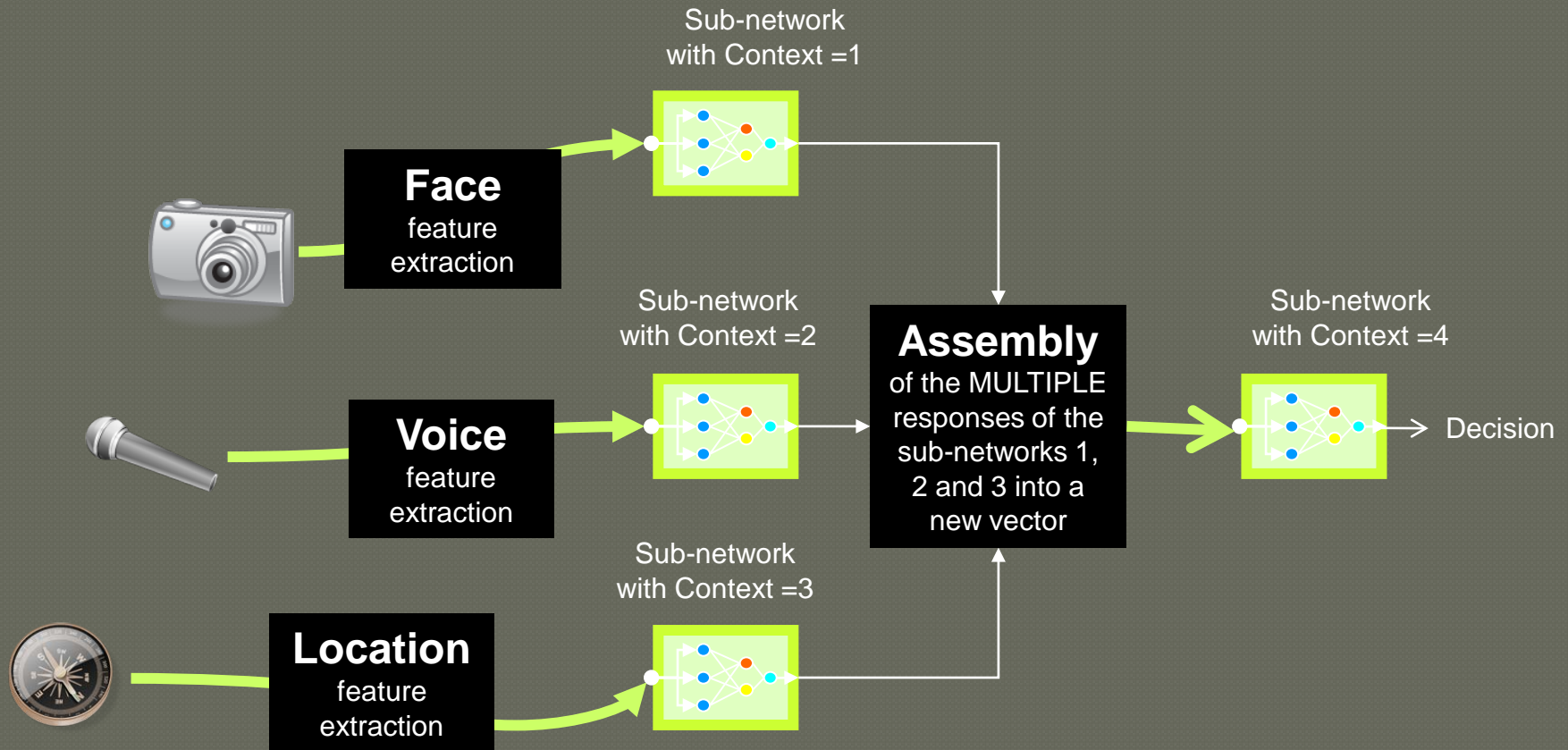


Training Multiple Experts with CogniMem

- The neurons of a same context can be considered as an expert trained to recognize a specific type of patterns or signatures
- Classifying objects through multiple contexts helps make more robust decision
- A neuron is assigned to a context at the time it gets committed. No need to partition the network per context ahead of time.
- CogniMem supports up to 127 different contexts

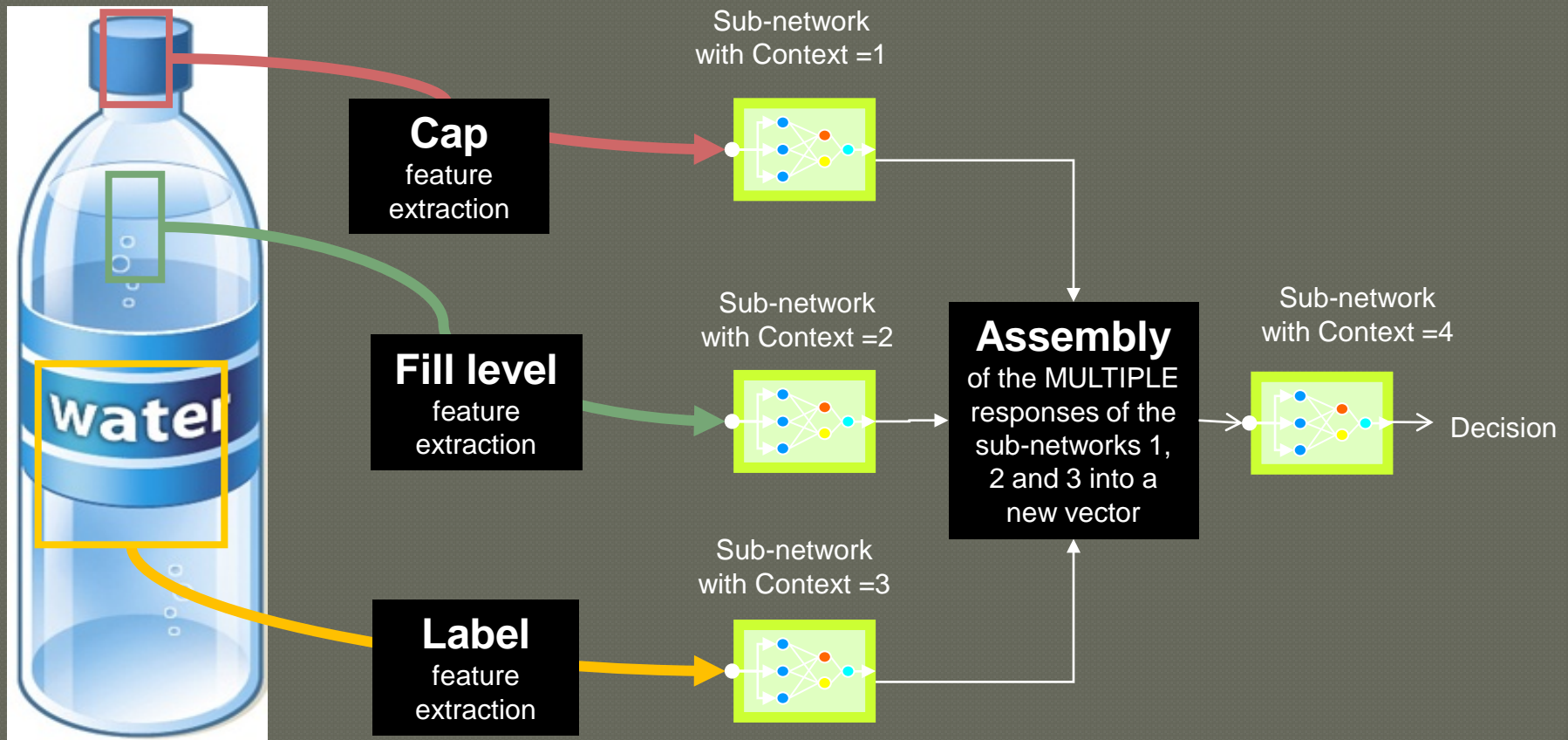
Example #1

1 data source = 1 context



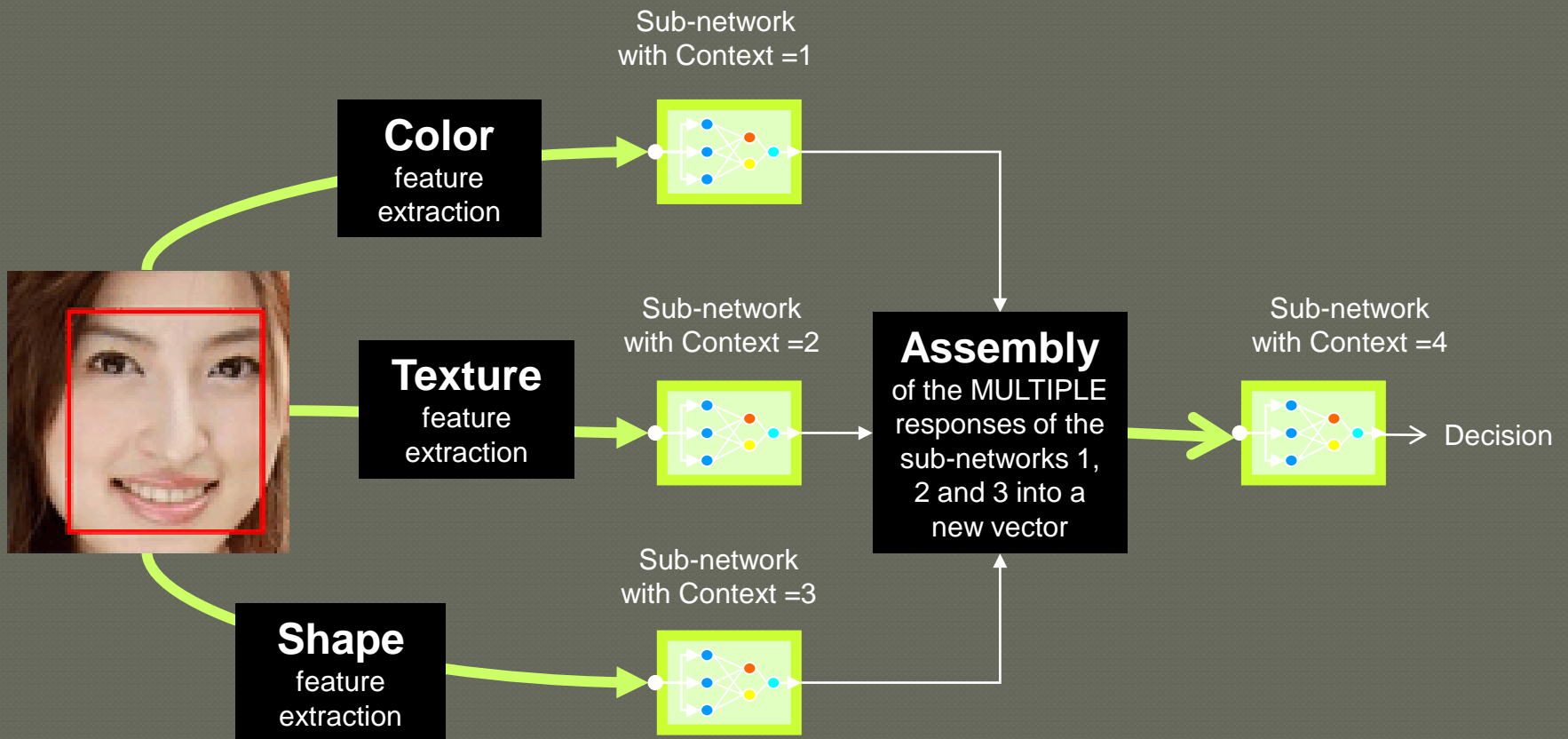
Example #2

1 region of interest = 1 context



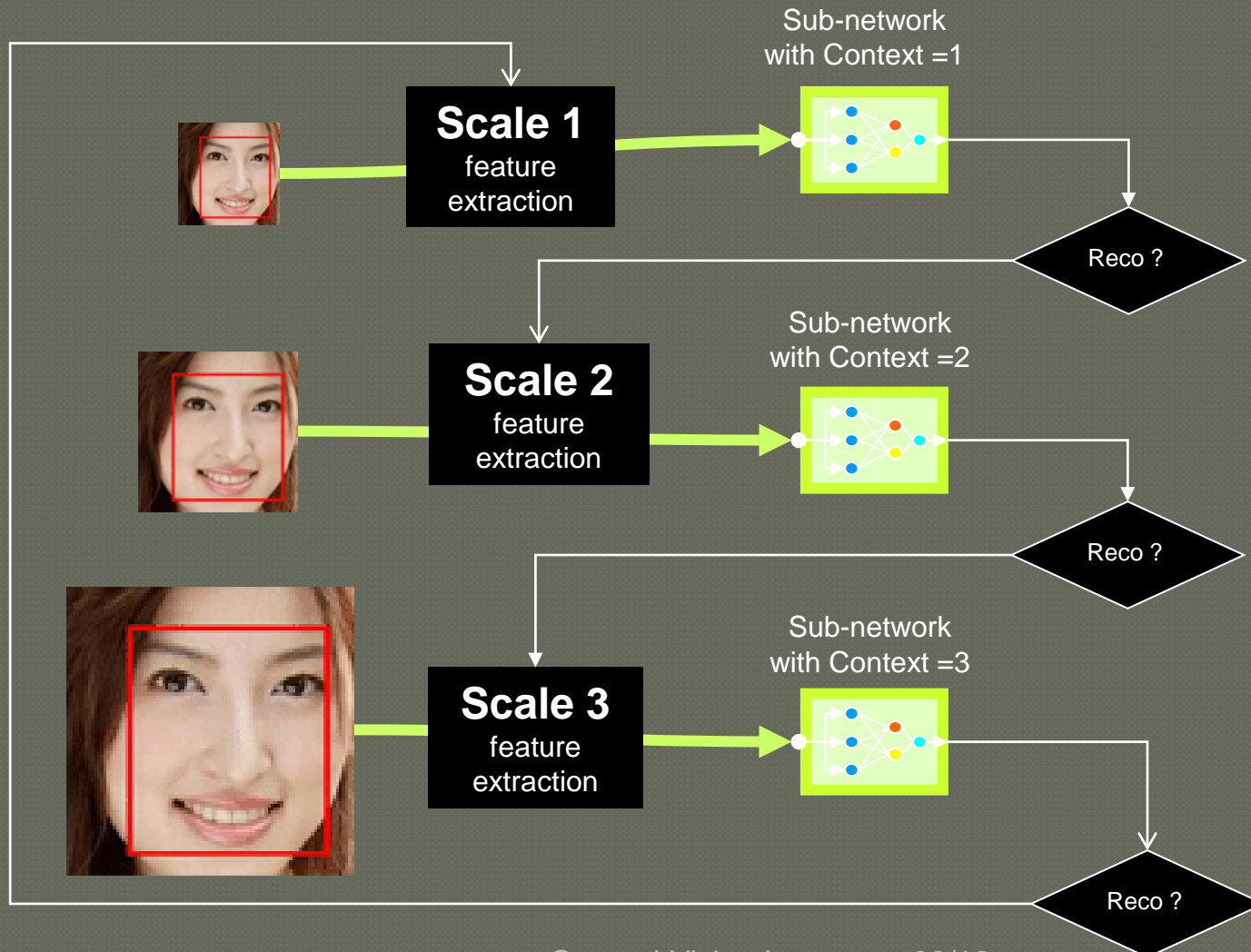
Example #3

1 feature = 1 context



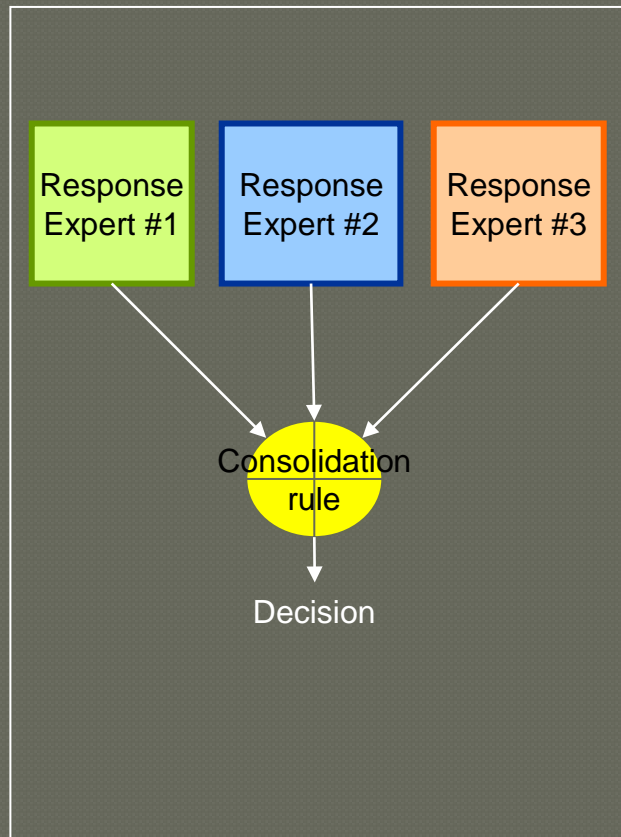
Example #4

1 scale = 1 context

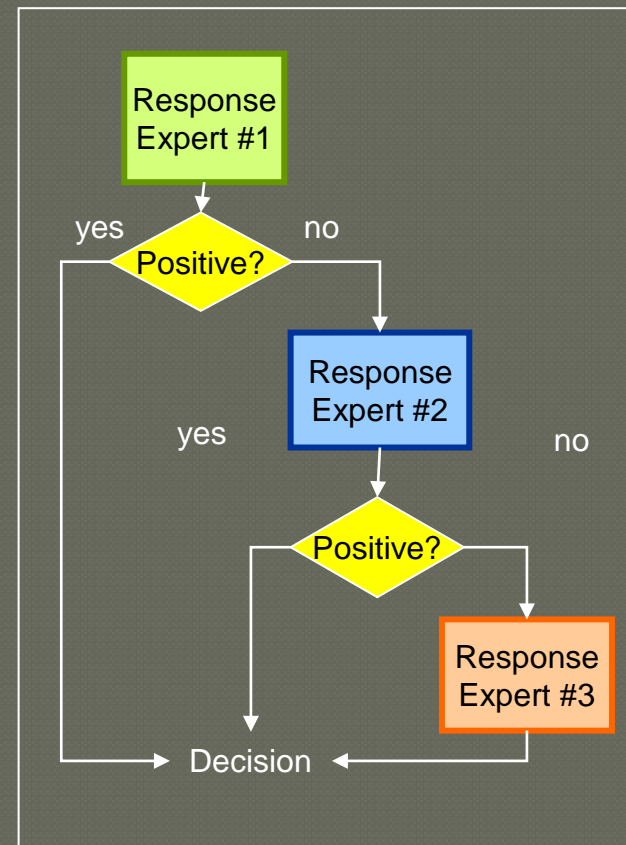


Consolidation between contexts

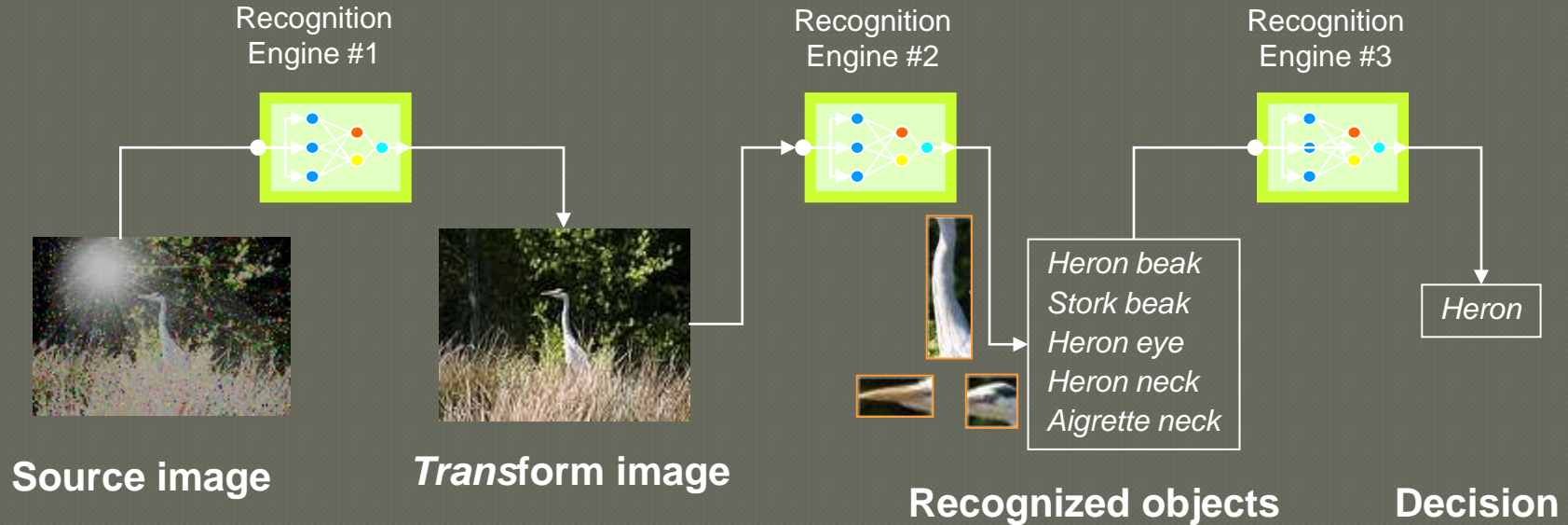
Combinatorial



Hierarchical



Plurality of contexts for robust decision



Engine for primitive block conditioning
Trained for

- Adaptive gain control
- Noise removal,
- Edge extraction
- Compression, more

Engine for object recognition
Trained for

- Object identification
- Anomaly detection
- Target location, more

Engine for decision making
Trained for

- Data mining
- Clustering
- Contextual localization