Global Forum
Shaping the Future 2022
Föreningen Global Forum

Under the High-Patronage of
الجمعية العمانية للخدمات النفطية
Oman Society for Petroleum Services
OPAL

KEYNOTE SESSION

Collaboration Between the Digital and Human Worlds: Importance of a Human Centered Approach

Muscat, Oman, September 17th, 2022

Dr. Walid el Abed
Founder and CEO of Global Data Excellence

بوصلة
العاصمة العربية الرقمية
Muscat Arab Digital Capital
2022

WATER AND HUMANITY

Shaping the Future 2022
Föreningen Global Forum

HISTORY OF HUMAN COMPUTER INTERACTION (HCI)

Under the High-Patronage of

الجمعية العمانية للخدمات النفطية
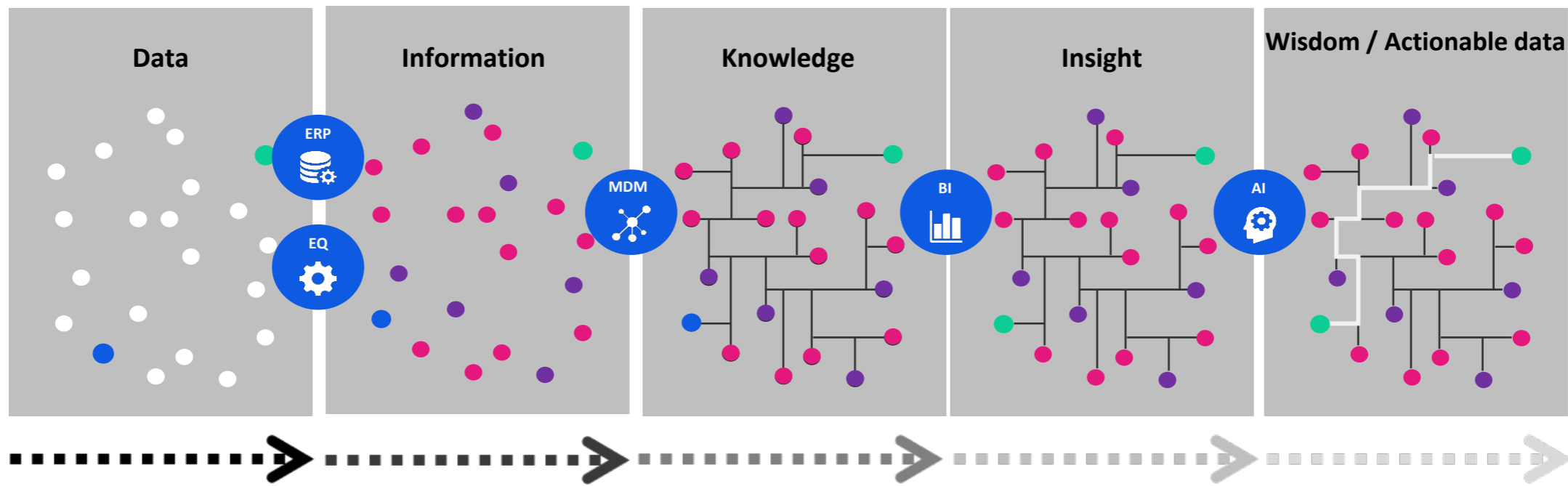Oman Society for Petroleum Services

- **HCI components:** the user, the computer, and the ways they work together

- **Late 1970s**: only IT professionals and dedicated hobbyists were interacting with computers

- **Early 1980s**: Personal computing was made available for everyone

- **Objective:** easy and efficient for less experienced users to use without assistance

- New paradigm in the digital world has deeply changed the Human–machine interaction

- **Business needs:** more precise decision-making

- **Knowledge** evolved and can be found in many type of format (paper, databases, wikipedia, etc…). Several pieces of knowledge are disconnected within an organization and **systems** are not normalized, siloed and inconsistent

- **Language problem** inherent to the organisational complexity of humans and machines' ecosystems, combined with the tsunami of regulation and data, makes it impossible to connect the knowledge together and link it to be used wisely for the organisational value outcome

- New challenges for AI, data governance and the enterprise data management

HUMANS AND MACHINES CANNOT INTERACT, AND THE UNDERLYING SEMANTICS IS LOST IN TRANSLATION

Global Forum

Shaping the Future 2022
Föreningen Global Forum

**A PARADIGM SHIFT TOWARDS
LINGUITICS AND SEMANTICS DRIVEN AI**

Under the High-Patronage of

الجمعية العمانية للخدمات النفطية
Oman Society for Petroleum Services

**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

Data	Information	Knowledge	Insight	Wisdom / Actionable data

ERP

EQ

MDM

BI

AI

**KPI*: STUCK
WITH THE PAST**

**Govern by
Performance**

KPI Path

LOST IN TRANSLATION

***KPI: KEY PERFORMANCE INDICATOR**

bawo
العاصمة العربية الرقمية
Muscat Arab Digital Capital
2022

**WATER AND
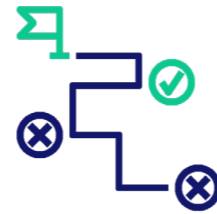HUMANITY**

- A new kind of AI is needed to enable the connection and coordination between human and machine using semantics and knowledge modeling to standardise, enrich and gain insights from data

- **DEMS-NiXus (Data Excellence Management System – Natural Intelligence eXpanded Universe System)**, uses a semantic and linguistic Artificial Intelligence to translates human language business rules to machine code. DEMS is a multilingual system for the interrogation of databases in natural language and it automates data governance

- It enables **reasoning over textual data and operating with textual knowledge**

- It is **autonomous and independent** encapsulating a kind of consciousness with the current standards, regulations and ethics with the ability to interpret knowledge's prescriptions from all parties of the ecosystem

DYNAMIC DIALOG BETWEEN DATA AND HUMAN WISDOM

Under the High-Patronage of

الجمعية العمانية للخدمات النفطية
Oman Society for Petroleum Services

*KVI: KEY VALUE INDICATOR

PRESCRIPTIVE ROADMAP TO VALUE

KVI*: FROM HISTORY TO FUTURE

Govern by Value™

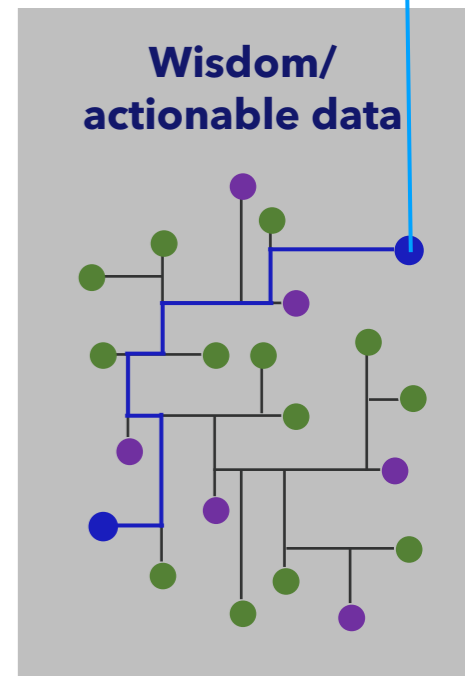PROBLEM OF COMPLEXITY & COST SOLVED

VALUE CREATION ACCELERATED

KVI Path

Data

Wisdom/ actionable data

Powered by DEMS©

ERP   EQ   CRM   SRM
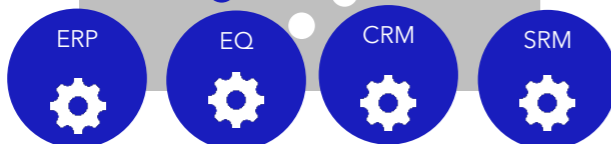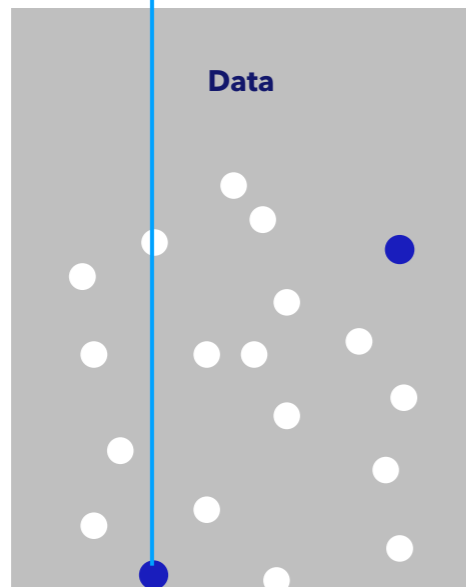
INTERNET/ DOCUMENTS AND FREE TEXTS

All data remain at source, guaranteeing its ownership, security and privacy

Global Forum
Shaping the Future 2022
Föreningen Global Forum

بوصلة
العاصمة العربية الرقمية
Muscat Arab Digital Capital
2022

WATER AND HUMANITY

DATA EXCELLENCE MODEL (DEM) : THE KNOWLEDGE ASSETS AND SEMANTICS OF HUMAN AND MACHINE INTERACTIONS

Under the High-Patronage of

الجمعية العمانية للخدمات النفطية
Oman Society for Petroleum Services

Shaping the Future 2022
Föreningen Global Forum
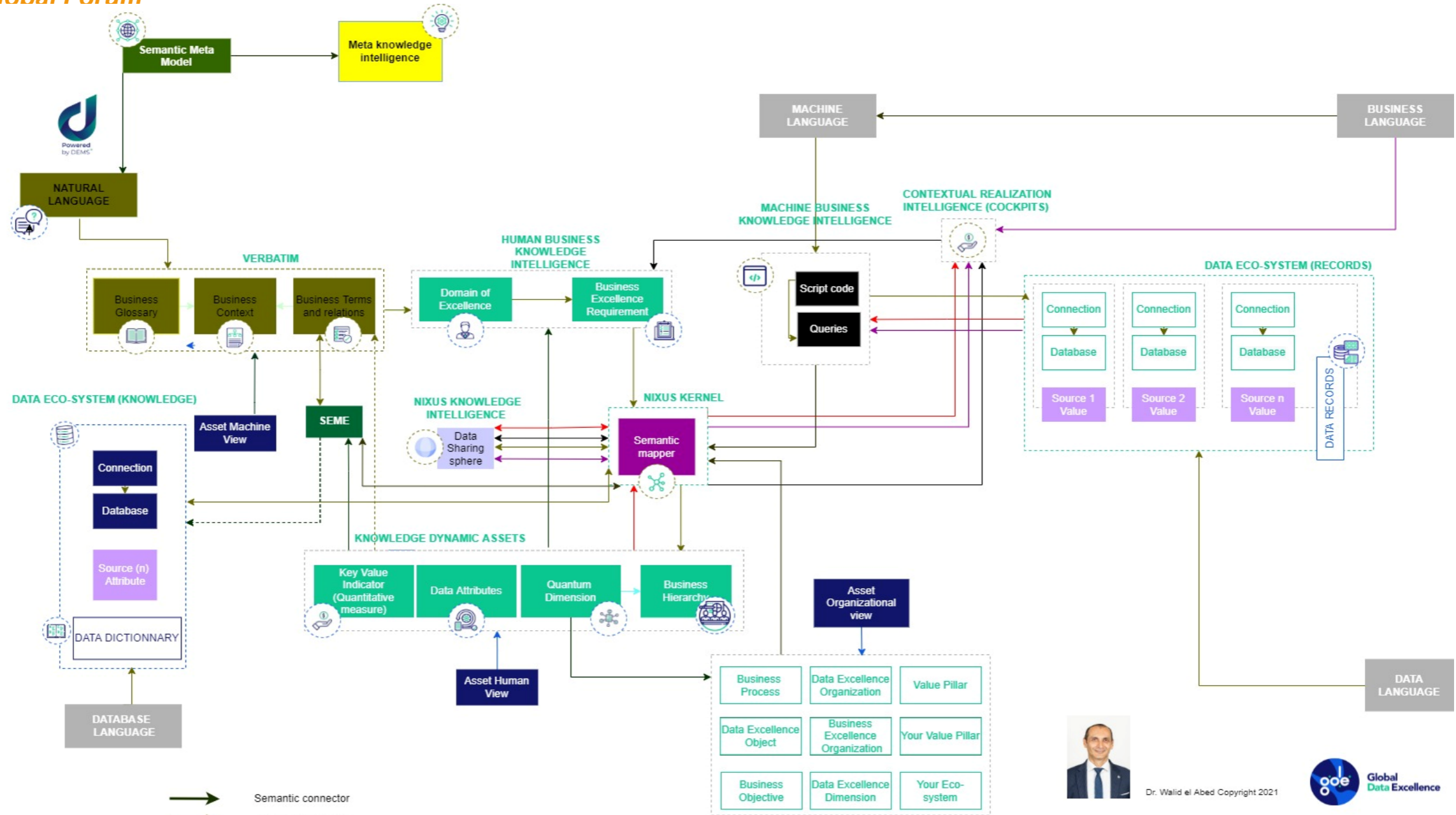
KNOWLEDGE ASSET DYNAMICS AND SEMANTICS: THE HUMAN MACHINE INTERACTION
A model relating knowledge and organizational value outcome

Legend:
- Semantic connector
- Language connector
- Governance connector
- Data connector
- Asset view connector
- Organizational connector
- Knowledge connector
- Value connector

Dr. Walid el Abed Copyright 2021

THANK YOU!

- CONTACT US –

Dr. Walid el ABED - CEO
Global Data Excellence
www.globaldataexcellence.com
walid.elabed@globaldataexcellence.com
+41 79 859 51 21