



KNOWLEDGE GRAPH ALLIANCE

**Data to Wisdom:**

**KGA is pioneering the future of Knowledge-Driven Innovation**

# Perspectives



OntoCommons is not  
the end but just the  
beginning.



Standardization,  
commercialization,  
research proposals



Going international:  
new collaboration,  
new ventures, more  
opportunity

# KGA at the right moment !

## Hype Cycle for Artificial Intelligence, 2023



### Strategic Planning Assumption

By 2025, **graph technologies** will be used in 80% of data and analytics innovations, up from 10% in 2021, facilitating rapid decision making across the enterprise. (Gartner, 2021)

Plateau will be reached:  
○ less than 2 years   ● 2 to 5 years   ● 5 to 10 years   ▲ more than 10 years   ⊗ obsolete before plateau   As of July 2023

gartner.com

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Gartner

# NEEDS learned from OntoCommons Roadmap

## LACK OF COVERAGE

current state-of-the-art is able to cover only a small portion of multifarious domains and applications of modern industry.

## DISCONCERTED EFFORTS

past and ongoing efforts in SKG by various projects, research organizations, universities, and standardization bodies are disconcerted.

## LACK OF RICH SEMANTICS

Discontinuity between often abstract formal semantic models and knowledge graphs, which often logically consistent rich semantics.

## ALTERNATIVE AND COMPETING SOLUTIONS AND CONCEPTS

Many competing models, methodology and tools that makes design of SKG projects challenging for industries.

## INERTIA IN ADOPTING NEW PRACTICE

Cultural inertia of industry players to move from the textual or tabular representation of information to that of the graph, allowing things in relation to be correctly modeled

## UNCERTAINTY IN ROI

Lack of guide, maturity and risk-benefit model makes it hard to estimate return of SKG project investments.

## LACK OF POSITIONING EFFORT

SKG is not positioned in the context of practical need to industry in relation to other emerging technologies, e.g., big data, machine learning, digital twin and thread, explainable AI etc.

\* SKG: Semantic Knowledge Graph – Knowledge graphs with rich semantics given by formal ontology

# KGA VISION

**Semantic and FAIR KG being an integral part of data strategy for every enterprise towards data driven innovation !**

**KGA believes** that the future demand of SKG in the industrial sector will require immense effort in the *development of standardized semantic models, methodology, and tools* for multifarious industrial domains and applications.

**KGA aims** to advance the *adoption* of semantic knowledge graph\* (SKG) for *storing, managing, representing, exchanging, and analyzing industrial data* through standardization and harmonization of semantic data models and development of methodology and tools for knowledge specific to industrial domain.

**KGA aspires** to integrate semantic knowledge graphs in the *contemporary and future application of AI technologies* in the context of Industry 5.0 and its relation to society and environment.

\* Semantic Knowledge Graph – Knowledge graphs with rich semantics given by formal ontology

# KGA MISSION

- ❖ **KGA** nonprofit organization
- ❖ **KGA** envisages to **ACT as a bridge among the ongoing and future efforts** by industry, research organizations, universities, and standardization bodies **in SKG** to facilitate harmonization, benchmarking, and standardization along with the development of industry-standard guidance, maturity, and risk models for alleviating the uncertainty of the return of industrial investment in SKG transition projects.
- ❖ **KGA** will also **showcase** the practical use of state-of-the-art and future technologies as part of its continuous promotional effort in **building confidence** in companies for **adoption** of SKG in their operations.

# KGA Charter

## **Build for industry**

Development, recommendation, publication needs to be standardized, accredited, and relevant to industrial application.

## **Pluralistic but interoperable**

Many point of views are accepted *without influence* while making sure their interoperability & cooperability.

## **Non-competition and co-creation**

Every member signs non-competition agreement but profit from co-creation based on profit-sharing for KGA collective and collaborative generated works.

## **Always FAIR**

Prioritize the FAIRness policy of data, models, documents, and services.

## **Non-profit and sustainable**

Policy for generating revenue from membership, consultancy, services as a transparent and non-profit organization.

## **Social value generation**

Adopt a culture of giving back to society in terms of trainings, seminars, Open-source product development, knowledge, and prioritize projects with maximum social benefit.

# KGA AREAS OF (CO)OPERATION

## INTEROPERABILITY OF MODEL, METHOD AND TOOLS

- Models (top level, mid-level and domain ontologies), Methods, Tools (FAIRness, Quality, KG and Ont. editors)

## PROJECT PROPOSALS

- Build consortia for European, national, and industrial project proposals.

## ADVISORY

- Make State of the art analysis
- Make Market and Business Analysis
- Prepare Sectorial Roadmaps
- Advice policy makers

## RESEARCH AND DEVELOPMENT

- Harmonized suite of reference vocabulary – inclusion of Top and Mid levels ontologies.
- Application of OntoCommons Ecosystem in industrial cases.
- Industry-focused benchmark, maturity models, standards
- Organise conferences and workshops

## EDUCATION

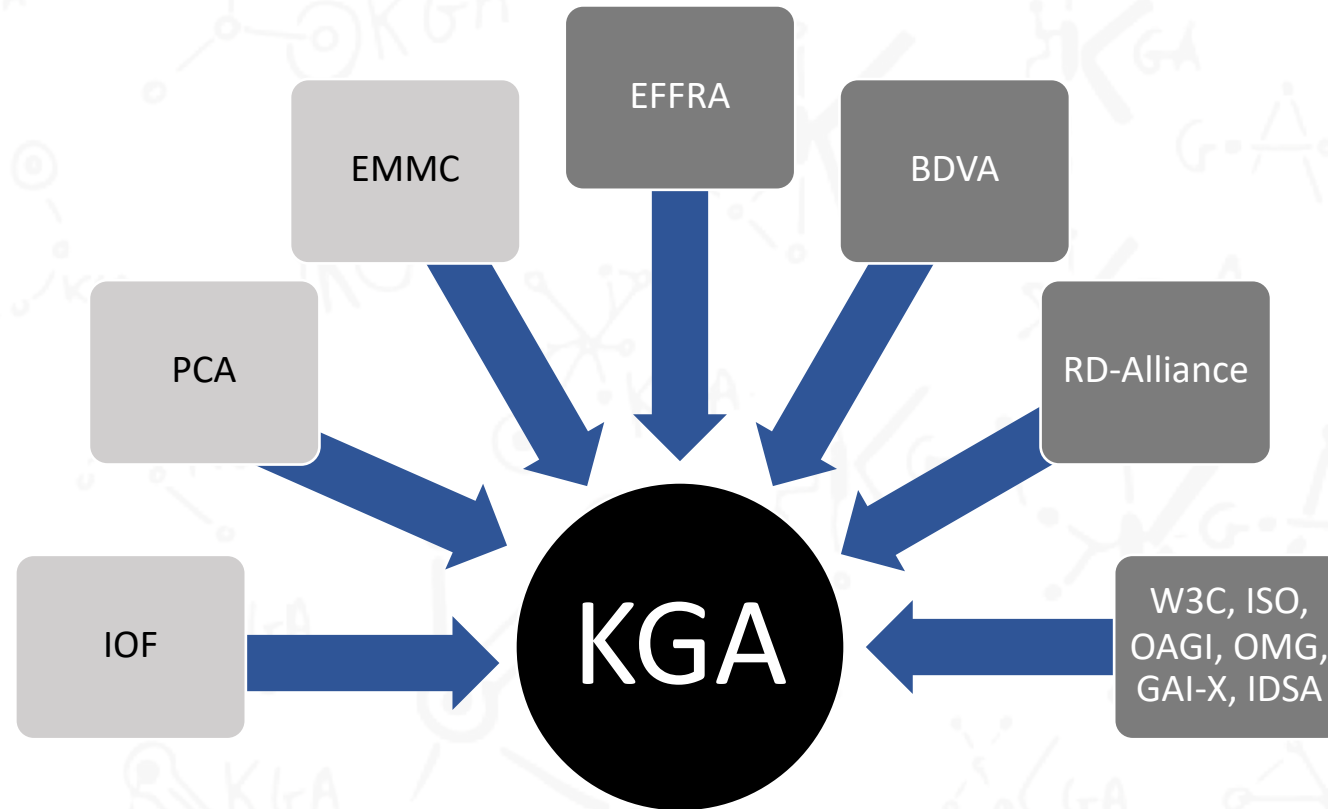
- Executive Master's program creation
- Training and Certification for model, method, and tools.
- Corporate training.

## CONSULTANCY

- Specialized, on-demand, and bespoke solutions.
- Technical Audit
- Quality and maturity Audit



# KGA a HUB and BRIDGE for COLLABORATION



# Thematic WORKING GROUPS

Governance

Technical

Business

Product

Education  
*(KGA Academy)*

Services

Working Group theme 1:

Standardisation (of models, methods, tools)

Working Group theme 2:

Tools and platform (Ont. editing, repository, quality, FAIRness)

Working Group theme 3:

Semantic formal models (Top and domain reference ontology)

Working Group theme 4:

Methodology (Technical principle, cookbook, Risk and Maturity Models)

Working Group theme 5:

Data Management (knowledge graph, data modelling, query, data lake/fusion)

Working Group theme 6:

Innovation application (Use cases, optimisation, solving bottlenecks, valorisation)

Working Group theme 7:

Exploitation & Exploration (ML& KG, LLMs & KG, DT & KG, Metaverse & KG, etc. )

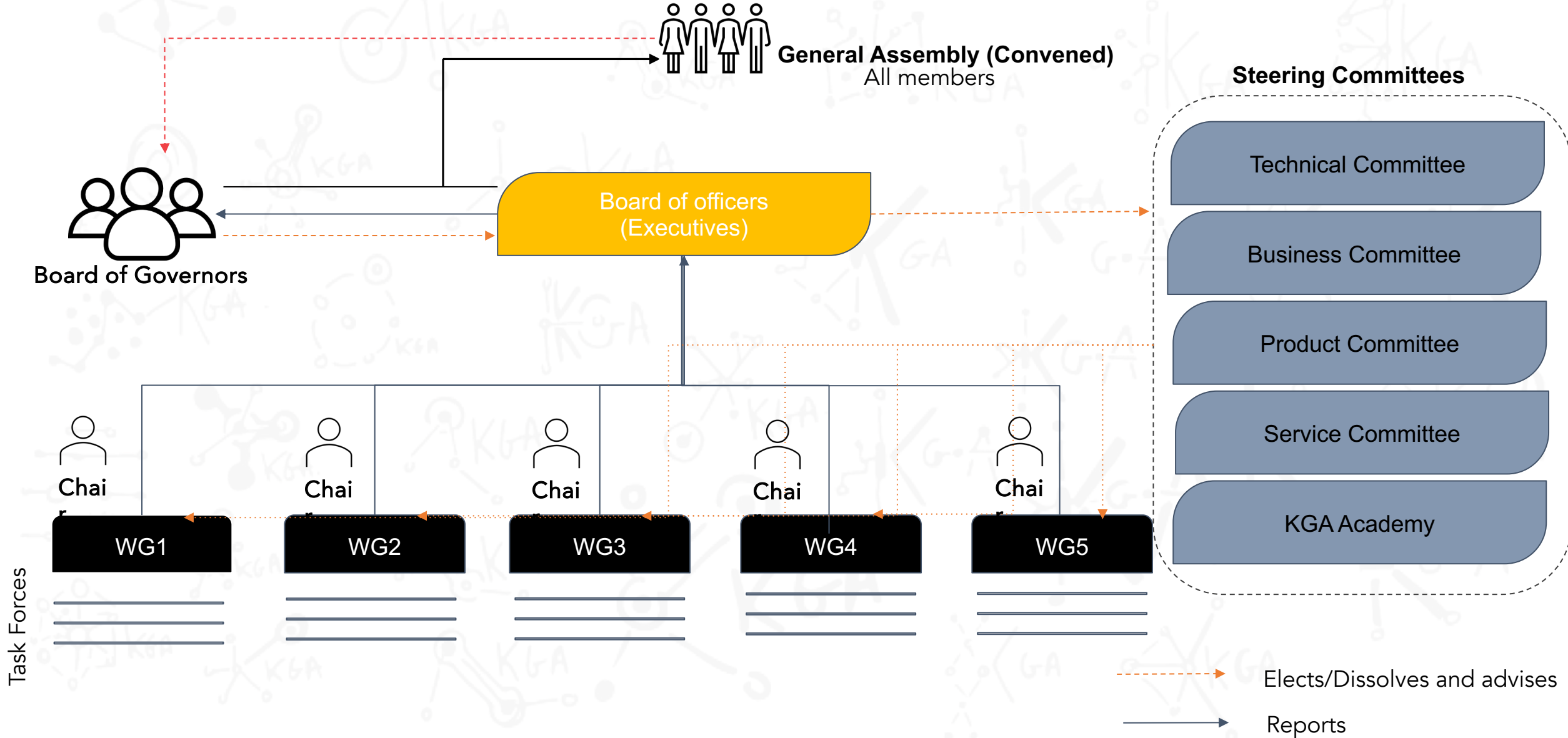
++ Stakeholder initiated domain task forces and working groups



- ❖ Executive Master on Knowledge-Driven Innovation
- ❖ Courses and tutorials
- ❖ Customised Corporate Training
- ❖ E-Learning
- ❖ Certification
- ❖ Webinars and workshops

- ❖ Experts & SMEs marketplace
- ❖ Consultancy
- ❖ Business Networking
- ❖ Business Brokering
- ❖ KG & Ontology marketplace

# COMMITTEES STRUCTURE OF THE ASSOCIATION



# Type of members

❖ Founding Organisation

❖ Organisation Member

❖ Individual Member

❖ Associated Member

# Benefits of joining KGA for Large Enterprises

## ❖ **Mission Profile Excellence**

- Prioritize completion of mission profile with a focus on Research and Innovation (R&I), standardization, and Corporate Social Responsibility (CSR).

## ❖ **Leadership in Data-Driven Innovation**

- Enhance visibility to solidify the organization's position as a leader in data-driven innovation.

## ❖ **Reputation as a Pioneer**

- Strengthen the company's reputation as a pioneer in the industry through continued innovation and groundbreaking initiatives.

## ❖ **Strategic Collaborations**

- Foster collaboration with academia and industries for research, project funding, and networking opportunities.

## ❖ **Frontline in Standardization**

- Lead the way in standardizing models, methods, and tools for SKG (presumably Smart Knowledge Graphs), staying at the forefront of industry standards.

# Benefits of joining KGA for SMEs

## ❖ **Industry-Ready Solutions**

- Transform research and prototypes into industry-ready models, methods, and tools for Smart Knowledge Graphs (SKG).

## ❖ **Testing and Refinement Opportunities**

- Expand testing and refinement opportunities to enhance the effectiveness of developed solutions.

## ❖ **Understanding Industry Needs**

- Gain insights into industry needs and problems through access to various industrial use-cases.

## ❖ **R&I Funding Access**

- Secure access to Research and Innovation (R&I) funding opportunities to support ongoing projects and initiatives.

## ❖ **Business Impact and Opportunities**

- Leverage the influence on the SKG adoption process to increase business opportunities and generate significant business impact.

# Benefits of joining KGA for Research Organisations

## ❖ **Research Showcase**

- Highlight the capabilities of your research and prototypes to demonstrate innovation and competence.

## ❖ **Strategic Collaboration**

- Collaborate for research, secure project funding, and establish networks within industries to strengthen the impact of your initiatives.

## ❖ **Standardization Leadership**

- Take a leading role in standardizing models, methods, and tools for Smart Knowledge Graphs (SKG) to stay at the forefront of industry standards.

## ❖ **Scientific and Business Impact**

- Generate both scientific and business impact by actively participating in initiatives that align with the organization's objectives and priorities.



# Benefits of joining KGA for Individuals

## ❖ **Strategic Collaboration and Networking**

- Collaborate with industries for research, secure project funding, and establish networks to strengthen partnerships.

## ❖ **Research and Prototype Showcase**

- Highlight your capabilities in research and prototypes, emphasizing innovation and expertise.

## ❖ **Standardization Leadership for SKG**

- Take a leading role in standardizing models, methods, and tools for Smart Knowledge Graphs (SKG) to stay at the forefront of industry practices.

## ❖ **Participation in Initiatives and Training**

- Vote for and actively engage in initiatives related to shared components, ensuring alignment with organizational priorities. Additionally, gain access to expert-led trainings, reports, models, data, and benchmarks on SKG.

# MEMBERSHIP LEVELS

Category of member	Annual fee of membership	Founding Organisation contribution for launching (including 2024 membership)
Turnover >= 1 Billion €//\$	15 000 €	25 000 € (Gold Membre) 35 000 € (Platinum Membre) 45 000 € (Diamond Membre)
Turnover >= 1 Million €//\$	7 500€	15 000 €
Turnover >= 500 k€//\$	3 750 €	7 000 €
Turnover >= 100 k€//\$	2 000 €	4 000 €
Turnover < 100 k€//\$	1 000 €	3 000 €
Gouvernemental Organisation	3 000 €	6 000 €
Universities and non-profits	1 000 €	3 000 €
Individual	250 €	Not proposed
Shared membership with (eg. IOF, PCA, EMMC, etc.)	TBD by MOU	Not proposed

\* All members of a member organisation get all the rights as an individual member.

# Why join as Founding Organisation ?

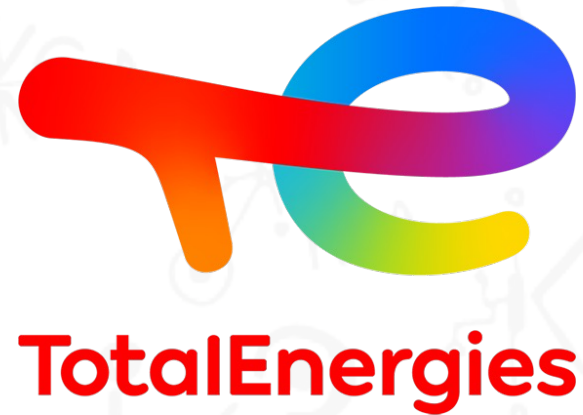
Apart from the many exciting benefits common to all members:

- ❖ Get special exposure in the KGA website and social media, and other branding material (badge, logo, profile etc.)
- ❖ Referred as brand ambassadors in the communications to companies, government agencies and other activities for marketing, profile building, and create trust.
- ❖ Get greater opportunity in occupying the leadership positions (e.g., Board of Director, Executive officers, working group chairs) and therefore to set up the long-term roadmap of KGA.
- ❖ Participate to write the KGA charter which will govern the regular working strategy and methodology in different working groups, along with their focus, and code of conduct.
- ❖ Participate to form the steering committees who initiate different working groups and tasks.
- ❖ Get privilege to showcase their success stories in terms of case studies, use cases, and past projects in the KGA website and brochures.



KGA an international HUB

# Gold Founding Organisations

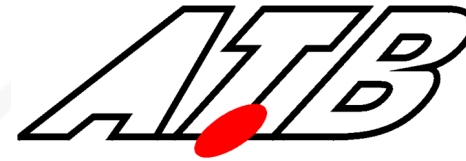




# Founding Organisations from UE



OLLSCOIL NA  
GAILLIMHÉ  
UNIVERSITY  
OF GALWAY



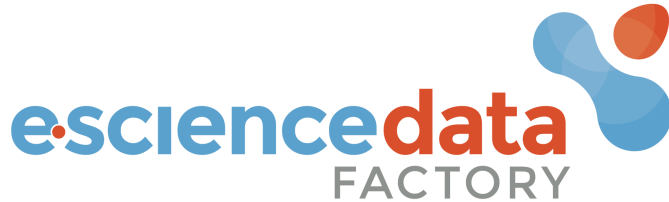
Institut für angewandte  
Systemtechnik Bremen  
GmbH



# BOSCH



UNIVERSITY  
OF OSLO



POLITÉCNICA

UNIVERSIDAD  
POLITÉCNICA  
DE MADRID





# Founding Organisations from US



# Founding Organisations from UK





# Founding Organisations from ASIA



UAE



جامعة زايد  
ZAYED UNIVERSITY

# WHO else ?

## Advanced discussions to be Founding Organisation

- ✓ AIRBUS
- ✓ MICHELIN
- ✓ DNV
- ✓ CT Engineering Group
- ✓ OntoText
- ✓ University of Bologna

# How to join as founding organisation

- First step, fill the application Form
- <https://shorturl.at/yzOZ3>



# Join as member

Fill the application FORM

<https://forms.gle/VLFoLs2WahDc9E2a8>



***Together we shape the semantic transformation towards innovation !***

**Thank you**

[www.kg-alliance.org](http://www.kg-alliance.org) (under construction)