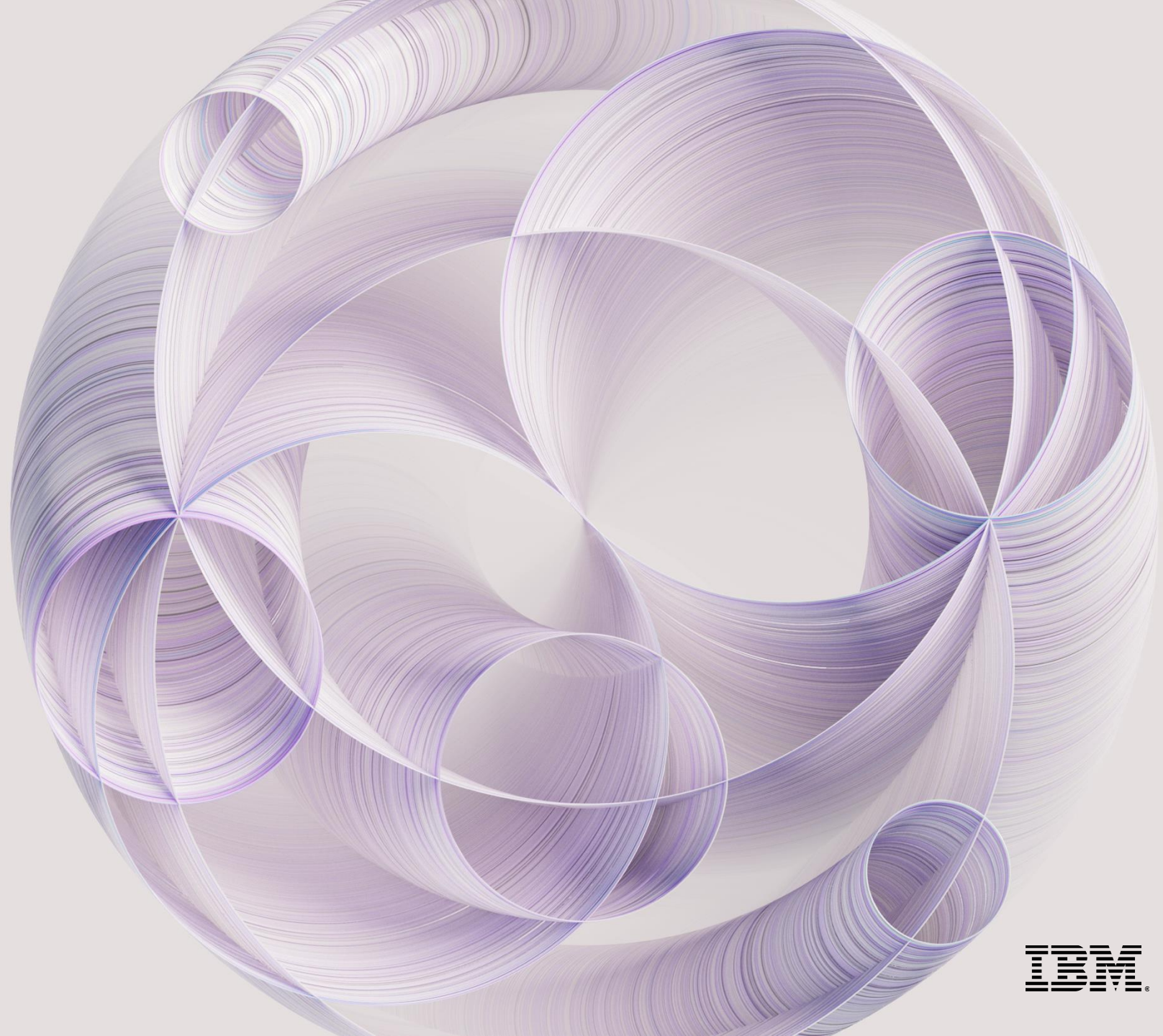# IBM om AI

IBM i fagdag
Common Norge

Vidar Svendsen, Oslo 11.09.2024

Putting AI to work with IBM

Vidar Svendsen

AI eller KI?

1950's

Artificial intelligence (AI)
Human intelligence exhibited by machines

1980's

Machine learning
AI systems that learn from historical data

2010's

Deep learning
Machine learning models that mimic human brain function

2020's

Generative AI (Gen AI)
Deep learning models (foundation models) that create original content

The IBM software offering sits on 10+ years experience in trustworthy AI

Deep expertise in AI

Trustworthy AI research since 2013

1,000+ generative AI for business engagements in 2023

#1 in AI-related patents in 2023

Deep expertise in governance

GRC platform since 2010

11 interconnected risk domains supported by a common "backbone"

MRG solution since 2016

AI governance solution since 2022

IBM is "client zero"

AI Ethics board since 2018

Governance of internal AI use cases

Governance of trained generative AI models

Using our own technology

Community involvement

AI legislation

AI technical standards

Academic and industry partnerships

Trust
at the core

Without trust,
no adoption

Without adoption,
no usage

Without usage,
no return of investment

Data and Insights belong to their creator

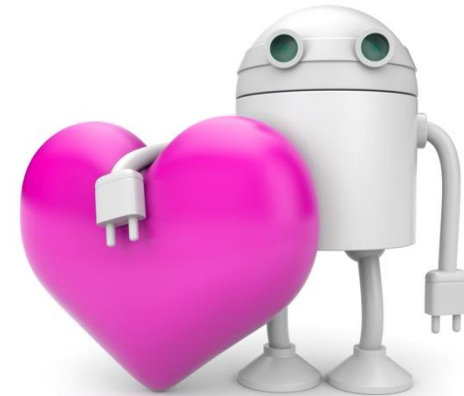Much more than avoid training models on their input

Augmented Intelligence

The purpose of the technology is not to replace human intelligence, but to augment human intelligence

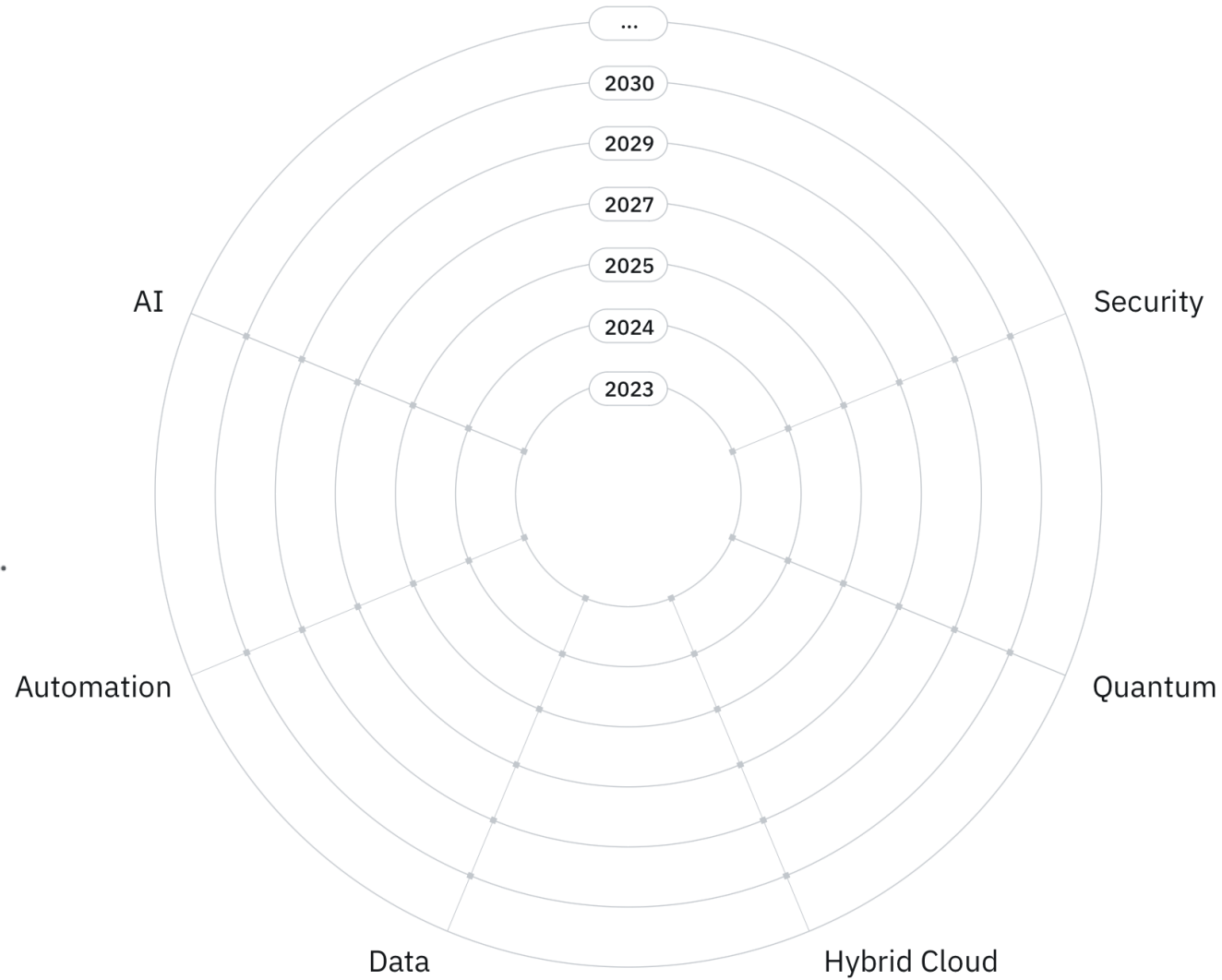### The technology must be Explainable and Transparent

There's a difference

tillit

IBM
Technology Atlas

We are writing the next chapter in Computing with six technology roadmaps that will bring a new era of performance and efficiency to information technology and business.

AI
Large-scale, self-supervised neural networks, which are known as foundation models, multiply the productivity and the multimodal capabilities of AI. More general forms of AI emerge to support reasoning and commonsense knowledge.

AI

...
2030
2029
2027
2025
2024
2023

Security

Quantum

Hybrid Cloud

Data

Automation
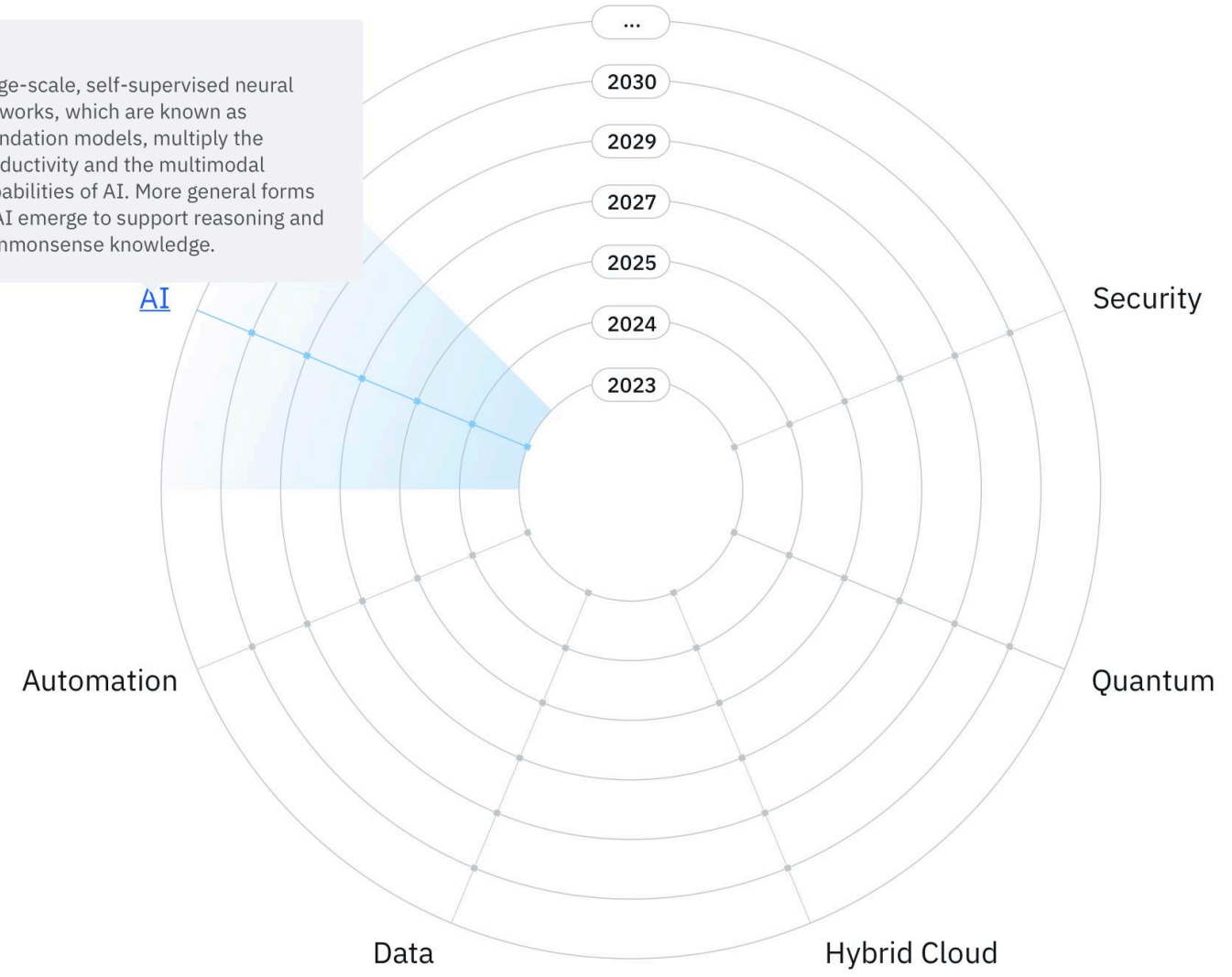
2030+

Build adaptable and generalist AI for effective human-machine collaboration.

Our AI models will be composed of modules with different cognitive abilities (e.g., perception, memory, emotion, reasoning, and action), enabling them to exhibit behavioral norms for social interactions and mutual theory of mind.

Why this matters for our clients and the world

By being able to predict, act, plan, and adapt to new situations and environments, these unified neural architectures will enable a broad variety of use cases that require effective human-machine collaboration.

The technologies and innovations that will make this possible

Memory encodings of different sensory perceptions (e.g., visual, olfactory) will make AI weigh rewards and threats, safely interact with the world, and find optimal ways to achieve goals. Algorithms will be combined with hardware to natively support heterogeneity in neurons and neural connections in a similar fashion to biological intelligence.

What's Next in AI
is *foundation models at scale*

AI is revolutionizing how business gets done, but popular models can be costly and are often proprietary. At IBM Research, we're designing powerful new foundation models and generative AI systems with trust and transparency at their core. We're working to drastically lower the barrier to entry for AI development, and to do that, we're committed to an open-source approach to enterprise AI.
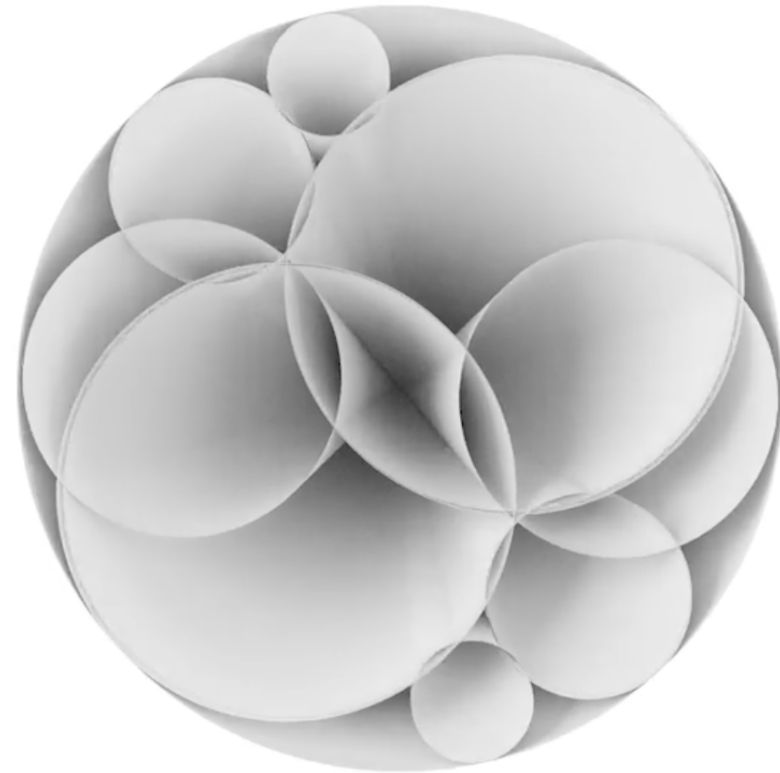
Featured topics:

Foundation Models →

Generative AI →

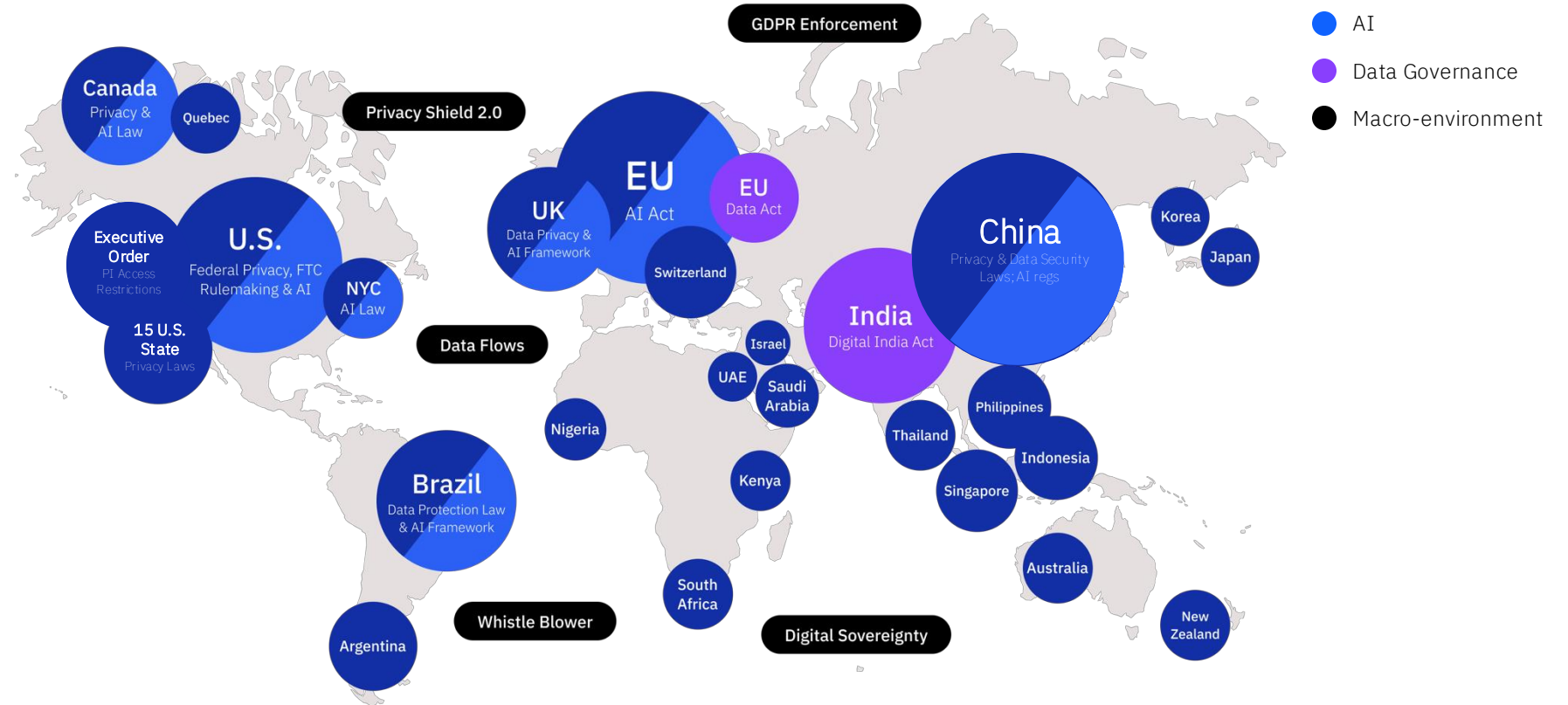Trustworthy AI →

AI Hardware →

research.ibm.com/artificial-intelligence

Privacy, data, and AI regulations and enforcement activities are increasing

Legend:
- Privacy
- AI
- Data Governance
- Macro-environment

Map labels:
GDPR Enforcement · Canada Privacy & AI Law · Quebec · Privacy Shield 2.0 · Executive Order PI Access Restrictions · U.S. Federal Privacy, FTC Rulemaking & AI · NYC AI Law · 15 U.S. State Privacy Laws · Data Flows · UK Data Privacy & AI Framework · EU AI Act · EU Data Act · Switzerland · Korea · Japan · China Privacy & Data Security Laws; AI regs · India Digital India Act · Israel · UAE · Saudi Arabia · Nigeria · Kenya · Brazil Data Protection Law & AI Framework · Thailand · Philippines · Indonesia · Singapore · Australia · Argentina · Whistle Blower · South Africa · Digital Sovereignty · New Zealand

Privacy laws and regulations

15 US states have passed comprehensive privacy bills, three of them will become effective in 2024.

India's Digital Personal Data Protection Act will become effective in 2024, including fines for non-compliance up to $30M.

US Executive Order limits bulk transfer of specified types of sensitive data to certain countries.

AI laws and regulations

The EU AI Act was passed in March 2024 and includes fines of up to **7% of a company's annual revenues** for noncompliance.

Canada, Brazil and Korea progress toward adoption of AI laws.

A number of US states have already adopted AI laws, and AI laws are progressing in several others.

US Executive Order directs new standards for AI safety and security.

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▢ Copy URL

Part of Chapter I: General Provisions

Article 4: AI literacy

Date of entry into force:	According to:	Inherited from:
2 February 2025	Article 113(a)	Chapter I

See here for a full implementation timeline.

SUMMARY +

Providers and deployers of AI systems shall take measures to ensure, to their best extent, a sufficient level of AI literacy of their staff and other persons dealing with the operation and use of AI systems on their behalf, taking into account their technical knowledge, experience, education and training and the context the AI systems are to be used in, and considering the persons or groups of persons on whom the AI systems are to be used.

Provider (tilbyder)

A natural or legal person, public authority, agency or other body that **develops** an AI system or a general purpose AI model or that has an AI system or a general purpose AI model developed and places them on the market or puts the system into service under its own name or trademark, whether for payment or free of charge.

Deployer (bruker)

Any natural or legal person, public authority, agency or other body **using** an AI system under its authority except where the AI system is used in the course of a personal non-professional activity.

https://artificialintelligenceact.eu/article/4/

How are AI systems classified?

Unacceptable Risk

Prohibited because uses pose an unacceptable risk to the safety, security and fundamental rights of people.
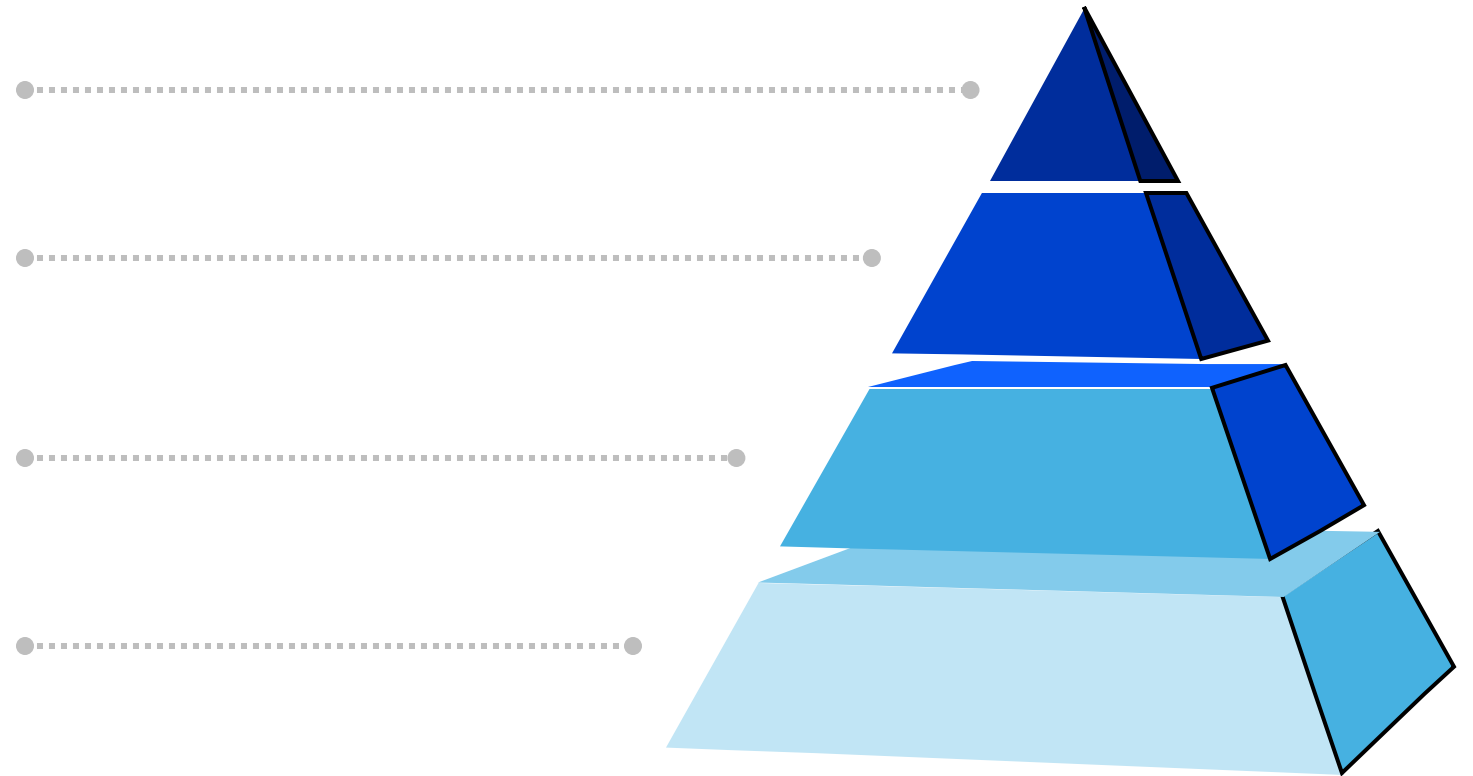
High Risk

Permitted, subject to compliance with the requirements of the AI Act.

Transparency Risk

Permitted, subject to specific transparency and disclosure obligations where uses pose a limited risk.

Minimal or No Risk

Permitted, with no additional AI Act requirements where uses pose minimal risk.

Risk-based approach: overview

Classification	Description	Compliance level	Use case examples
Prohibited AI uses	Prohibited because uses pose an unacceptable risk to the safety, security and fundamental rights of people.	Prohibition	Use of AI for social scoring which could lead to detrimental treatment, emotional recognition systems in the workplace, biometric categorization to infer sensitive data, and predictive policing of individuals, among other uses. Some exemptions will apply.
High-risk AI uses	Permitted, subject to compliance with the requirements of the AI Act.	Significant	Use of AI in recruitment, biometric identification surveillance systems, safety components, access to essential private and public services, and safety of critical infrastructure.
'Transparency' Risk AI uses	Permitted, subject to specific transparency and disclosure obligations where uses pose a limited risk.	Limited	Certain AI systems that interact directly with people, and visual or audio "deepfake" content that has been manipulated by an AI system.
Minimal risk AI uses	Permitted, with no additional AI Act requirements where uses pose minimal risk.	Minimal	By default, all other AI systems that do not fall into the above categories.

Elements of AI risk

Accountability

Accuracy

Fairness

Veracity

Transparency

Drift

Trusted data

Energy consumption
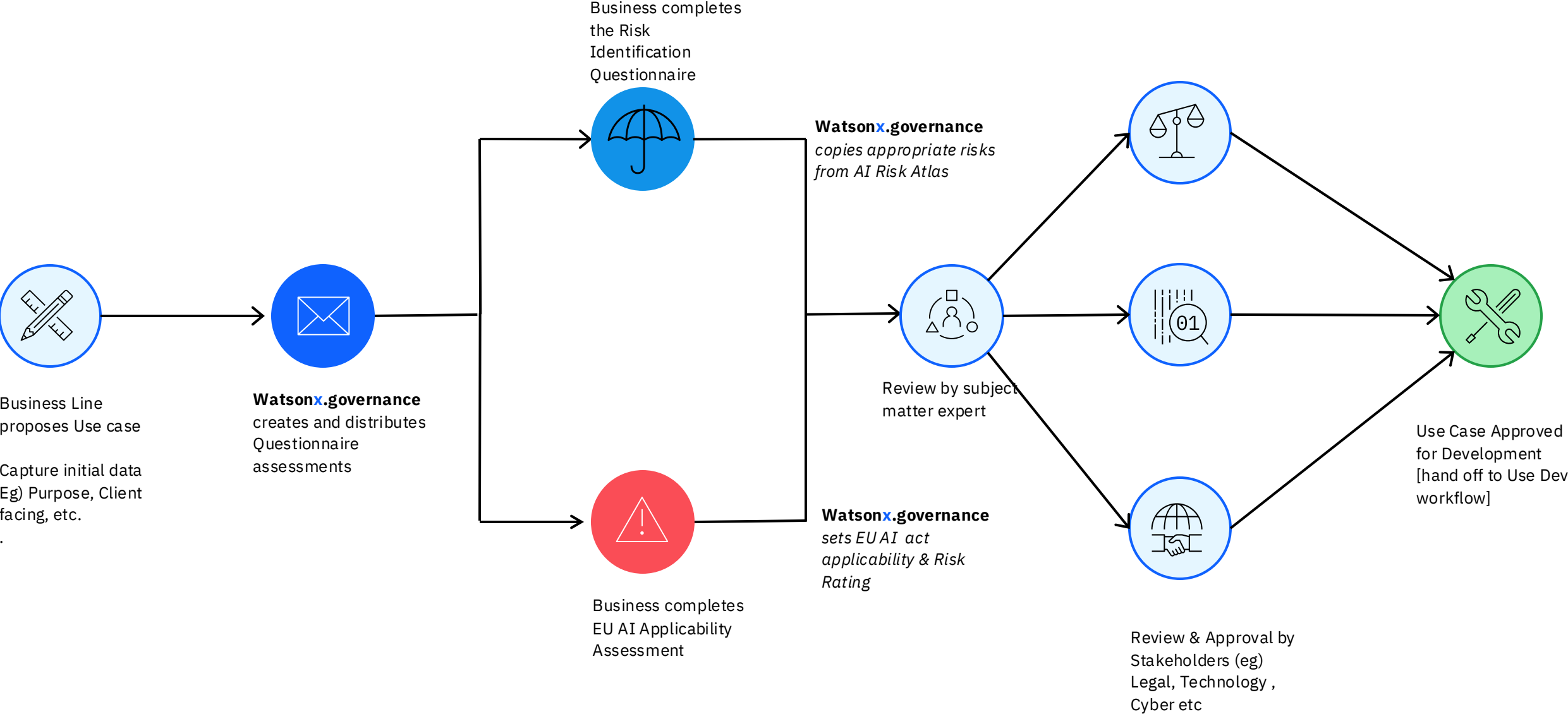
Explainability

Adversarial Robustness

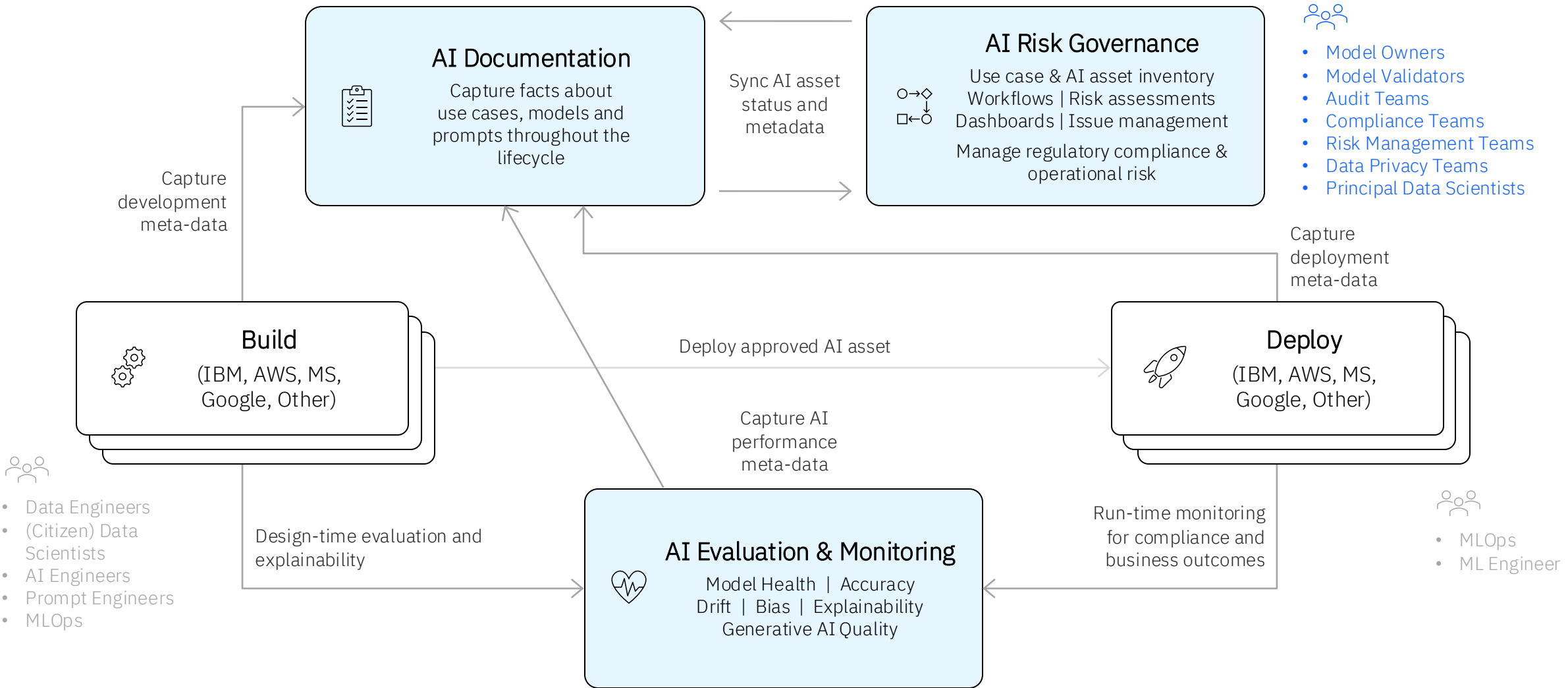IP/PII leakage

...

Regulatory Risk

Reputational Risk

Operational Risk
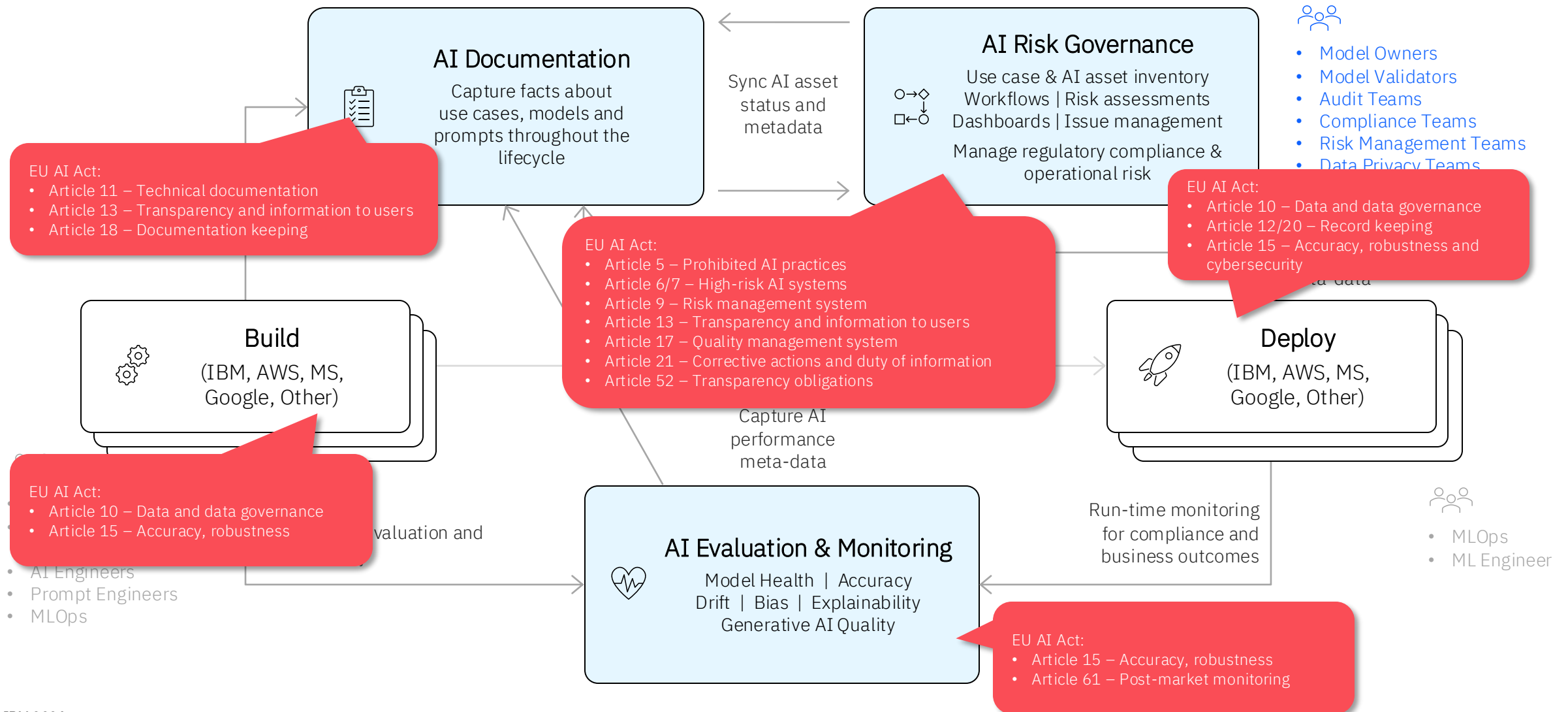
Use Case Capture workflow

Business completes
the Risk
Identification
Questionnaire

Watsonx.governance
*copies appropriate risks
from AI Risk Atlas*

Business Line
proposes Use case

Capture initial data
Eg) Purpose, Client
facing, etc.

.

Watsonx.governance
creates and distributes
Questionnaire
assessments

Watsonx.governance
*sets EU AI act
applicability & Risk
Rating*

Business completes
EU AI Applicability
Assessment

Review by subject
matter expert

Use Case Approved
for Development
[hand off to Use Dev
workflow]

Review & Approval by
Stakeholders (eg)
Legal, Technology ,
Cyber etc

watsonx.governance

AI Documentation
Capture facts about use cases, models and prompts throughout the lifecycle

Sync AI asset status and metadata

AI Risk Governance
Use case & AI asset inventory
Workflows | Risk assessments
Dashboards | Issue management

Manage regulatory compliance & operational risk

- Model Owners
- Model Validators
- Audit Teams
- Compliance Teams
- Risk Management Teams
- Data Privacy Teams
- Principal Data Scientists

Capture development meta-data

Capture deployment meta-data

Build
(IBM, AWS, MS, Google, Other)

Deploy approved AI asset

Deploy
(IBM, AWS, MS, Google, Other)

Capture AI performance meta-data

- Data Engineers
- (Citizen) Data Scientists
- AI Engineers
- Prompt Engineers
- MLOps

Design-time evaluation and explainability

AI Evaluation & Monitoring
Model Health | Accuracy
Drift | Bias | Explainability
Generative AI Quality

Run-time monitoring for compliance and business outcomes

- MLOps
- ML Engineer

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watsonx.governance
Conceptual mapping of provisions of the EU AI Act

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Use case & AI asset inventory
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- Compliance Teams
- Risk Management Teams
- Data Privacy Teams

EU AI Act:
- Article 11 – Technical documentation
- Article 13 – Transparency and information to users
- Article 18 – Documentation keeping

EU AI Act:
- Article 10 – Data and data governance
- Article 12/20 – Record keeping
- Article 15 – Accuracy, robustness and cybersecurity

EU AI Act:
- Article 5 – Prohibited AI practices
- Article 6/7 – High-risk AI systems
- Article 9 – Risk management system
- Article 13 – Transparency and information to users
- Article 17 – Quality management system
- Article 21 – Corrective actions and duty of information
- Article 52 – Transparency obligations

Build
(IBM, AWS, MS, Google, Other)

Deploy
(IBM, AWS, MS, Google, Other)

EU AI Act:
- Article 10 – Data and data governance
- Article 15 – Accuracy, robustness

Capture AI performance meta-data

Run-time monitoring for compliance and business outcomes

- AI Engineers
- Prompt Engineers
- MLOps

- MLOps
- ML Engineer

AI Evaluation & Monitoring
Model Health | Accuracy
Drift | Bias | Explainability
Generative AI Quality

EU AI Act:
- Article 15 – Accuracy, robustness
- Article 61 – Post-market monitoring

Nearly all available public data is now represented in foundation models

Less than 1% of all enterprise data is represented in foundation models

Why you must choose a base model carefully

→ The base model should be transparent so that you know what its contents are.

→ Because when adding your data, you need to know with what you're mixing it.
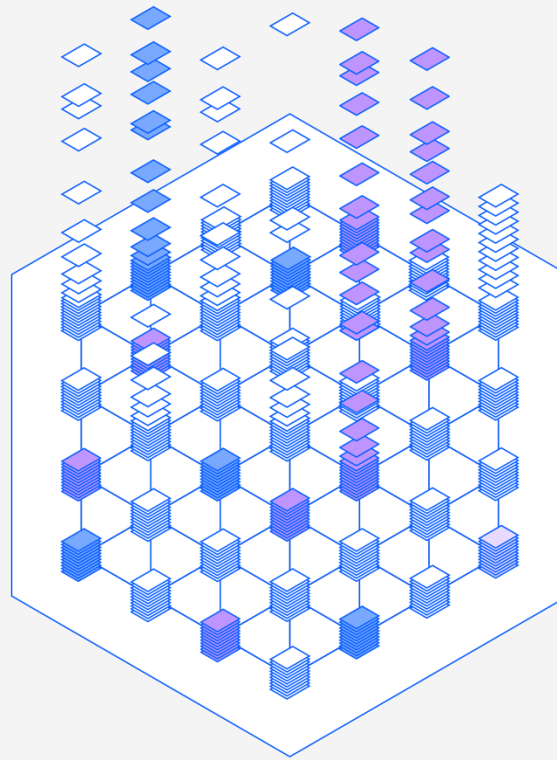
→ The resulting combination is what your enterprise will consume.
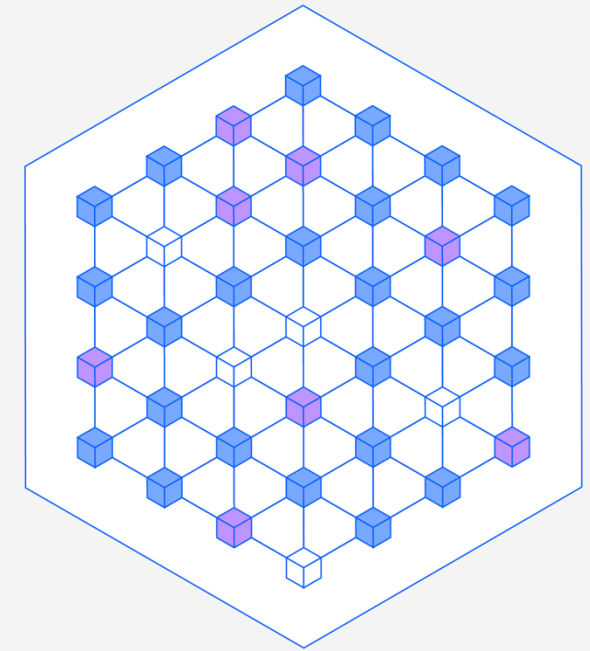
A base model must give you

→ Performance and transparency
→ Broad commercial rights
→ Indemnification

18 models all with APACHE2
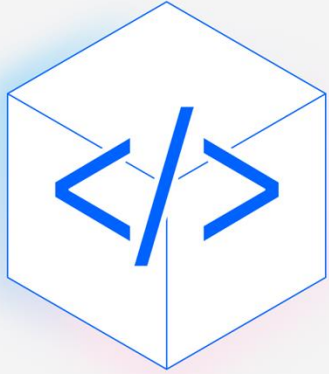
IBM Granite
Code models

Base
Granite-34B-Code-Base
Granite-20B-Code-Base
Granite-8B-Code-Base
Granite-3B-Code-Base

Instruction-tuned
Granite-34B-Code-Instruct
Granite-20B-Code-Instruct
Granite-8B-Code-Instruct
Granite-3B-Code-Instruct

IBM Granite
Time Series models

Granite-TimeSeries-TTM
Granite-TimeSeries-PatchTSMixer
Granite-TimeSeries-PatchTST

IBM Granite
Language models

English Base
Granite-7B-Base

English Instruction-tuned
Granite-7B-Instruct
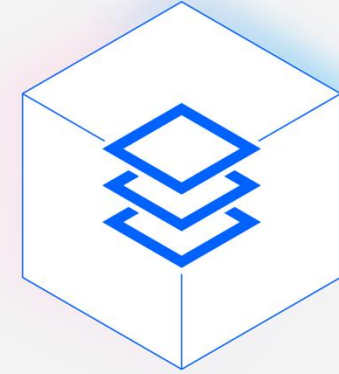
IBM Granite
Geospatial models

Earth
Granite-EarthObservation-HLS-Biomass
Granite-EarthObservation-HLS-CanopyHeight
Granite-EarthObservation-HLS-Landslide

Weather and climate
Granite-WeatherClimate-Precip-Downscaling
Granite-WeatherClimate-WindForecasting

Step 2

Start from a trusted base model
Create a new representation of your data

RAG (Retrieval-Augmented Generation)

→ Useful application pattern
→ Does not represent enterprise data in the model weights
→ Does not improve the model itself
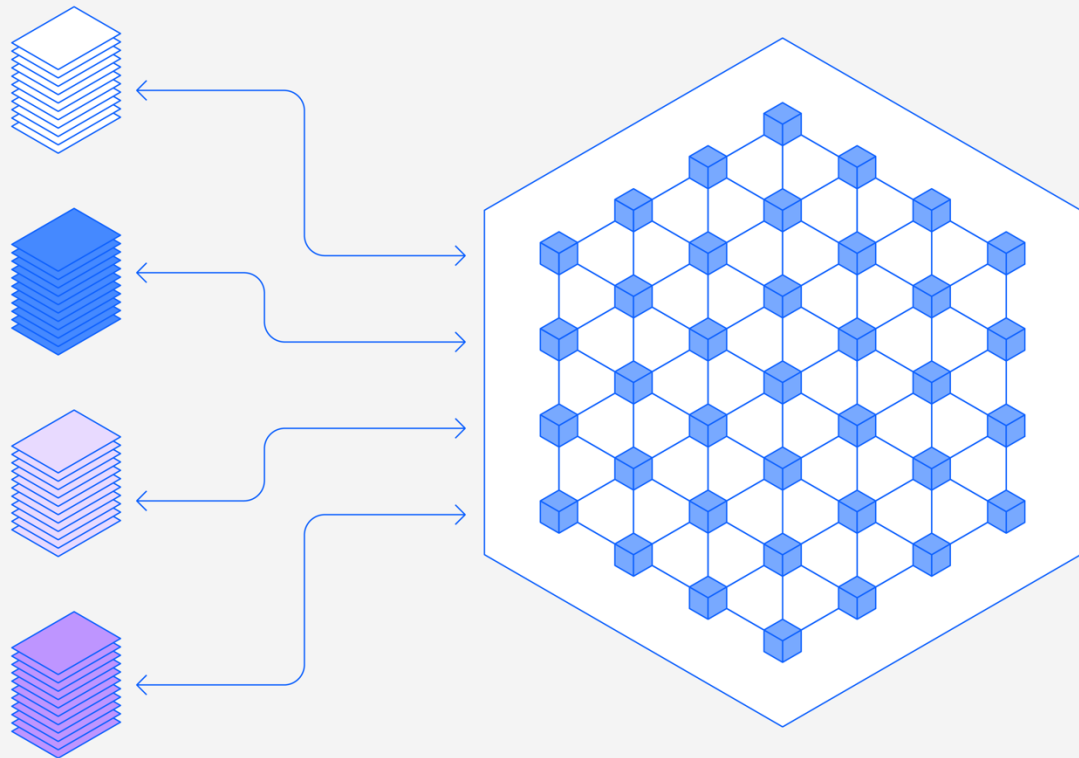
Fine-tuning

→ Useful to customize for a specific use case using enterprise data
→ Leads to proliferation of models
→ Specializes models at the cost of generality
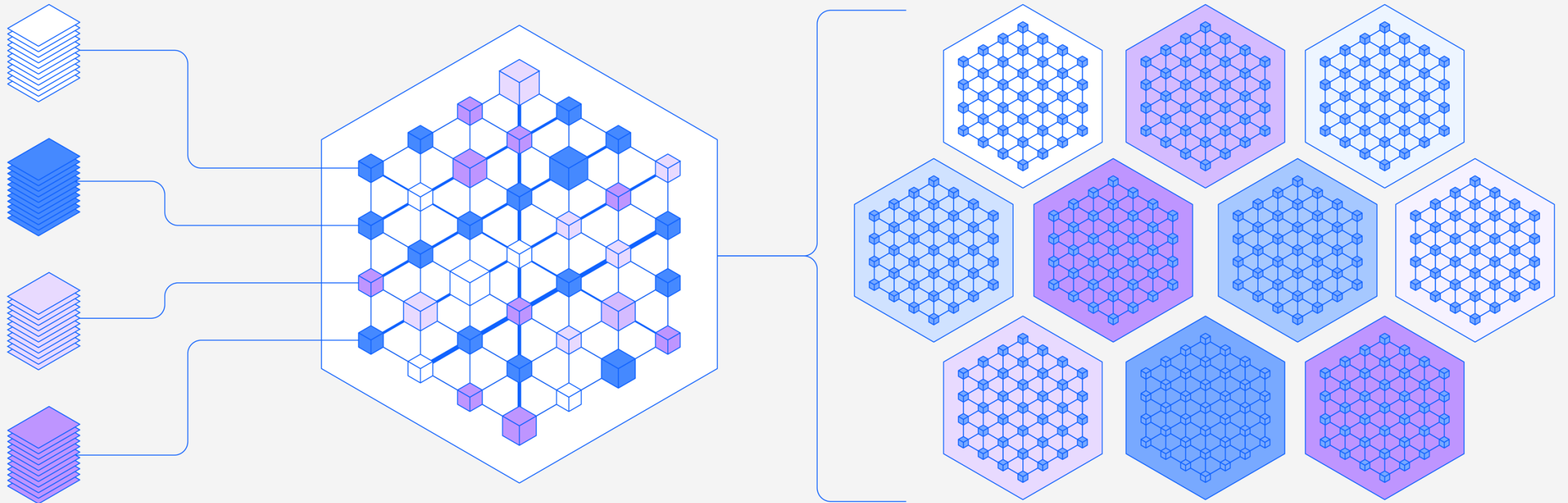
We've invented a new methodology

→ Makes LLMs truly open-source with collaborative model development
→ Allows LLMs to learn as humans do, using knowledge and skills
→ Enables incremental skill teaching
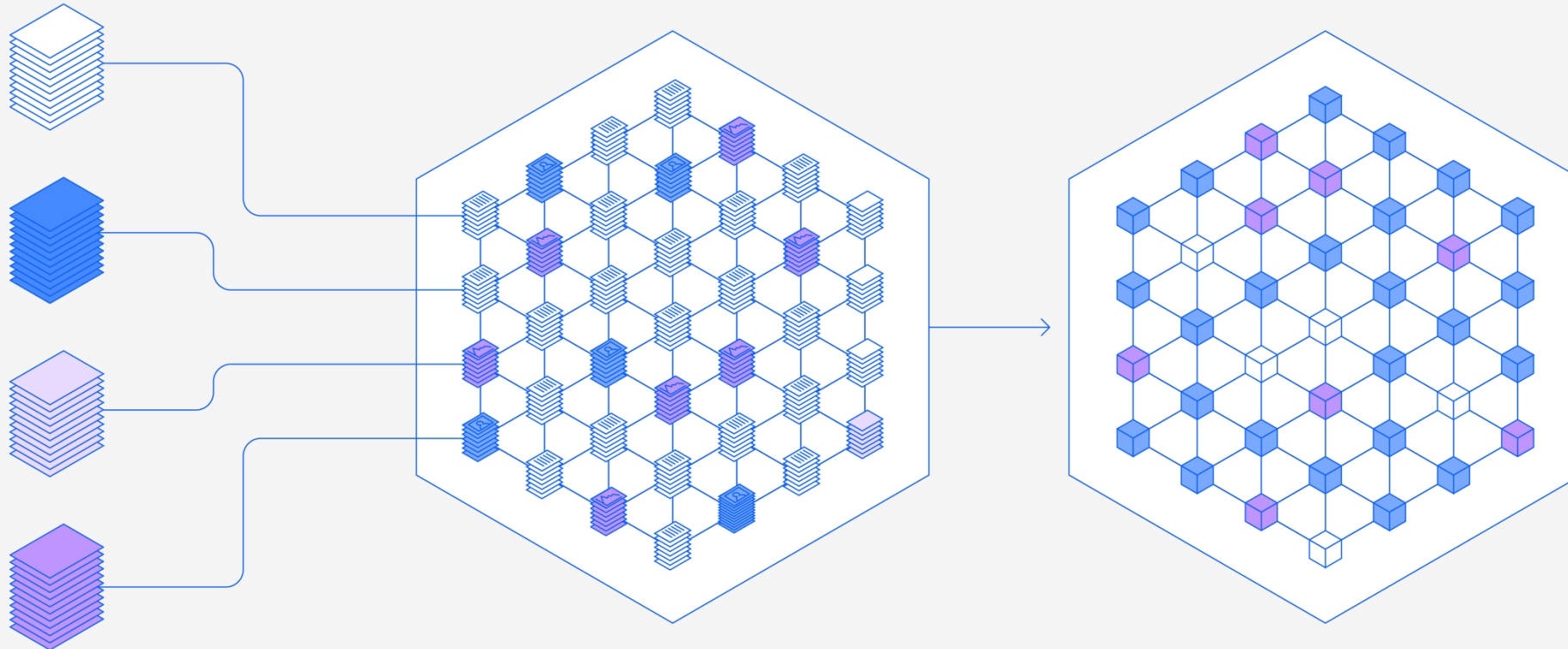
InstructLab

```
Language (9)
├── French & related languages
├── Italian, Romanian & related languages
├── Spanish, Portuguese, Galician
├── Latin & Italic languages
├── Classical & modern Greek languages
└── Other languages

Arts_recreation (2)
├── Visual_Arts (4)
│   ├── Painting
│   ├── Printmaking & prints
│   ├── Photography
│   └── Digital art, film, video
└── Performing_Art (1)
    └── Music

poetry (8)
├── sonnet (1)
│   question: "Compose a sonnet that portrays the vibrant colors of a fall foliage."
│   answer: "In autumn's grand and regal tapestry,\nWhere vibrant hues in splendor are unfur…
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    question: "Craft an ode to the power of the lightning, and how it can help you to tap into…
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Labrador (2)
├── Foundational (2)
│   └── Skills (3)
│       ├── Math
│       ├── Coding
│       └── Reasoning (2)
│           ├── Ungrounded
│           └── Grounded
└── Compositional (1)
    └── Skills (5)
        ├── Extraction...
        ├── RAG...
        ├── Roleplay...
        ├── Safety...
        └── writing (2)
            └── freeform (7)

prose (4)
├── formal (1)
│   question: "Could you help me write a formal email to inquire about the progress of my inte…
│   answer: "Subject: Inquiry Regarding the Status of My Internship Application\n\nDear [Recip…
├── emails (2)
│   └── informal (1)
│       question: "Write an informal email to a friend asking for advice on planning a surprise pa…
│       answer: "Subject: Help Me Plan a Surprise Party 🎉🎈\n\nHey [Friend's Name],\n\nI hope you…
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    question: "Write a screenplay about a heist gone wrong."
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debate (1)
question: "Debate the merits and drawbacks of implementing a universal basic income betwee…
answer: "Economist:\\n\"Implementing a universal basic income (UBI) could significantly re…

technical (6)
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│   question: "Write a manual on how to perform a security audit for a small to medium-sized b…
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    question: "I'm selling hand-painted wall art. Can you help me write descriptions that show…
    answer: "**Discover the Magic of [Your Brand] Hand-Painted Wall Art - One-of-a-Kind, Durab…

social_media (4)
├── instagram (1)
│   question: "I'm off on a city break with my friends! Can you suggest a witty Instagram capt…
│   answer: "Seizing the city life with my squad! 🏙️🎉 This weekend, we're trading serenity fo…
├── linkedin (1)
│   question: "Help me draft a LinkedIn recommendation for a colleague or connection that high…
│   answer: "I am delighted to recommend [Name] for any professional opportunity that comes th…
├── facebook (1)
│   question: "Hoping to get some discussion going on Facebook? Help me share a post asking yo…
│   answer: "Hey friends! 👋 Let's talk about organization and time management hacks! 📅🗂️ I'm…
└── twitter (1)
    question: "Draft a 'Motivation Monday' story on Twitter, brainstorming a powerful quote or…
    answer: "Embrace the grind and let your passion fuel your purpose! 💪🔥 This #MotivationMo…

legal (2)
├── contracts (1)
│   question: "I require help drafting a business contract for a service I will provide. Can y…
│   answer: "# Business Contract\n\nThis Business Contract (\"Contract\") is entered into on […
└── agreement (1)
    question: "I need to create a licensing agreement for my intellectual property. Can you he…
    answer: "# Licensing Agreement\n\nThis Licensing Agreement (\"Agreement\") is entered into…

idea_generation (1)
question: "Generate 5 creative ideas for a marketing campaign promoting a new line of eco-…
```

Granite model

Compositional Skills

Writing

Freeform

Labrador (2)

Compositional (1)

Skills (5)

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- product_description (1)
  - question: "I'm selling hand-painted wall art. Can you help me write descriptions that show…
  - answer: "**Discover the Magic of [Your Brand] Hand-Painted Wall Art - One-of-a-Kind, Durab…

social_media (4)

- instagram (1)
  - question: "I'm off on a city break with my friends! Can you suggest a witty Instagram capt…
  - answer: "Seizing the city life with my squad! 🏙️🚶 This weekend, we're trading serenity fo…
- linkedin (1)
  - question: "Help me draft a LinkedIn recommendation for a colleague or connection that high…
  - answer: "I am delighted to recommend [Name] for any professional opportunity that comes th…
- facebook (1)
  - question: "Hoping to get some discussion going on Facebook? Help me share a post asking yo…
  - answer: "Hey friends! 💡 Let's talk about organization and time management hacks! 📅📝 I'm…
- twitter (1)
  - question: "Draft a 'Motivation Monday' story on Twitter, brainstorming a powerful quote or…
  - answer: "Embrace the grind and let your passion fuel your purpose! 💪🔥 This #MotivationMo…

legal (2)

- contracts (1)
  - question: "I require help drafting a business contract for a service I will provide. Can y…
  - answer: "# Business Contract\n\nThis Business Contract (\"Contract\") is entered into on […
- agreement (1)
  - question: "I need to create a licensing agreement for my intellectual property. Can you he…
  - answer: "# Licensing Agreement\n\nThis Licensing Agreement (\"Agreement\") is entered into…

idea_generation (1)
- question: "Generate 5 creative ideas for a marketing campaign promoting a new line of eco-…

Granite model **Compositional Skills** **Writing** **Freeform** **Prose** **Email**

Labrador (2)

Compositional (1) → Skills (5)

writing (2) → freeform (7)

prose (4)

emails (2)
- formal (1)
  - question: "Could you help me write a formal email to inquire about the progress of my inte…
  - answer: "Subject: Inquiry Regarding the Status of My Internship Application\n\nDear [Recip…
- informal (1)
  - question: "Write an informal email to a friend asking for advice on planning a surprise pa…
  - answer: "Subject: Help Me Plan a Surprise Party 🎉😊\n\nHey [Friend's Name],\n\nI hope you…

articles (1)
- question: "Seeking insights for an article on the benefits of restorative justice practice…
- answer: "Restorative justice practices have been gaining traction in schools and communiti…

stories (1)
- question: "Create a tale about a character who discovers a realm of their own imagination,…
- answer: "In the quiet corners of Emily's creative mind lay a realm of her own making, a wo…

screenplay (1)
- question: "Write a screenplay about a heist gone wrong."
- answer: "**Title: \"The Final Heist\"**\n\n**INT. HIGH-TECH VAULT - NIGHT**\n\nA group …

Granite model **Compositional Skills** **Writing** **Freeform** **Prose** **Email** **Informal**

Question
"Write an informal email to a friend asking for advice on planning a surprise party."

Answer
"Subject: Help Me Plan a Surprise Party \n\nHey [Friend's Name],\n\nI hope you're having a fantastic day!...."

Labrader (2)

Compositional (1) Skills (5)

writing (2) freeform (7) prose (4) emails (2) informal (1)

question: "Write an informal email to a friend asking for advice on planning a surprise pa...
answer: "Subject: Help Me Plan a Surprise Party \n\nHey [Friend's Name],\n\nI hope you...

Accelerating
how enterprises
work with AI

Simplifying
data access
to customize AI

Helping
enterprises
govern AI

AI assistants are the experience layer for generative AI

Client-side apps
Late 20th century

Operating system focused

Experience is focused on getting the most out **your CPU**

Web apps
2000s

Browser focused (enabled by broadband)

Experience is focused on getting the most out **someone else's CPU**

Mobile apps
2010s

Mobile apps enable connectivity at the edge

Experience is focused on **spatial and temporal** + edge computing

AI assistants
Now

Natural language focused

Experience is focused on getting the most out of **knowledge and systems** I have access to

Adoption patterns

Enterprises adopting AI assistants for different lines of business to boost productivity

ISVs building AI assistants with embedded FMs to unlock more value from the software

watsonx assistants

Purpose-built to increase productivity
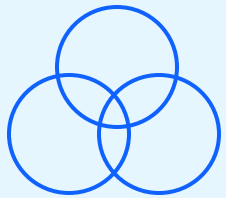
Tailored
Automated
Integrated

watsonx Orchestrate

Harness the power of AI
and automation to free up
individuals from tedious tasks

watsonx Assistant

Build better virtual agents,
to deliver consistent and
intelligent customer care

watsonx Code Assistant

Accelerate development,
application modernization,
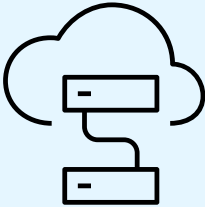and assist with IT operations

watsonx Assistant for Z

Use generative AI to transform
engagement and interaction
with the mainframe

watsonx BI Assistant

Get AI-powered insights in
seconds from your personal
business analyst and advisor

# IBM AI can be consumed as a platform, assistants, or in products

AI and data platform

Build and run on IBM's enterprise-grade, cloud-native, AI and data platform, watsonx, that helps clients simplify how they build and apply foundation models and generative AI.
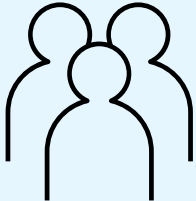
AI assistants

Empower individuals in your organization with AI assistants built on watsonx to do work without expert knowledge across a variety of business processes and applications.
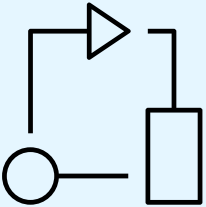
AI products

Consume the benefits of generative AI and foundation models in IBM products embedded with watsonx, to make to you and your employees more responsive, productive and resilient.
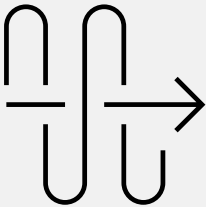
Partners' products

Consume the benefits of generative AI and foundation models in our partners' software products embedded with watsonx (e.g., SAP) where IBM helps them deliver incremental innovation faster.

The value of the ecosystem

IBM works with strategic partners to help clients scale AI

Adobe
Marketing transformation

- Driving productivity gains and personalized experiences at scale

- Optimizing content supply chains with Adobe AI technologies

- Embed watsonx into core Adobe Cloud platforms

aws
Hybrid cloud and AI

- Watsonx available on AWS as SaaS solution and AWS Marketplace watsonx.ai and watsonx.governance available by 2024

- Expertise in Amazon, SageMaker, CodeWhisperer, and Amazon Bedrock

- AWS to bring generative AI solutions and dedicated expertise to clients[3]

salesforce
Customer transformation

- Unlocking the power of complementary AI and generative AI technologies

- Extend the value of Salesforce platform with watsonx

- Transforming customer, partner and employee experiences using generative AI[2]

Microsoft
Hybrid cloud and AI

- Watsonx plans underway, today can be sold in a container to run on Azure

- Microsoft Generative AI Center of Excellence

- IBM Consulting Azure OpenAI Service available on Azure Marketplace - fully managed AI service to help with strategy, hackathon & implementation[4]

SAMSUNG
Consumer experience

- Samsung SDS America partners with IBM to introduce groundbreaking new solutions like SDS Zero Touch Mobility. IBM's launch of watsonx has inspired Samsung to explore the immense potential of watson.ai and it's generative AI capabilities[5]

SAP
Core operations, industry solutions

- Launching new watsonx solutions to include the recently announced SAP generative AI assistant, SAP Joule

- Building on recent work embedding Watson AI into SAP reaching 37,000+ SAP clients[1]

The value of the ecosystem

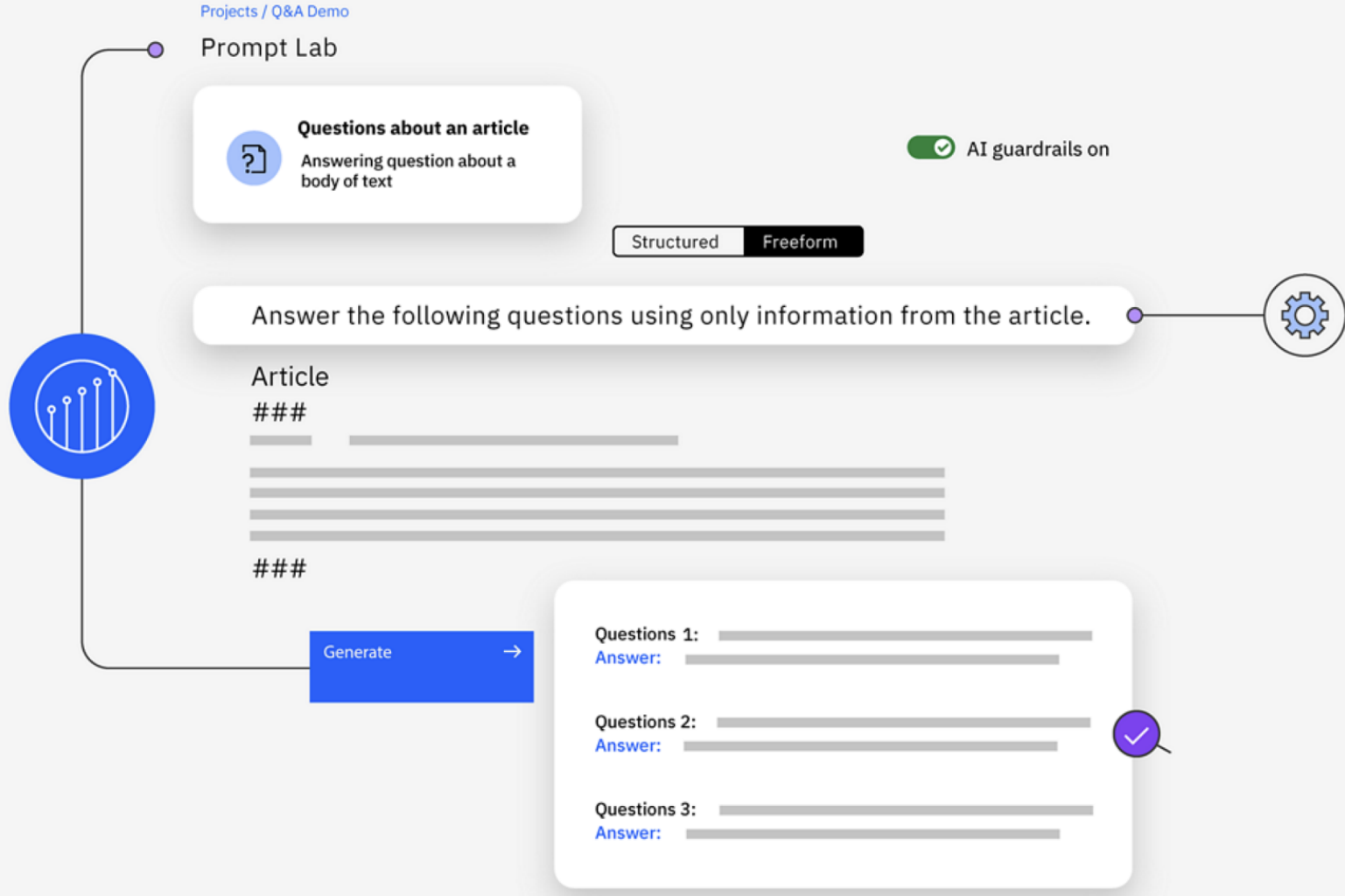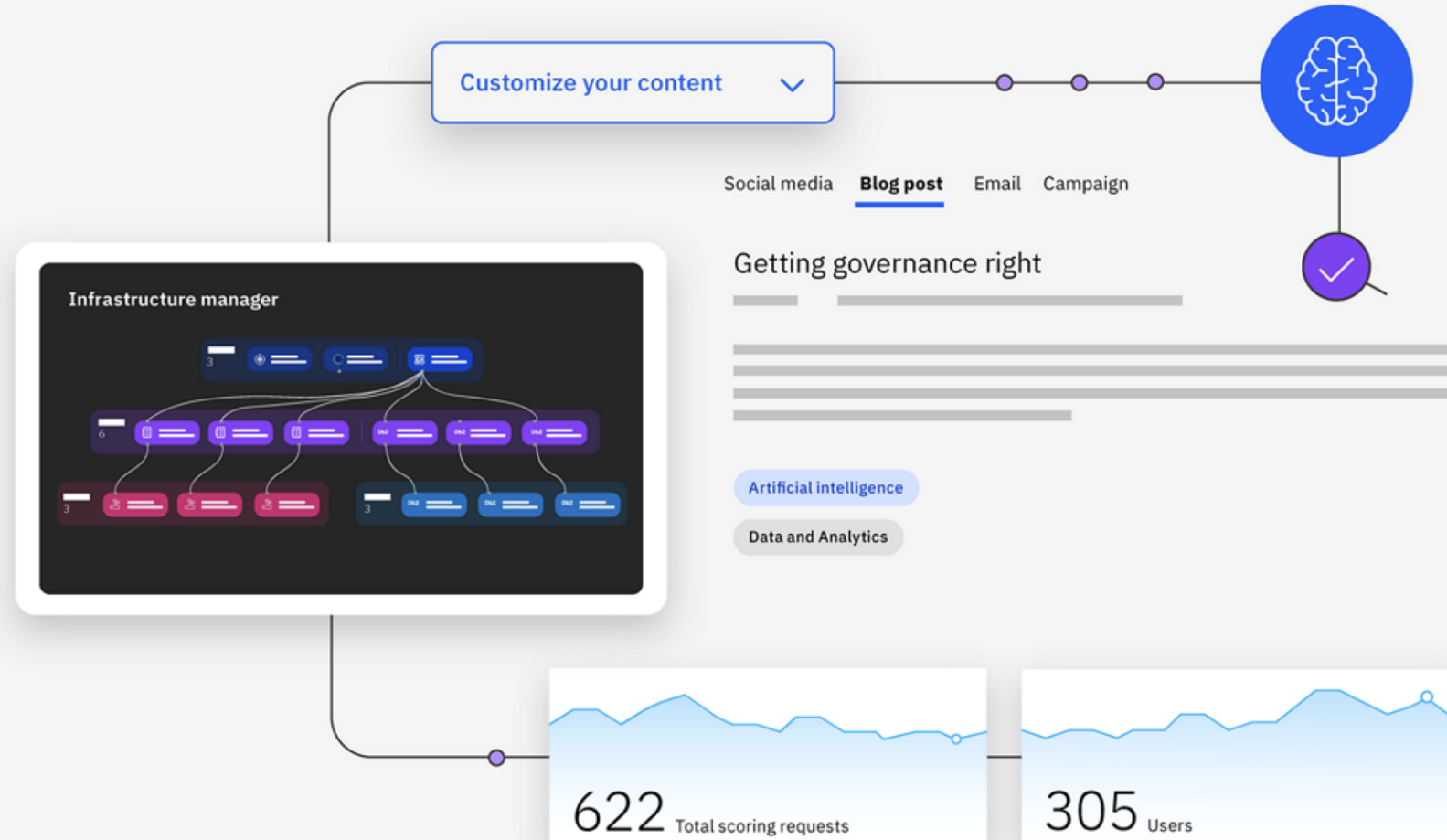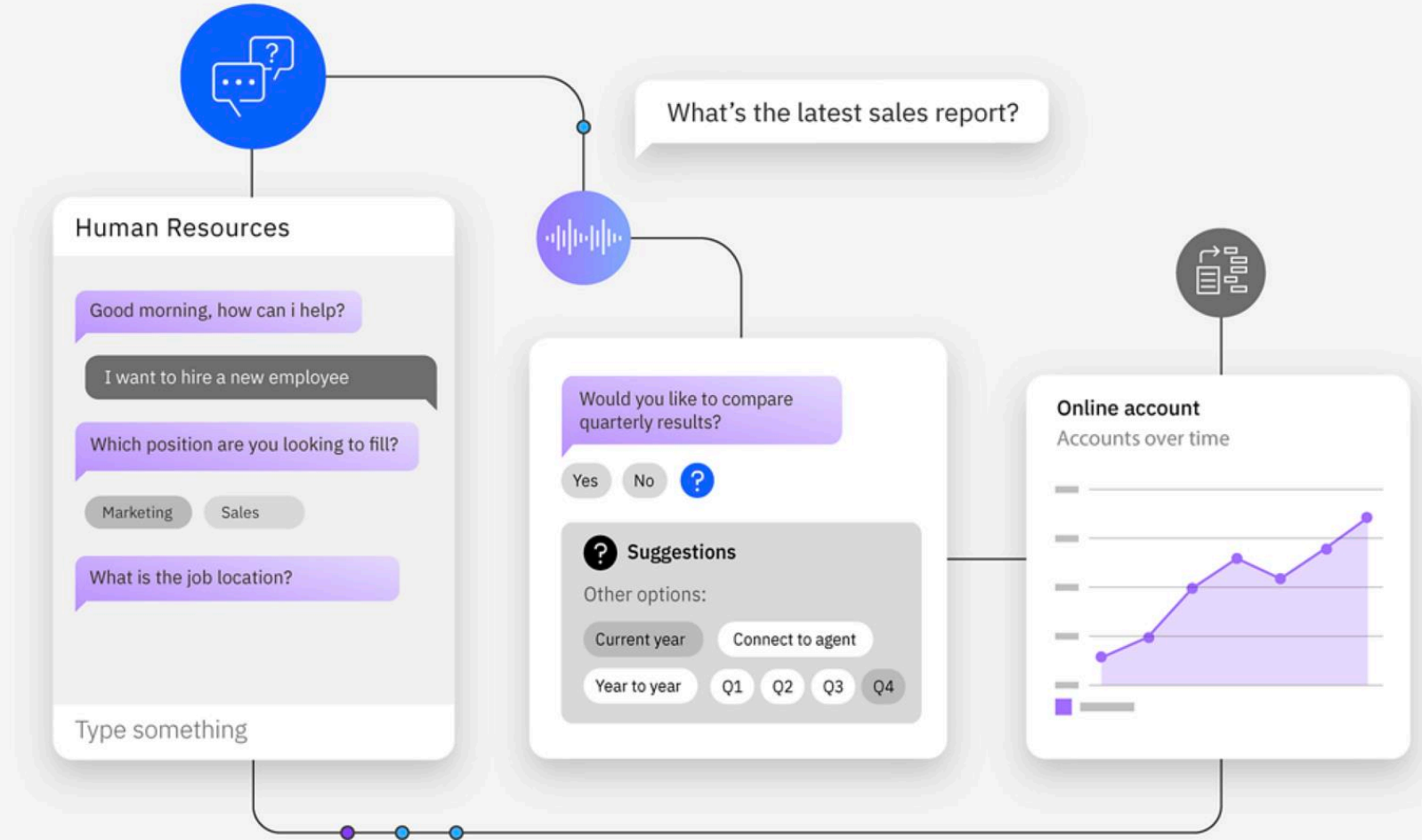| Leverage validated integrations of your existing technology investments and extend capabilities through the watsonx platform	**aws**	**cirata**	**CLOUDERA**
	Enables companies to quickly and responsibly scale AI workloads using a comprehensive stack of generative AI.	With IBM watsonx.data data store, you can optimize Cirata as a data warehouse with a shared metadata layer across all clouds and on-premises.	Seamlessly integrates with watsonx.data, enabling clients to access and share a single copy of data without duplication or the need for ETL.
DATASTAX	**elastic**	🤗 **Hugging Face**	**intel**
Vector Search offers an integrated solution with IBM watsonx for contextual data, data pipelines, and memory storage in a user-friendly cloud platform.	By using IBM Watson Discovery, powered by Elasticsearch, clients can use semantic search and generative AI to provide real-time conversational answers based on proprietary data.	Watsonx and Hugging Face help enterprises build, deploy, and customize foundation models across multiple domains and support a range of NLP tasks. .	Optimize the watsonx.data stack and achieve breakthrough performance through our joint technological contributions to the Presto open-source community.
MongoDB.	**∞ Meta**	**SingleStore**	**vmware**
MongoDB Vector Search and IBM watsonx.ai AI studio unlock the most powerful combination of traditional and generative AI for developers.	Meta provides state-of-the-art Llama models on watsonx, as well as collaborating on key open-source AI technologies such as PyTorch, Presto, and Velox.	Offers features such as semantic search, fast data ingestion, low-latency response times for serving foundation models, traditional ML & handling highly concurrent queries.	Enables clients to use IBM watsonx AI capabilities, regardless of where their operations are located while maintaining full control and compliance over their data.

use cases

Boost employee productivity with RAG

Projects / Q&A Demo

Prompt Lab

Questions about an article
Answering question about a body of text

AI guardrails on

Structured | Freeform

Answer the following questions using only information from the article.

Article
###

###

Generate →

Questions 1:
Answer:

Questions 2:
Answer:

Questions 3:
Answer:

Create content quickly with generative AI

Get chatbots up and running quickly

Enable developers to code efficiently

COBOL

```
1   STRING
2         ORG-ID DEPT-NUMBER
3     DELIMITED BY SIZE
4     INTO DEPT-ID
5   END-STRING
6
7   EXEC SQL
8     UPDATE DEPT
9     SET MGRNO = 5
10    WHERE DEPTNO = DEPT-ID
11  END-EXEC.
12
13  MOVE SQLERRD(3) TO CHANGED-DEPTS.
```

Generated Java

```
1   PreparedStatement stmt = conn.prepareStatement(
2       "UPDATE DEPT SET MGRNO = 5 WHERE DEPTNO = ?"
3   );
4   stmt.setString(1, orgId + deptNumber);
5   int changedDepts = stmt.executeUpdate();
```

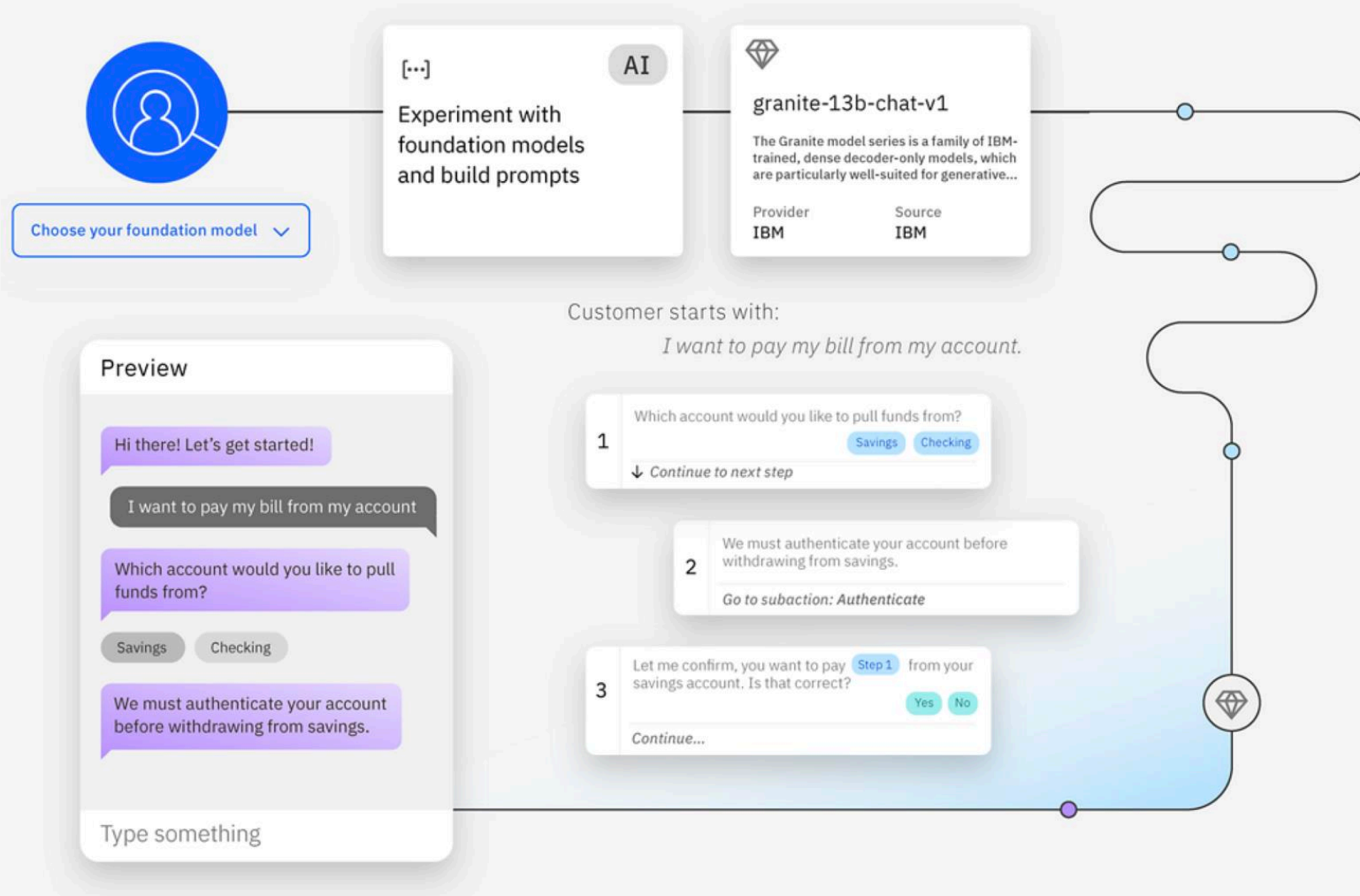**</> Tailor made code for your needs**

File   Edit   Selection   View   Go   Run   Terminal   Help

```
1    - name: Add new user
2      ibm.ibm_zos_core.zos_tso_command:
3        commands: "{{ lookup('template', '../templates/
         add-user. j2') }}"
4
5    - name: Permit access to resources
6      ibm.ibm_zos_core.zos_tso_command:
7        commands: "{{ lookup('template', '../templates/
         update-resource-access.j2') }}"
8      with_items: "{{ resources_to_permit }}"
9      when: resources_to_permit is defined and
       resources_to_permit | length > 0
10
```

Tune your code

What can I learn from the error rate?

Reinvent customer experiences with your data

Unlock insights and uncover trends hidden in your data

de som lykkes

"best-in class AI performers build capabilities across six key areas, in a holistic, integrated way—with trust at the core"

Vision and strategy

How is AI being used to differentiate my company from its competitors?

AI operating model

Is AI embedded in our internal systems and operational processes?

AI engineering and operations

How are machine learning and data models being tested, deployed, and maintained?

Trust

Data and technology

Do our governance processes prioritize data security and enable trustworthy AI?

Talent and skills

How are we attracting talent with data and AI skills and developing expertise across the enterprise?

Culture and adoption

What level of change management support is available to bolster AI adoption?

DJINN

itromso.no
https://www.itromso.no › nyheter › kan-vinne-journalis...

Kan vinne «Journalistenes Oscar

6. mars 2024 — Ved hjelp av kunstig intelligens har Giske og kollegene hans, i samarbeid med IBM og bergensbedriften Visito, lært opp **DJINN** til å finne viktig ...

Den norske dataforening
https://www.dataforeningen.no › ny-ai-drevet-losning-r...

Ny AI-drevet løsning revolusjonerer journalistikken i Norge

13. mai 2024 — I dag er «**Djinn**» ikke bare et verktøy for **iTromsø**, men en integrert del av den daglige journalistikken i 34 aviser over hele Norge.

visito.no
https://visito.no › aktuelt › fra-ide-til-produksjon-djinn-...

Fra idé til produksjon: Djinn med iTromsø - Visito

14. juni 2024 — "**Djinn**" (Data journalism interface for newsgathering and notifications) startet som idé hos Mediehuset **iTromsø**, da ved navnet «Byggebot».

INMA: International News Media Association
https://www.inma.org › Djinn-D... · Oversett denne siden

Djinn — Data Journalism Interface for Newsgathering and ...

Artificial Intelligence: **iTromsø** started out wanting to utilize machine learning and AI technology to help our journalists reduce the amount of time spent ...

Kampanje.com
https://kampanje.com › premium › januar-2024 › innsikt

## Norsk lokalavis vekker oppsikt på tech-messe i Barcelona

24. jan. 2024 — **Djinn** er ifølge avisen en KI-bot som anvender veiledet maskinlæring og andre KI-systemer, der journalister trener algoritme til å finne nyheter ...

Atea lanserar AI-drivna maskeringstjänster för offentlig sektor

Atea kommer tillsammans med Lidingö stad, Kungsbacka kommun och Skaraborgs kommunalförbund ta fram en innovativ maskeringstjänst inom ramen för projektet Rätt till insyn. Maskeringstjänsten kommer fundamentalt förändra hur kommuner och offentliga aktörer hanterar allmänna handlingar i linje med Offentlighetsprincipen.

Simon Norman är innovationsansvarig för Application Engineering på Atea.
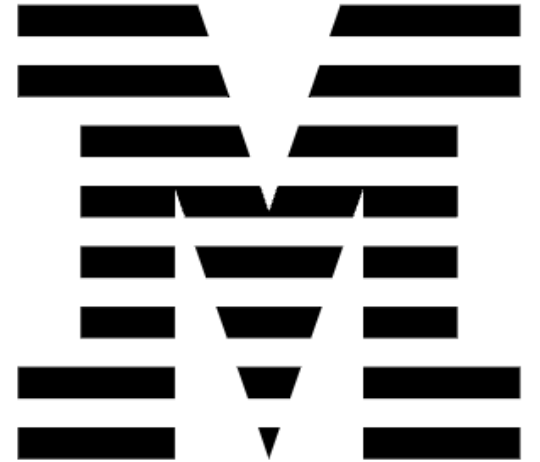
Vidar Svendsen

linkedin.com/in/vsvendsen/