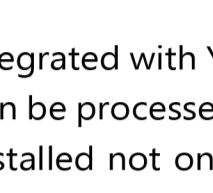
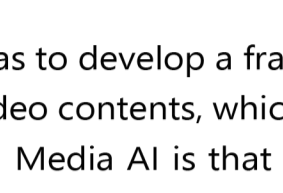


Product Sheet
Media Asset Management
YES!MAM
Artificial Intelligence

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YESIMAM and ARTIFICIAL INTELLIGENCE

YESIMAM is deeply integrated with Artificial Intelligence.

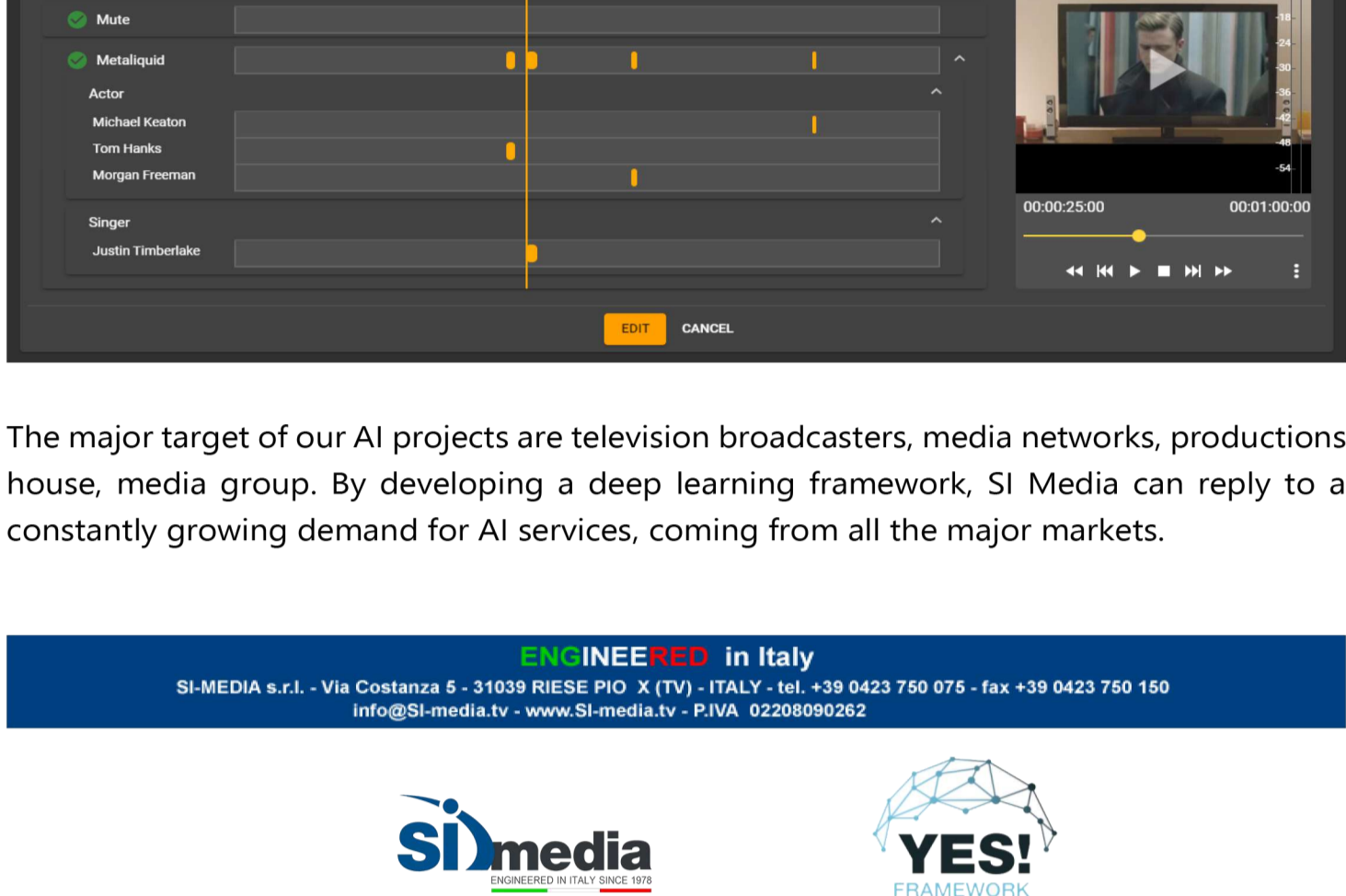
A dedicated plug-in can be activated in YESIMAM to enable to Artificial Intelligence management.

YESIMAM can work with both our internal AI or integrating any 3rd party AI engines, such as AWS and Microsoft.

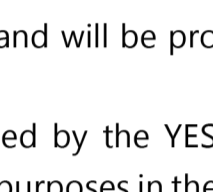
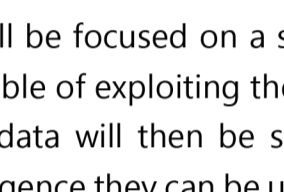
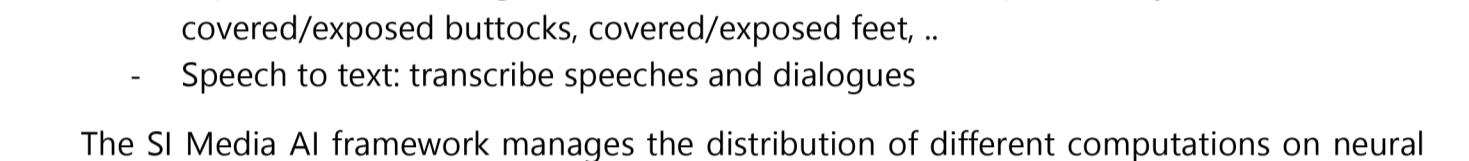
– SI MEDIA AI

SI Media has developed its own AI framework, with an internal R&D project that started in the second half of 2022.

The purpose of the project was to develop a framework, integrated with YES!, to extrapolate descriptive metadata from video contents, which would then be processed and managed by YES!MAM. A major plus of SI Media AI is that it can be installed not only in the cloud but also on premises, allowing the customer to keep its contents on site.



The major target of our AI projects are television broadcasters, media networks, productions house, media group. By developing a deep learning framework, SI Media can reply to a constantly growing demand for AI services, coming from all the major markets.



In this first phase, SI Media focused on developing the following AI services.

- Face recognition of celebrities, politics...
- Explicit contents recognition, such as nudes, covered/exposed belly, covered/exposed buttocks, covered/exposed feet ...
- Speech to text: transcribe speeches and dialogues

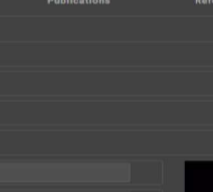
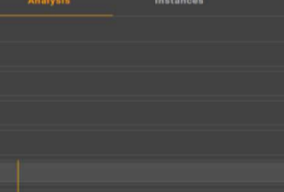
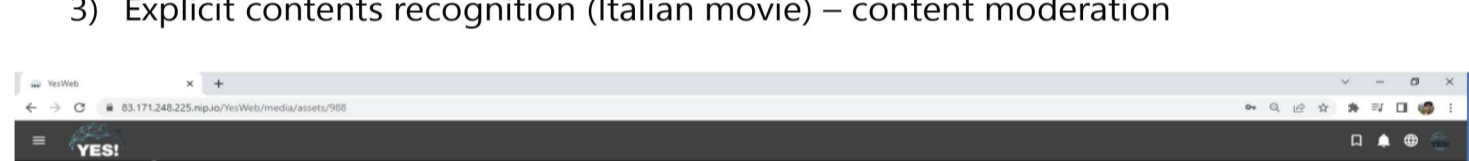
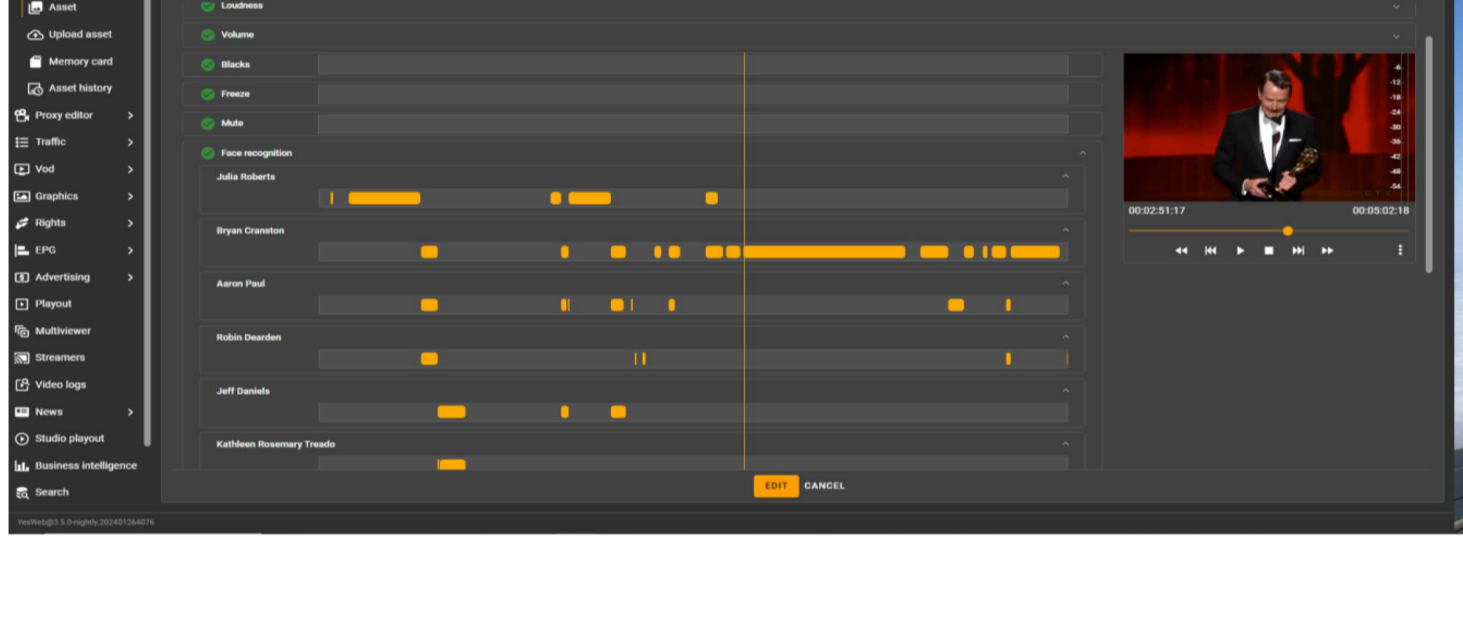
The SI Media AI framework manages the distribution of different computations on neural networks for learning.

Each neural network will be focused on a specific analysis and will be processed on virtual or physical servers capable of exploiting the NVIDIA GPU.

The extrapolated metadata will then be sent and processed by the YES platform, where thanks to artificial intelligence they can be used for multiple purposes in the television sector. Among others, the possibility of recognizing explicit content, nudity or other peculiar scenes, could have wide use in the media sector, especially for a company that operates globally like SI Media.

AI results will be displayed within the Quality Check\analysis interface in YES!MAM UI.

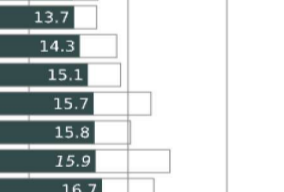
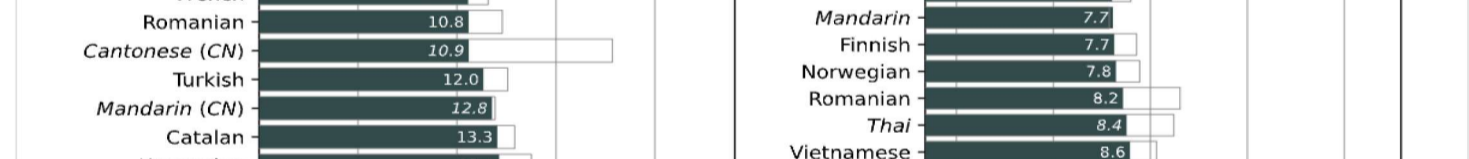
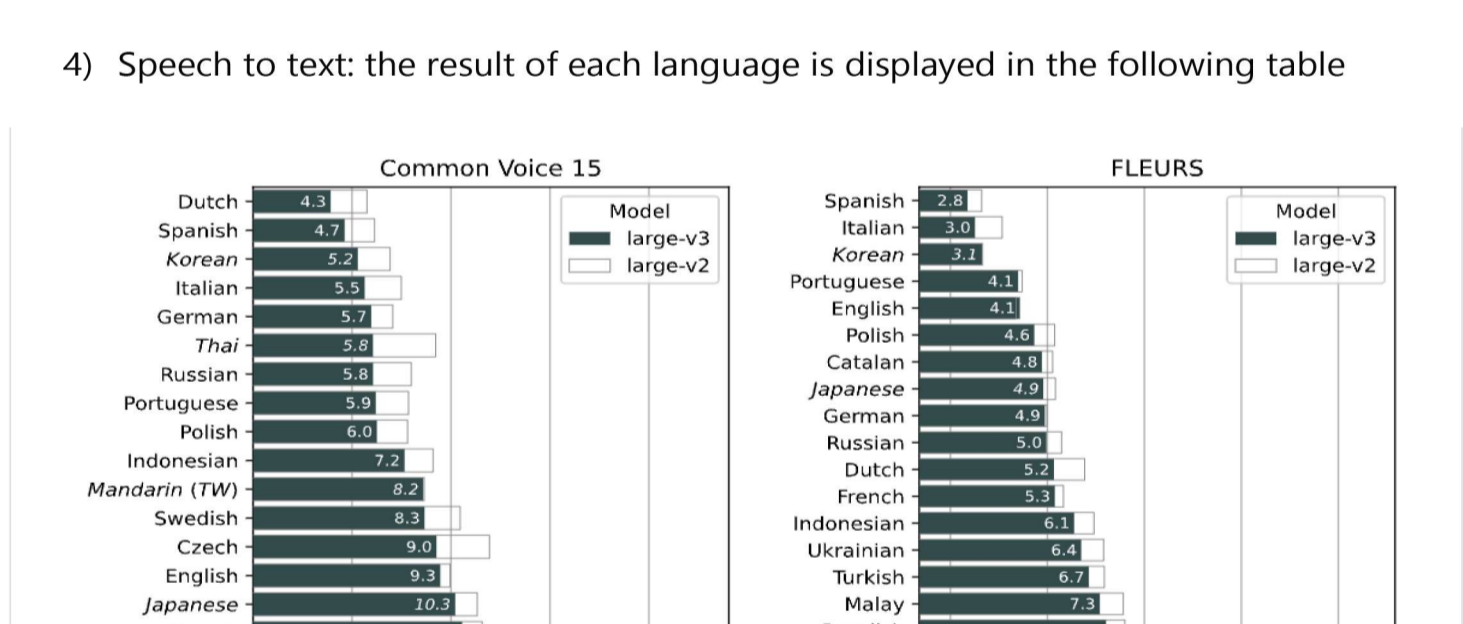
- 1) Face recognition from the Emmy Awards (Zendaya)



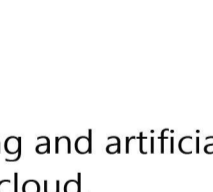
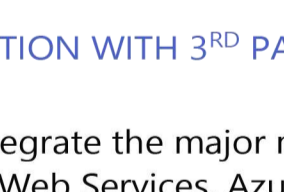
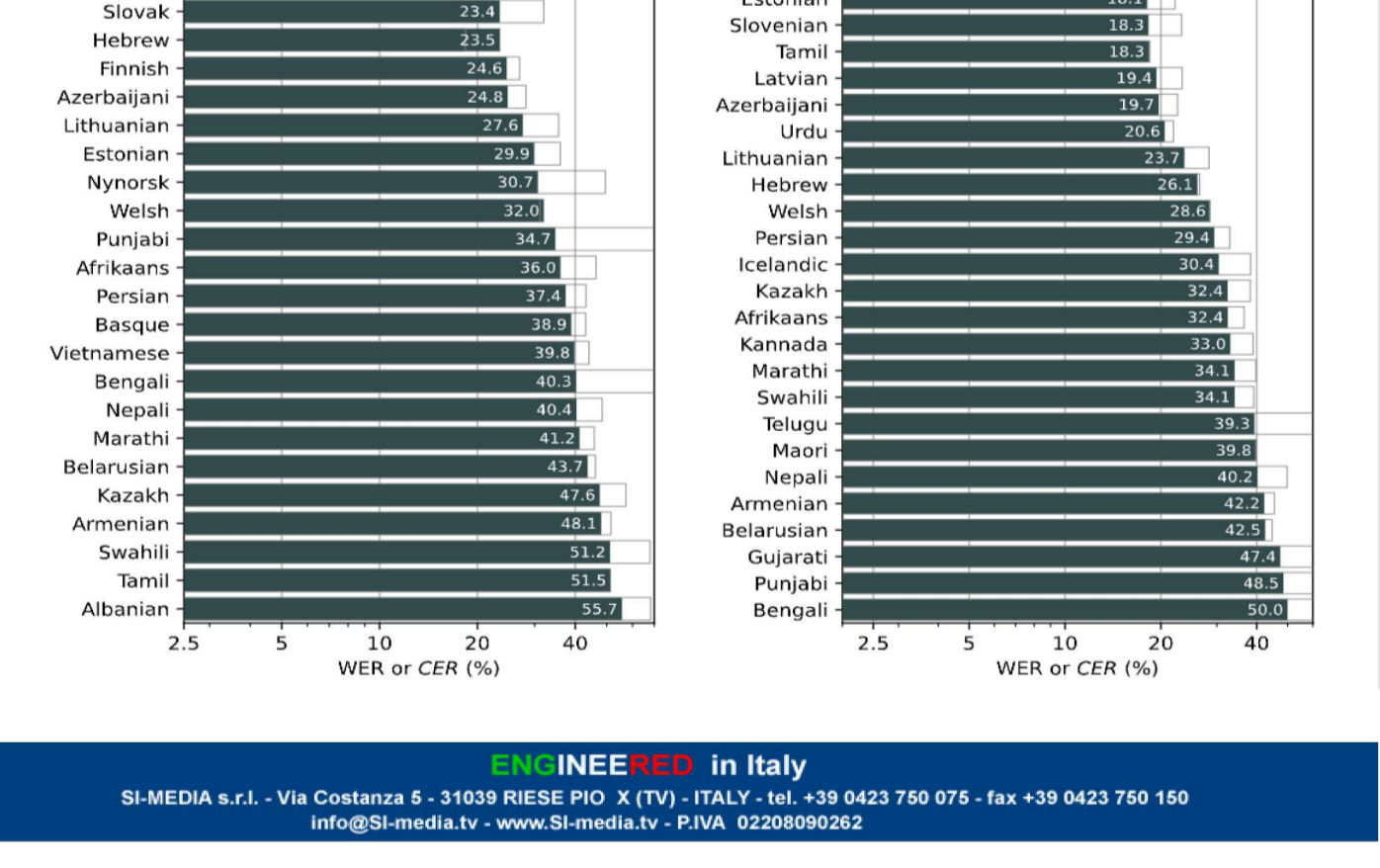
- 2) Face recognition from the Emmy Awards (Cranston)



- 3) Explicit contents recognition (Italian movie) – content moderation



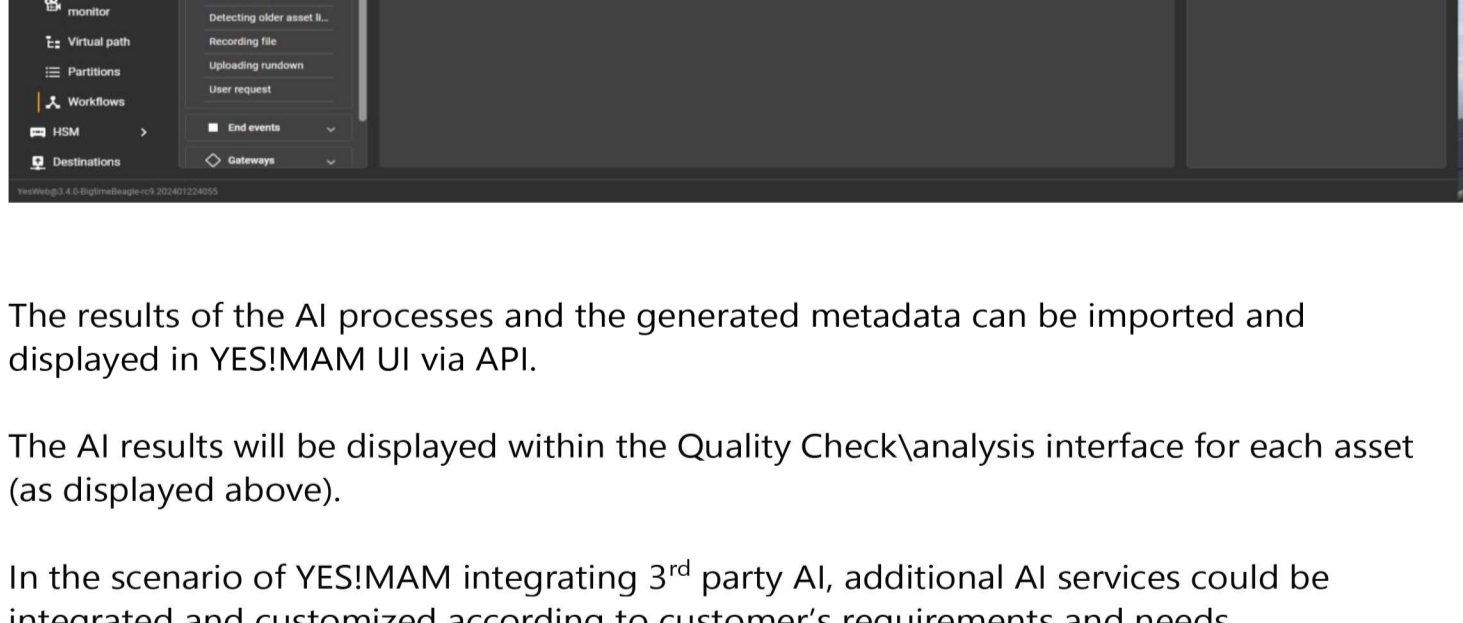
- 4) Speech to text: the result of each language is displayed in the following table



– SI MEDIA INTEGRATION WITH 3RD PARTY AI

SIMedia YESIMAM can integrate the major machine learning and artificial intelligence services, such as Amazon Web Services, Azure and google cloud.

Specific workflows can be configured in YESIMAM workflow manager to upload contents to AI services to be processed.



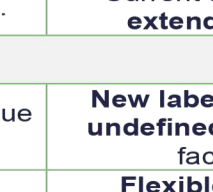
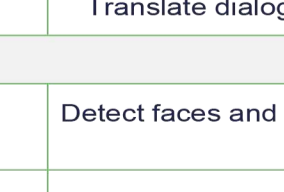
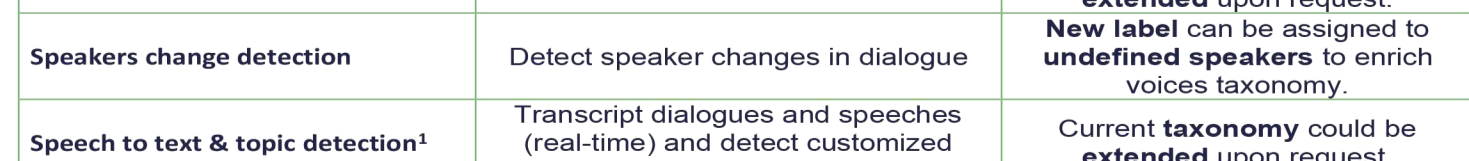
The results of the AI processes and the generated metadata can be imported and displayed in YESIMAM UI via API.

The AI results will be displayed within the Quality Check\analysis interface for each asset (as displayed above).

In the scenario of YES!MAM integrating 3rd party AI, additional AI services could be integrated and customized according to customer's requirements and needs.

Following, a list of the main services that AI services can offer now.

Each service has to be evaluated separately to analyse the availability in a certain country and the feasibility, in addition to the hardware requirements, that have to be evaluated in each case, depending on the amount and size of new files per day and many other variables.



Metadata categories

In the following table the main services available in the market.

AI SERVICE	DESCRIPTION	PLUS
Baseline services		
Shot detection	Detect shot change (including transitions)	Shot detection is used to deliver shot level aggregated metadata
Audio classification	Detect music, dialogue, undefined/other audio	Current taxonomy could be extended upon request.
Graphics & text		
Graphics detection	Detect graphics layers, their position and size	Current taxonomy could be extended upon request.
OCR	Western characters recognition frame by frame.	Current taxonomy could be extended upon request
Audio & Voice		
Language-detection	Recognize language spoken in dialogues and enable coherent Speech to text application.	Current taxonomy could be extended upon request.
Voice recognition & statistics	Recognize voice and report statistics	Current taxonomy could be extended upon request.
Speakers change detection	Detect speaker changes in dialogue	New label can be assigned to undefined speakers to enrich voices taxonomy.
Speech to text & topic detection¹	Transcript dialogues and speeches (real-time) and detect customized topics.	Current taxonomy could be extended upon request.
Speech translation	Translate dialogues and speeches.	Current taxonomy could be extended upon request.
Out of the box services		
Face detection & verification	Detect faces and assign them a unique id	New label can be assigned to undefined identities to enrich faces taxonomy.
Celebrity recognition	Recognize global and local celebrities	Flexible taxonomy . New celebrities can be added every month.
Logo detection & recognition	Recognize global and local brands	Current taxonomy could be extended upon request.
Object detection & recognition	Recognize objects	Current taxonomy could be extended upon request.
Scene recognition	Recognize outdoor & indoor settings	Current taxonomy could be extended upon request.
Sensitive detection (nudity)	Detect nudity in video content	Different level of sensitive can be detected according to customer needs.
Emotion detection	Recognize emotions (anger, happiness, sadness, disgust, fear, etc.)	Current taxonomy could be extended upon request.
Opening/ending credits detection	Detect standard opening and ending credits	Credits recognition can be customized