Nova era automatizacije servisa e-uprave kroz implementaciju veštačke inteligencije
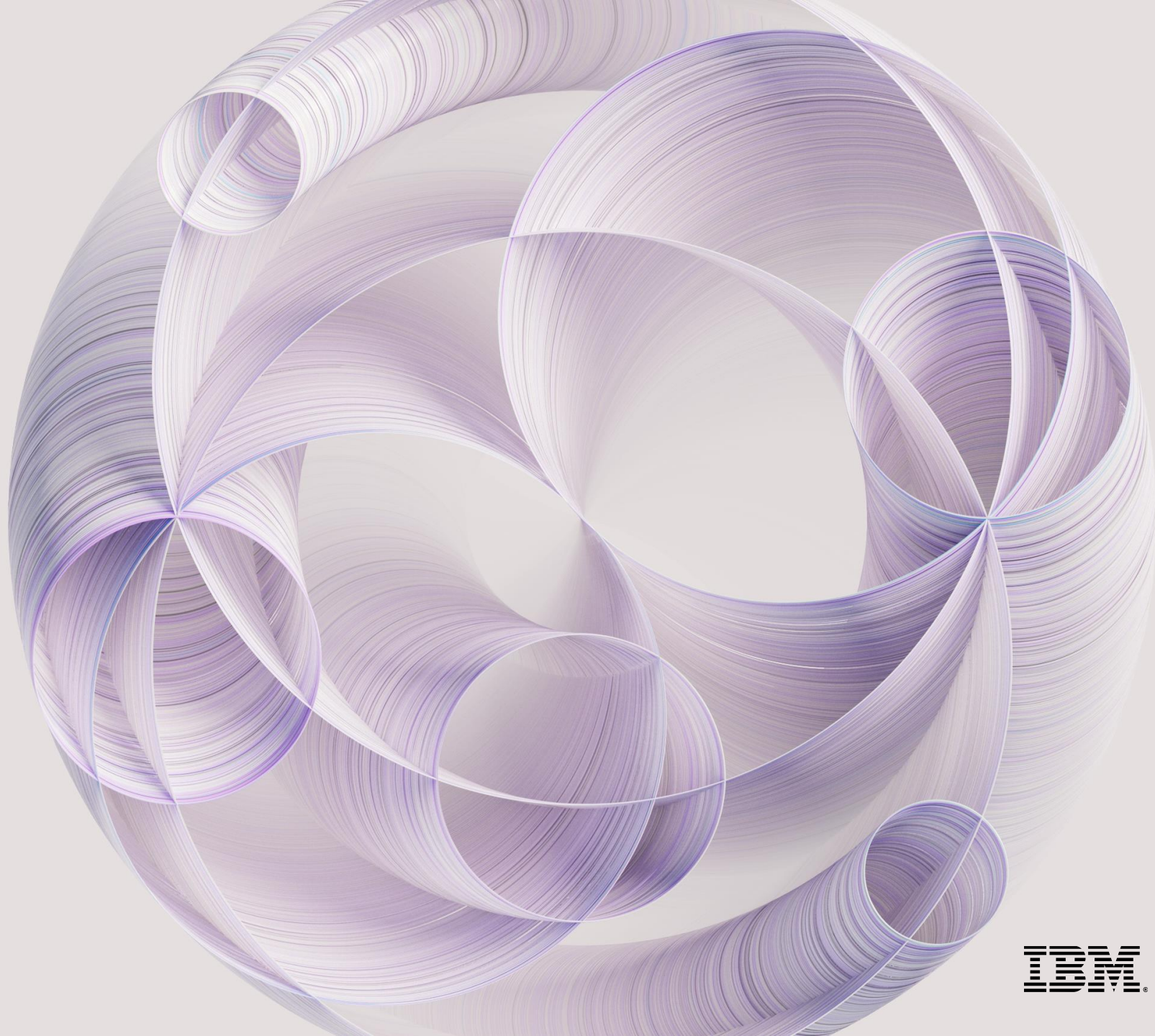
Novica Ninic

Software Sales Manager
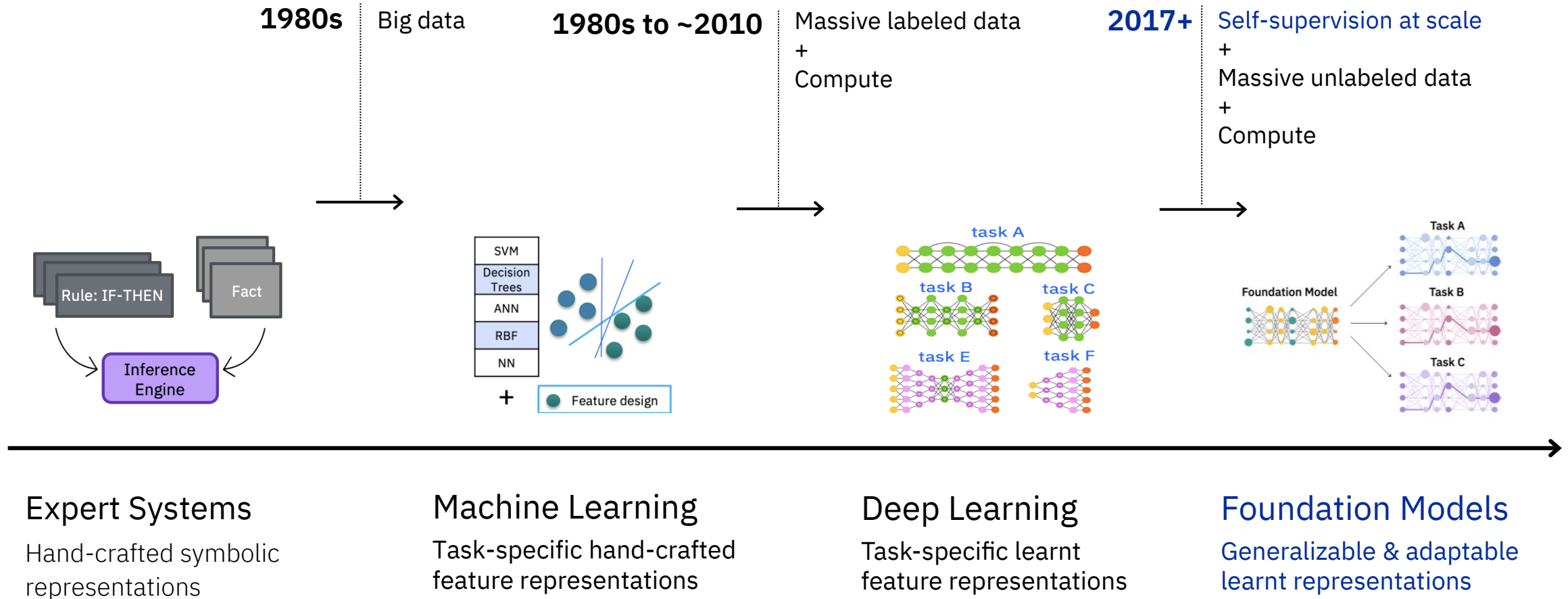Central Eastern Europe

IBM

A new era for AI

We are in one of those rare moments in history, when a new technology innovation arrives that radically transforms business and society.

Artificial intelligence is that technology today.

Story of AI is a story of data representations

1980s | Big data

1980s to ~2010 | Massive labeled data
+
Compute

2017+ | Self-supervision at scale
+
Massive unlabeled data
+
Compute

Expert Systems
Hand-crafted symbolic representations

Machine Learning
Task-specific hand-crafted feature representations

Deep Learning
Task-specific learnt feature representations

Foundation Models
Generalizable & adaptable learnt representations

+AI → AI+

The most common generative AI tasks implemented today

Retrieval-augmented generation

Based on documents or dynamic content, create a chatbot or question-answering feature.

Building a Q&A resource from a broad knowledge base, providing customer service assistance

Summarization

Transform text with domain-specific content into personalized overviews that capture key points.

Conversation summaries, insurance coverage, meeting transcripts, contract information

Content generation

Generate text content for a specific purpose.

Marketing campaigns, job descriptions, blog posts and articles, email drafting support

Named entity recognition

Identify and extract essential information from unstructured text.

Audit acceleration, SEC 10K fact extraction

Insight extraction

Analyze existing unstructured text content to surface insights in specialized domain areas.

Medical diagnosis support, user research findings

Classification

Read and classify written input with as few as zero examples.

Sorting of customer complaints, threat and vulnerability classification, sentiment analysis, customer segmentation

Reinventing how work gets done | +AI to AI+

IBM is actively engaging with enterprise clients across a broad set of business domains

Non-exhaustive

Customer-facing functions and experiences	HR, Finance, and Supply chain functions	IT development and operations	Core business operations
Customer service Empower customers to find solutions with easy, compelling experiences Automate answers with 95% accuracy	**HR automation** Reduce manual work and automate recruiting, sourcing and nurturing job candidates Reduce employee mobility processing time by 50%	**App modernization, migration** Generate code, tune code generation response in real time Deliver faster development output	**Threat management** Reduce incident response times from hours to minutes or seconds Contain potential threats 8x faster
Marketing Increase personalization, improve efficiency across the content supply chain Reduce content creation costs by up to 40%	**Supply chain** Automate source to pay processes, reduce resource needs and improve cycle times Reduce cost per invoice by up to 50%	**IT automation** Identify deployment issues, avoiding incidents, optimize application demand to supply Reduce mean time to repair (MTTR) by 50%+	**Asset management** Optimize critical asset performance and operations while delivering sustainable outcomes Reduce unplanned downtime by 43%
Content creation Ex. Enhance digital sports viewing with auto-generated spoken AI commentary Scale live viewing experiences cost effectively	**Planning and analysis** Make smarter decisions, focus on higher value tasks with automated workflows and A. Process planning data up to 80% faster	**AIOps** Assure continuous, cost-effective performance and connectivity across applications Reduce application support tickets by 70%	**Product development** Ex. Expedite drug discovery by inferring structure with AI from simple molecular representations Faster and less expensive drug discovery
Knowledge worker Enable higher value work, improve decision making, and increase productivity Reduce 90% of text reading and analysis work	**Regulatory compliance** Support compliance based on requirements / risks, proactively respond to regulatory changes Reduce time spent responding to issues	**Data platform engineering** Redesign the approach for data integration using generative AI Reduce data integration time by 30%+	**Environmental intelligence** Provide intelligence to proactively plan and manage impact of severe weather and climate Increase manufacturing output by 25%

Automating quarterly promotion process @ IBM HR

IBM®

Business challenge

IBM's quarterly promotions process is critical to retaining top talent however increasingly painful to manage. It would take 10 weeks each quarter to execute quarterly promotions. A high amount of data pulled for 15,000+ employees to support manual decisions for 3,000 managers.

Managers needed a faster way of making fair promotion decisions and forming development plans for all employees.

Solution

The promotion process was reimagined using IBM watsonx Orchestrate. The skills were developed in the HR and IT squads to build an MVP using intelligent workflows to pull data on 15,000+ employees and to support 3,000 managers in making decisions.

Results

85%
reduction in HR support for end-to-end process

4
week reduction in time to complete quarterly process

reduced time spent manually pulling data

1826
managers completed data-driven nominations in a 2-week period

How do we make AI to work in Government ?

IBM POV: Four core principles to tailor generative AI for enterprise

Open

→ Based on the best AI and cloud technologies available

→ Giving access to the innovation of the open community and multiple models

Targeted

→ Designed for targeted business use cases, that unlock new value

→ Including curated models that can be tuned to proprietary data and company guidelines

Trusted

→ Built with AI and data governance, transparency, and ethics that support increasing regulatory compliance demands

→ Providing guidance on appropriate models to leverage to create real business value with trust

Empowering

→ On a platform to bring your own data and AI models that you tune, train, deploy, and govern

→ Running anywhere, designed for scale and widespread adoption to truly create enterprise value

watsonx

The platform for AI and data

watsonx

watsonx.ai

Train, validate, tune, and deploy AI models

A next generation enterprise studio for AI builders to train, validate, tune, and deploy both traditional machine learning and new generative AI capabilities powered by foundation models. It enables you to build AI applications in a fraction of the time with a fraction of the data.

watsonx.data

Scale AI workloads, for all your data, anywhere

Fit-for-purpose data store, built on an open lakehouse architecture, supported by querying, governance and open data formats to access and share data.
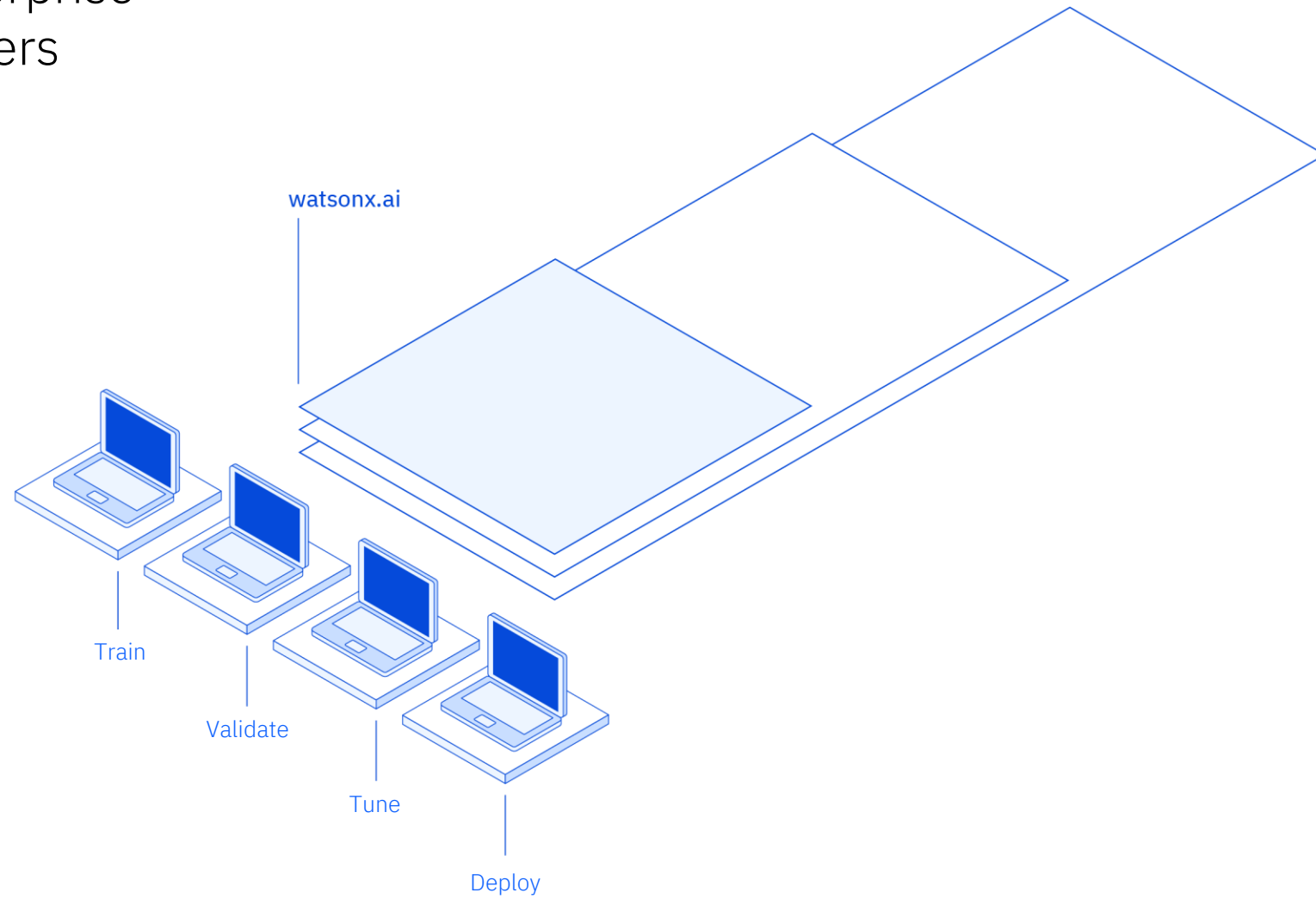
watsonx.governance

Accelerate responsible, transparent, and explainable AI workflows

End-to-end toolkit for AI governance across the entire model lifecycle to enable responsible, transparent, and explainable AI workflows.
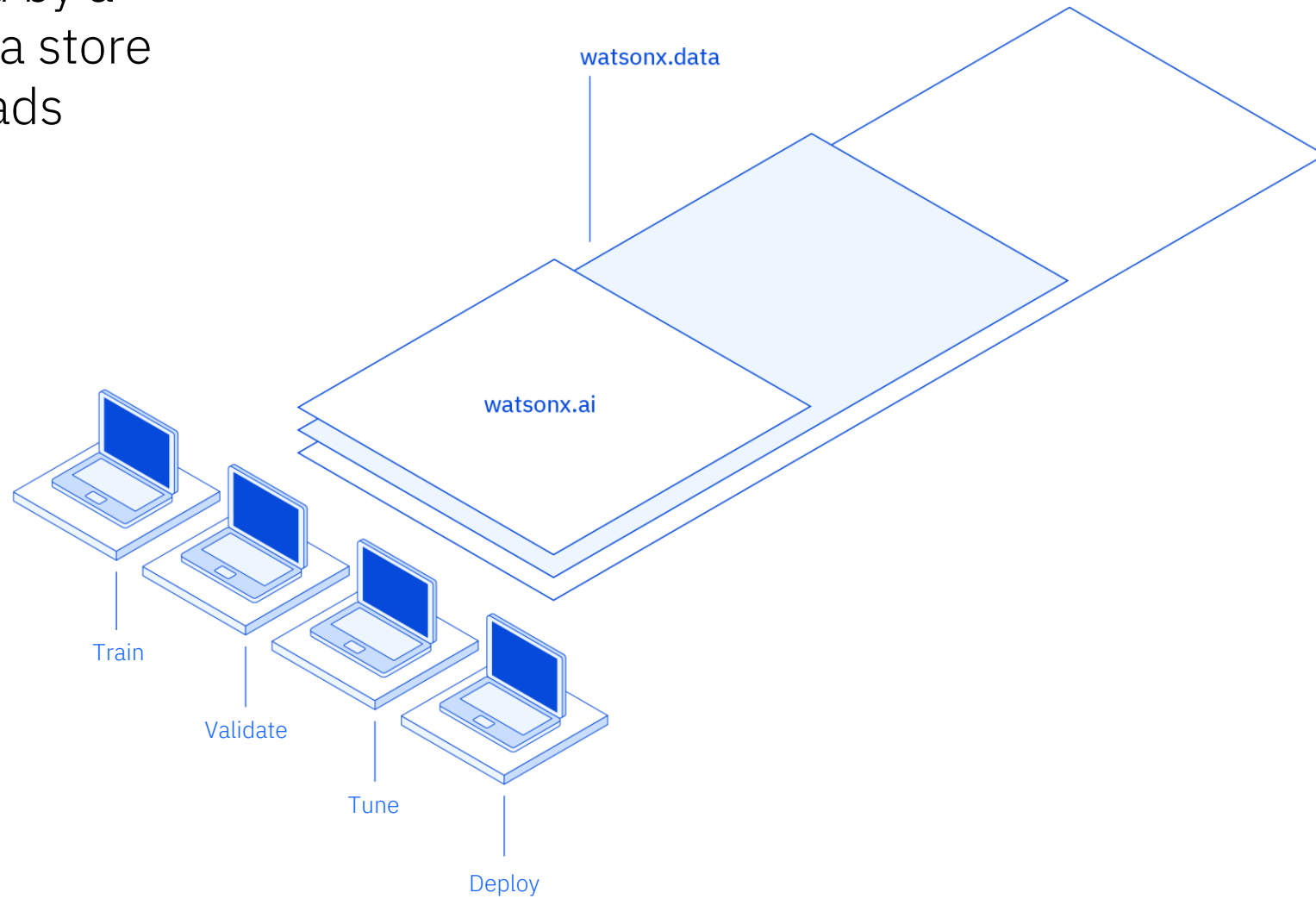
watsonx: An enterprise studio for AI builders

watsonx.ai
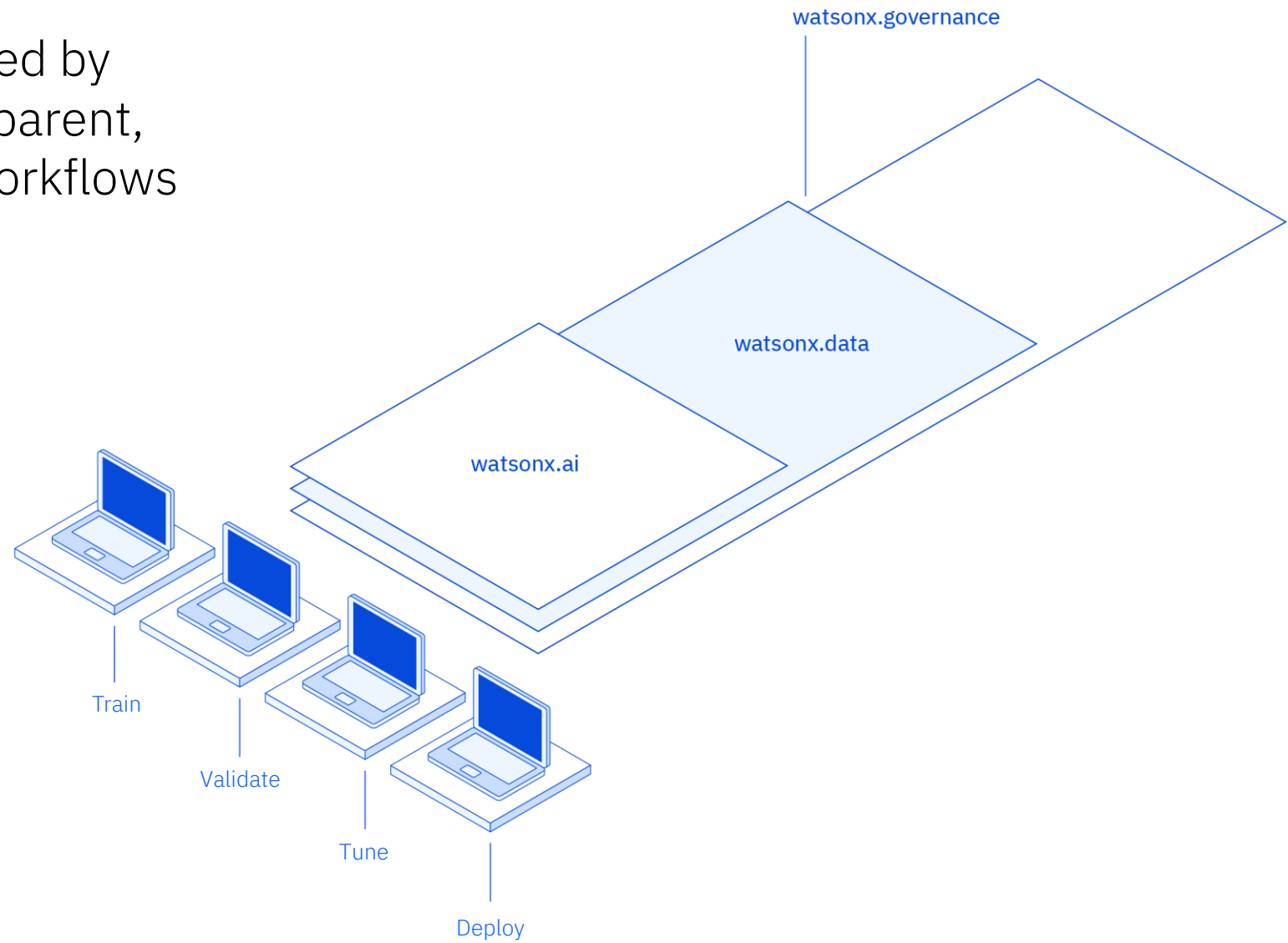
Train

Validate

Tune

Deploy

watsonx: Enabled by a fit-for-purpose data store to scale AI workloads

watsonx.data

watsonx.ai

Train

Validate

Tune

Deploy

watsonx: Governed by responsible, transparent, and explainable workflows

watsonx.governance

watsonx.data

watsonx.ai

Train

Validate

Tune

Deploy

watsonx: Scale and accelerate the impact of AI with trusted data

watsonx.governance

watsonx.data

watsonx.ai

Train

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Tune
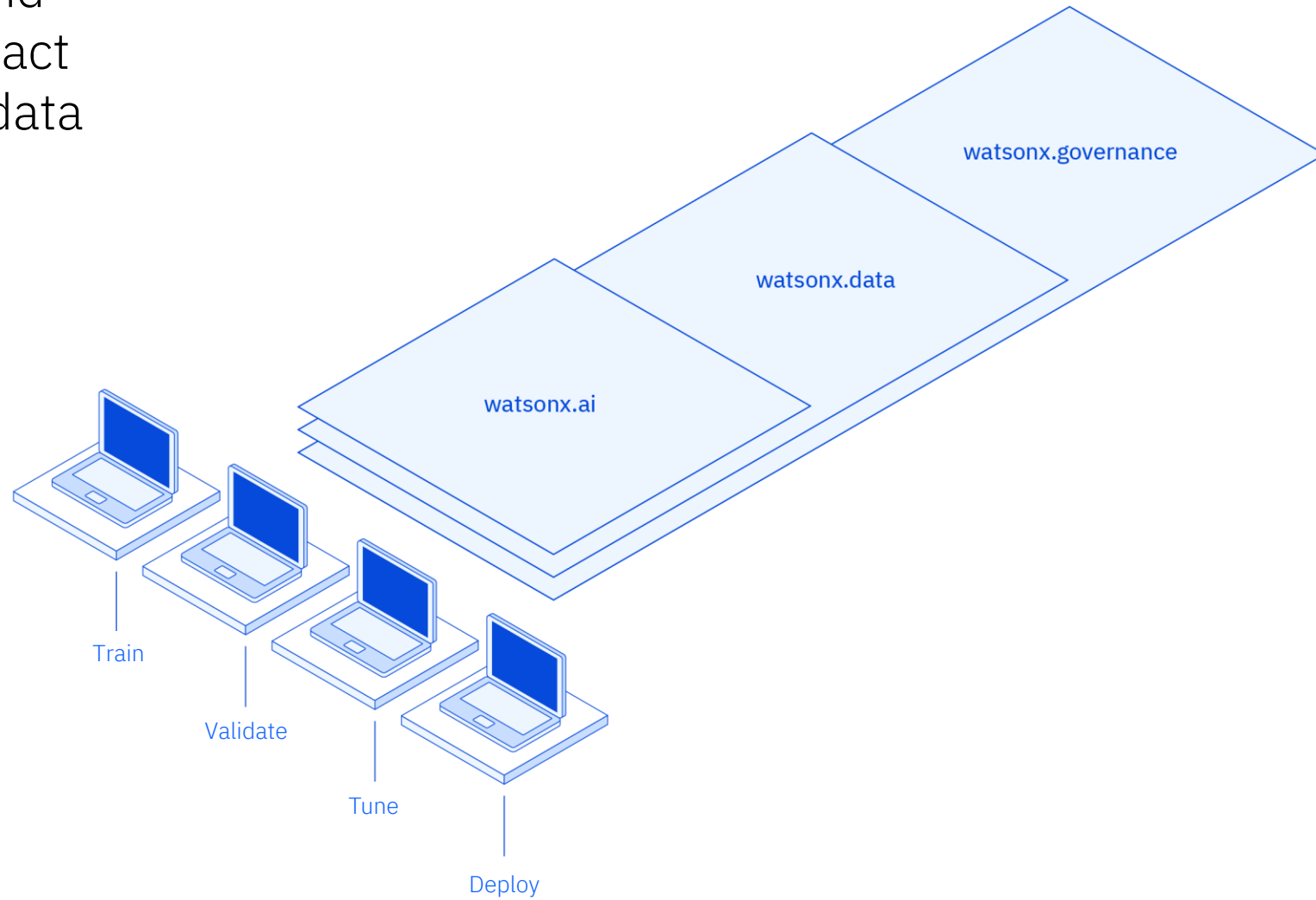
Deploy

What IBM offers

watsonx: With flexible deployment based on Red Hat OpenShift

Red Hat OpenShift

Public cloud

watsonx.governance

watsonx.data

watsonx.ai

On-premise

Train

Validate

Tune

Deploy

watsonx