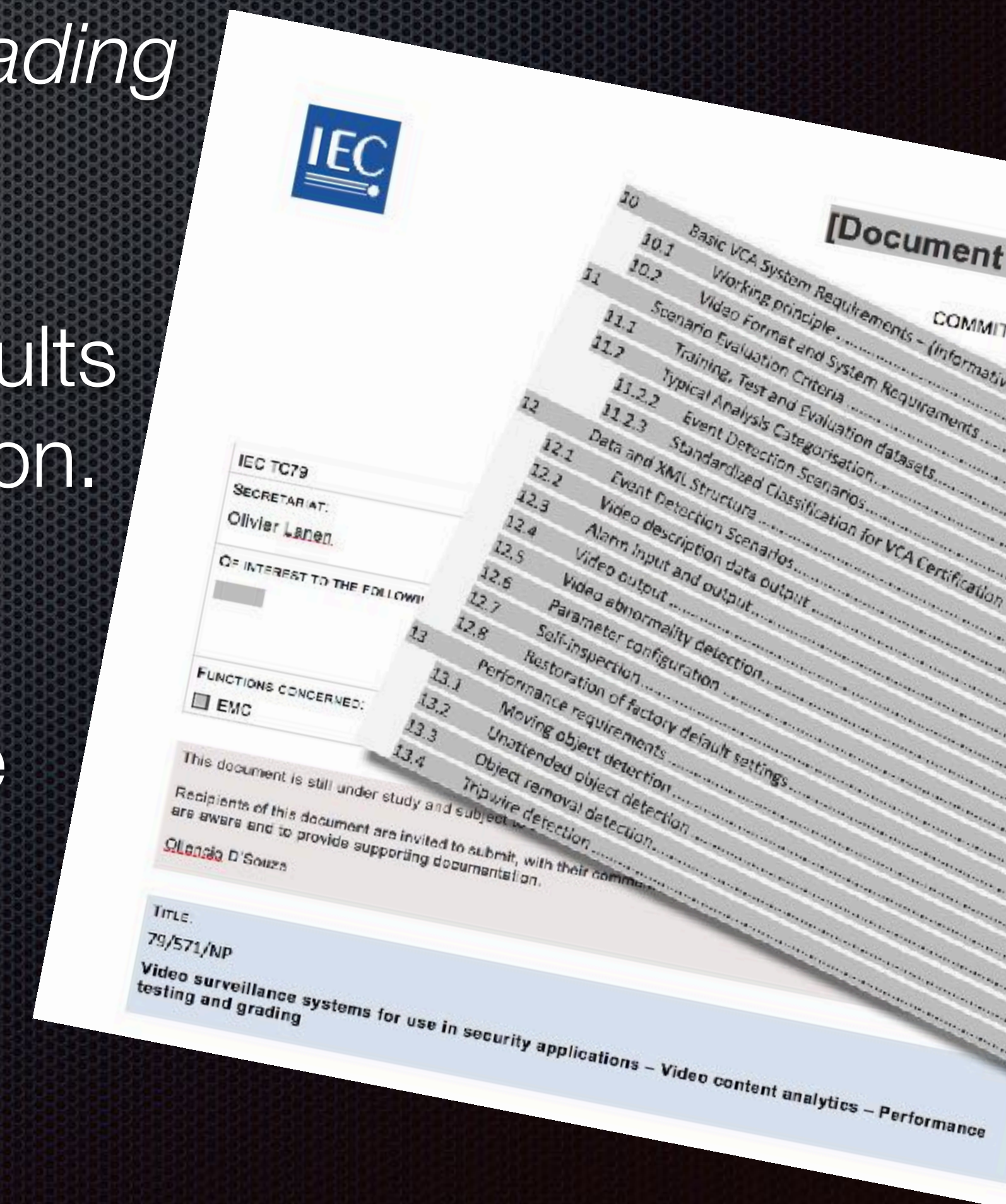


A new VCA standard coming - IEC 62676-6

The full title:

*Video surveillance systems for use in security applications –
Video content analytics – Performance testing and grading*

- Still in development
- May take another year or two for some tangible results
- There are many key points that is yet to be agreed on.
- The main goal is to be able to objectively and independently test a VCA performance.
- Also, to be able to pass the produced results to the rest of the CCTV system with an understandable and compatible XML based protocol.



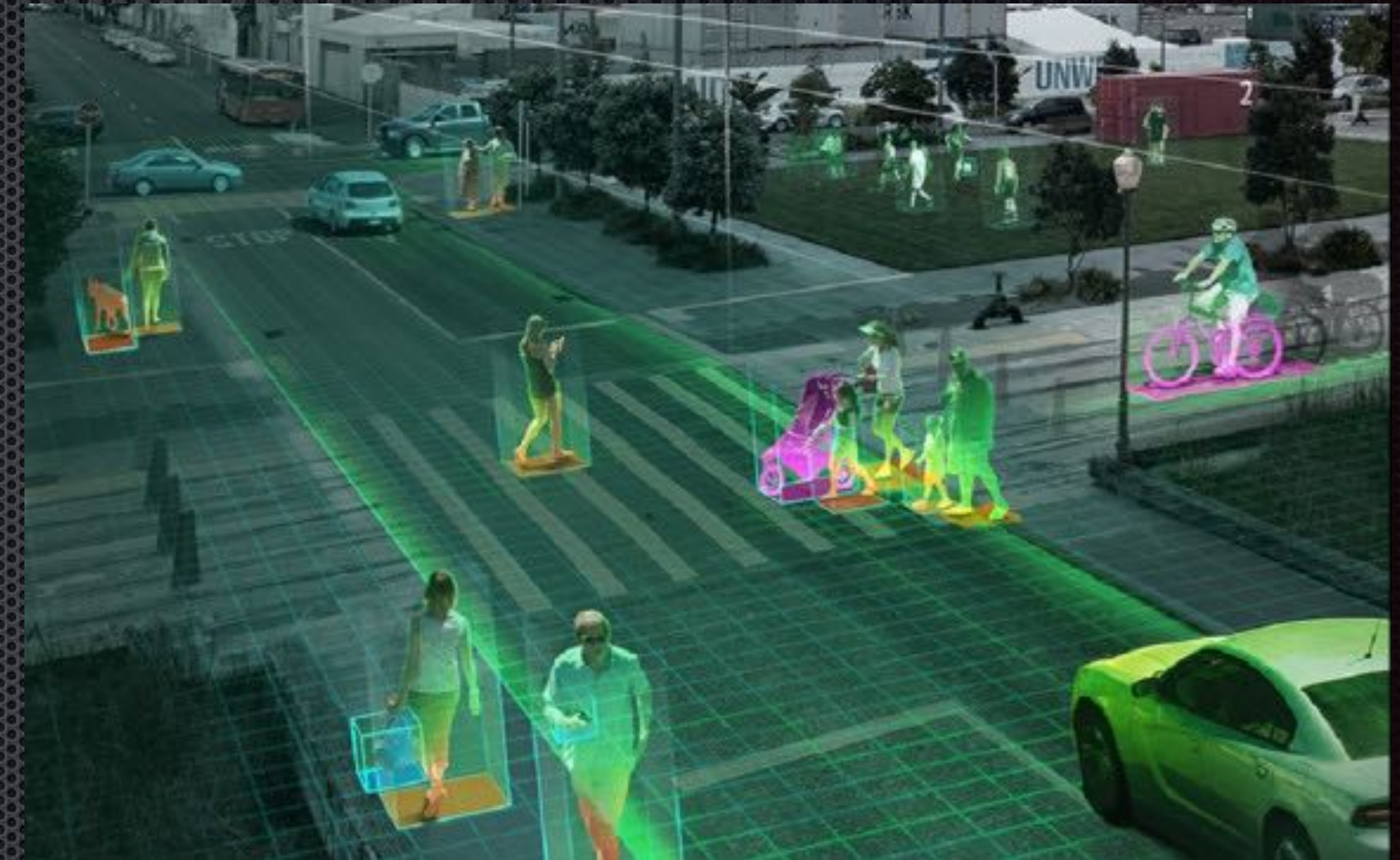
How do we test which VCA is good for us?

- This is being discussed at the IEC WG12 now.
- A reference set of video clips (dataset) might be a good start.
- The reference dataset need to simulate realistic scenarios.
- There could be scenarios with people running, crossing, loitering, vehicles passing by, etc...
- Then, run the various VCAs and obtain a scoring chart.
- Various countries to contribute to the copyright free reference dataset.

(This is yet to be decided on in IEC...)

How do we test and compare various VCA?

- Using a high quality reference video
- It should have a number of objects, events at various times and distances
- If tested VCA is performed on a server or client computer, the stream must be standard and readable (e.g.H.264)
- If, however, the test needs to be performed on a VCA embedded in a camera, **there is a problem.**
- We cannot insert such a video clip inside the camera...but...



How do we test and compare various VCA?

- It is possible however, to have a high quality display (e.g. 4k) playback the reference video clip and use this as a replica for a real life ground truth
- It will be very important then to match the display frequency to the camera frame rate (e.g. 25 fps or 30 fps)
- Also, the lens viewing angle needs to be 30° or less to reduce wide angle distortions



Non-surveillance uses of VCA

There are many non-surveillance uses of VCA:

- Robotic assembly lines
- Broadcast TV for advertising check-up
- 3D vector rendering from drone video
- Manufacturing inspections
- PCB components check
- Letters and parcels sorting
- Bar-code readers
- Marketing analysis
- Self-driving vehicles
- Cancer research
- Fire and bomb threats
- Passport control



TED: YOLO (7:38)

Interesting times ahead...

We live in very interesting times for CCTV and surveillance development.

In my 36yrs career as a CCTV expert, author and trainer, I have witnessed an unbelievable evolution of camera and video technology as dumb pieces of hardware.

We are now at the very beginning of a real quantum leap in intelligent use of CCTV, hoping that AI **may help us** make our societies **safer and better**.

Somebody said:

Embrace technology but don't become IT.



Humanity first

It is up to us, humans, to make technology work for the better of our children, for the humanity and the planet.

Perhaps it is us that have to show the AI products what it means to be human, so that the AI can behave the same way...





Thank you for your attention

Q & A time