# Open Knowledge Graph Innovation Lab

## Open Knowledge Graphs

### Problem

We live in a hyper-connected world where an invisible bio-adversary can deliver a toxic shock to our global system with a largely unmeasurable impact on our Lives and Livelihood. As businesses strive to understand the Risk impact, assess their business resiliency, and pivot to growth, we cannot stitch together holistic, continuous. Contextually relevant Intelligence at a scale and speed we need to deal with the ‘New Normal.’

Per IDC estimation, in 2020, we’ll produce and consume more than 59 Zettabytes of data with 26% growth over the next 3 years, and a larger portion of this will be unstructured data. While we have made tremendous progress in applying machine intelligence to understand and derive insights from our internal data, our data ecosystems remain disjointed with a significant lack of Trust. Our current architectures and technology cannot connect and integrate internal and external data to enable Agile Intelligence we need. This further inhibits our ability to develop newer Products and Services, maintain and grow a trusted relationship with our customers and partners while lowering our Risk profile.

### Solution

What we urgently need is a new strategy, architecture, and solutions to develop Agile Intelligence. Knowledge Graphs are well suited to serve as the DNA of this new architecture. Knowledge Graphs mimic how the human’s brain thinks – in terms of connections and relationships. Adding advanced machine intelligence to the underlying Graph databases enables the Enterprise Digital Brain to deliver enterprise-level Agile Intelligence.

Per Marketsandmarkets, the Knowledge Graph industry is poised to experience hyper-growth ($3B and 23% CAGR by 2023). Other industry analysts such as Gartner are bullish on the Knowledge Graph market trends. Gartner lists Graph powered augmented analytics among the top 10 trends, with 30% of the global organizations making Graph powered decisions.

### EDMC Mission

EDMC advocate knowledge graph adoption. In particular, the role of EDMC is to

- Provide Knowledge Graph Awareness, Training, and Certification Programs
- Support Shared Industry Ontologies as Accelerators to Business Solutions
- Support a Community of Knowledge Graph Advocates

### EDMC OKG Infrastructure Architecture

![Knowledge Graph Infrastructure Diagram]

- **ontology-publisher**
  - [https://github.com/decentref/ontology-publisher](https://github.com/decentref/ontology-publisher)
- **Docker image**
  - [https://hub.docker.com/r/decentref/ontology-publisher](https://hub.docker.com/r/decentref/ontology-publisher)
- **Jenkins job**
  - [https://github.com/decentref/ontology-publisher](https://github.com/decentref/ontology-publisher)
- **Jenkins job configuration**
  - [https://github.com/decentref/ontology-publisher](https://github.com/decentref/ontology-publisher)
- **ontology-viewer frontend**
  - [https://github.com/decentref/ontology-viewer](https://github.com/decentref/ontology-viewer)
- **ontology-viewer backend**
  - [https://github.com/decentref/ontology-viewer](https://github.com/decentref/ontology-viewer)
- **nginx ontology files**
  - [https://github.com/decentref/ontology-publisher](https://github.com/decentref/ontology-publisher)

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*Notes on diagram:
- Install
- GitHub Repository
- Ontologist
- rdf toolkit
  - [https://github.com/decentref/rdf-toolkit](https://github.com/decentref/rdf-toolkit)
- strapi database
- onto-viewer frontend
- onto-viewer backend
- Jenkins job
- Jenkins job configuration

### Spaces

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<thead>
<tr>
<th>Space</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>AUTO</strong></td>
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<td><strong>FIBO</strong></td>
<td>The public OKG/FIBO documentation WIKI</td>
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<tr>
<td><strong>FIBO-FCT-Derivatives</strong></td>
<td>Documentation and other materials for the FIBO Content Team &quot;Derivatives&quot;.</td>
<td><a href="https://github.com/edmcouncil/fibo/tree/pink%E2%80%A6">https://github.com/edmcouncil/fibo/tree/pink…</a></td>
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<td><strong>FIBO-FCT-Ratings</strong></td>
<td>The Ratings Content team is working to expand the concepts associated with market and credit ratings and add them to the...</td>
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<td><strong>FIBO-FCT-Indices and Indicators</strong></td>
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<td><strong>FIBO-FCT-Loans and Mortgages</strong></td>
<td>Documentation and other materials for the FIBO Content Team &quot;Loans &amp; Mortgages&quot;.</td>
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<tr>
<td><strong>FIBO - RDF Toolkit</strong></td>
<td>This is a public space being used to collaborate on building the FIBO RDF Toolkit to manage FIBO Publication on spec.edm...</td>
<td><a href="https://github.com/edmcouncil/fibo/tree/pink%E2%80%A6">https://github.com/edmcouncil/fibo/tree/pink…</a></td>
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<td><strong>Pistoia Alliance IDMP Ontology</strong></td>
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