

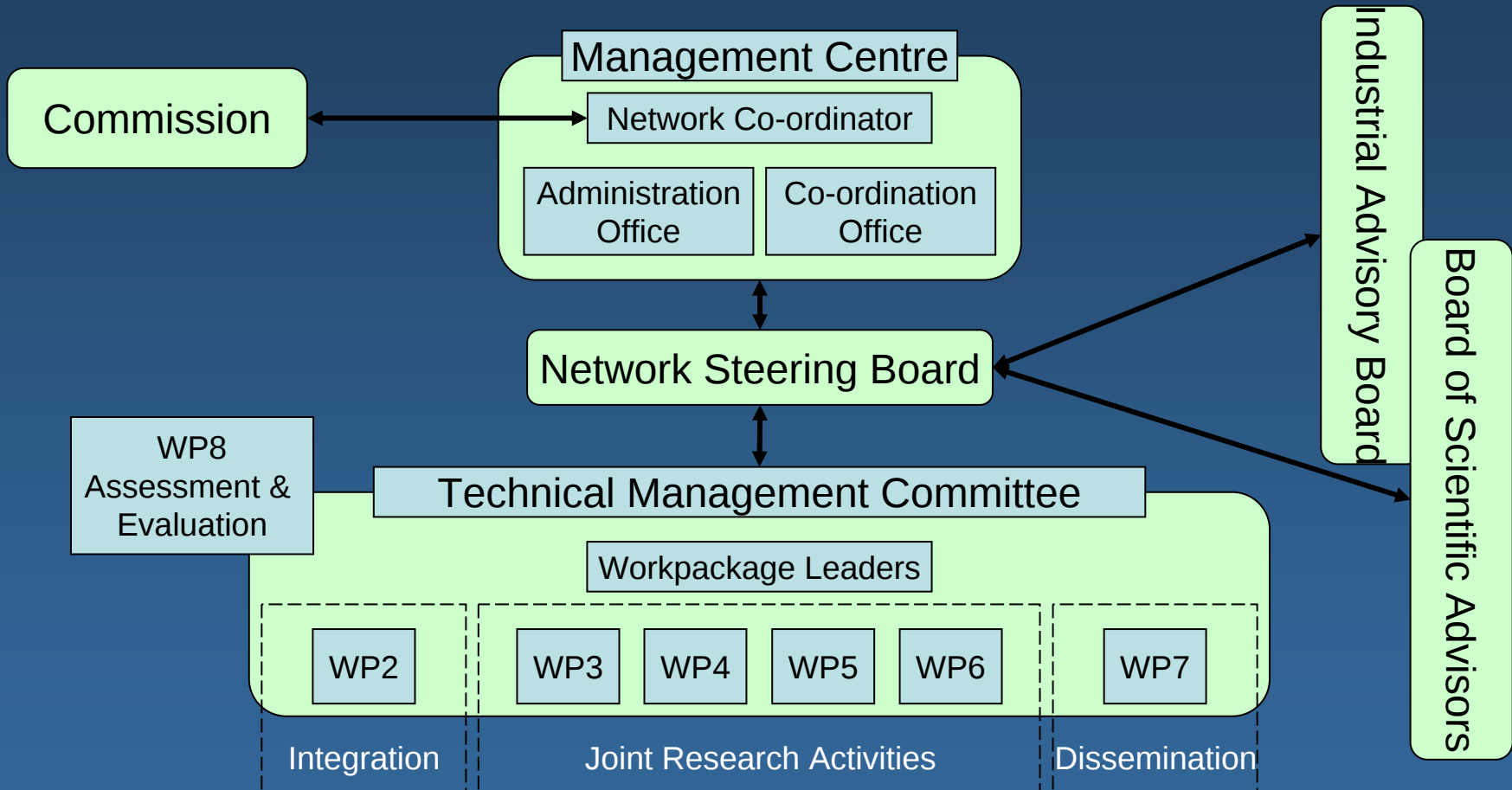
K-SPACE

Knowledge Space of Semantic Inference for
Automatic Annotation and retrieval of
Multimedia Content

MMV Research Group
Queen Mary, University of London

K-Space Network

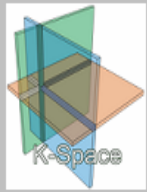
- Management Structure



Overview of partners

- Queen Mary, University of London, (QMUL)
- Koblenz University, (Uni Ko-Ld)
- Joanneum Research Forschungsgesellschaft mbH, (JRS)
- Informatics and Telematics Institute (ITI) & Centre for Research and Technology Hellas (CERTH)
- Dublin City University, (DCU)
- Centrum voor Wiskunde en Informatica, (CWI)
- Groupe des Ecoles des Télécommunications, (GET)
- Institut National de l'Audiovisuel, (INA)
- Institut Eurecom, (EURECOM)
- University of Glasgow, (GU)
- German Research Centre for Artificial Intelligence, (DFKI)
- Technische Universität Berlin, (TUB)
- Ecole Polytechnique Fédérale de Lausanne, (EPFL)
- University of Economics, Prague, (UEP)

K-Space System



Content Management System

Create content ...

- [Input content](#)
- [Process content](#)
- [Current tasks](#)

Content Retrieval ...

- [Navigate](#)
- [Visual Retrieval](#)

Auxiliary tasks ...

- [User Profile](#)
- [Help](#)

Administration ...

- [User administration](#)
- [Task administration](#)
- [Transcoding profiles](#)
- [Manage dictionaries](#)

[Home](#)

[Logout kspaceadmin](#)

K-Space Document Navigation

View	Document title & abstract	Export document	Export metadata	Visual search	Delete	Transcode	Shot edition	Semantic annotation
	Casino Royale							
	028 Loose Yourself							
	076 Walk This Way							
	077 Star Escalator							
	079 Nothing Compares to You							
	080 Come on My Selector							
	081 Fluorescences							
	082 Jenny Ondioline							
	083 The Free Design							
	084 Messagecomin							
	085 Frontier Psychiatrist							
	086 Body Movin'							
	087 Fight For Your Right							



K-Space System

ZOOM IN



1

ZOOM OUT

Shot 20



Shot 21



Shot 22



Shot 23



Shot 24



Global Annotations

Shot list for document *Casino Royale* (41 shots)

[Select another document]

Annotation type: WHO

Annotation group: All

Restrict groups to Film

Dictionary term: army

Filter terms by

Free description

Clear all fields

Insert annotation

Insert annotation into new cluster



Annotations for shot 22

Copy to clipboard

Paste from clipboard

army

explosion

Edit

Cut

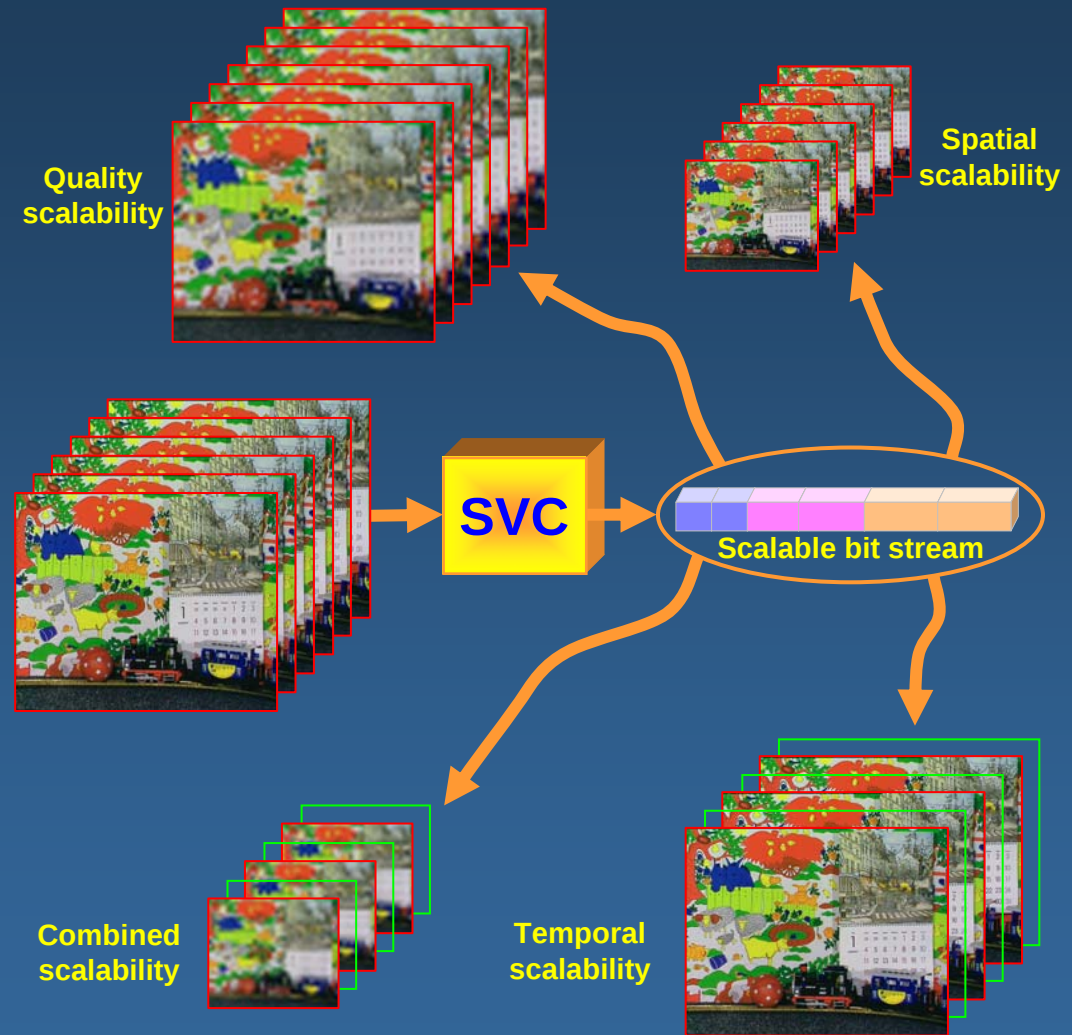
Start: 00:00:55:15

End: 00:00:56:22

CLOSE WINDOW

Scalable Video Coding (SVC)

- Scalability functionality
 - Quality
 - Spatial resolution
 - Temporal frame rate
 - Combined
- advantages of SVC
 - encoding is done only once
 - AVOIDS video transcoding
 - AVOIDS storing different representations of same content
 - Extremely fast adaptation characterised by a low complexity
 - re-use of the scalable bitstream at the user side



Application of Scalable Video Coding (SVC): Multistage adaptation

