Economic Intelligence

Collection, analysis & dissemination

Technical Training Week – 22 May 2025 – University of Twente, Enschede – Netherlands

Defining Economic Intelligence

Public & Private EI
The information cycle

Economic Intelligence system, ecosystem

Economic intelligence cycle
Broad definition, ecosystem and examples (UK, EU)

Blockchain & interdisciplinarity

Related disciplines
Interdisciplinary research method

Defining economic intelligence

Importance of understanding « intelligence » perspectives from various fields of science: education, psychology, nature, computer sciences, security studies.

Defined either from a state perspective or a business perspective, as the activity of collection, analysis and use of every kind of information related to the economic survival relative to competitors; as such many fields coexist which can be related to national economy such as « economical geography, transportation, natural and human resources and science and technology » (Williams, 1954), or also related to business economics such as *organizational intelligence, competitive intelligence or business analytics.*

It is not economic espionage. However, ignoring that businesses and states alike commission such services is naive.

Defining economic intelligence

Entrepreneurial (business) EI

Concepts such as market intelligence, business intelligence, competitive intelligence, economic intelligence (Moorhead 2019) are regrouped in economic intelligence.

Benefits involve anticipation, new opportunities, competitive edge, differentiation, adaptation to market dynamics, innovation and overall better decision-making.

Vallat (2016) distinguishes practice between competitive intelligence tools and knowledge creation tools, which can be interpreted respectively as tools to establish both « contextual » (external and internal analysis tools such as SWOT, STEEP/PESTEL and « textual » (brainstorming, brain writing, vicarious experience transfer, monitoring indicators and weak/strong signalling) knowledge and analysis needed to undertake economic intelligence activities.

Defining economic intelligence

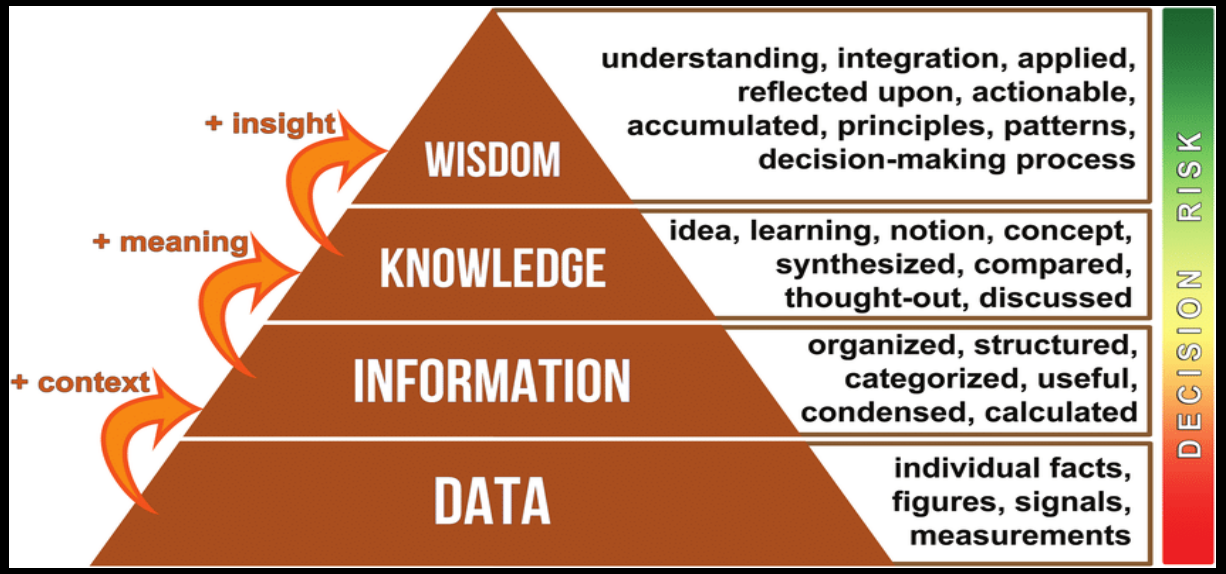
Public EI

- Define a national EI objective and elements of the EI system
  - Determine what is the state's self-image (social contract + diplomatic stance)
  - Define strategic information and EI objectives
  - Devise tactics (short term) & strategies (long term) for each objective
  - Reallocate units and iterate towards new EI objective (feedback)
- Compare national EI systems
- EI at the European level

The information cycle

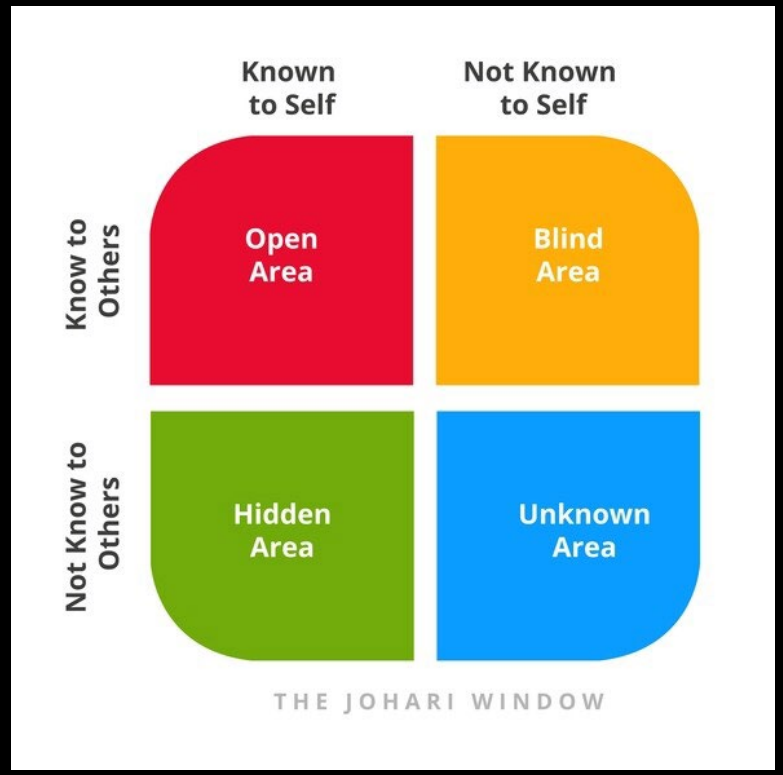
- What is the relationship between data, information, knowledge?
  + A Hierarchical relationship can be established

Ackoff, R. L. (1989). From data to wisdom. Journal of Applied Systems Analysis 15: 3-9.

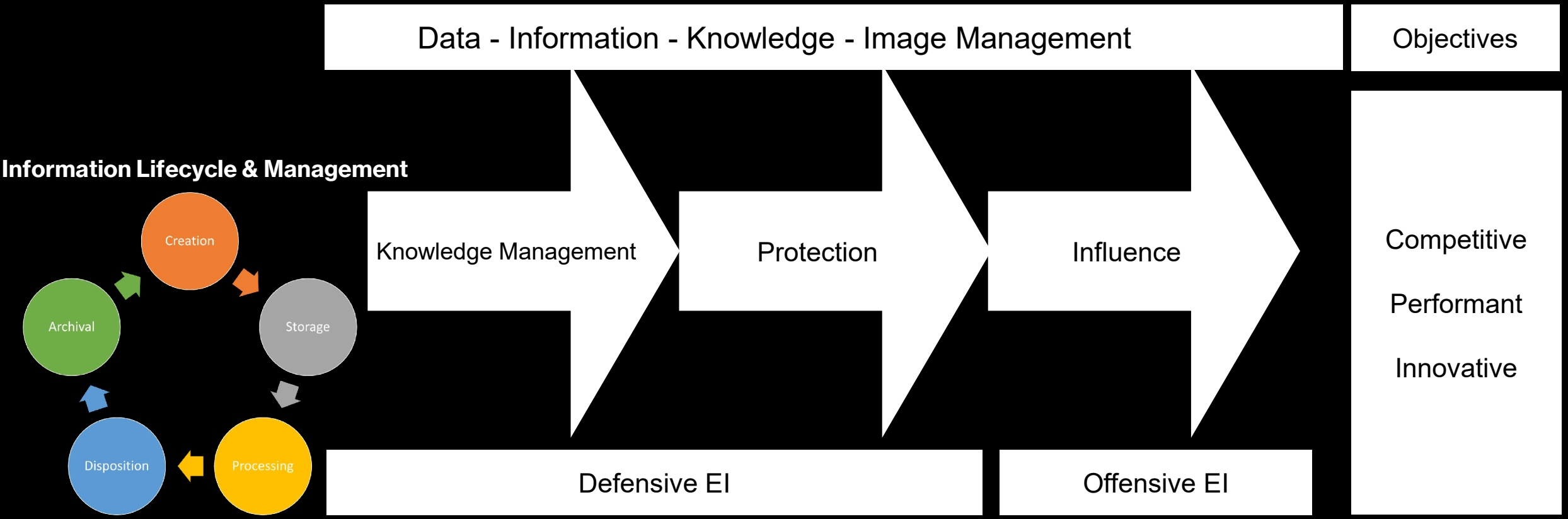


- What is the concept of interpersonal information acquisition/loss
  + The Johari Window depicts a matrix of what is known to self and others: the self-image

Luft, J. and Ingham, H. (1955). The Johari window, a graphic model of interpersonal awareness. Proceedings of the western training laboratory in group development. Los Angeles: University of California, Los Angeles.



Defining the economic intelligence cycle



Knowledge Management: This involves collecting and analyzing information about the actor's environment, including competitors, customers, markets, and technologies.

Information protection: This involves protecting the actor's information from unauthorized access, use, disclosure, disruption, modification, or destruction.

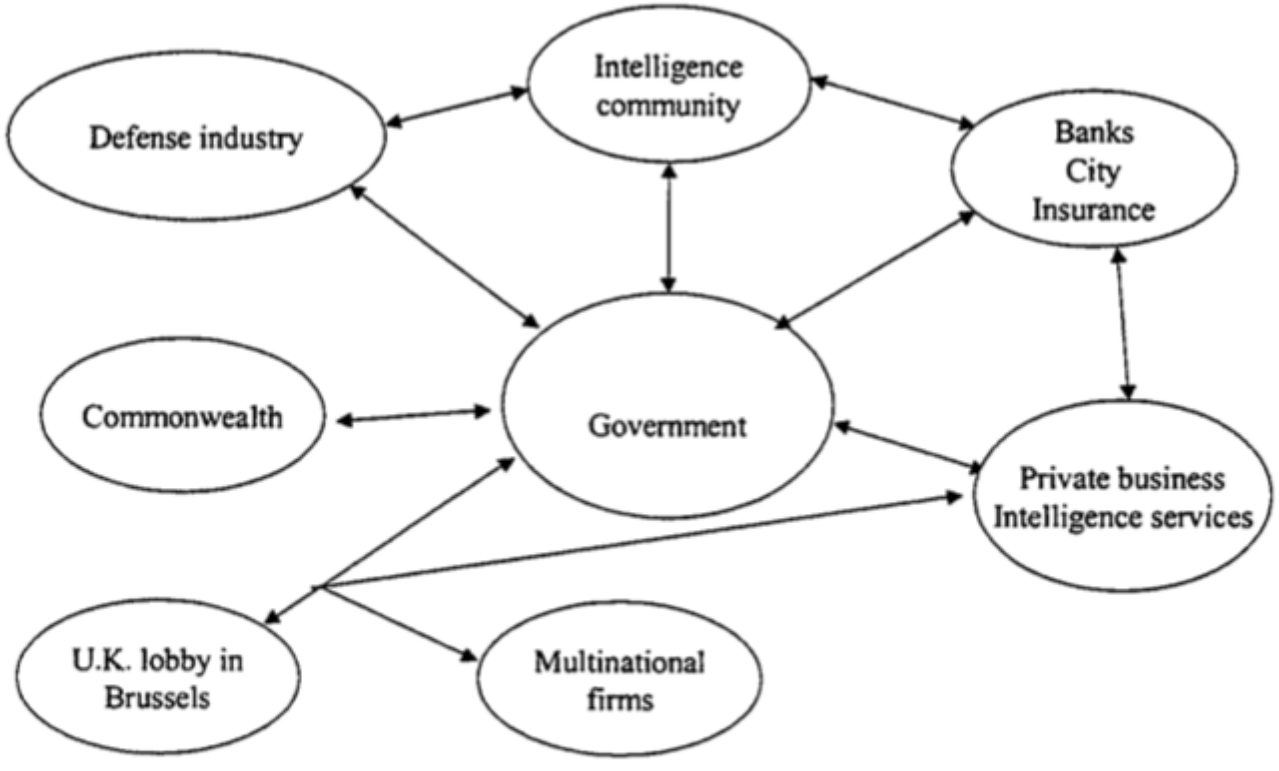
Influence: This involves using information to influence the actor's environment, such as by lobbying for favorable laws and regulations or by shaping public opinion.

Defining economic intelligence

- Activities of
  + gathering information through the information cycle
  + leveraging information through intelligence cycles for analyses
  + designing and disseminating defensive and offensive strategies

… to increase the competitiveness of the unit (state) through information with economic/financial impact

Defining economic intelligence – UK Example



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 65.]

Historical Foundation: UK's EI roots trace back to the first industrial revolution in 1909 with agents from political, academic, and professional spheres forming a governing elite.

Post-WW2 Shift: Reduced economic patriotism, entrepreneurs establish BETRO in 1945 to enhance economic security and foster a private information market in London.

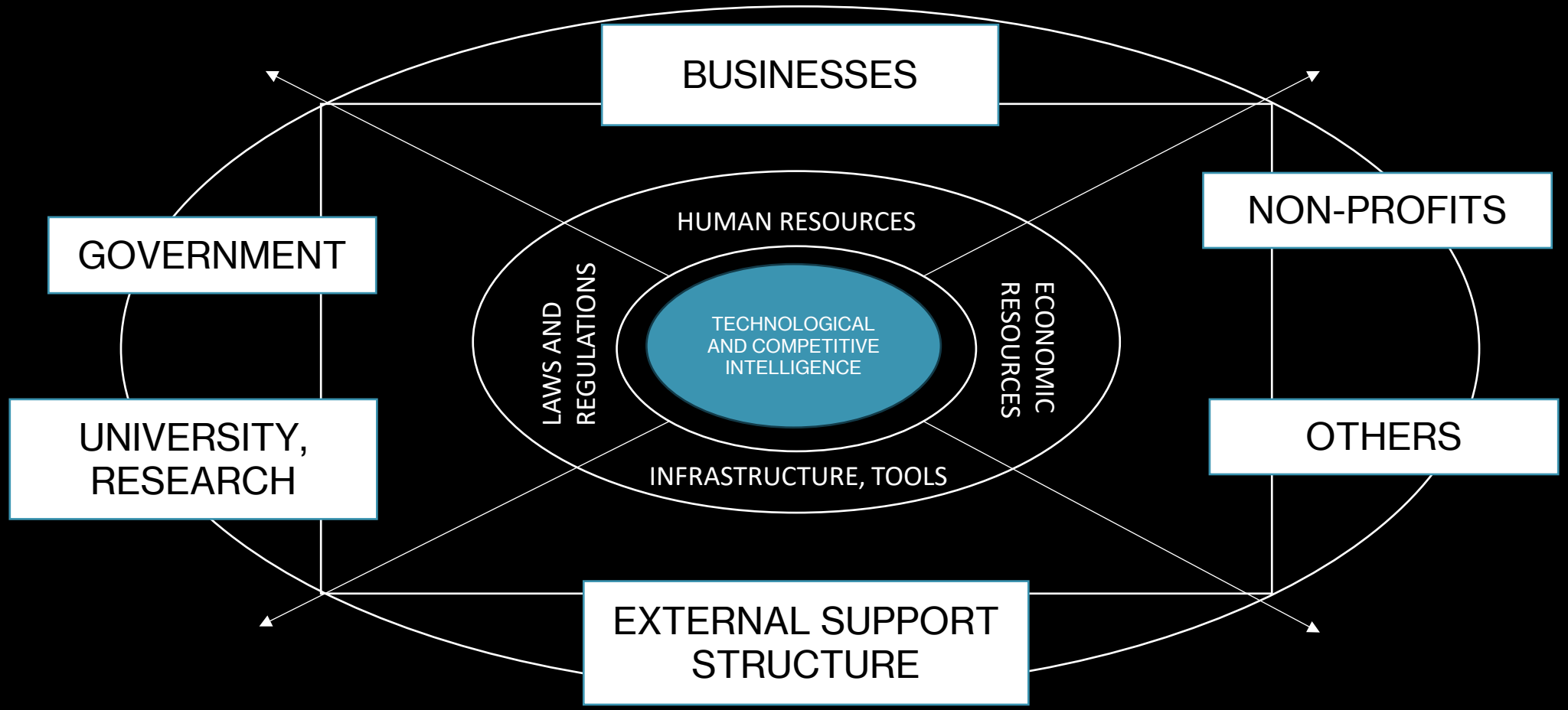
Contemporary EIS Framework (1994): The British Intelligence Service Act of 1994 delineated internal service (MI5), external service (MI6), defense service (DI), and communications systems (GCHQ). **MI6** and **GCHQ** explicitly aim to preserve the UK's economic wellbeing.

EIS Beyond State Services: UKIT coordinates ex-im policies, maintains a global professional network, and actively engages in defense and security economic sectors. It facilitates market penetrations and economic activities abroad.

Coordinated Structure: The Joint Intelligence Committee provides orientation, reporting directly to the Prime Minister.

Economic intelligence ecosystems

Economic intelligence systems are country-specific. However, certain similar traits can be considered:



Defining economic intelligence – EI @ EU

Background: The question raised by MEP Mélin to the EU Commission in 2021, and Commissioner Breton's response, highlights the need for economic intelligence (EI) in the EU to navigate the complex and competitive global environment.

Current Framework: The response from Commissioner Breton lacks a clear and advanced framework for EI. While there are mentions of accessible units, economic analyses, and the use of expert opinions, there is no precise organization or strategy outlined.

Historical Context: Discussions on EI in Europe date back to 1994, with the Maastricht Treaty emphasizing industrial competitiveness. Early initiatives proposed a European EI project in 1995, focusing on enhancing business vision, leveraging knowledge, improving intelligence market conditions, and strengthening EI in remote regions.

Evolution of Analytic Capacity: The EU's analytic capacity, as mentioned by Breton, has evolved through monitoring activities, the creation of institutions like the Institute for Prospective Technological Studies, and the use of Information and Communication Technologies.

Recent Developments: Recent steps toward EI include enhanced efforts since 2016, especially post-COVID, with increased scrutiny on foreign direct investment (FDI) from non-EU state-subsidized companies and controls on mergers and acquisitions (M&A) to prevent "killer acquisitions."

Defining economic intelligence – EI @ EU

National Perspectives: French MPs advocate for a collaborative approach in constructing a European EI system. They emphasize increased cooperation, organizational structure (supranational or intergovernmental), and addressing challenges such as competition among member states and transparency.

Digital Transition Opportunities and Challenges: The Physical-to-Digital transition presents opportunities for new markets but also exposes EU's lag in sectors like search engines, social networks, and cloud infrastructures. Regulatory efforts like the Digital Market Act and Digital Services Act aim to address these challenges.

Business Practices in EU: EI practitioners suggests that while some SMEs claim explicit information policies, not all systematically turn data into knowledge. Regulatory considerations are seen as a means to position emerging sectors in the EU at a higher EI level. Hence MiCA largely recuperating France’s PACTE law and crypto-assets regulations.

GAFAM Dominance and Regulatory Response: GAFAM (Google, Apple, Facebook, Amazon, Microsoft) dominance prompts strategic regulations like DMA and DSA to prevent trust situations, secure consumer rights, and ensure that illegal activities offline are also illegal online.

Ideological Foundations and Economic Intelligence: The ideological orientation of political economy at the international level informs and structures economic intelligence. Understanding this relationship is crucial in formulating guiding principles for EI.

Use cases, practice and projects in EU

Bosch et. al. (2022) -> In the public sector in the EU, growing evidence of early-adoption projects for public administration at all levels (macro, meso, micro).

Projects involve not only a technological layer, but also an organizational, legal challenges to tackle: Discourse in the administration is still required, hence EBSI for standards and interoperability.

Of 167 projects: 16% only fully implemented, +50% developed by national government (20% in local, 11% in regional level). They touch on many sectors (certification, validation in education, financial management, social protection, public supply chain, governance, voting). Currently, less than 12% are cross-border, and interoperability is low.

Relevant EU projects : CBDC and e-wallet; e-IDAS and Decentralized ID, EBSI

Impacts of Blockchain on EI

Introducing crypto-economic intelligence

Blockchain & societal impacts

- Blockchain technology in the Public Sector (BCTiPS)
  - + National & EU-level
- New technico-legal environment
  - + Blockchain layers and smart-contracts (is “code law”?)
  - + Stablecoins : a solution for banks
  - + CDBCs : sovereignty, monetary control
  - + Governance issues (poly-centric co-regulation, increase of informational knowledge power – DMA/DSA, MiCA, GDPR, AI Act)
  - + Business environment dynamics (bigger centralized units, decentralization tendencies, new business models, DAOs)
- Security environment
  - + State economic monopoly, e-currency wars (BRICS)
  - + Crimes & investigations
    - OSINT & Blockchain : KYT enhanced by CBDC applications, cryptocurrency risks
  - + Individual and Company Data Protection – “Embedded Finance” and blockchain create new data protection opportunities
  - + Quantum-resistant cryptographic technologies
- Emergence of Crypto Economic Intelligence needs, requirements, frameworks

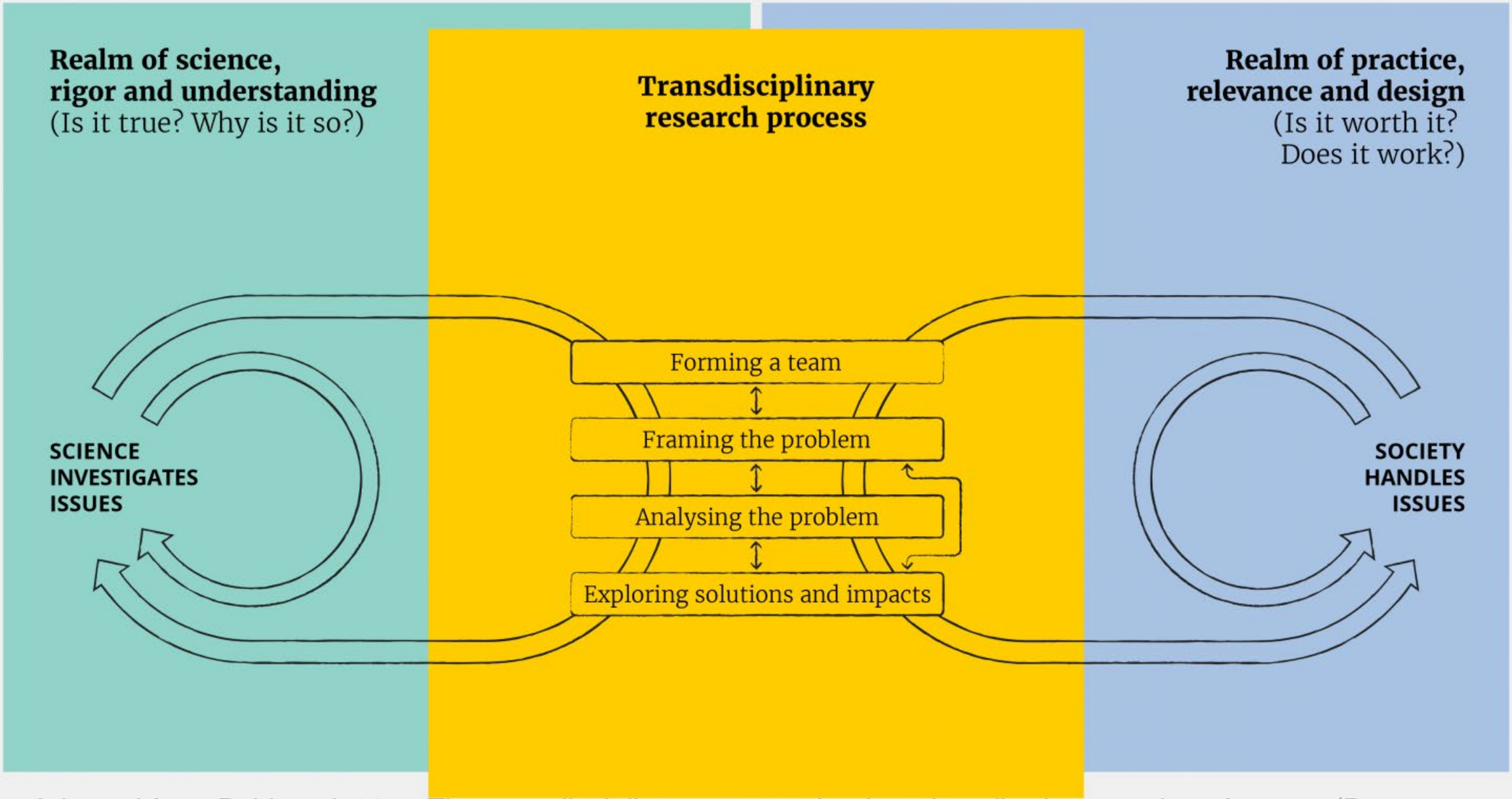
Designing EU-level CEI research

Call to collaborate

Project

Project's roadmap (still under development)

- Fellowship in the UK (Oxford Uni)
  + Objectives: Bootstrapping and gauging the project's viability, learn about funding opportunities; draft a general framework and determine the project's objectives. Find local partners
- Fellowship in Netherlands (Twente Uni)
  + Objectives: Learn and get involved in EU projects; engage with the wider digital finance scholarship, initiate contacts with private, public and academic sector's stakeholders within pilot countries and coordinate team; find local partners.
- Fellowship in Turkey (Galatasaray Uni)
  + Objectives: Finalize the TDR project's research topics, questions and areas: involved stakeholders, team(s) & responsibilities; Focus on the legal documentation and EU institution relations : Decide on project funding scheme and leverage partners.
- Fellowship in France (TBD)
  + Objectives: Officially Submit Project; unofficial Kick-Off; 1st TDR Workshop



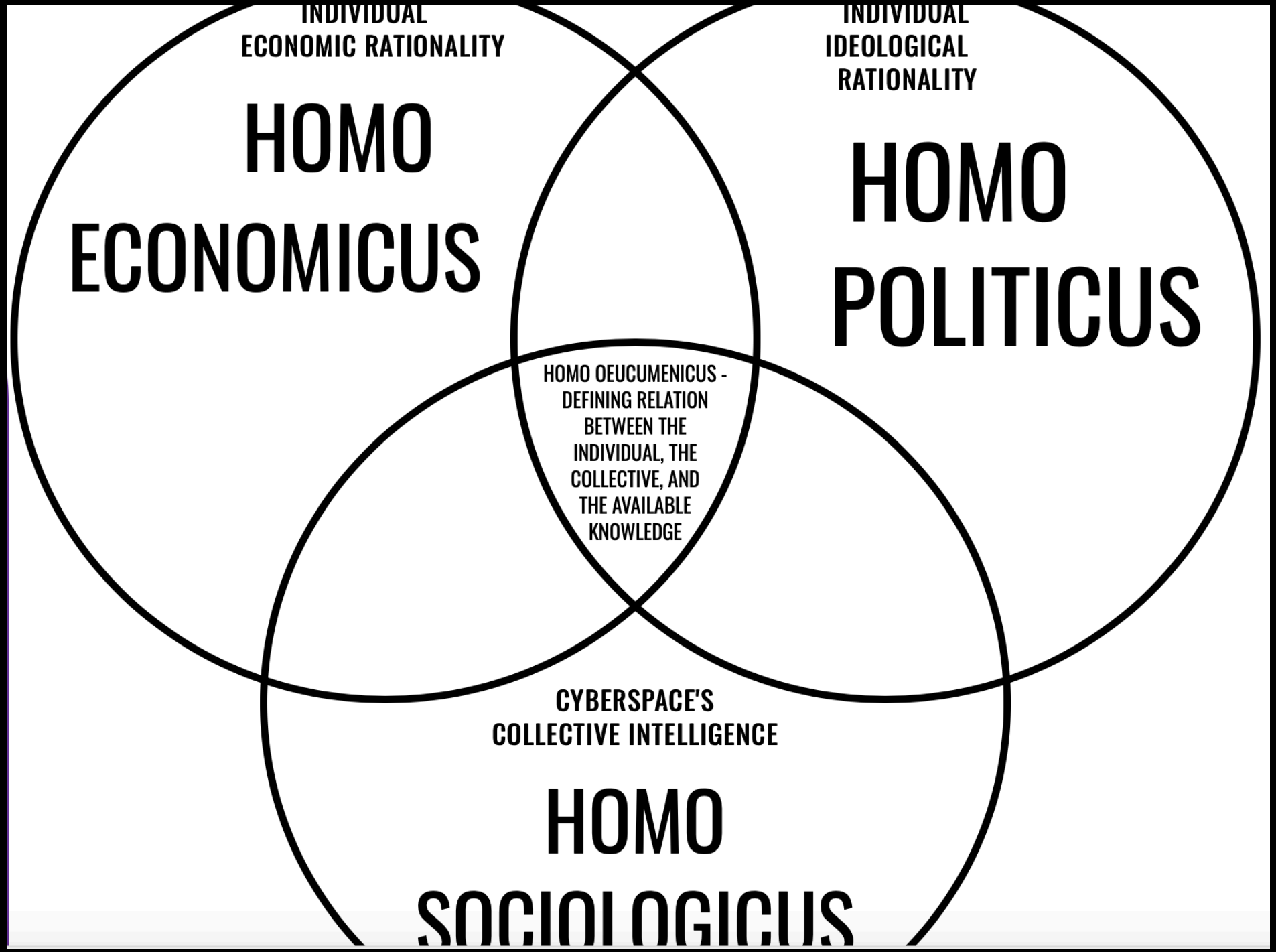
Source: Adapted from Pohl et al. 2017. The transdisciplinary process is often described as a series of stages (Bergmann et al. 2005, Poh and Hirsch Hardorn 2007, Pohl et al. 2017. Utrecht University TDR Processes Field Guide

Project

- Framing elements
  + Project structure
    - Duration: 3 years
    - 9 countries:
      + 7 EU: France, Germany / Netherlands, Belgium / Portugal, Estonia / Cyprus (RoC&TRNC)
      + 2 Non-EU but high level of interdependency with the EU : UK (Post-EU) and Turkey (Pre-EU)
  + Research lines (TBD):
    - Theory building: Establish a systematic and TD knowledge corpus on CEI
    - Safeguards: ethics and risks related to data, transparency, immutability
    - Prototype and ecosystem design: Design interoperable modules of societal network (include feedbacks)
    - Wider blockchain problems: CBDC, eID, convergence with AI technologies (trust, certification, oracles);
  + TDR team (TBD): state representatives, private sector representatives, academic representatives, core research team, advisors
  + Theoretical background
    - “Homo Oeucumenicus”, a reinterpretation of the roles of citizens, state and surrounding elements due to new possibilities of socio-economic and monetary structures.
    - “Societal networks” and “neutral web” considerations within a “CEI system”

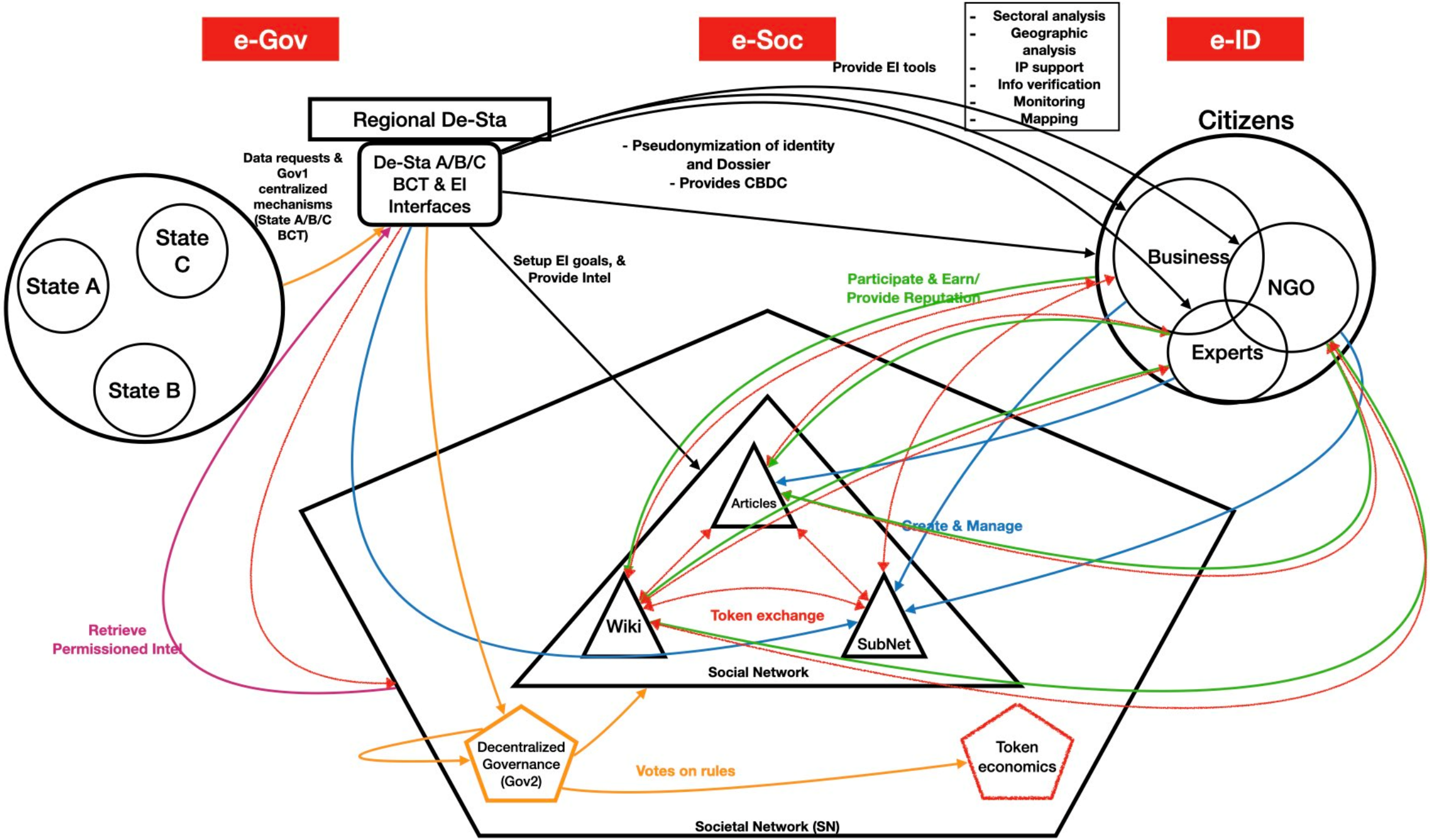
Project – Homo Oecumenicus

- Historical Context of Oecumene
  + Originates from Greek geography, describing known and exploited lands.
  + Tied to the availability of information, defining the relationship between individuals and knowledge.
- Departure from Homo Economicus
  + Shift from Mill's Homo Economicus to Keynes and behavioural economists.
  + Criticisms highlight irrationality in decision-making processes.
- Oecumenic Perspective in Cyberspace
  + In cyberspace, collective work is crucial for survival (Levy, 1994).
  + Oecumenism, here, allows reconciliation of irrational economic and political individual behaviours within a collective intelligence of the cyberspace.
- Beyond Homo Economicus
  + Consider incorporating concepts like homo reciprocans, homo politicus, and homo sociologicus.
  + Individual and collective intelligence perspectives as codependent in a unified "cosmology of intelligence."


INDIVIDUAL
ECONOMIC RATIONALITY
HOMO
ECONOMICUS
INDIVIDUAL
IDEOLOGICAL
RATIONALITY
HOMO
POLITICUS
HOMO OEUCUMENICUS -
DEFINING RELATION
BETWEEN THE
INDIVIDUAL, THE
COLLECTIVE, AND
THE AVAILABLE
KNOWLEDGE
CYBERSPACE'S
COLLECTIVE INTELLIGENCE
HOMO
SOCIOLOGICUS

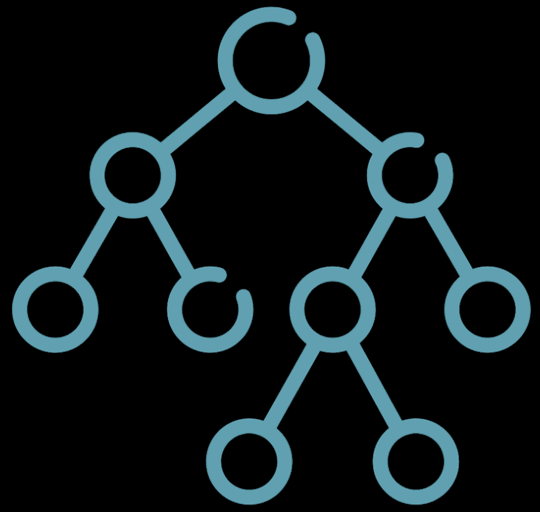
Project – Societal network of networks

- Building a New Understanding
  + Opportunity to reconcile rationality and irrational behaviour between individual and collective intelligence in the cyberspace (reminder on ethymology of kybernetes).
  + Integration of these concepts strengthens economic intelligence theory and practice realms, especially in the context of crypto-economics.
- The Path Forward
  + Acknowledging this evolution is not sufficient but offers new insights into online and decentralized economic behaviours.
  + Reinforce economic intelligence activities through the added layer of cyber geography.
- Consideration of Platform Format
  + Need to reflect on the format and functions of platforms supporting this hypothesis.
  + Highlight the need for dynamic and adaptive structures in understanding the new economic landscape.
- Conclusion:
  + Oecumene provides a lens to understand the interplay between individual and collective intelligence in complex networks of networks where behaviour types co-exist.
  + A societal network consists of complex embedded networks (e-sta, e-id, e-soc, private networks)


e-Gov
e-Soc
e-ID
- Sectoral analysis
- Geographic analysis
- IP support
- Info verification
- Monitoring
- Mapping
Provide EI tools
Regional De-Sta
De-Sta A/B/C BCT & EI Interfaces
Data requests & Gov1 centralized mechanisms (State A/B/C BCT)
- Pseudonymization of identity and Dossier
- Provides CBDC
Citizens
Business
NGO
Experts
State A
State B
State C
Setup EI goals, & Provide Intel
Participate & Earn/ Provide Reputation
Articles
Create & Manage
Wiki
Token exchange
SubNet
Social Network
Retrieve Permissioned Intel
Decentralized Governance (Gov2)
Votes on rules
Token economics
Societal Network (SN)

Project – Objectives

- Building a Team working on CEI topics at EU level
  - + Provide expert opinions, policy advisory, business friendly and respectful of individual rights
  - + Gather public, private and academic stakeholders
- Building a framework
  - + A truly transdisciplinary approach should provide new and integrated expert knowledge from the Team
  - + Conceptual emergence and theory-building
- Building prototypes
  - + Reflect on the format of existing data exchange platforms to determine “best practices” and “good offices” related to blockchain impact topics, notably CEI.
  - + Foster the development of EU-level prototypes of societal networks, allowing several stakeholder interactions, notably through scholarly-relevant PPP.
- You are welcome to provide ideas, feedbacks and if interested, contribute:
  - + participant (« project fellow » either as a field-specialized researcher or a private-sector associate)
  - + country representative (manages ongoing projects and relations between fellows, universities and private sector associates; collaborates with other country representatives, review state’s legal and regulatory literature)
  - + core team member (project management: establish partnerships, networking to grow participant pool and include stakeholders, dissemination of outputs)
  - + project advisors (advising on the project’s strategy, objectives, help secure funding and connect to more diverse institutional affiliations)



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