

Knowledge Graphs for Ethical Innovation at IKEA

Presented to Knowledge Graph Alliance

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Agenda

IKEA Business & Home Furnishing Expertise

IKEA Knowledge Graph Now & Opportunities

Ethical Personal Recommendations

Demo

IKEA is...



IKEA is a retailer with home furnishing knowledge at its heart

- IKEA has been around for 80 years, and has 468 IKEA stores in 63 markets



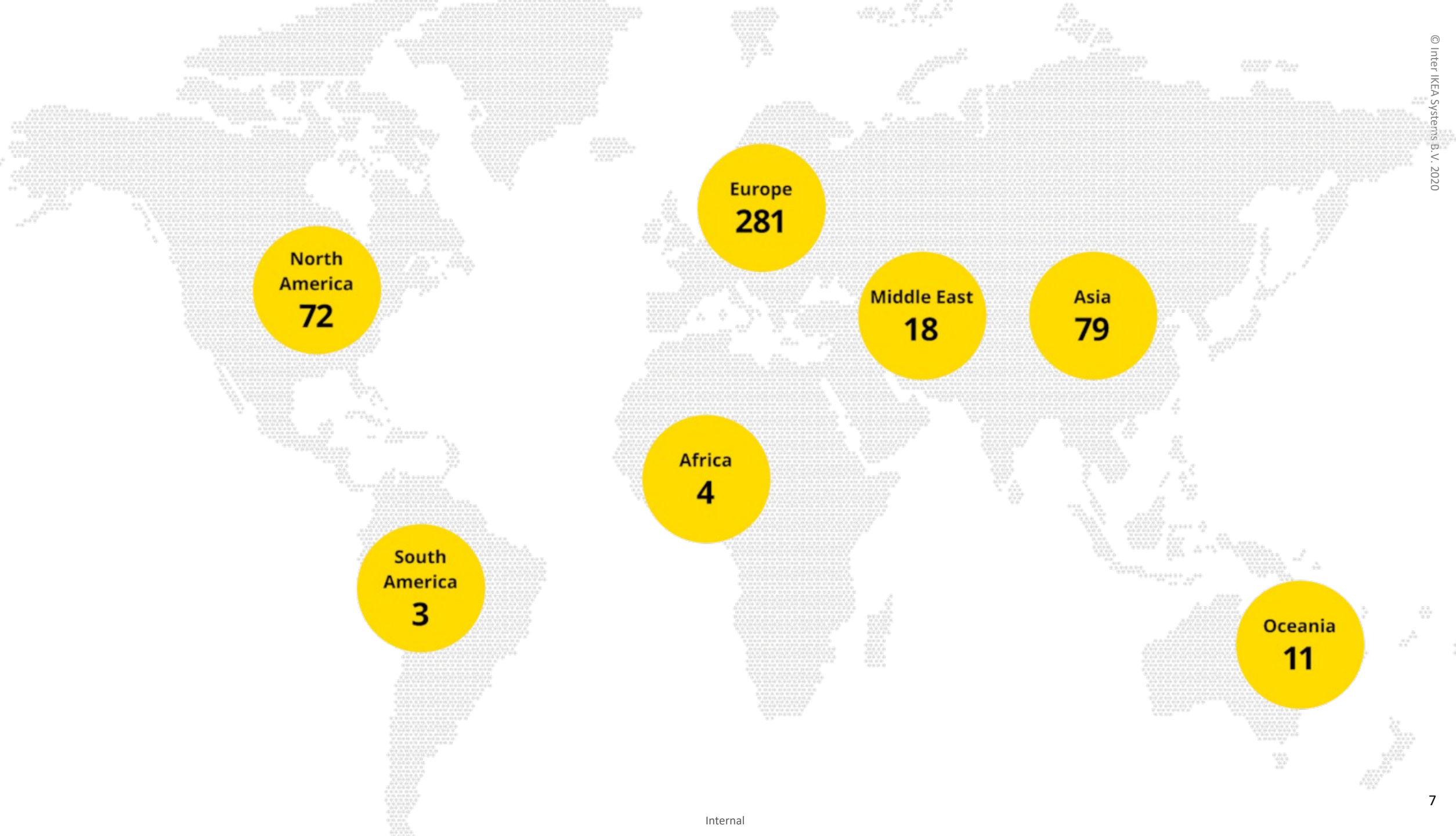
LAUTERS
Floor lamp
€59.95

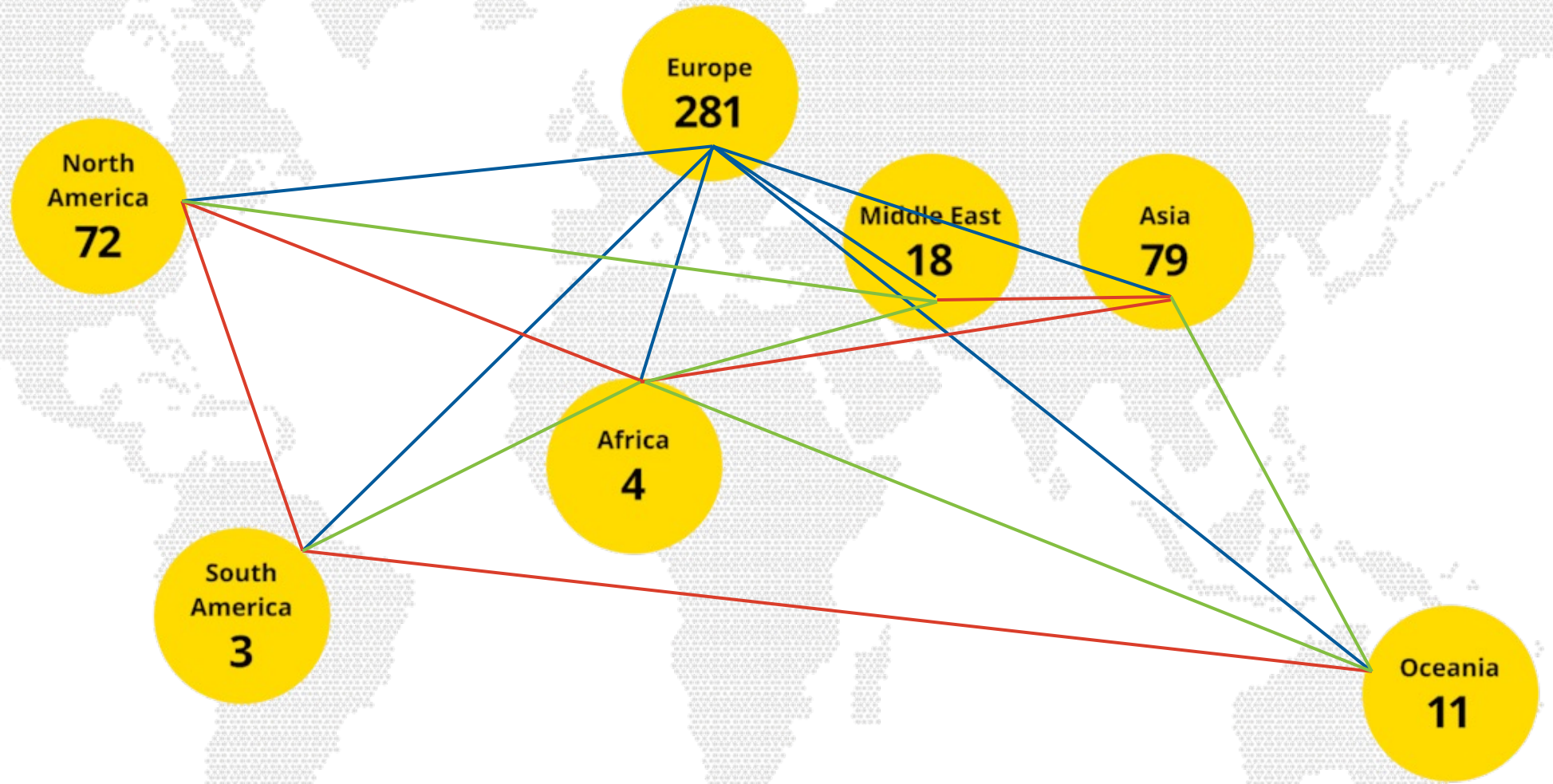
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- Inter IKEA Systems B.V. is a franchisor, and owner of the IKEA Concept
 - Range (Home Furnishing)
 - Supply (Supply Chain)
 - Retail Concept (Retail System)



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 - Range (Home Furnishing)
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- IKEA works with franchisees (such as Ingka) to set up an IKEA value chain to supply good quality, low price home furnishing for the many

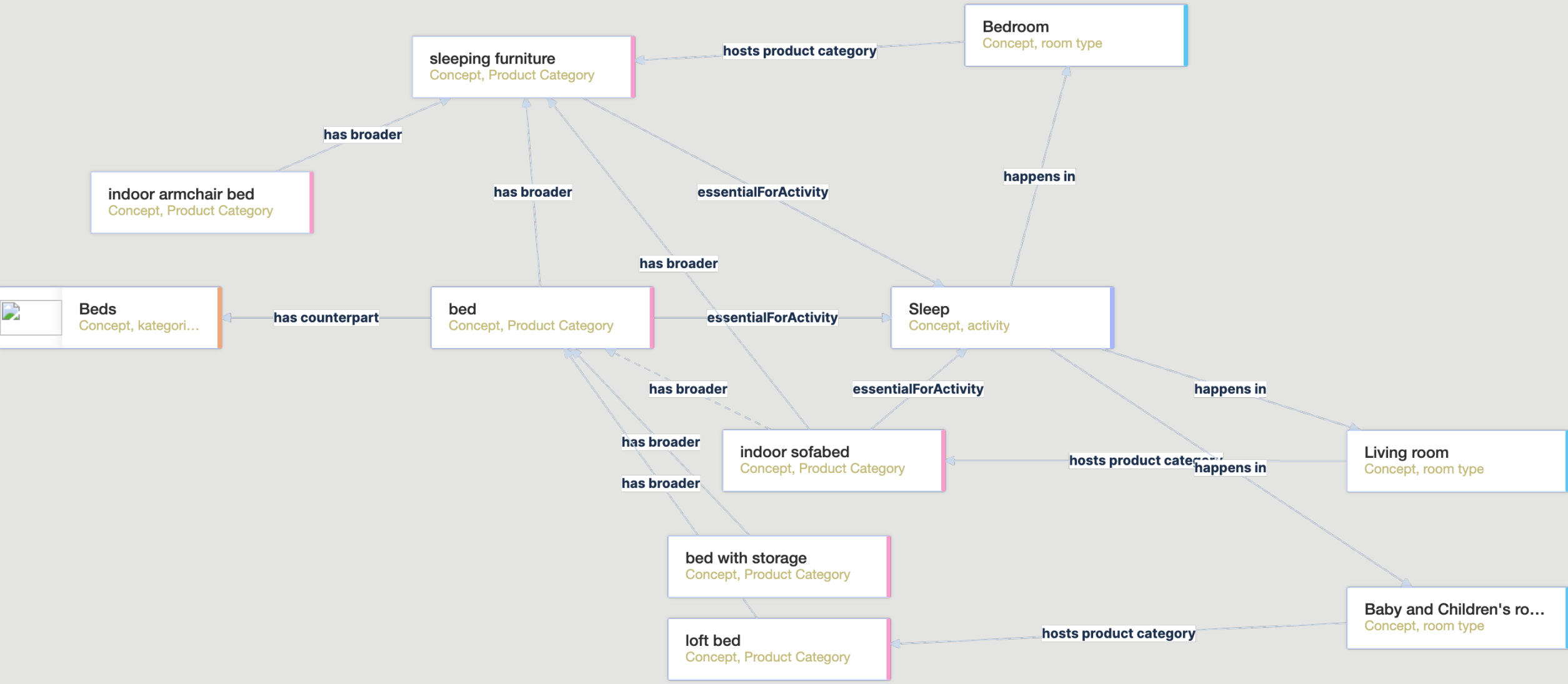


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The IKEA Knowledge Graph is at the heart of business


- In 2021, IKEA adopted the Knowledge Graph project to capture home furnishing knowledge
- Today, we have several ontologies that capture home furnishing and life at home knowledge, the IKEA concept, and vocabularies related to business needs



Bedroom
Concept, room type

sleeping furniture
Concept, Product Category

indoor armchair bed
Concept, Product Category

 **Beds**
Concept, kategori...

bed
Concept, Product Category

Sleep
Concept, activity

indoor sofabed
Concept, Product Category

bed with storage
Concept, Product Category

loft bed
Concept, Product Category

Living room
Concept, room type

Baby and Children's ro...
Concept, room type



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- In 2021, IKEA adopted the Knowledge Graph project to capture home furnishing knowledge
- Today, we have several ontologies that capture home furnishing and life at home knowledge, the IKEA concept, and vocabularies related to business needs
- We provide data-centric services driven by the Knowledge Graph to all our co-workers to use in their work, and to create services that improve the lives of our customers
- In the future, we want to enable new discoveries with Knowledge Graphs in the whole supply chain – with sustainability, traceability and transparency in line with Industry 5.0

The challenges to providing home furnishing recommendations

The challenges to providing home furnishing recommendations



In-store, customers face a less overwhelming choice.

In-store display sofas: ~25
In-store add-ons per sofa: 3
Total: ~75



Online, customers can see all products available.

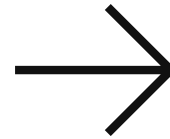
Online display sofas: ~1570
Online add-ons per sofa: 10
Total: ~15,700



Legislation in EU and Worldwide give more protection to consumers about their data, it's uses, storage and how they are profiled.

GDPR, EU AI Act, AI Liability Directive

Meeting the customer, always with ethical personalised recommendations



For Co-Workers, we have learning materials and training to teach them how to interact with customers and share home furnishing knowledge.

Co-workers ask customers questions to get strong information **at the moment of need**

For online customers, we want recommendation systems that don't require third-party data and weak signals to understand the customer.

Customers to choose what information they share with IKEA giving them control to what they need **in the moment**

DEMO TIME



Thank you



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