)

Browse:

<http://www.cinegrid.org>

<http://www.cinegrid.nl>

<http://cinegrid.uvalight.nl/portal>

<http://www.waag.org/project/cinegridhf>

<http://www.cinegrid.nl/mediawiki>

