



An ETIC Portfolio Company

ETIC Case Study

- Expert System's flagship product is **Cogito**, a semantic engine
- Introduced to the ETIC by way of extended network
- Mature, commercially successful technology
 - Widely deployed in Europe, recent entry into the US market
 - Relevance to National Security Community undetermined
- Demonstrations and test drives revealed “hidden” capabilities
 - As is: Checked all of the ETIC boxes – next-generation toolset
 - To be: Powerful tool for leveraging unstructured data

A group of KGH/Crafty Bastard mission domain and tradecraft experts collectively agreed that **Cogito** featured “game changing” potential

THE ALL-SOURCE PROCESS

THE DATA INPUT

Sensors - Human and Technical

Agents
Interrogations
Audio
Literature

Intercepts
Photography
Video
Measurements

- Facts
- Observations
- Communications
- Documents
- Depictions
- Signatures

THE INTELLECTUAL INPUT

Expertise - Individuals and Groups

Experience
Education
Language
Culture

Intuition
Training
Tradecraft

- Hypotheses
- Beliefs
- Biases
- Insight
- Context
- Logic

INTERACTION

EVIDENCE

+

ASSUMPTIONS

=

INFERENCE

Descriptive
Evaluative
Interpretive

JUDGMENTS

All Relevant "Knowns"

ALL-SOURCE CONTEXT

All Relevant "Unknowns"

What Does It Mean?... How/Why Important?... What's Next?

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PRODUCTS

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Cogito

Applies semantic analysis – at speed and any scale – with NLU to:

- Convey true meaning by precisely placing content into context
- Speed comprehension and extract value using *inferential reasoning*
- Mitigate cognitive bias by applying multiple lenses/worldviews
- Identify and track relationships/associations over time and space
- Encourage horizontal and vertical explorations of the data
- Enable the act of discovery, generation of new hypotheses
- Provide substantively-based triage and prioritization

Cogito replicates and accelerates the analyst's cognitive approach to transforming data and information into knowledge – and foreknowledge

ETIC Case Study

- ETIC stewardship of **Cogito** has been solidly win-win
- Continuous mission-specific innovation and breakthroughs
 - Development of an end-to-end user platform
 - Semantic extraction of temporal references
 - Propensity models – emotions + expertise + changes
 - AI and ML to auto-generate taxonomies and knowledge bases
- Successful deployments with mission-specific customization
- Undergoing evaluation within key mission domains

KGH and its experts are convinced that **Cogito** is an important component of solutions to the National Security Community's big data challenge