



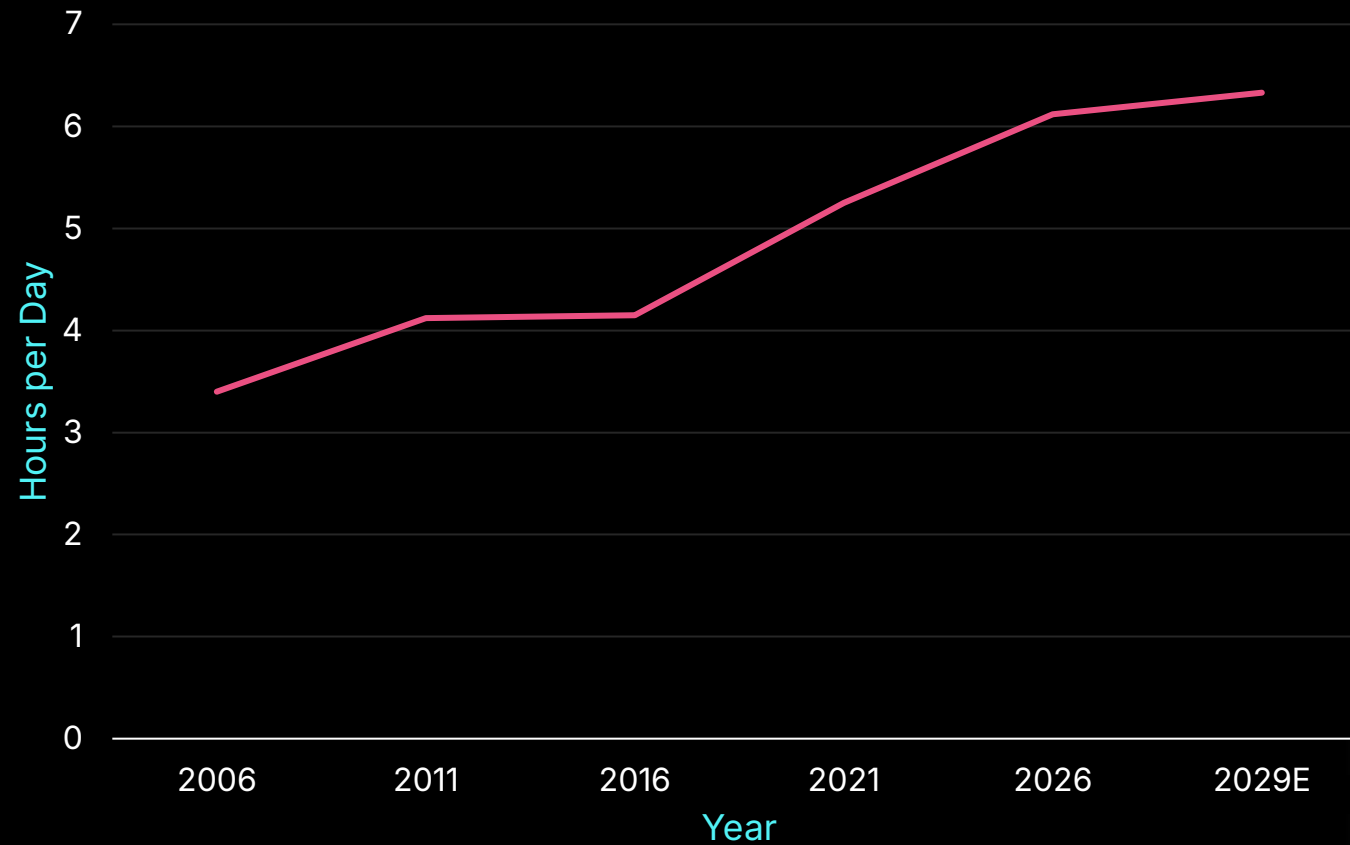
AI in Action

Maximising Video Quality under Critical Bandwidth Conditions



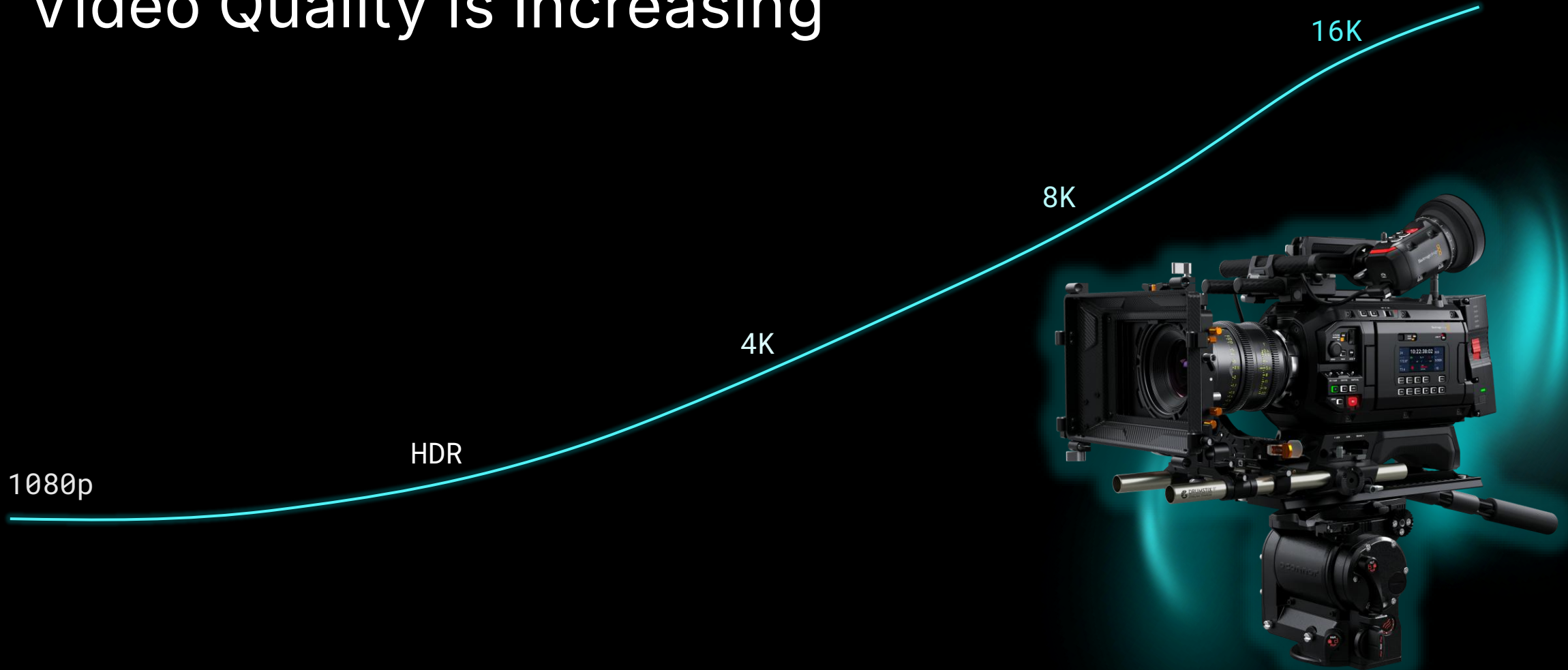
SOURCE: NIELSEN & ACTIVATE CONSULTING

Global Average Daily Video Consumption per User



FROM FULL HD TO 16K REAL-TIME PRODUCTION

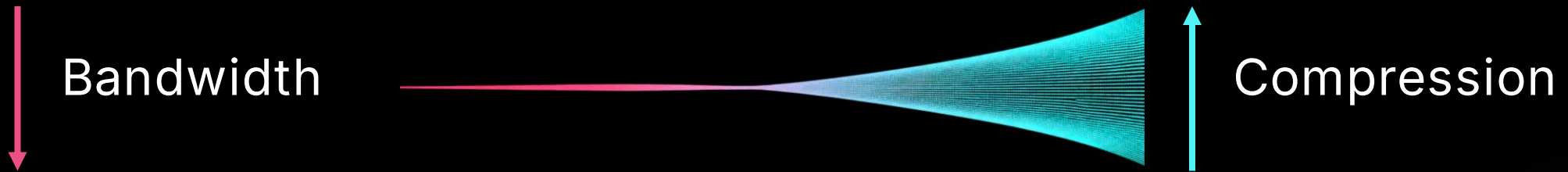
Video Quality is Increasing





Lower Bandwidth. Higher Compression.

As transmission channels shrink, compression increases and visual artifacts become unavoidable.

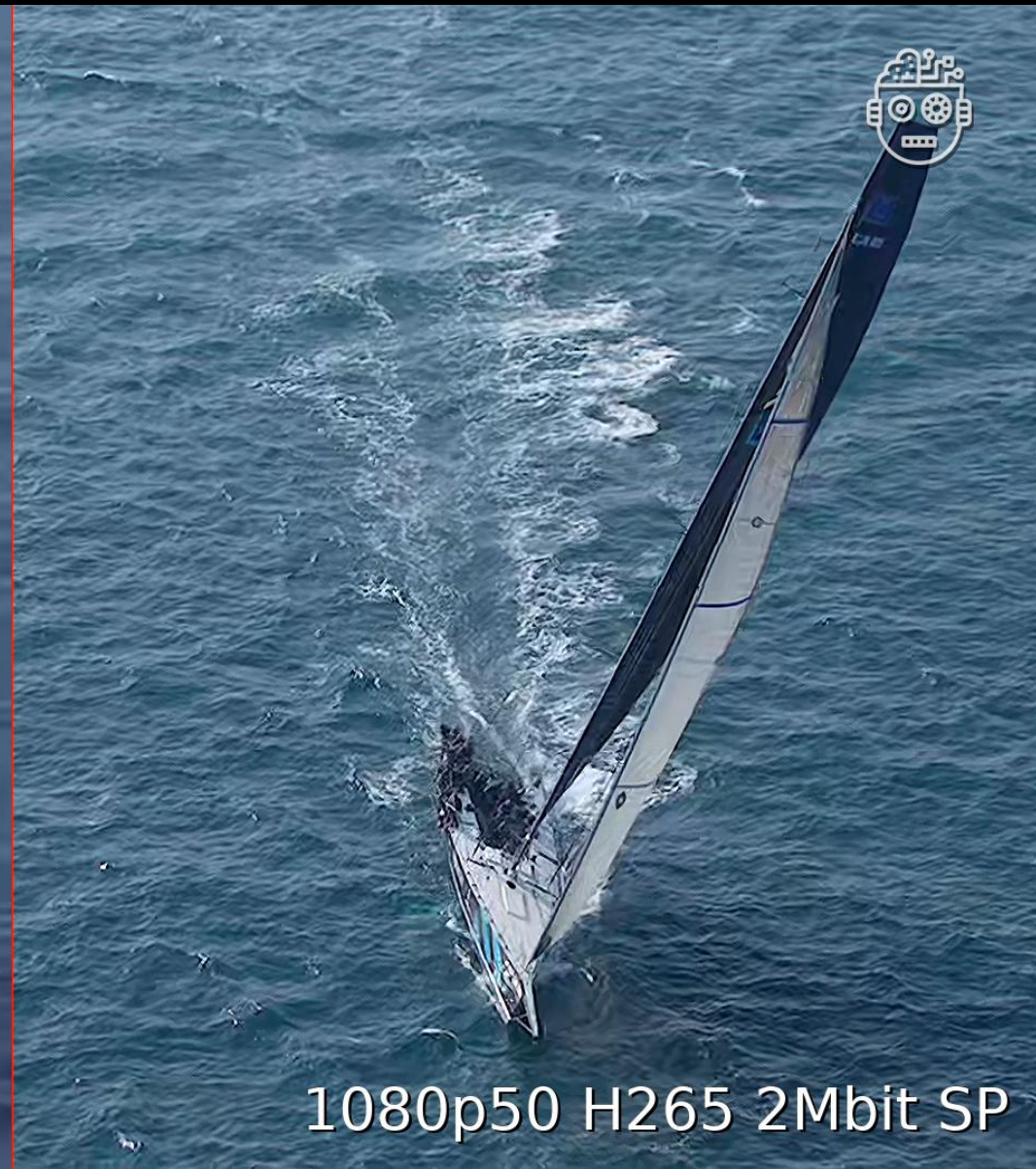


AI IN ACTION

How can this problem be fixed?

Small Pixels AI

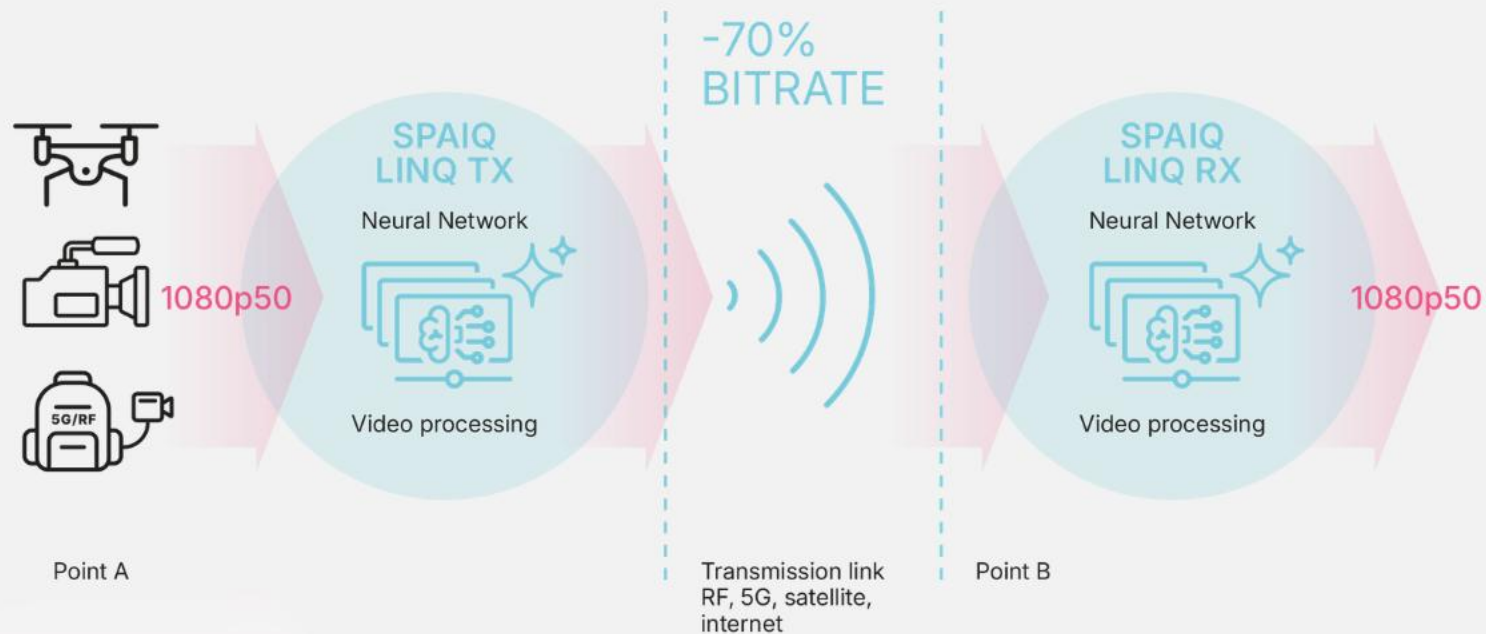




SPAIQ Linq

END-TO-END AI RECONSTRUCTION FOR VIDEO CONTRIBUTION WORKFLOWS

Optimize point-to-point video transmission under critical bandwidth conditions by reducing data density at the source and reconstructing full resolution and fluidity at the destination in real time.



WHERE CAN THE SOLUTION BE USED?

The Potential Use Cases

Broadcasting

Production

**Remote
Production**

Surveillance

Defence

Rescue

**Digital
Signage**

**Video
Conferencing**

E-learning

**Remote
Maintenance**

...



BORN FROM RESEARCH

The Scientific Foundation behind Small Pixels AI



Alberto Del Bimbo
Emeritus Professor
Co-founder



Tiberio Uricchio
Associate Professor
Co-founder



Leonardo Galteri
Chief Research Officer
Co-founder

Featured Publications

Deep Universal Generative Adversarial Compression Artifact Removal
IEEE Transactions on Multimedia · Vol. 21 · 2019

Increasing Video Perceptual Quality with GANs and Semantic Coding
ACM International Conference on Multimedia · 2020



THE COMPANY

About Small Pixels

- AI video enhancement company
- University of Florence scientific rigor
- Research-driven technology
- Focused on efficiency
- Operating across a global ecosystem of partners

Built in Florence, deployed worldwide.



HQ, Research & Development:
Florence, Italy

Corporate & Executive:
Milan, Italy



A Global Network of Partners

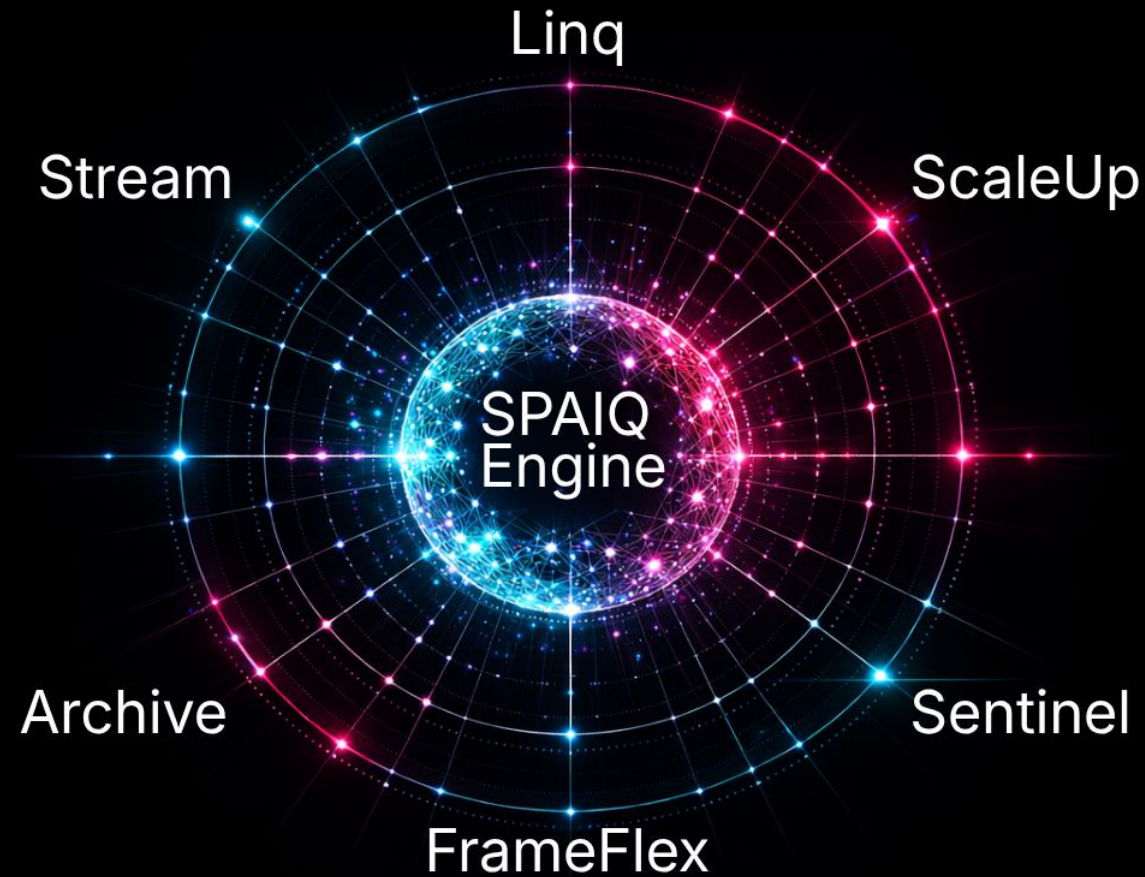


Our Reseller Partners



SMALL MODELS. BIG IMPACT. HIGH-FIDELITY VIDEO.

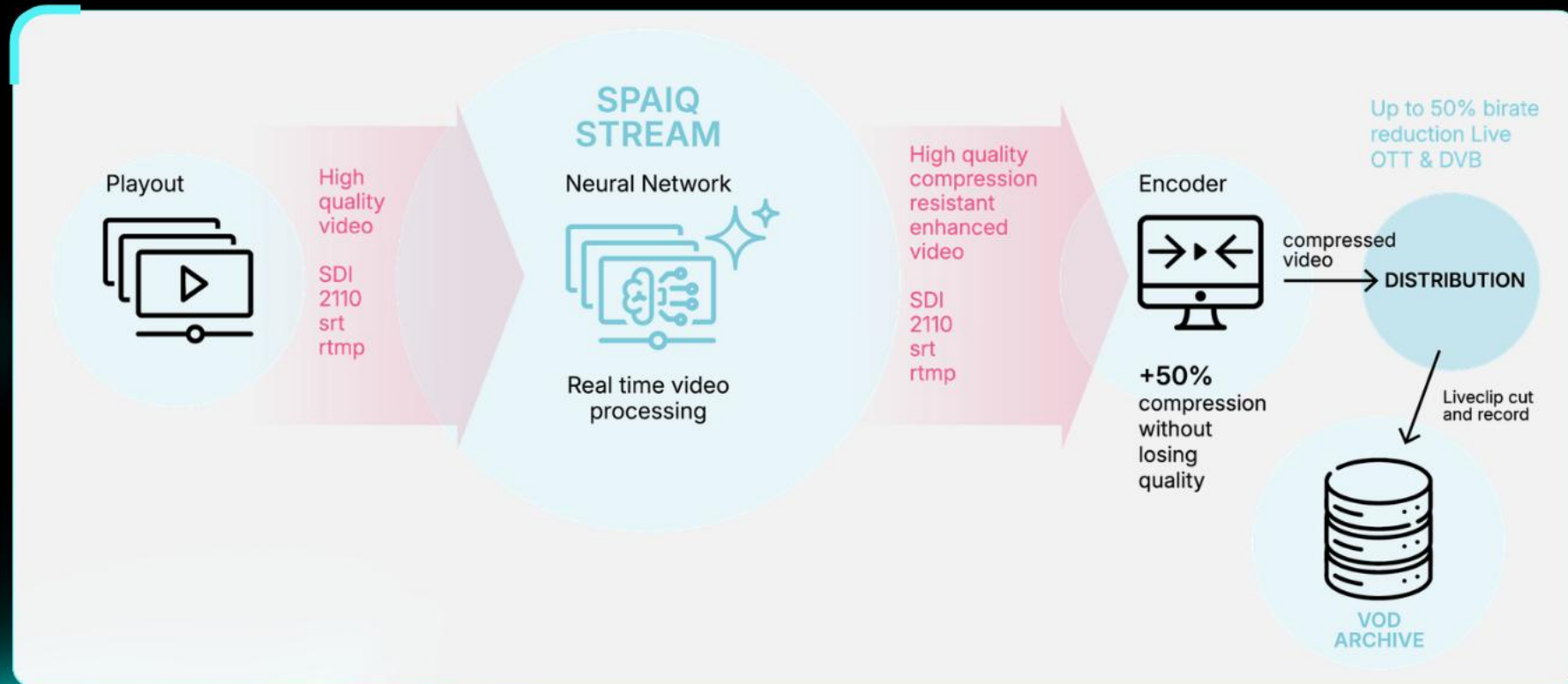
The Evolution of Signal Intelligence



SPAIQ Stream

REAL-TIME BITRATE REDUCTION FOR STREAMING PIPELINES

Optimize video before encoding to reduce bitrate while preserving perceptual quality, with no changes to your existing workflow.





5000 kbps

VMAF 84.88

VMAF 88.38

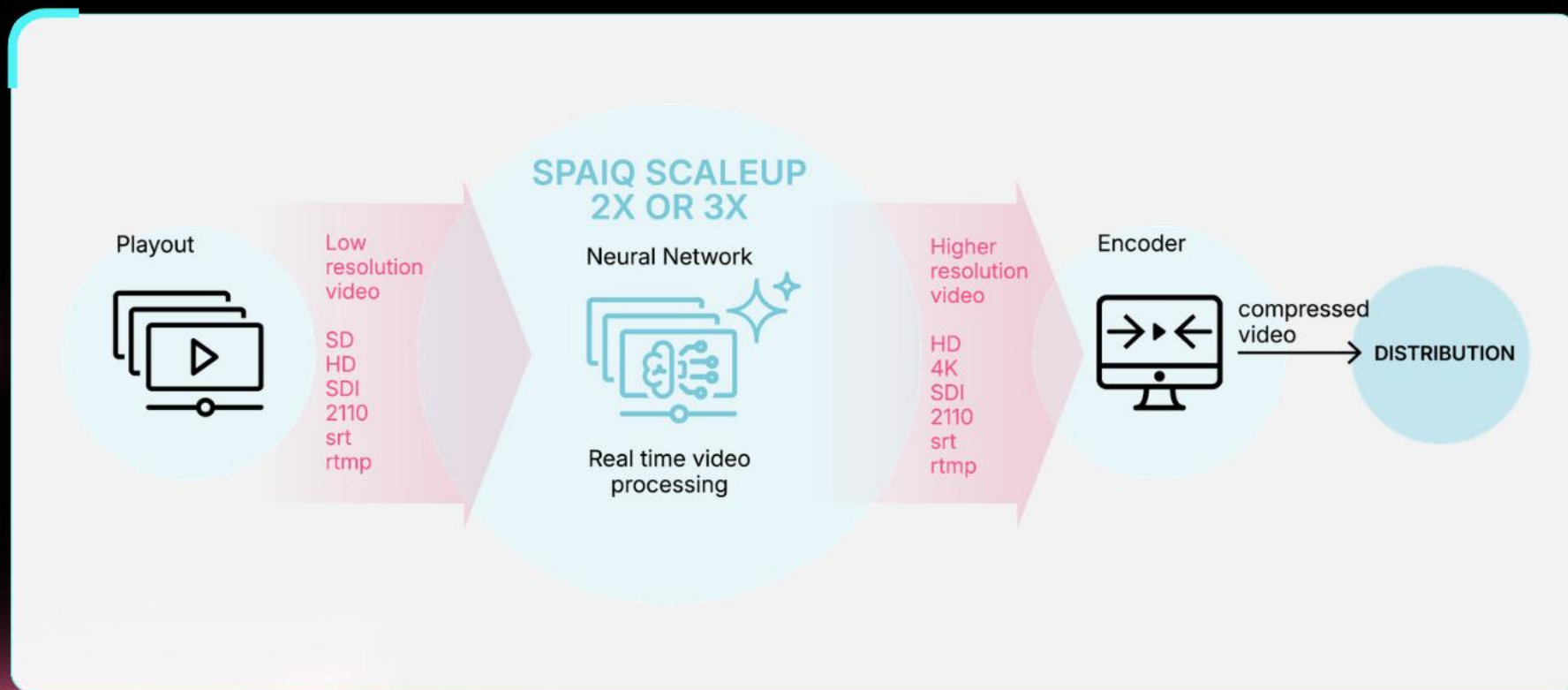
3000 kbps

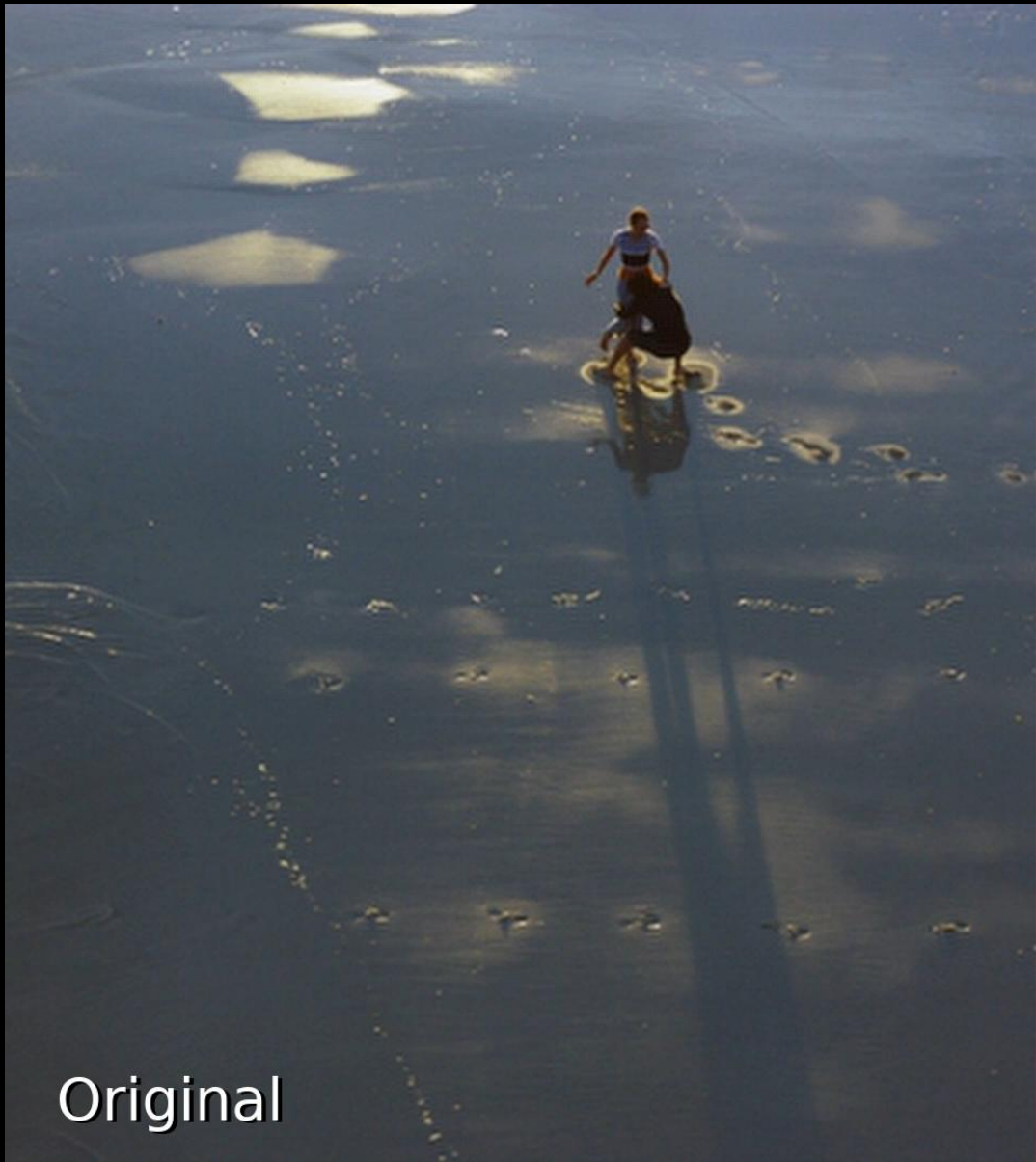


SPAIQ ScaleUp

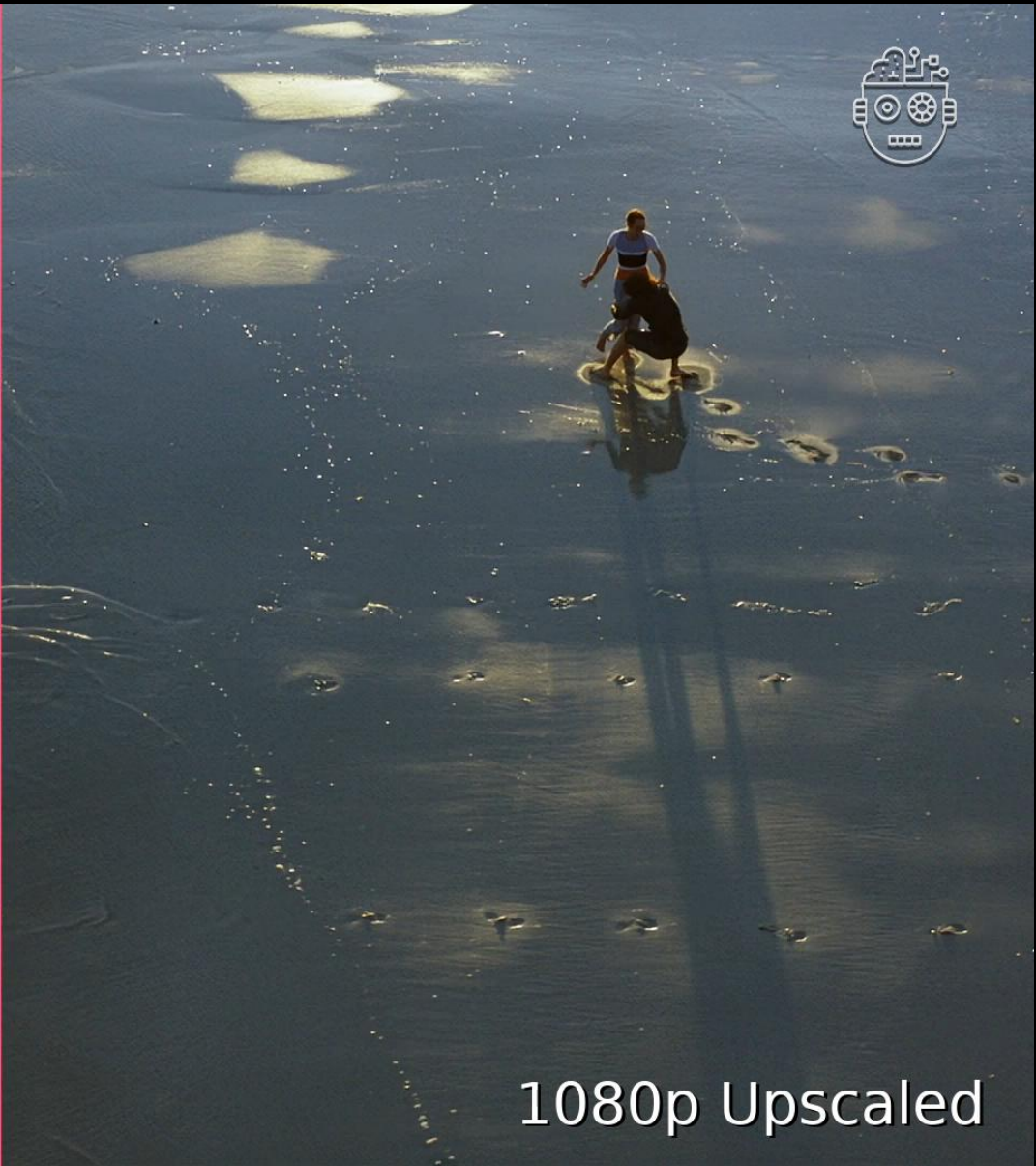
AI-POWERED VIDEO UPSCALING UP TO 4K

Enhance resolution and fine details in low-quality video, delivering sharper and more defined images in real time.





Original



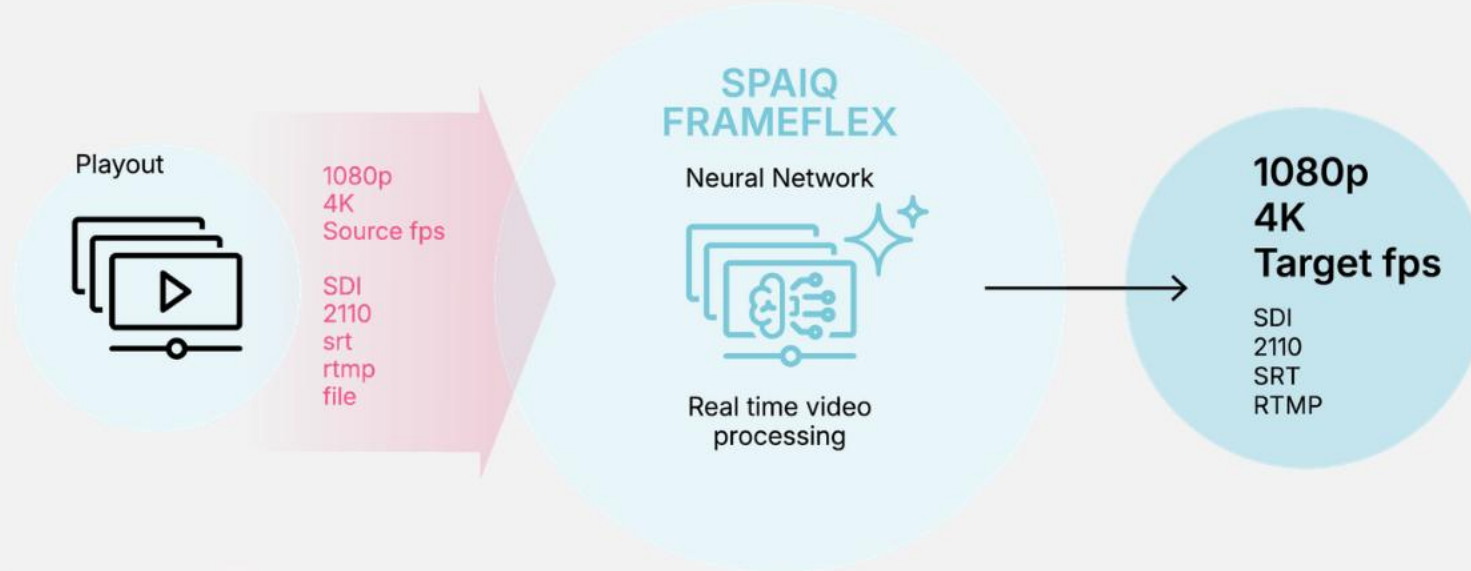
1080p Upscaled



SPAIQ FrameFlex

AI-POWERED FRAME RATE ENHANCEMENT AND MOTION FLUIDITY

Enhance temporal consistency and motion smoothness by intelligently reconstructing intermediate frames, improving visual fluidity without increasing bandwidth.





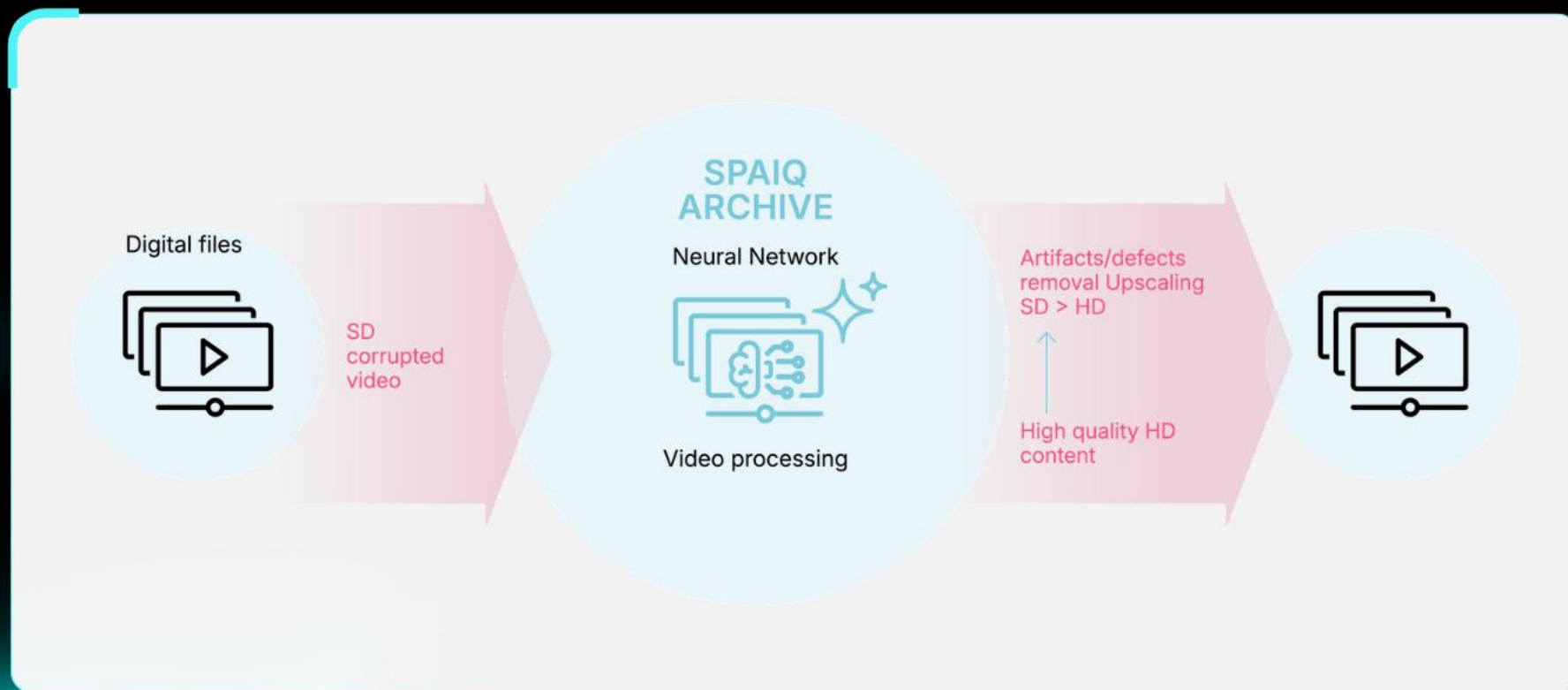
SPAIQ FrameFlex – Slow Motion



SPAIQ Archive

AI RESTORATION FOR DEGRADED VIDEO CONTENT

Restore and enhance legacy or damaged video content, improving clarity and making archives usable again.





Original film



SP clean film



Customer Success Stories



Bandwidth reduction and
archive restoration



Video cameras surveillance
detection enhancement



Bandwidth reduction



Video conferencing enhancement



5G Video quality enhancement



Archive restoration



Drones video quality and detection
enhancement



Thank you!



GET IN TOUCH
info@small-pixels.com



WEBSITE
smallpixels.ai



FOLLOW US
Small Pixels