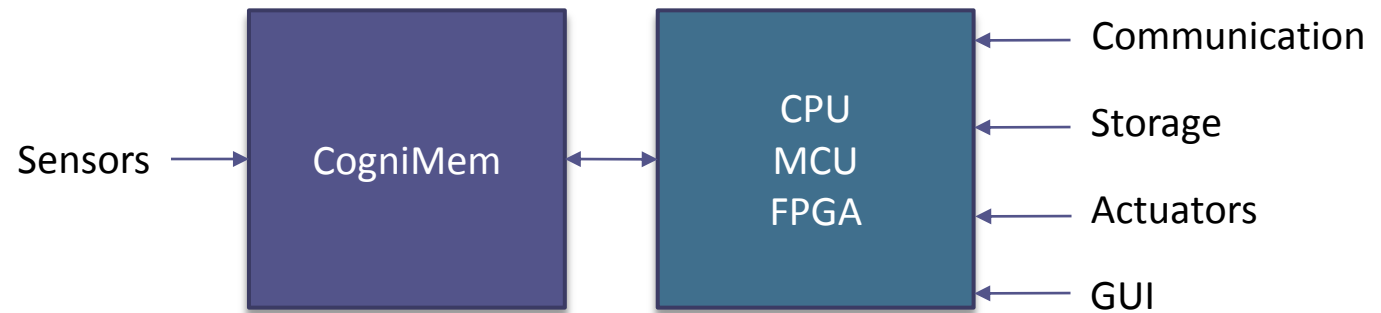
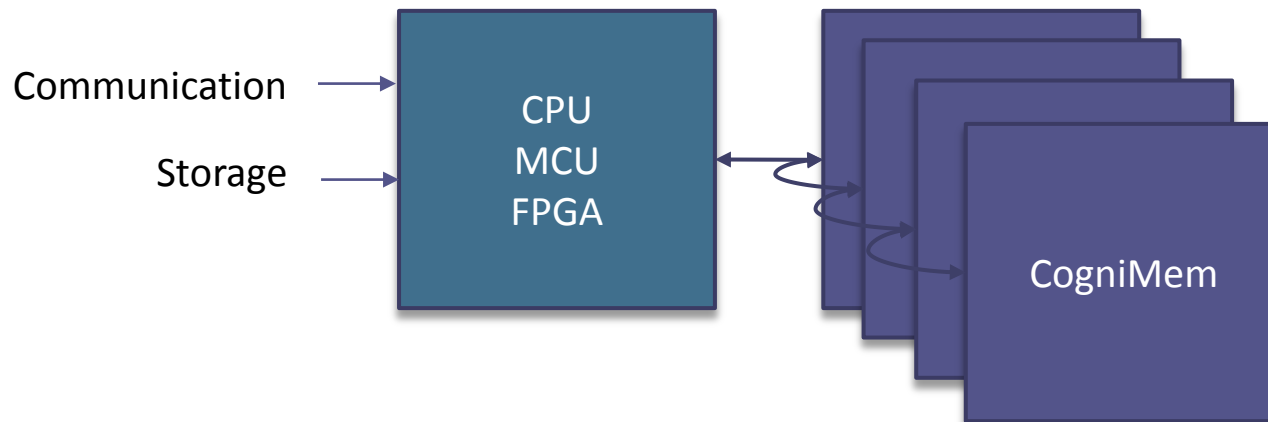


CM1K, a pattern recognition chip with endless possibilities

For Sensors

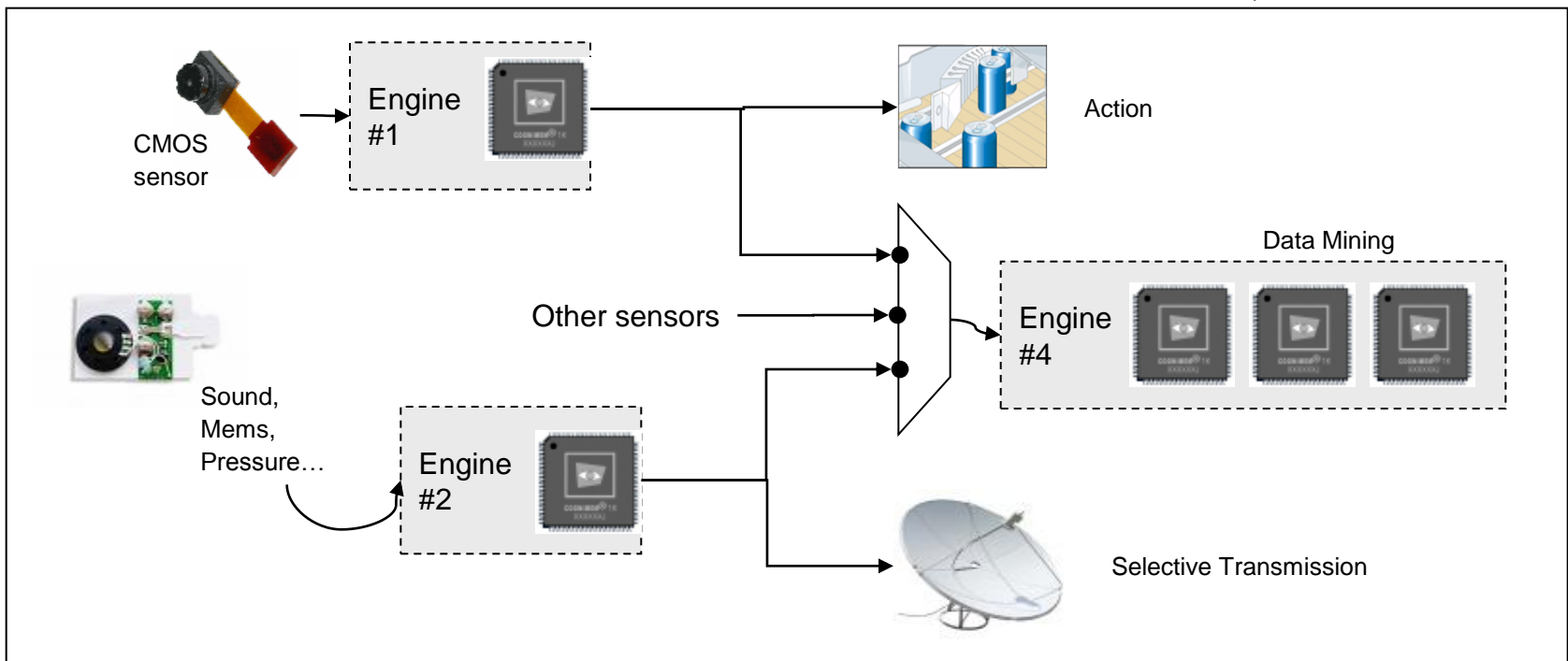


For High Performance Computing



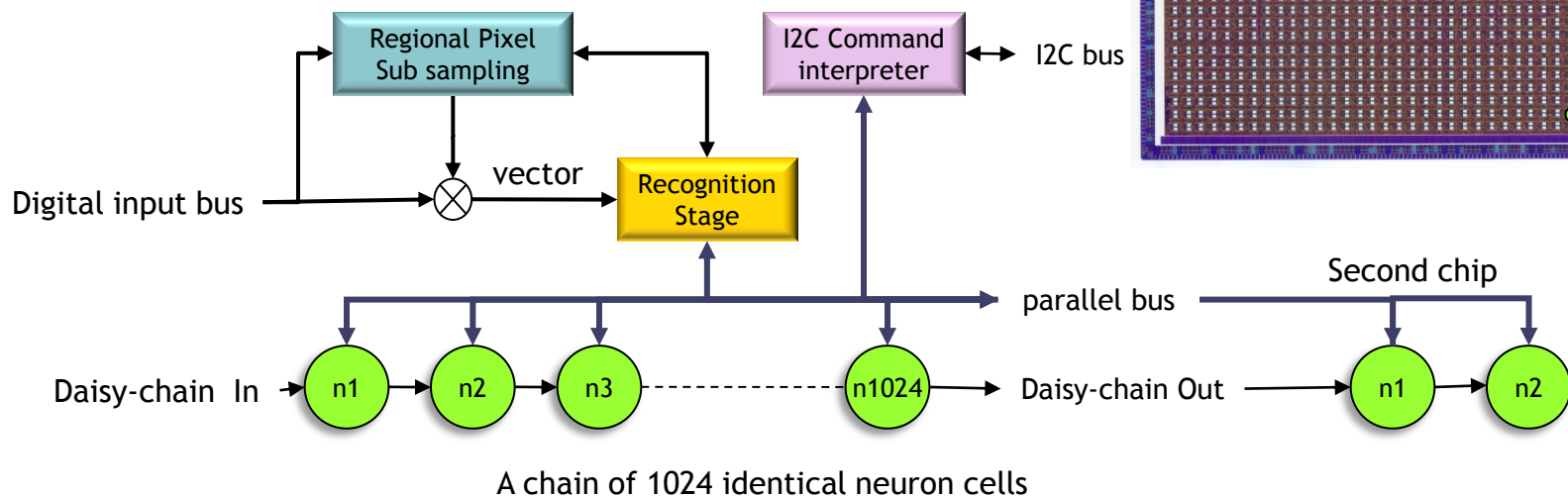
Neurons on a chip directly connected to a sensor output for real-time recognition and filtering at low-cost and low power

Thousands of neurons assembled in parallel for high-speed data mining at low-power consumption



CogniMem Inside

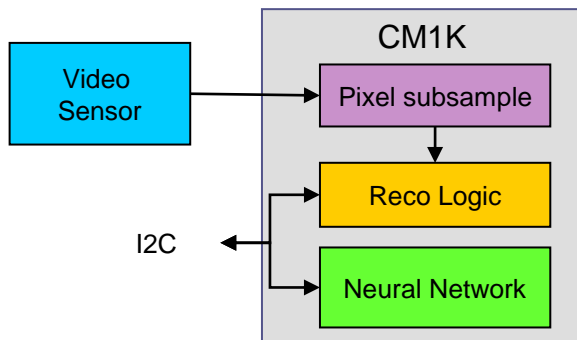
A unique architecture!



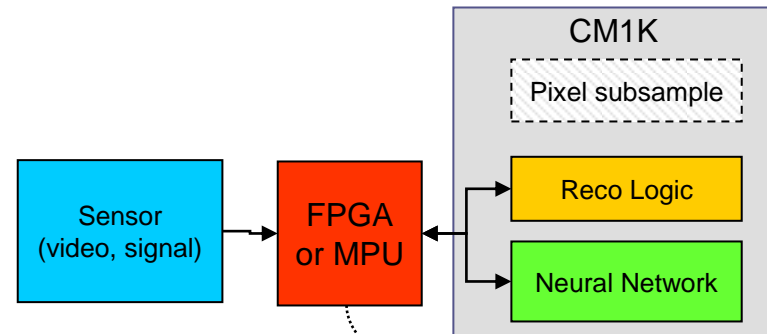
CM1K for Sensing

Small foot-print, low power, low connectivity

2-Chips Solution



3-Chips Solution

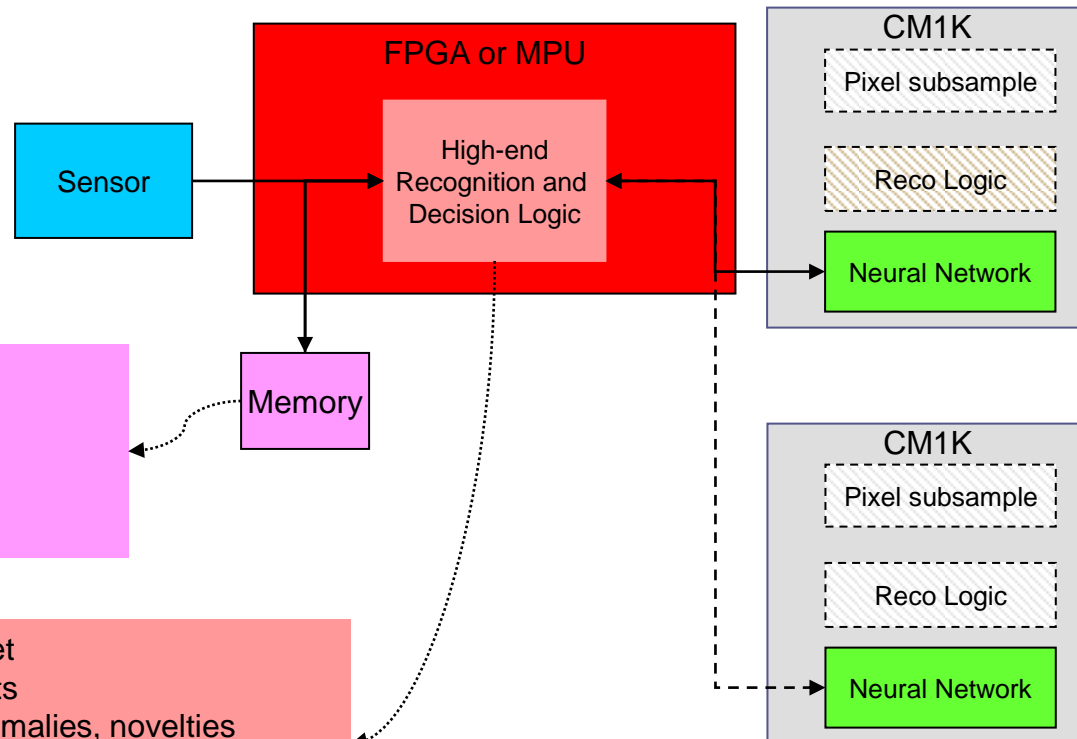


FPGA or MPU = controller

- Feature extraction (s)
- What to look for
- Where, when
- Data formatting and communication

Small foot-print, low power,
trainable, adaptive, expandable

4+ Chips Solution



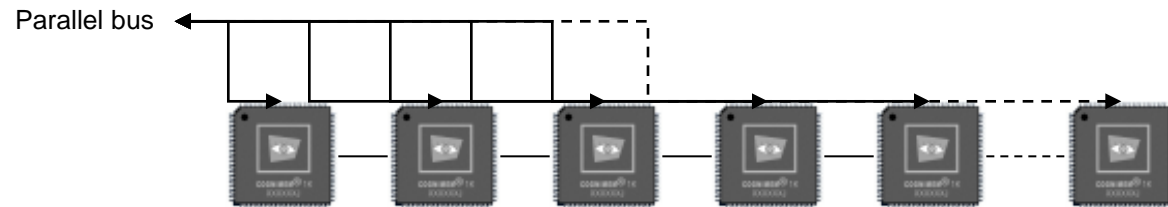
- Multiple experts can recognize the same data source
- Multiple regions can be monitored
- Spatial, temporal integration, etc
- Multiple data source can be stored

- Track target
- Find objects
- Detect anomalies, novelties
- Build hypothesis
- Sensor fusion

CM1K for Data Mining

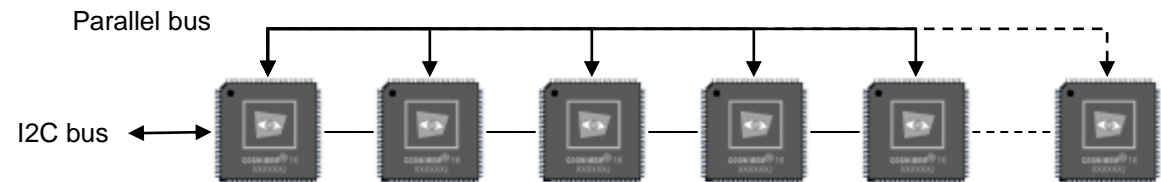
Example #1:

Massively parallel architecture
High-speed comm. with parallel bus (28 lines)



Example #2

Massively parallel architecture
Low connectivity with I2C bus (2 lines)



Example #3

Massively parallel architecture
1st CM1K receives the digital input (11 lines)
And runs its reco-logic

