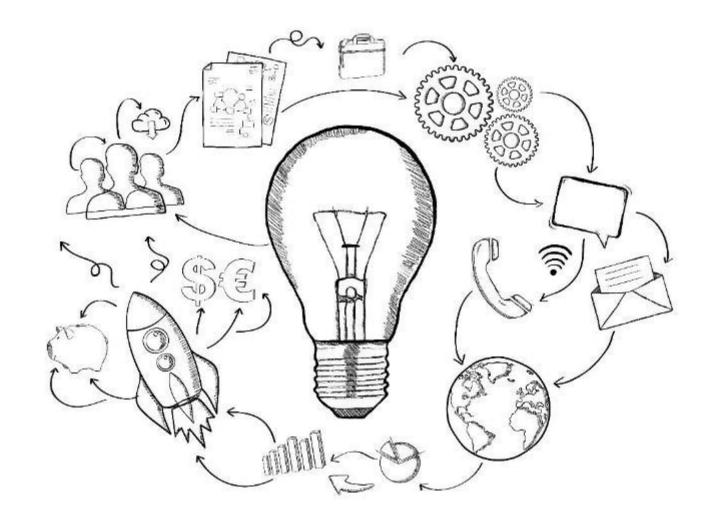


# Talk With Your Data!

Embracing the Future of AI

Gerald Rosak (TCI) Walid El Abed (GDE)



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"Talk with your data!"

# THE RISE OF VALUE DRIVEN INTELLIGENCE







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# DIGITAL WORLD CONTEXT

## A PARADIGM SHIFT IS NEEDED FOR THE ACCELERATION OF VALUE CREATION

- New challenges for Artificial Intelligence, governance and the enterprise data management
- Many platforms and solutions exist (ERP, CRM, MDM, SRM,BI...) but the current approach of handling data is **fragmented** due to isolated tools working in the different area of the organisation
- The use of analytic AI (NLP and ML) based on existing data disconnected from knowledge and human wisdom ignoring the social contexts by analysing past transactions and interactions with probabilistic predictions into potential futures generating huge energy and costs

#### ORGANISATION MISS OUT ON VALUE GENERATION AND GROWTH OPPORTUNITIES AS THEY STRUGGLE TO CENTRALISE, CONNECT, AND INTERPRET DATA





# WHAT IS ARTIFICIAL INTELLIGENCE?

- Artificial intelligence: (AI, also machine intelligence, MI) is intelligence demonstrated by machines, in contrast to the natural intelligence (NI) displayed by humans and other animals
- Colloquially, the term "Artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving"
- Type of AI: machine learning, analytics and statistics driven
- **Role:** visual perception, voice recognition, decision-making, translation, communication, task automation, the ability to learn new things and the ability to abstract or associate with new knowledge based on already established knowledge



# CONVENTIONAL AND ANALYTIC AI VS. LINGUISTIC AND VALUE DRIVEN AI

#### **CONVENTIONAL AND ANALYTIC AI**

- NLP does not handle semantics
  - language dependent (syntax, grammar and morphology)
  - Relies on statistics and dictionaries words found in a similar environment of words that are «the same». They must therefore mean the same thing more or less
- Machine learning recognises complex, multidimensional patterns
  - No meaning is associated to any of the underlying elements
- Communications with an AI system (SIRI) are always limited by a single context





### LINGUISTIC AND VALUE DRIVEN AI

- Linguistics AI handles semantics
  - embeds a Semantic Meta Model SMM (language and data structure independent)
  - what words mean (WORD<>SEME<>ATTRIBUTE<>COLUMN)
  - How they relate semantically to each other in a context (dynamic semantic network)
- It «understands» words and sentences within context
- Examples:
  - ✓ All employees in a technical position must have a technical degree
  - ✓ No product should contain contaminants of type X without an explicit label on the package
- A Human can talk using standard vocabulary in any language

# THE IDEAL AI

- A new kind of AI that enables the connection and coordination between human and machine using semantics and knowledge modeling to standardise, enrich and gain insights from data
- Highly cost-efficient: an AI capable of integrating the existing infrastructure and all databases and their senses instantly without human intervention while respecting the data ownership, leaving them at their source
- Integrated knowledge based
- **Compliant** with any regulations such as GDPR, FINMA and many more
- Key Value Indicator (KVI) measures future value created by business units
- **Easy** to deploy, fast results to show benefits
- Transparent and visible algorithms and system generated by the AI



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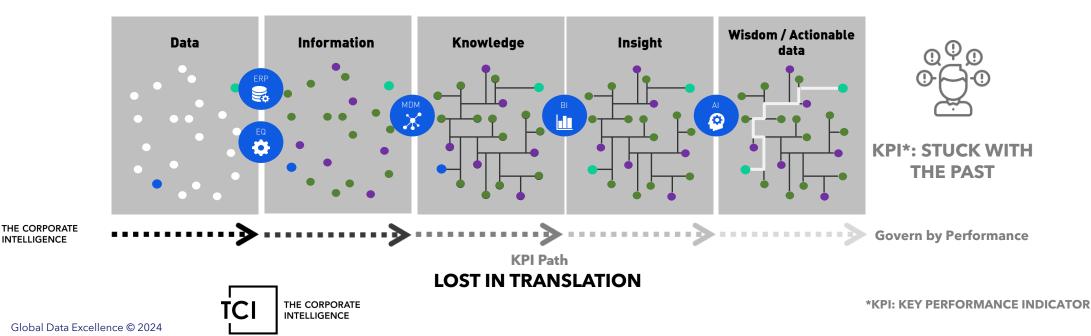
# A PARADIGM SHIFT TOWARDS LINGUISTICS AND VALUE DRIVEN AI

FROM ANALYTICAL TO VALUE DRIVEN AI

#### Governance and communication problem unsolved:

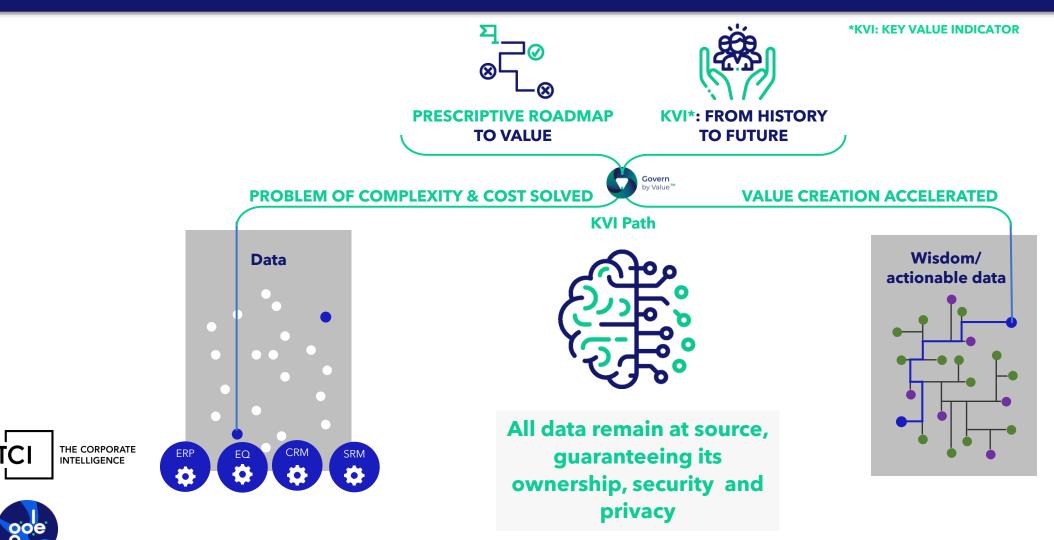
Organisational complexity - Tsunami of data and rules combined with data privacy and ownership challenges

#### SILOED INSTINCTIVES DECISIONS LEADING TO CONSIDERABLE MONEY, TIME AND TRUST LOSS

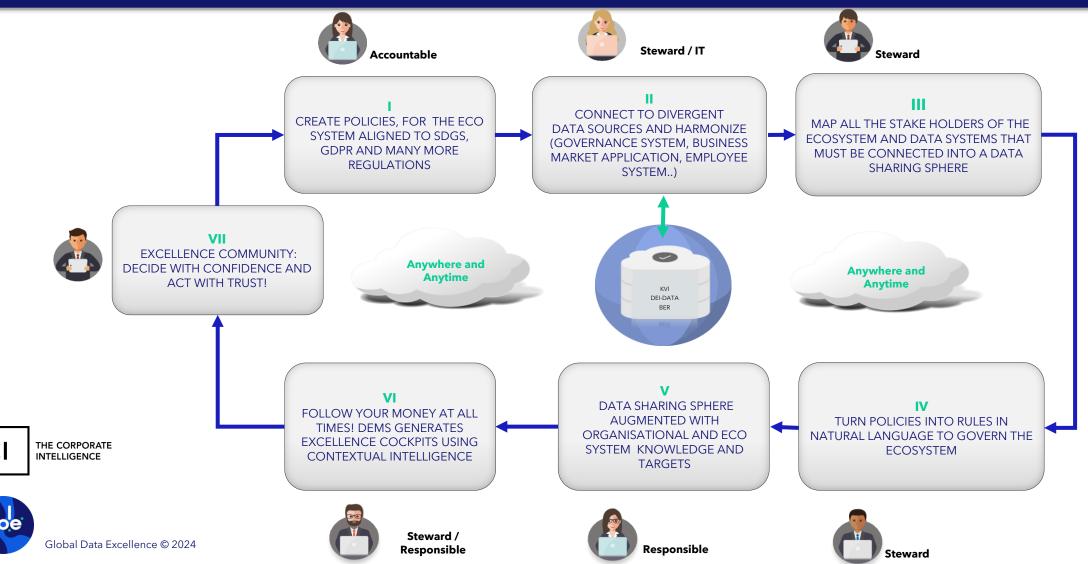


# MOVE FROM KPI TO KVI\*

### DYNAMIC DIALOG BETWEEN DATA AND HUMAN WISDOM

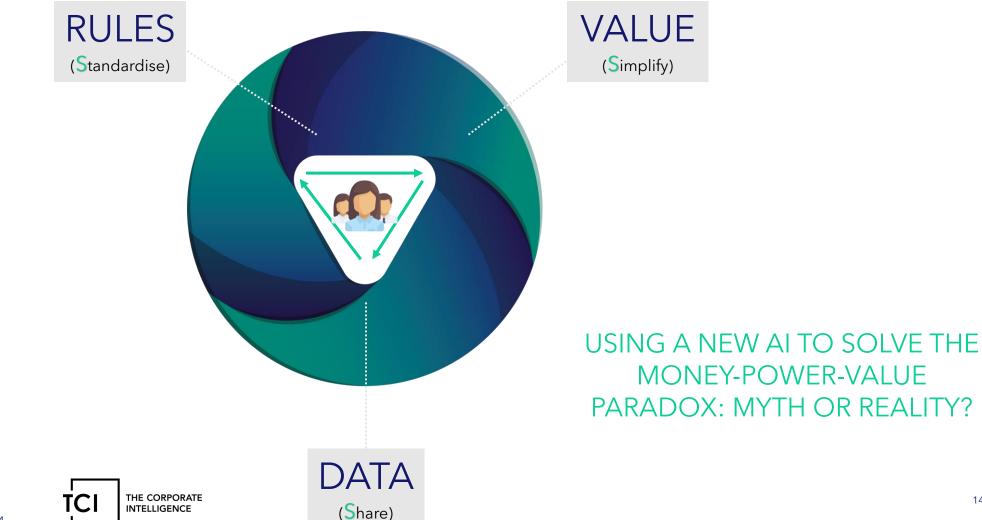


# CONNECT BRAINS ACROSS THE VALUE ECOSYSTEM BUILD YOUR ECOSYSTEM AND COMMUNITIES ANTICIPATE YOUR FUTURE AND GOVERN BY VALUE



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# THE SECRET TO THE VALUE DRIVEN AI





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### "Talk with your data!"





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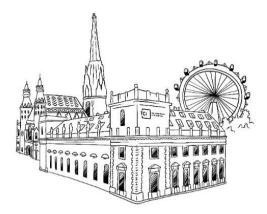


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