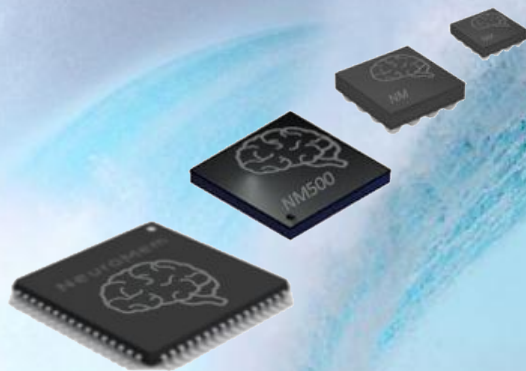
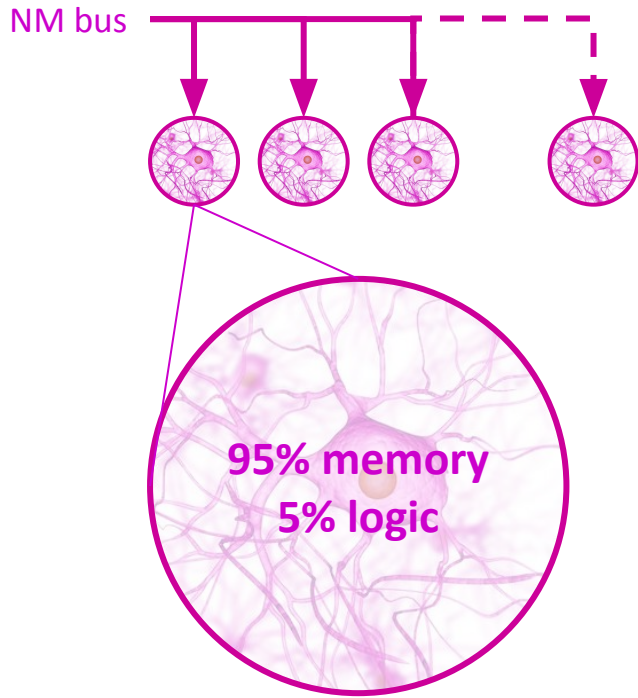


General Vision presents its NeuroMem® AI chip



- Real-time lifelong learning
- Always-on pattern recognition
- Anomaly and novelty detection
- Deterministic latency (μ secs)
- Low power (mWatts)
- Explainable AI





Chain of identical neuromorphic memories

Working in parallel

Exact and fuzzy matching

Learn by examples

Memory and processing in a same cell

Deterministic latencies

Low clock frequency, low power

Knowledge Traceability



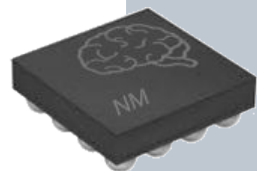


2003, Pulnix ZiCAM
(312 neurons)



- 50 systems, in continuous operation, saving US\$2M per boat,
 - Trained in deep sea waters by Nordic fishermen
 - No cloud access





Technology in high demand

Machine learning
Edge Intelligence
Data Analytics
Predictive maintenance
Failure analysis
Novelty detection

Numerous applications

Computer vision
Video analytics
Signal classification
Audio recognition
Scientific analytics
Semantic & Sentiment
Secure communications

Across many industries

Aerospace
Automotive
Consumer electronics
Environment
Healthcare
Industrial
FinTech



Beyond images...
Lowest-power pattern recognition device



Image to Speech demo

Battery operated

Real-time learning at the edge



NeuroMem AI chip

Trainable, responsible
and explainable AI



Stimuli

Voltage, Torque, Sound, Vibration,
Velocity, Temperature, EEG, etc.

Learning

Supervised learning of normalcy

Unsupervised learning of novelty

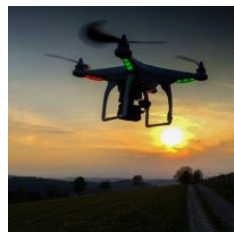
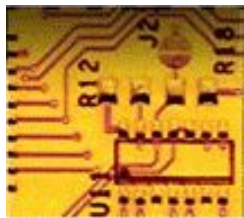
Recognition & Action

Transmit only information of interest

Report drifts and anomalies

Adaptive control





Stimuli

Live video, images, movie files

Learning

Colors, shapes, alignments

Objects, textures, surfaces

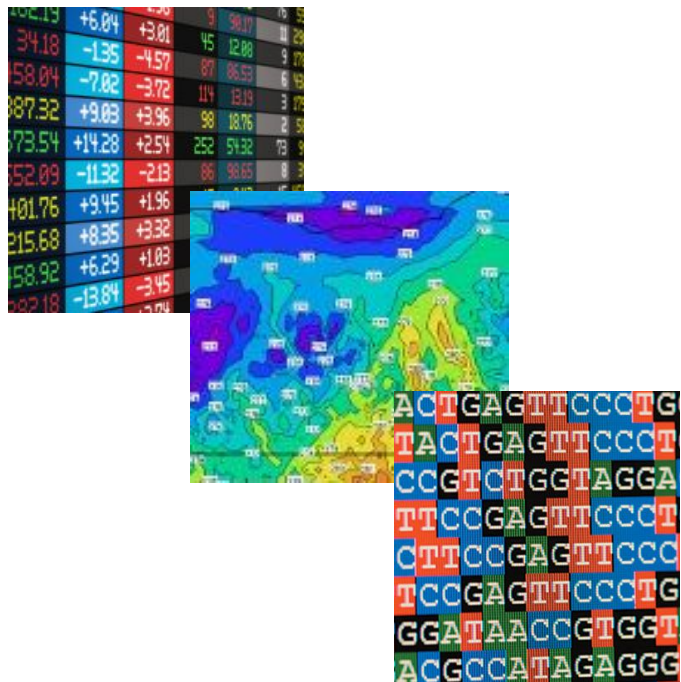
Recognition & Action

Identification, Classification,

Defect and novelty detection,

Target tracking, template matching





Stimuli

Documents, tweets, packet uplinks,
Scientific, financial, marketing data

Learning

Dictionaries, encrypted lookups

Recognition & Action

Identification, classification,
clustering, drift detection,
trending and prediction



Text and data



Signal and Audio



Image and Video



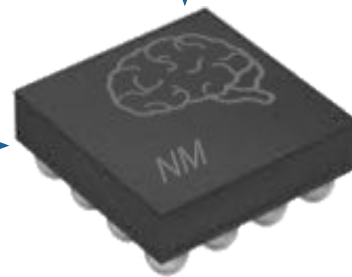
Feature
Extraction



Teach



Save/Restore
Knowledge



Recognize and react

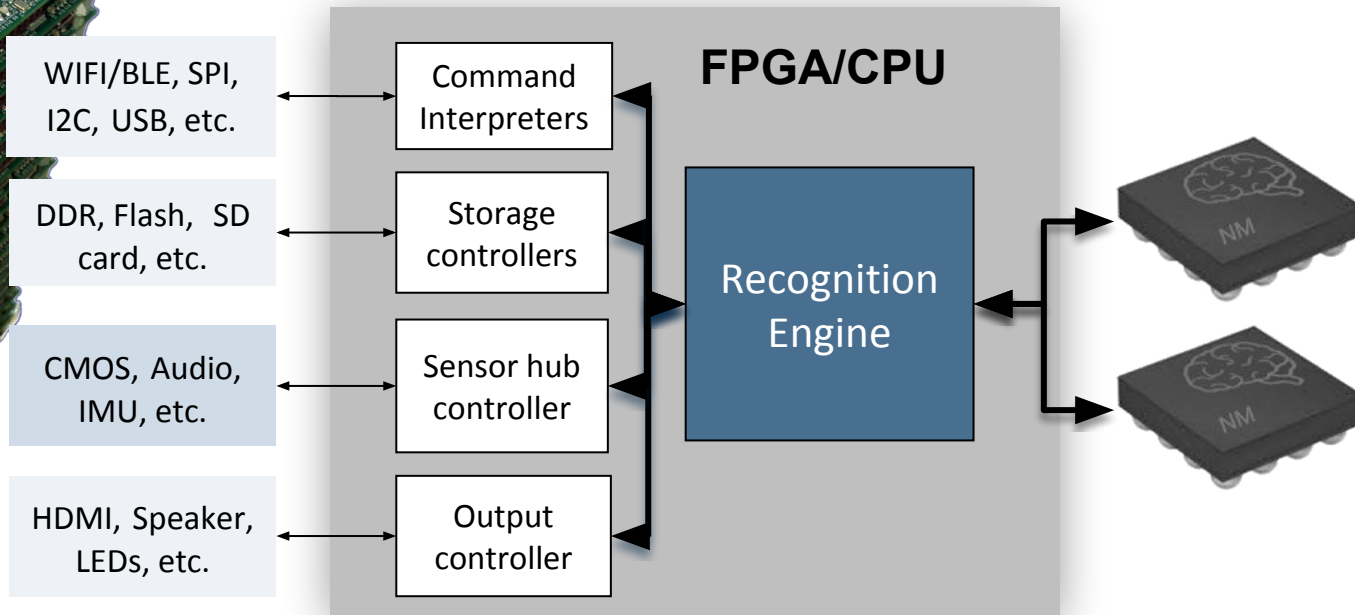


General Vision

NeuroMem AI chip

A simple interface

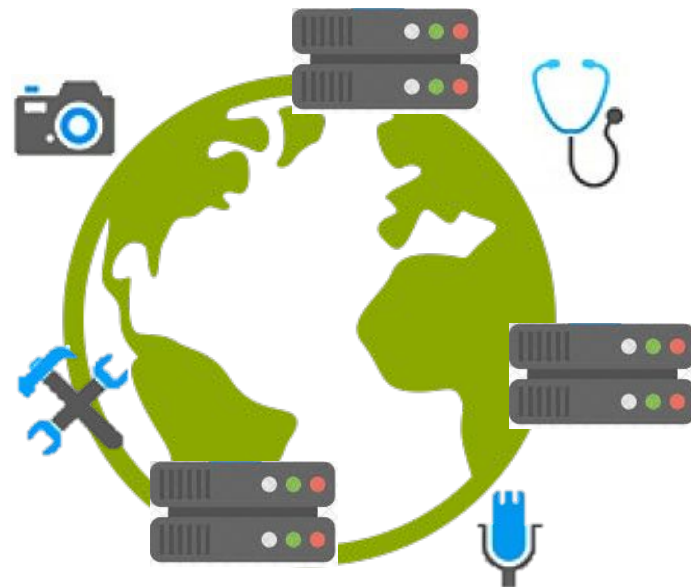
From high-performance computing To miniature trainable sensors



Proliferation of NeuroMem_Smart sensors
with autonomous actuation and selective
transmission and storage

Commoditization of
NeuroMem_Smart secure IT

NeuroMem_Smart servers and data centers
with distributed low-power search engines



Thank you

For more information, please visit us at www.general-vision.com

Or contact us at info@general-vision.com



General Vision

NeuroMem AI chip

The end