# DRAFT QUESTIONNAIRE ON THE USE OF 3D MODELS AND 3D IMAGES IN IP DATA AND DOCUMENTATION

#### Glossary

3D model – An electronic file that is created by specialized software, for mathematically representing the surface of an object in three dimensions

3D Images – Images that represent objects displayed in three dimensions (length, depth, height), e.g. 3D photos, stereoscopy, etc.

3DS – A file format used by the Autodesk 3ds Max 3D modeling, animation and rendering software

DWF – Design Web Format

DWG – A file format widely used for CAD drawings

IGES – Initial Graphics Exchange Specification

OBJ – An open geometry vertex file format used for CAD and 3D printing

Raster image – An image that is composed of a map of points (pixels), referred to as a bitmap. Typical file formats for raster images include JPEG, TIFF, PNG and BMP

STL – Standard Tessellation Language - a file format native to the stereolithography CAD software created by 3D Systems

STEP – Standard for the Exchange of Product model data –an open ISO Standard which can represent 3D objects in Computer-aided design (CAD) and related information

Vector graphics – An image file that is composed of shapes formed of mathematical formulas and coordinates on a 2D plane. As opposed to raster images, vector graphics have the property of scaling infinitely without any degradation of quality

X3D – Successor of VRML, an Open ISO Standard XML format

## Q1. IP objects and stages of their lifecycle

#### Q1.1. Does your office currently use 3D models or 3D images for IP objects within the office? If so, for which IP objects:

Trademarks

Industrial designs

Patents (e.g. inventions and/or utility models) including

patents in chemistry as a field of technology (e.g. chemical structures, biological structures)

patents in other fields of technology (e.g. Electrical engineering, Mechanical engineering, etc.)

Integrated circuit topology

Other (please specify: )

#### Q1.2. Does your office consider using 3D models or 3D images for IP objects in the future? If so, for which IP objects:

Trademarks

Industrial designs

Patents (e.g. inventions and/or utility models) including

patents in chemistry as a field of technology (e.g. chemical structures, biological structures)

patents in other fields of technology (e.g. Electrical engineering, Mechanical engineering, etc.)

Integrated circuit topology

Not sure

Other (please specify: )

#### Q1.3. On which stages of IP objects` lifecycle does your office currently accept/implement 3D models?

a) Trademarks

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

b) Industrial designs

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

c) Patents in chemistry as a field of technology (e.g. chemical structures, biological structures)

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

d) Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry

Filling of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

e) Integrated circuit topology

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

f) Other (please specify: )

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

#### Q1.4. Does your Office carry out any image transformations? If so, for which objects and on which stages?

a) Trademarks

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

b) Industrial designs

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

c) Patents in chemistry as a field of technology (e.g. chemical structures, biological structures)

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

d) Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

e) Integrated circuit topology

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

f) Other (please specify: )

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Other (please specify: )

#### Q1.5. On which stages of IP objects` lifecycle does your office consider accepting/implementing 3D models in the future?

a) Trademarks

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: )

b) Industrial designs

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: )

c) Patents in chemistry as a field of technology (e.g. chemical structures, biological structures)

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: )

d) Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: ).

e) Integrated circuit topology

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: )

f) Other (please specify: )

Filing of the application

Examination

Storage

Search

Publication

Data exchange

Not sure

Other (please specify: )

## Q2. Existing practices and future plans

#### Q2.1. Please describe existing practices/future plans for using 3D models and 3D images within your office.

## Q3. Regulations

#### Q3.1. What laws and regulations concerning 3D models and 3D images are implemented within your jurisdiction?

## Q4. Formats and technical tools

#### Q4.1. Which formats of 3D models or 3D images does your office use at the moment? Does your office use the same or different formats for different stages of lifecycle: filling, examination, publication etc.?

#### Q4.2. Which formats of 3D models or 3D images does your office consider using in the future? Does your office consider using the same or different formats for different stages of lifecycle: filling, examination, publication etc.?

#### Q4.3. Please provide us with your suggestions and proposals on formats and reasons why you suppose them to be important (a list of formats to consider) except mentioned in items 6.1, 6.2

#### Q4.4. Which technical tools does your office currently use to work with 3D models (i.e. viewers, converters, etc.)? Are these standard tools commercially available, or do you consider using any special tool developed for your Office or by your Office?

#### Q4.5. Which technical tools does your office consider using in future work with 3D models (i.e. viewers, converters, etc.)? Are these standard tools commercially available, or do you consider using any special tool developed for your Office or by your Office?

#### Q4.6. Please provide us with your suggestions and proposals on tools and reasons why do you suppose them to be important (a list of tools to consider)

## Q5. Specific requirements and limitations

#### Q5.1. Please provide us with preferable specific file requirements? Should they be the same or different for different objects and stages (i.e. limitations and restrictions for 3D files, size (Mb) and format of 3D model for storing, processing, and sharing, etc.)

#### Q5.2. In your opinion, what would be the main requirements when choosing 3D file formats (open source, wide spread adoption, etc.)

#### Q5.3. In your opinion, what would be the main requirements when choosing tools for working with 3D files?

## Q6. Expectations concerning the use of 3D

#### Q6.1. Which specific advantages and/or drawbacks do you expect from 3D models and 3D images regarding search, for instance prior art search?

#### Q6.2. Do you expect that applicants will comply to provide 3D models which fulfill the defined standards?

## Q7. Any other comments

# APPENDIX

A MODEL QUESTIONNAIRE FOR INDUSTRY ON THE DESIGN OF OBJECTS FOR IP RIGHTS PROTECTION USING 3D MODELS AND IMAGES

Glossary

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X3D – Successor of VRML, an Open ISO Standard XML format

Q1. Is your Organization interested in filing to an Intellectual Property Office three-dimensional models as a part of application for visual representation of your objects for IP Rights protection? This may be in addition to or in place of any two-dimensional images (drawings, photos, etc.) in your application.

☐ Yes ☐ No ☐ Not sure   
☐ Other (please specify: )

Q2.1. Does your Organization currently create/design objects for IP Rights protection or their visual representations in 3D formats?

☐ Yes ☐ No   
☐ Other comments (please specify: )

Q2.2. Which objects for IP Rights protection does your Organization create/design using 3D formats for their representation?

☐ Trademarks   
☐ Industrial designs   
☐ Inventions   
☐ Utility models   
☐ Integrated circuit topology  
☐ Other (please specify: )

Q2.3. If your Organization does create/design objects for IP Rights protection using 3D formats for their visual representation, please, specify file formats for:

a) Trademarks (list of formats)

b) Industrial designs (list of formats)

c) Inventions (list of formats)

d) Utility models (list of formats)

e) Integrated circuit topology (list of formats)

f) Other (please specify: )

Q2.4. If your Organization does create/design objects for IP Rights protection using 3D formats for their visual representation, please, specify software tools (i.e. CAD systems, design editors, viewer tools etc.) for:

a) Trademarks (list of tools)

b) Industrial designs (list of tools)

c) Inventions (list of tools)

d) Utility models (list of tools)

e) Integrated circuit topology (list of tools)

f) Other (please specify: )

Q3.1. Does your Organization consider creating/designing objects for IP Rights protection or their visual representations in 3D formats in the future? If your Organization does not consider using 3D models and images for representation of its objects for IPR protection in the future, what is the reason and what are your concerns?

☐ Yes ☐ No ☐ Not sure  
☐ Other comments (please specify: )

Q3.2. Which types of IP Rights does your Organization consider creating/designing objects for in 3D formats?

☐ Trademarks   
☐ Industrial designs   
☐ Inventions   
☐ Utility models   
☐ Integrated circuit topology  
☐ Not sure  
☐ Other (please specify: )

Q3.3. If your Organization consider creating/designing objects for IP Rights protection or their visual representations in 3D formats in the future, please, specify file formats for:

a) Trademarks (list of formats)

b) Industrial designs (list of formats)

c) Inventions (list of formats)

d) Utility models (list of formats)

e) Integrated circuit topology (list of formats)

f) Other (please specify: )

Q3.4. If your Organization considers creating/designing objects for IP Rights protection or their visual representations in 3D formats, please, specify tools that could be used for that purpose for:

a) Trademarks (list of tools)

b) Industrial designs (list of tools)

c) Inventions (list of tools)

d) Utility models (list of tools)

e) Integrated circuit topology (list of tools)

f) Other (please specify: )

Q4. Please, specify 3D formats that, in your opinion, also could be used for filing 3D models and images as visual representations of objects for IP Rights protection (except those that used to create objects for IP Rights protection):

a) Trademarks (list of formats)

b) Industrial designs (list of formats)

c) Inventions (list of formats)

d) Utility models (list of formats)

e) Integrated circuit topology (list of formats)

f) Other (please specify: )

Q5. Other comments and suggestions

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