

Welcome to this week's presentation and conversation
hosted by the
Canadian Association for the Club of Rome,
a Club dedicated to intelligent debate and action on global issues.

Complex Global Problem Management using Foresight and Synthesis.

Our speaker today is John Schmidt, who has BSc and MSc degrees in Psychology from the U Alberta & has publications in several areas. He was founder of CANSYNTH, practices & promotes the discipline of Synthesis in areas including strategic intelligence, foresight, risk, & counter-terrorist resourcing. He worked at Canada's FINTRAC (2000-15), mostly in strategic intelligence. He was seconded to Canada's Integrated Threat (now Terrorism) Assessment Centre (2006-11). He led the development of the Strategic Analysis Course for the Egmont Group of Financial Intelligence Units (2013-15).

Our civilization faces several mutually reinforcing existential threats arising from myriad compounding factors, many of our own making. It is a volatile, uncertain, complex, ambiguous, & dangerous world. Most of those who do try to address these circumstances do so from specialist perspectives, relying on expert analytic tools, historical datasets, & predictions based on current apparent trajectories to try to produce effective solutions. This discussion will cover two interweaving elements necessary for success: foresight & synthesis.

The presentation will be followed by a conversation, questions, and observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, and Inuit in Canada) and their descendants.



Website: canadiancor.com
Twitter: [@cacor1968](https://twitter.com/cacor1968)
YouTube: [Canadian Association for the Club of Rome](https://www.youtube.com/channel/UC...)

Two interweaving threads:

- **Foresight**
- **Synthesis**

**“The past and present are known,
... but the future is not.”**

True?

Where are we now?

Julian Cribb's ten great challenges/risks:

- **Extinction** and eco-collapse
- **Overheating**
- **Global poisoning**
- **Nuclear holocaust**
- **Resource scarcity**
- **Pandemics**
- **Overpopulation**
- **Famine and hunger**
- **Ultratechnologies**
- **Misinformation**

‘Climate change is costing trillions — and low-income countries are paying the price’

- Nature News, 7 November 2022

... but also many other places, some very close to home, and increasing

Water, food and other resource insecurities are present in many parts of the world and spreading

Global political, social, economic, wellbeing and health disparities and disintegration

So-called **‘minor conflicts’** erupting (more frequently?)

Potential for **war between major powers**, which would involve or directly affect all of us – Outgoing head of ASIS, Paul Symon, 4 November 2022

Increasing **mis-/disinformation** heavily influencing large parts of our populations

Generally, **competing and even opposing interests and agendas** blocking real solutions

There's no existing Plan!!

Final Report of the March 2021 Delivering the Human Future Conference

Our world is:

Volatile

Uncertain

Complex

Ambiguous

Our world is:

WUCA

Our world is:

Volatile

Uncertain

Complex

Ambiguous

Dangerous

Our world is:

VUCAD

Solutions?

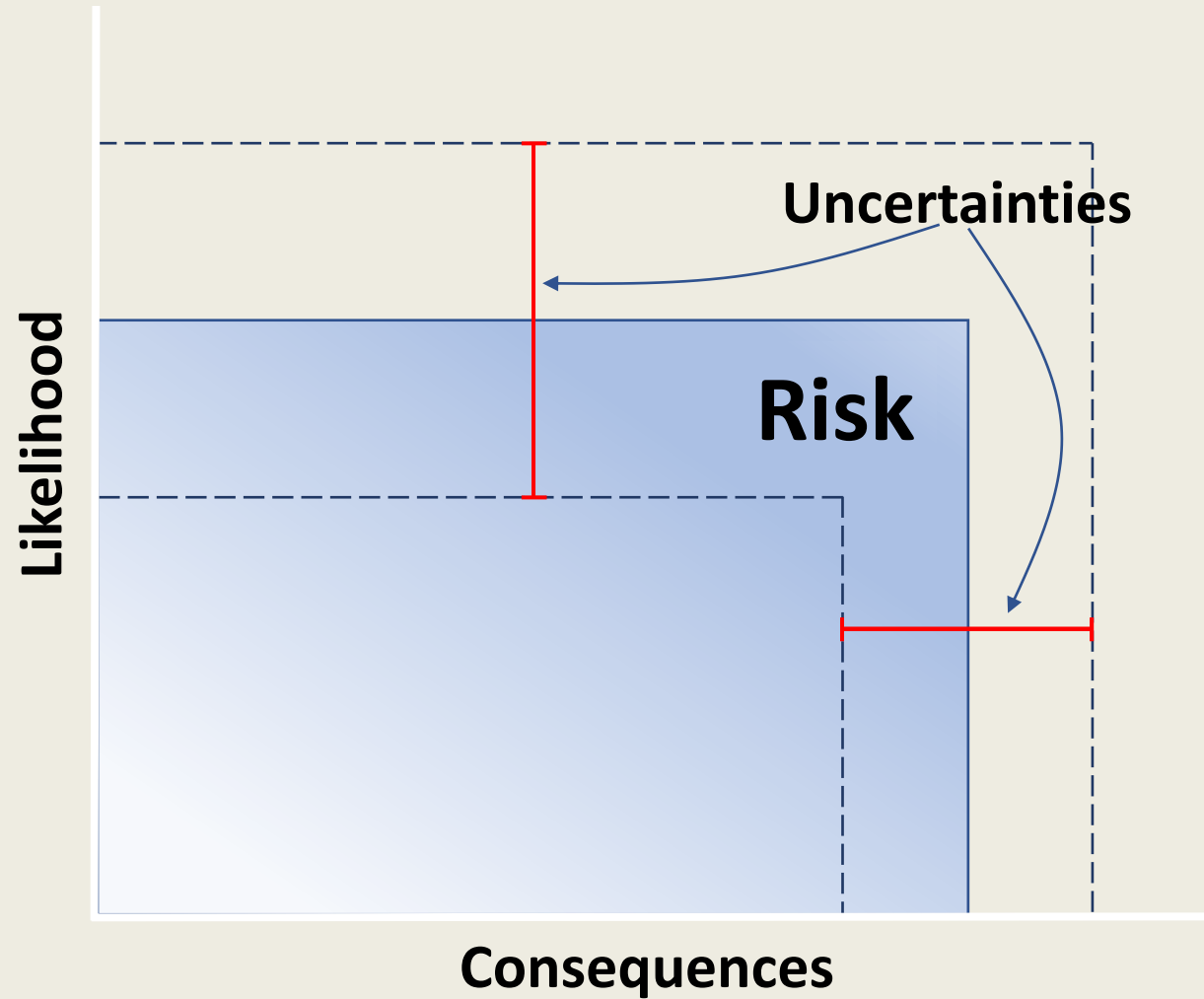
Risk & Uncertainty

$$\mathbf{R}_{\text{isk}} = f(\mathbf{L}_{\text{ikelihood}}, \mathbf{C}_{\text{onsequences}}, \mathbf{U}_{\text{ncertainty}})$$

Risk & Uncertainty

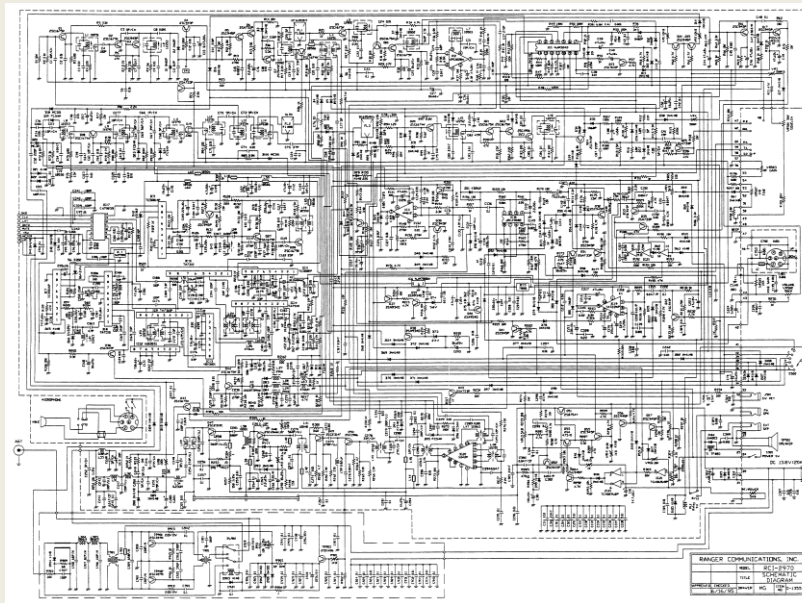
- Uncertainty - what we don't know - affects the actual risk and may be its most significant factor.
- The objective is to identify as much of what we don't know as possible.
- Uncertainty can occasionally be calculated, but more often is described in less specific terms.
- Some uncertainties can be reduced or eliminated with further information.
- Others will need to be accepted as “gaps”.

Risk & Uncertainty

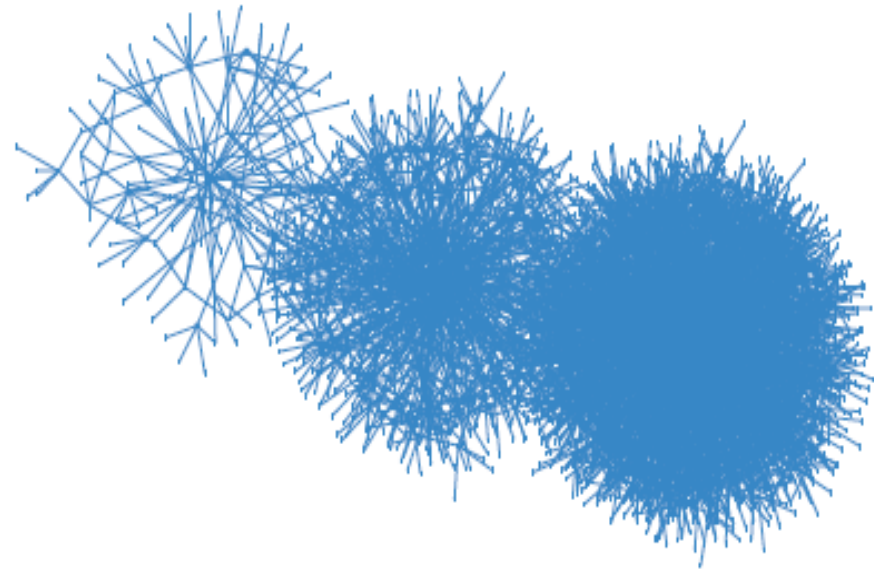


Risk, Uncertainty & Complexity

“Complicated” Problems



“Complex” or “Wicked” Problems



Descriptive and Predictive Analytics

Scientific Enquiry

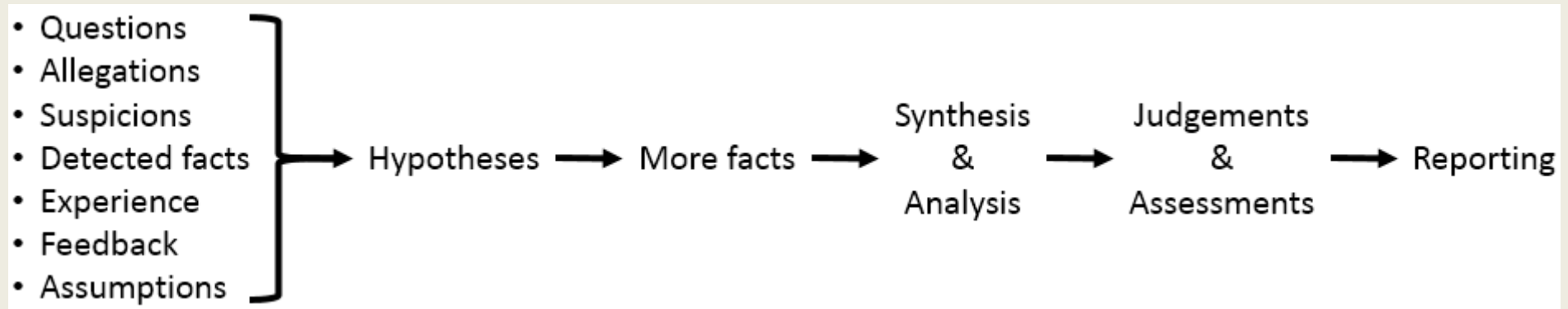
Intelligence

Intelligence

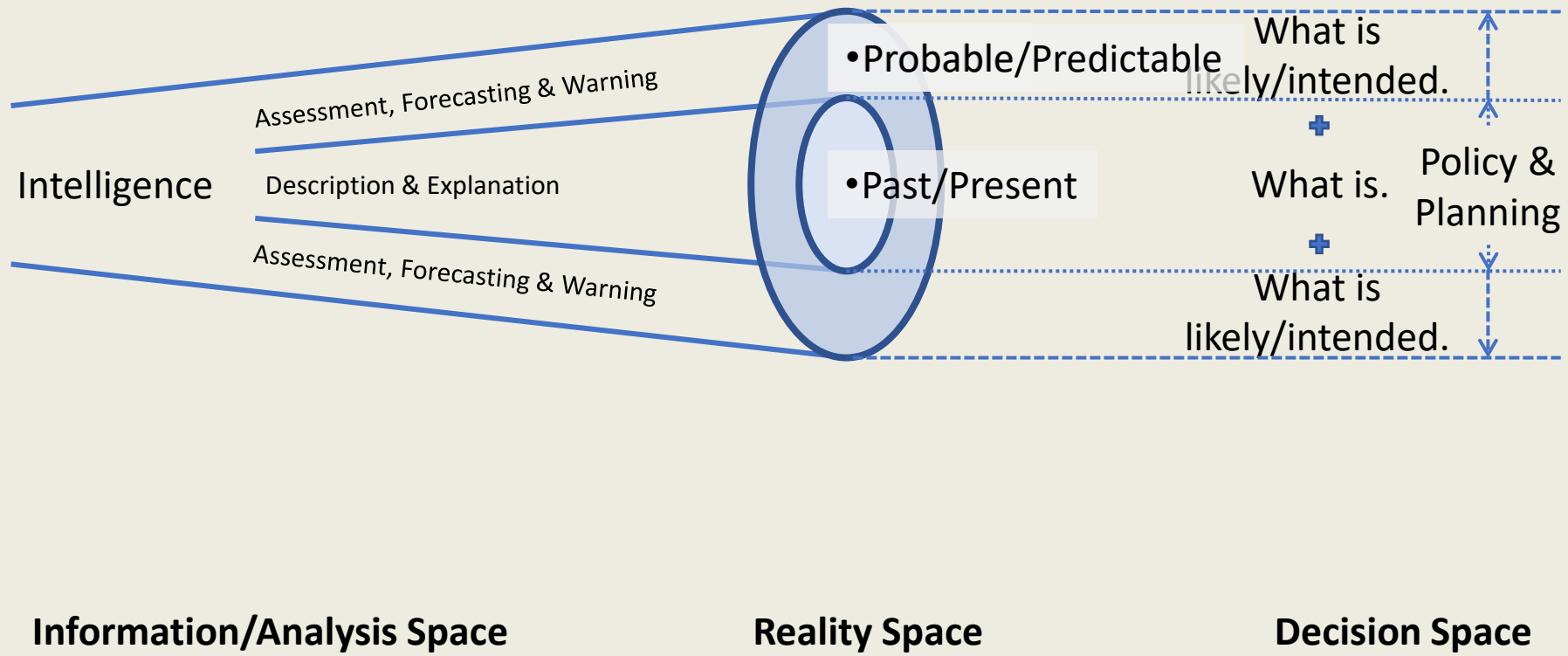
- uses effective strategies, techniques and technologies,
- to analyse data, and other quantitative and qualitative facts,
- in the context of identified and managed assumptions and biases,
- to produce specific answers to specific tactical, operational and strategic questions,
- to inform the policy, planning and operational decisions of specific audiences.

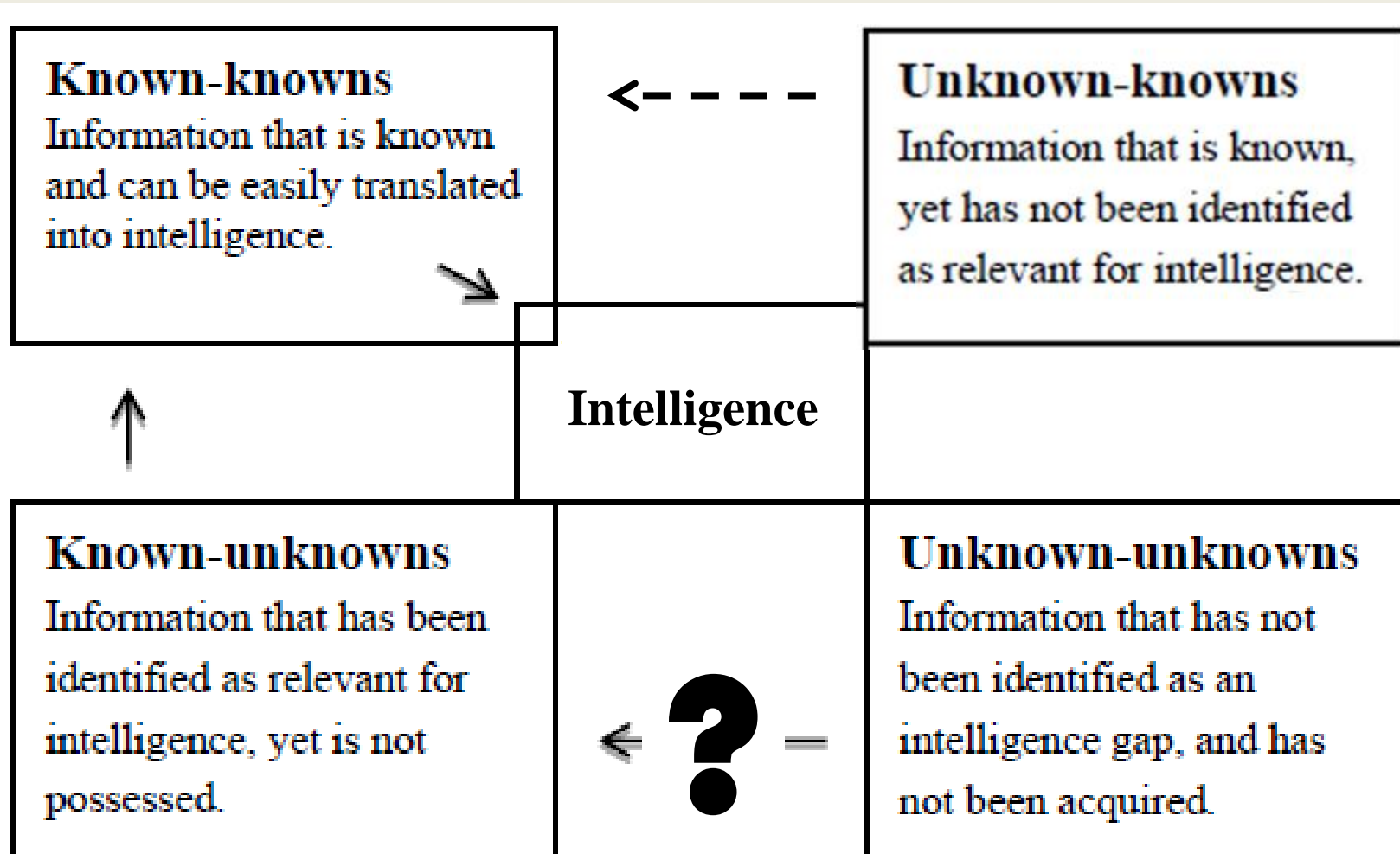
Intelligence

Basic intelligence process, as a linear sequence:



Policy, Planning & Intelligence





Flow of information into intelligence.

Intelligence Challenges

US NIC, Global Trends, 2014

*“We are at a **critical juncture in human history**, which could lead to widely contrasting futures. It is our contention that **the future is not set in stone**, but is malleable, the result of interplay among megatrends, game-changers and, above all, human agency.”*

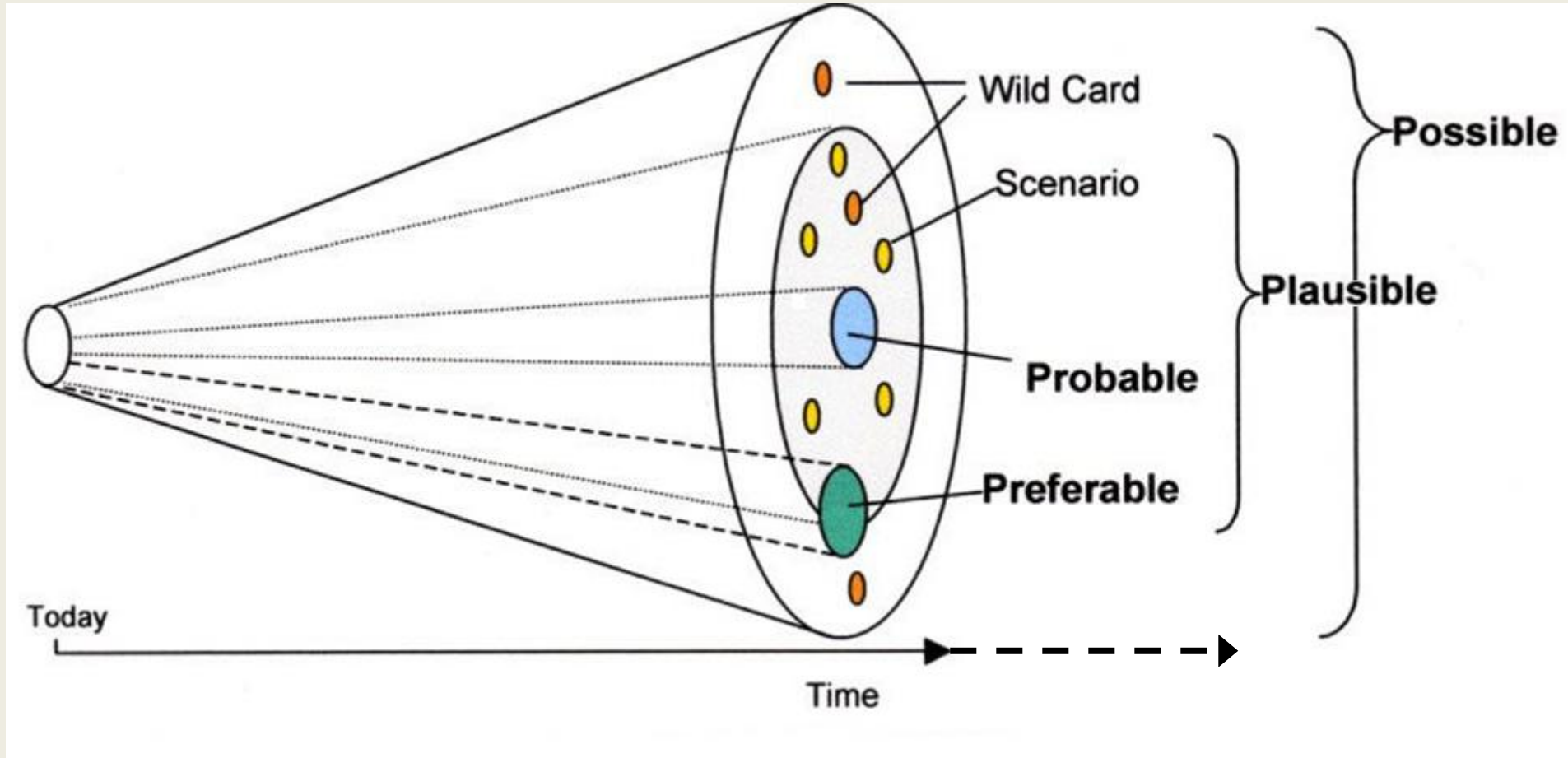
Intelligence Challenges

- Intelligence functions
 - depend on the presence of sufficient testable facts, and
 - may not recognize the importance of previously unseen circumstances
- If the decision-making audience is not familiar with the nature of a potential threat (or opportunity), it is less likely to be receptive to related intelligence.



JUST ONE LITTLE
PROBLEM TO DEAL
WITH, THEN.

Futures Cone



Foresight

...the **disciplined analysis of alternative futures;**

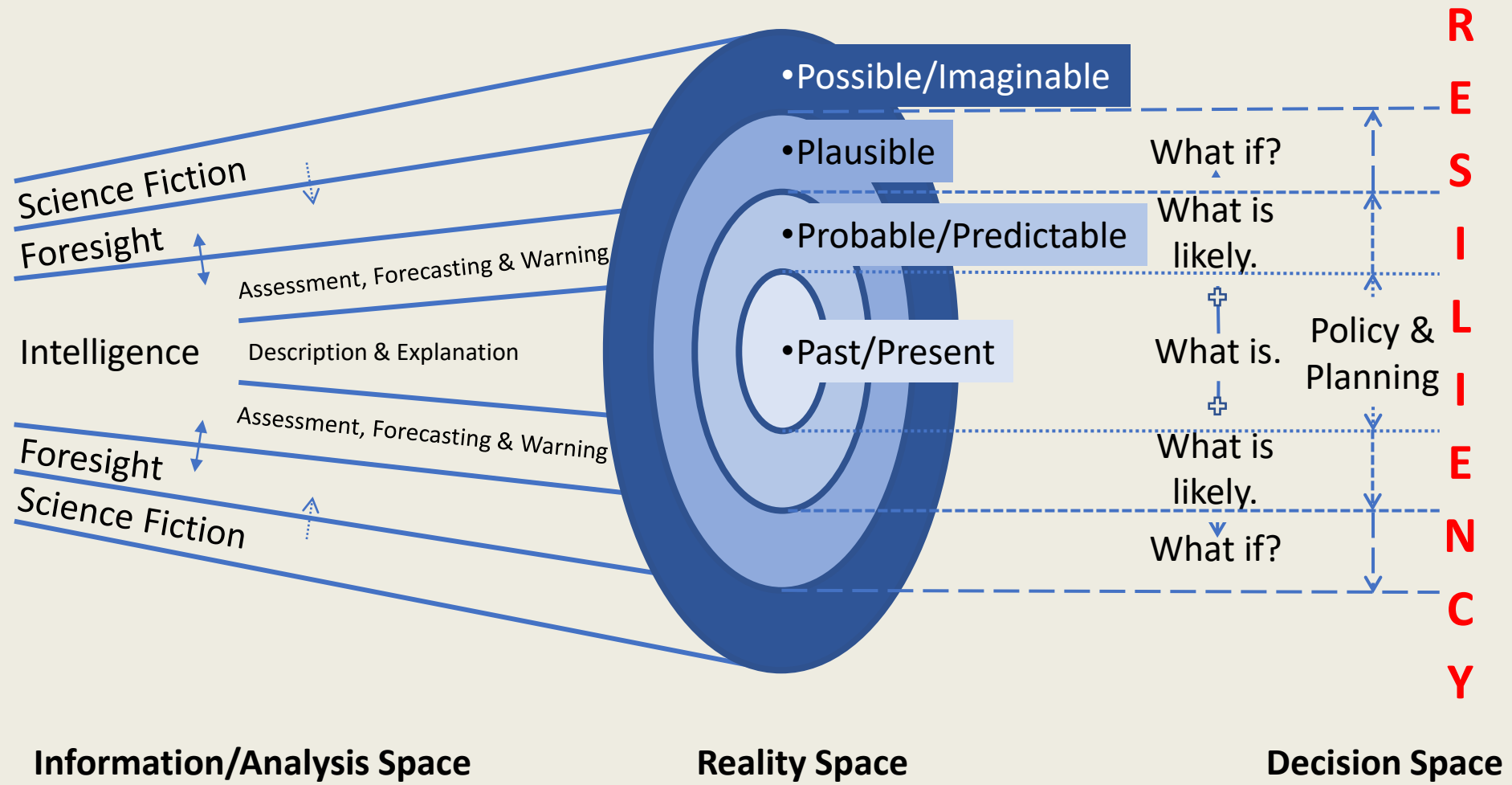
- **not prediction,**
- **not vision,**
- **not intelligence,**

...but a **distinct process** that addresses the **complex or even “wicked” context** in monitoring prospective oncoming events, analyzing potential implications, simulating alternative courses of action, asking unasked questions, and issuing timely warning to **avert or deal with a threat or seize an opportunity.**

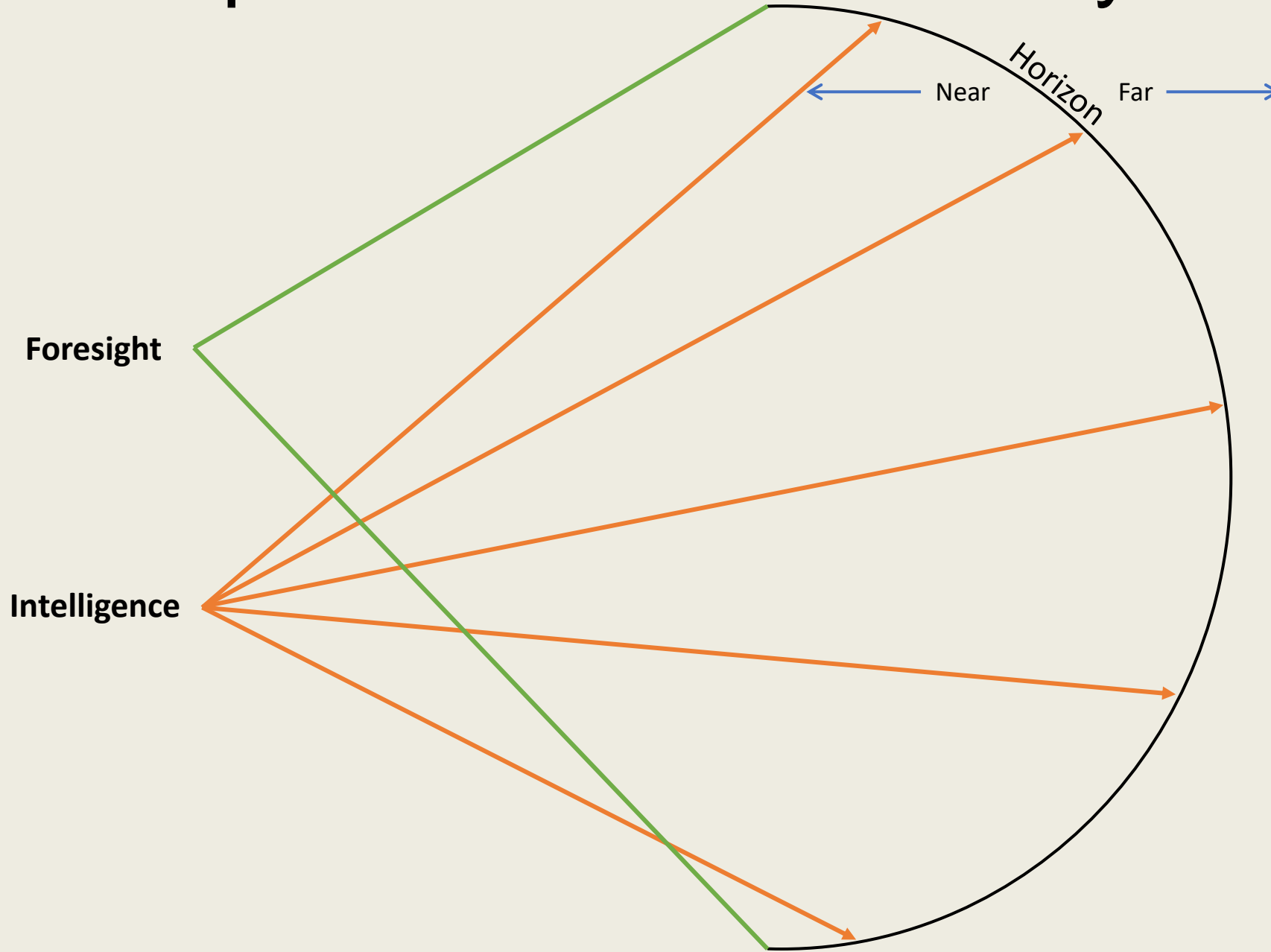
Governments and their agencies, and private sector organisations must see beyond what can be predicted and therefore need a foresight function to help them:

- understand and challenge their own assumptions,
- anticipate plausible futures, including the expected and unexpected outcomes of current decisions,
- observe key indicators,
- offset negative drivers or ameliorate their effects,
- be sensitive to weak signals and the emergence of disruptive wild cards, as well as to more established trends,
- pre-decide contingent strategies,
- respond quickly and adapt to change processes and events,
- perform well in fulfilling their mandates and meeting their goals.

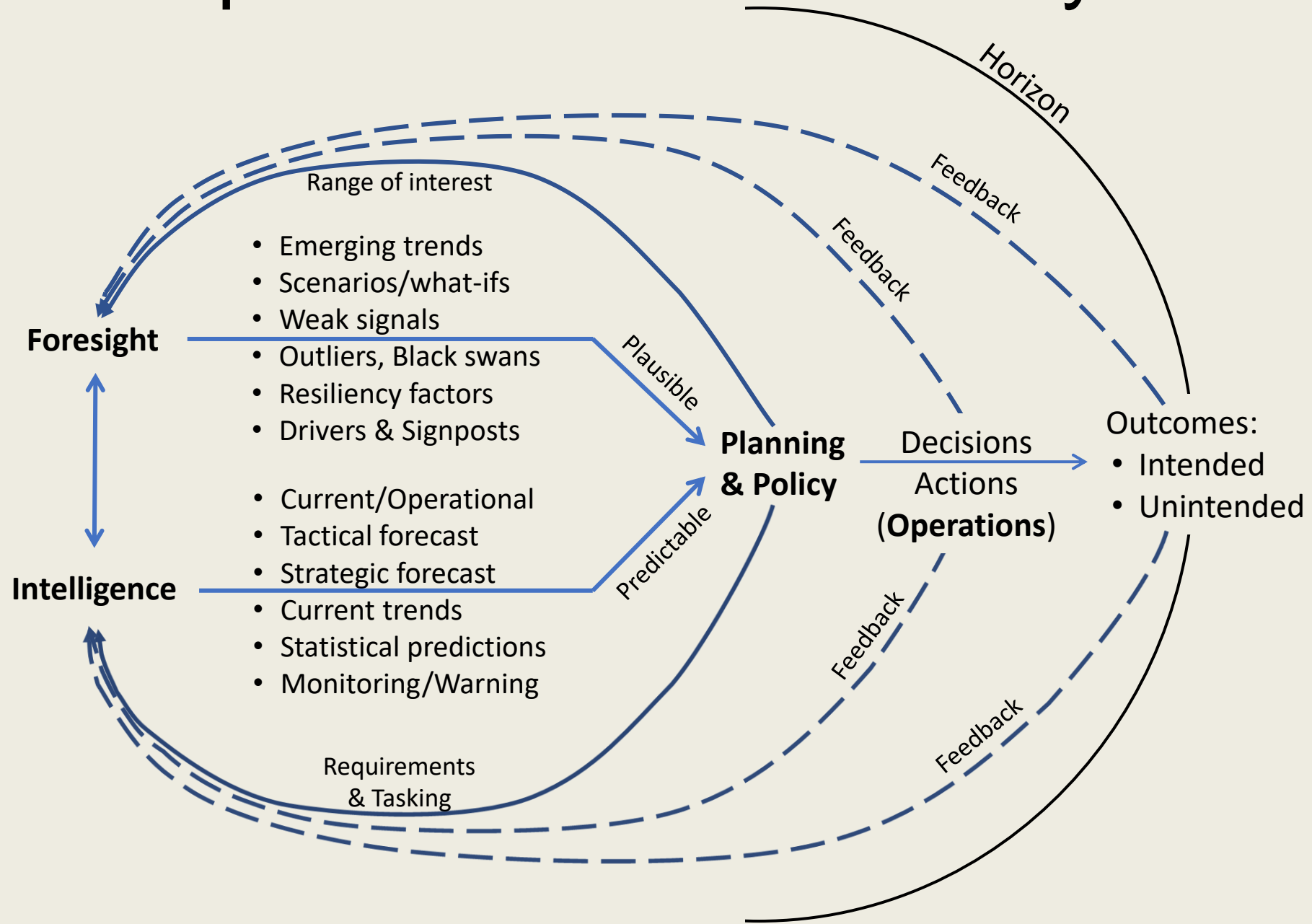
Policy, Planning, Intelligence & Foresight



A Complete and Interactive System



A Complete and Interactive System



interdisciplinarity management science integrated assessment
adaptive management implementation science multidisciplinarity
complexity science modelling and simulation policy science impact evaluation
system dynamics sustainability science systems thinking
public engagement action research ecological economics decision sciences
team science theory of change project management post-normal science
systemic intervention transdisciplinarity operations research
mode 2 coalition theory cybernetics Integration and Implementation Sciences (I2S)

Synthesis

Analysis

Some dictionary definitions:

- a detailed examination of the elements or structure of something
- a detailed examination of anything complex in order to understand its nature or to determine its essential features
- the separating of any material or abstract entity into its constituent elements

Analysis in Intelligence

Intelligence Analysis is the process of taking known information about situations and entities of strategic, operational, or tactical importance, characterizing the known, and, with appropriate statements of probability, the future actions in those situations and by those entities.

Synthesis

Dictionary definitions:

1. *a* : the composition or combination of parts or elements so as to form a whole

b : the production of a substance by the union of chemical elements, groups, or simpler compounds or by the degradation of a complex compound

c : the combining of often diverse conceptions into a coherent whole; *also* : the complex so formed

Synthesis

2.*a* :deductive reasoning

b :the dialectic combination of thesis and antithesis into a higher stage of truth

Synthesis is not summarizing!

... not simply piling-on or pooling!

Synthesis is the process
of combining elements,
including facts and frameworks
to form

something new.

Everyone does synthesis

- In our everyday lives
- Visual perception organization in the brain
- Left-brain, right-brain integration
- “I am here”
- Buying a car
- Interacting with other people
- In our work

Synthesis as a Discipline

- More than methodologies, tools and techniques
- Interdisciplinary integration
- Must be able to:
 - understand many types of quantitative and qualitative analysis methodologies and their results
 - speak and listen to specialists in their languages and synthesize what they provide into the language of decision-makers

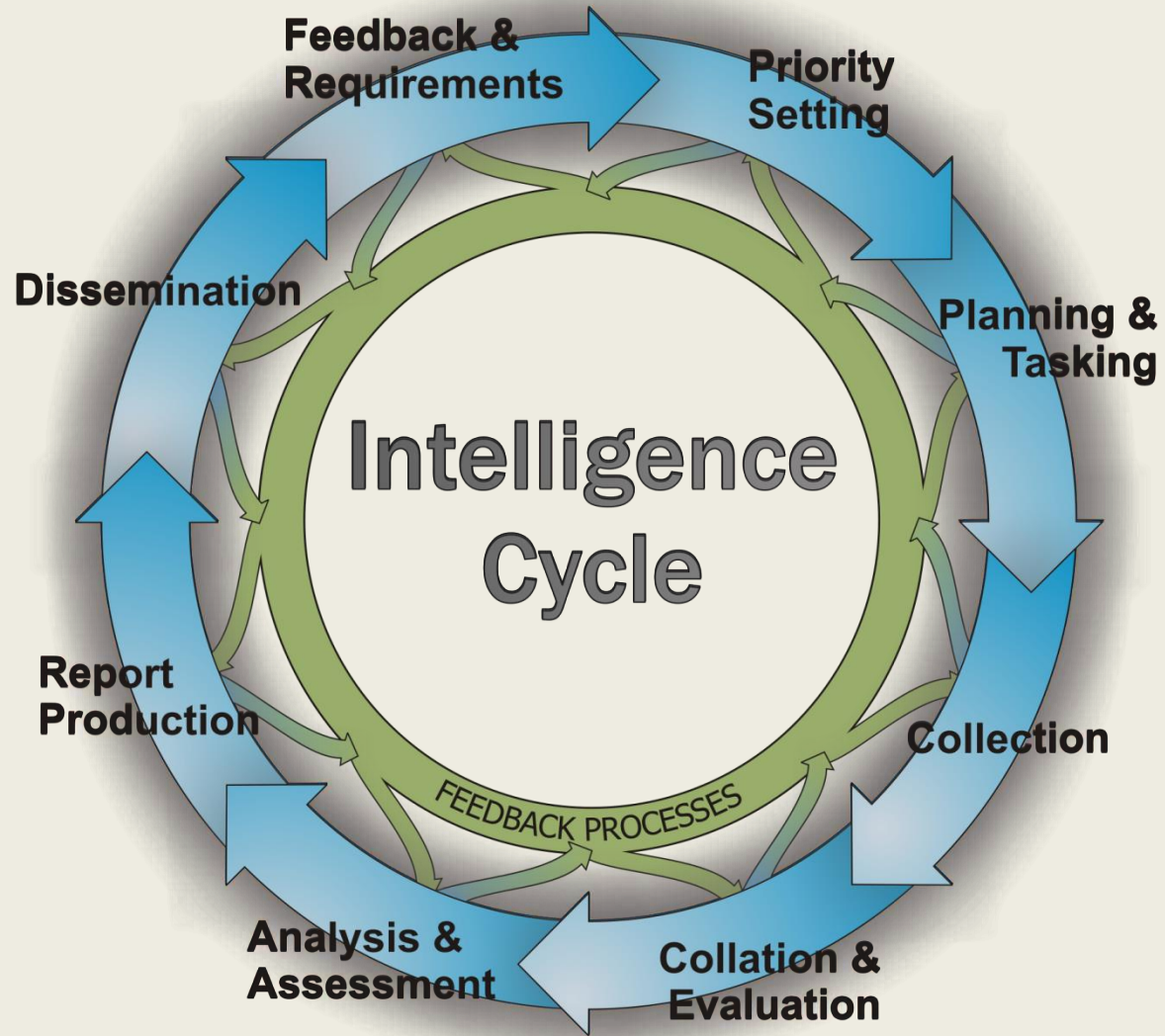
Synthesis as a Discipline

Synthesis is primarily a way of thinking that sets aside one's own "expertise" and perspective (including assumptions, biases and mindset), and systematically pursues as many relevant inputs and perspectives as possible; understands them, challenges and validates them, both individually and in relation to one another; seeks congruence or meshing, gaps and overlaps, agreement and disagreement; and seeks to understand and interpret the whole to which those that survive contribute.

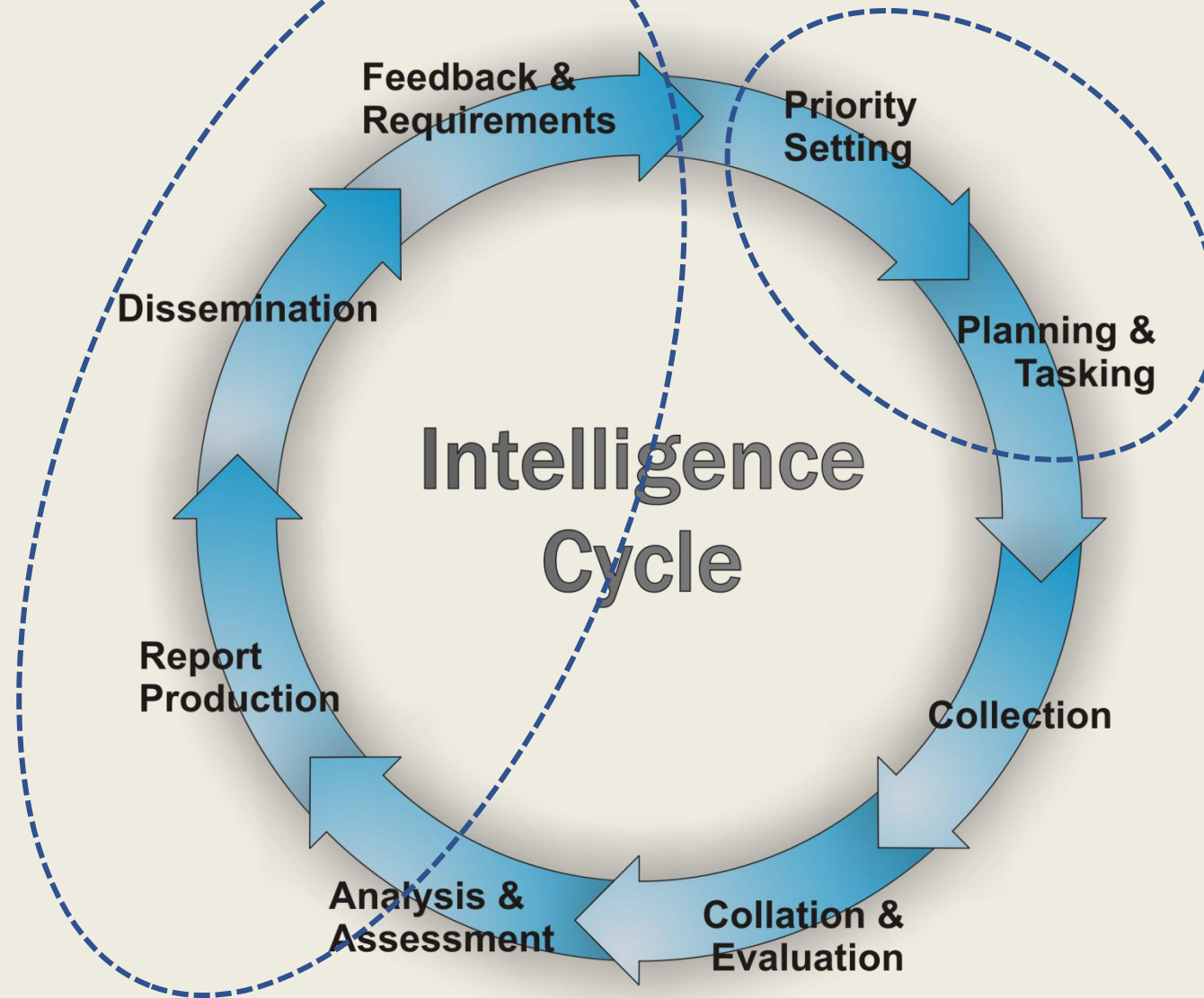
Synthesis:

- **Identifies and uses principles, rules, and relationships** to construct arguments or interpret facts, data, or other information.
- **Uses logic and judgements** to determine accuracy and relevance of data.
- **Identifies and reconciles** gaps, uncertainties, and key assumptions of data.
- **Integrates** evidence/information, **evaluates** and **prioritizes** alternatives, and **assesses** similarities and differences in data to develop findings and conclusions.
- **Understands** potential implications of these findings or conclusions.

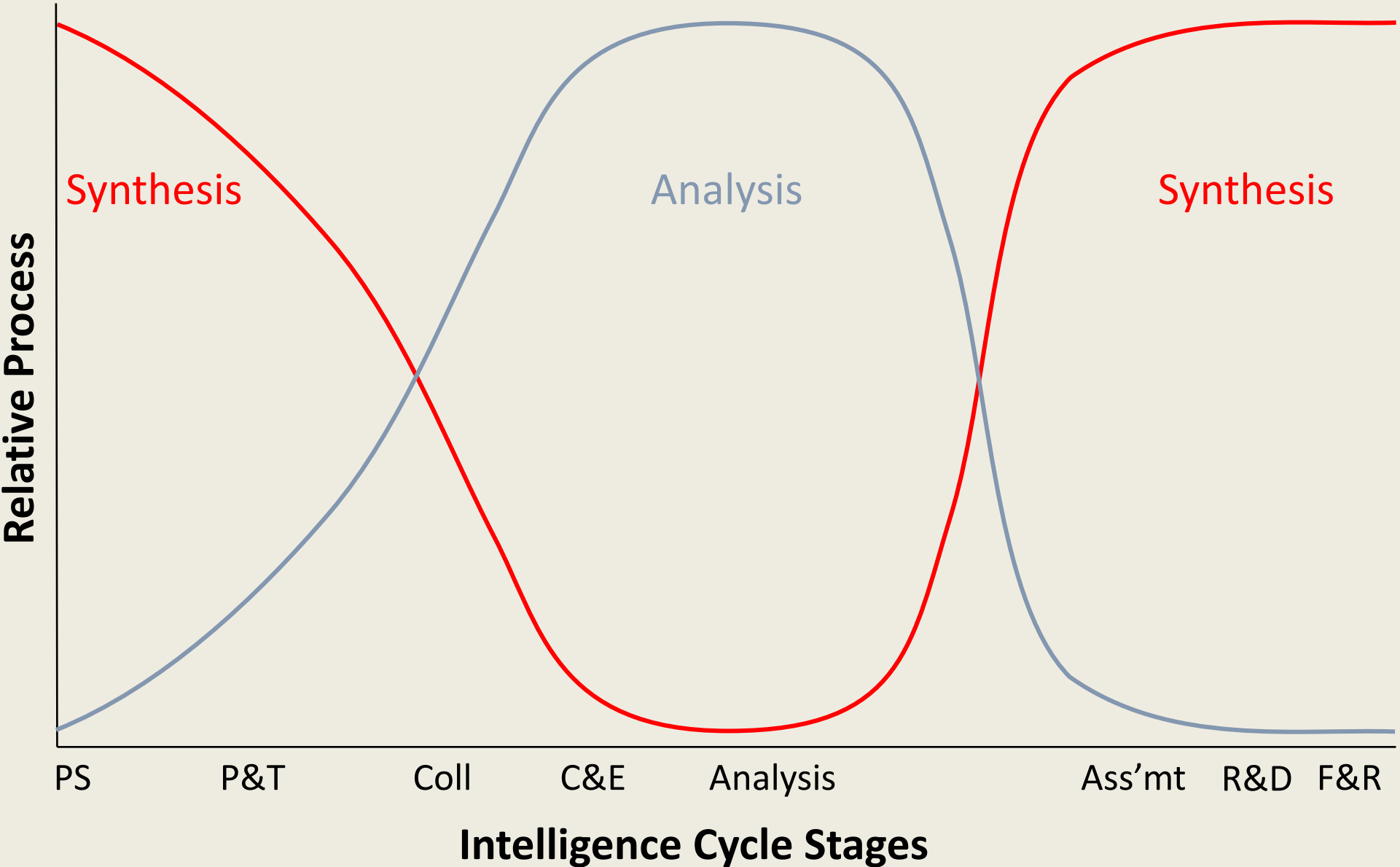
Synthesis in Intelligence



Synthesis in Intelligence



Intelligence Analysis ↔ Synthesis



Synthesis in Foresight

- Strategic thinking is about *synthesis*, involving intuition and creativity, along with information from many sources to formulate an integrated perspective or vision
- Because information about potential futures is *always* incomplete, the thinking required for success in this activity needs to be ‘synthetical’ and inductive
- Foresight is an aspect of strategic thinking concerned with *exploration* and *options*, intuitive, disruptive and ‘what if?’
- Foresight is *synthesis*

Synthesis Methodologies

Understanding and using synthesis as a discipline is still in the early stages:

‘There are no standard procedures for deciding, for example, which [sources and perspectives] to include, what each [] will contribute or how the different findings will be melded together.’ (p3) and ‘... illustrative examples relevant to knowledge synthesis are scarce and there is also little analysis that compares different methods.’

Bammer, i2S, 2013

Synthesis Methodologies

Some Developed Methodologies:

Meta-Analysis

Grounded Theory

Meta-Ethnography

Narrative Synthesis

Thematic Synthesis

Ecological Triangulation

Framework Synthesis

Textual Narrative Synthesis

Critical Interpretive Synthesis

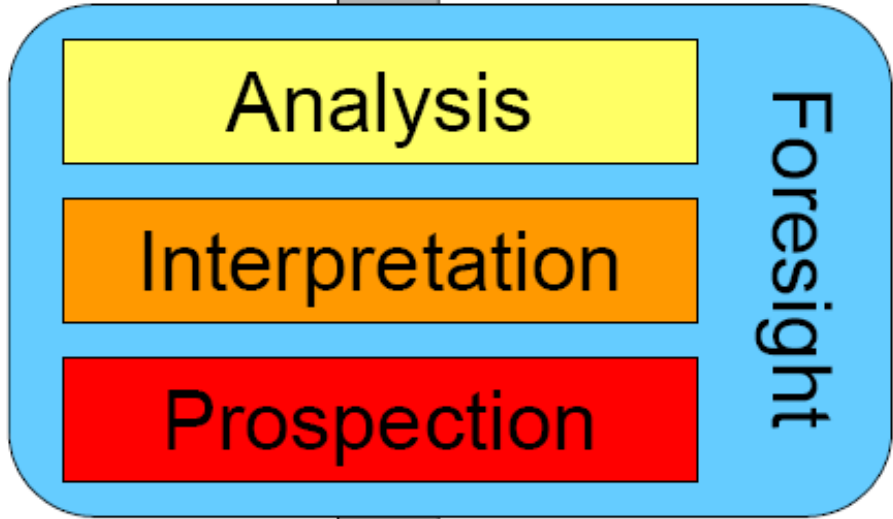
Synthesis Methodologies

Among Structured Analytic Techniques:

- Concept/Mind-mapping
- Cross-impact analysis
→ synthesis of overall outcome
- Systems analysis and design
- Scenario development

Inputs

Strategic Intelligence Scanning
Delphi, Near-Future Context



Emerging Issues, Trends
Cross-impact Analysis

Systems Thinking
Causal Layered Analysis

Scenarios, Visioning
Normative methods, Backcasts

Outputs

Reports, Presentations
Workshops, Multimedia

Strategy

Strategy Development &
Strategic Planning:
individual, workgroup,
organisation, society, etc

ANALYSIS

What seems to be happening: Trend and cross-impact analysis, social network analysis, data management, FSSF, futures triangle, futures wheel, self-organized map, abduction.

INTERPRETATION

What is really happening: Causal layered analysis, four-quadrant mapping, MRR, systems thinking, macrohistorical analysis, pattern management, synthesis, induction, falsification.

PROSPECTION

How things could go: Scenarios, visioning, what "ifs", wild cards, visualizing options, normative methods, backcasting, strategic thinking.

Examples

The Intelligence Arena

Types of Collection:

HUMINT – Human Intelligence

COMINT – Communications Intelligence

SIGINT – Signals Intelligence

IMINT – Imagery Intelligence

OSINT – Open-Source Intelligence

FININT – Financial Intelligence

GEOINT – Geospatial Intelligence

MASINT – Measurement and Signatures Intelligence

Domains:

- Security Intelligence
- Military Intelligence
- Criminal Intelligence
- Immigration Intelligence
- Corrections Intelligence
- Regulatory Intelligence
- Environmental Intelligence
- Service Delivery Intelligence
- Business/Competitive Intelligence



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ÉVALUATION DE RENSEIGNEMENTS

07/29-Revised/Révisé

2007 08 28

STUDY

ÉTUDE

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The name of the fifth stage of the model has been changed in the English version in order to better convey the nature of the stage. As well, a small number of changes have been made in the text to enhance its clarity. Please remove all previous copies of ITAC 07/29 from paper and electronic files, and replace them with this version.

A Terrorist Financing/Resourcing Model

Key Points

- Terrorist financing is different from money laundering, and a new generally accepted model is required to represent the terrorist financing process.
- “Terrorist financing” is used as the generic term due to the current primary focus on the money and financial transactions, but “terrorist resourcing” would more accurately represent and encompass the total process, and provide a better basis for conceptualizing it.

cont'd...

A man with a goatee, wearing a dark pinstriped suit, white shirt, and patterned tie, is speaking at a podium. He is looking slightly to his left. Behind him are several Canadian flags and a bookshelf with binders. A nameplate on the podium reads "MP JOHN SCHMIDT".

OTTAWA

Commission of Inquiry into the Investigation
of the Bombing of Air India Flight 182



— JOHN SCHMIDT

Convergence



John M Schmidt

CANSYNTH

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or via LinkedIn

International Synthesist Society

Synthesists Global LI Group