



The future of business is AI-powered.

Let's create digital experiences
that help your organization work
smarter, faster, and better.



ServiceNow AI Overview, Strategy & Vision

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ITIL4MP, ITIL4SL, CISSP, cDPO

Sr Advisory Enterprise Architect

Solution Consulting Enterprise Architecture

November 2023

Speaker introduction



servicenow®

Name: Martin Pscheidl

Title: Enterprise Architect

Function: I help ServiceNow customers derive business value from our technology by advising them on strategic direction and providing guidance on architectural issues.

Company: ServiceNow

Experience: 9+ years at ServiceNow, 39+ years in information technology

Expertise: Enterprise Service Management, Information Security, Data Privacy, IRM, ESG

Current projects: Guiding customers in Global Business Service Reorganisations on IT Value Chains

We have entered The Age of AI



AI is transforming the world as we know it—creating a future we can only imagine today.



AI has the potential to transform every industry and society.



But what can AI do today?

Artificial Intelligence learns from data, simulating human knowledge to interpret inputs, automate decisions, and act to solve problems.

Our time together today

- 1 The rise of foundation models
- 2 AI in the ServiceNow Platform
- 3 Generative AI Use-Cases & Benefits

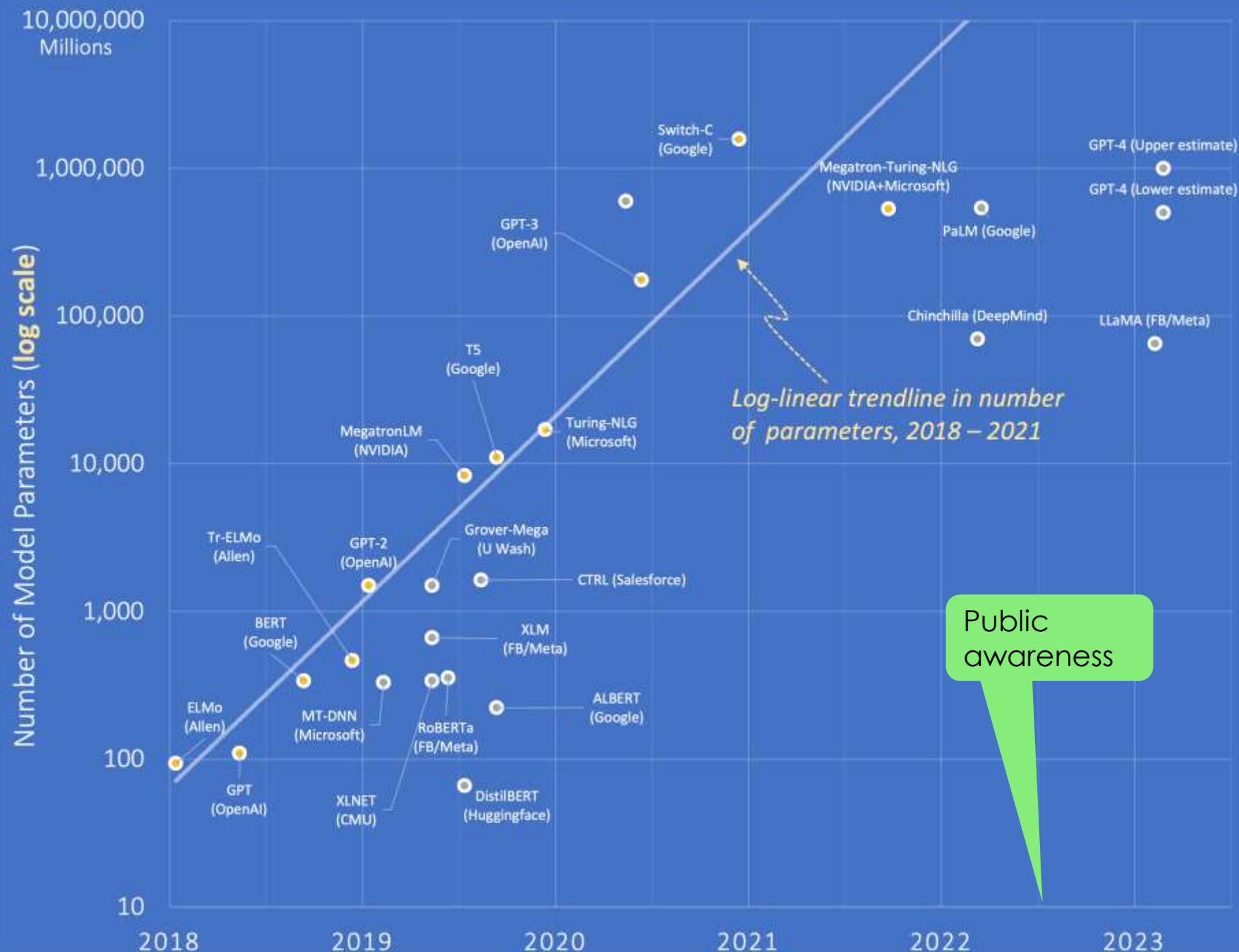
FOR
LANGUAGE MODELS

BIGGER is
— MOSTLY —
BETTER

*A clear trend over
the last decade*

Sources: academic papers;
author's plot

servicenow



Multimodality: Seeing and Speaking and more



Describe the photo in detail

In the photo, a woman is standing in front of a tree with a pink blossom. She is holding a camera in her right hand and is taking a picture of the tree. The blossom is in the foreground, with its pink color and delicate shape. The woman's pose and the camera angle suggest that she is capturing the tree and its blossom in a creative and artistic way.



Could you list the steps for cooking the dish shown in the image?

1. Start by preheating the oven to a high temperature.
2. Place the seafood, including shrimp, octopus, and lobster, in a baking dish.
3. Add seasonings, such as salt, pepper, and lemon juice, to the seafood.
4. Place the baking dish in the oven and bake for a specified amount of time.
5. Once the seafood is cooked, serve it with a side of rice or pasta.

1) Cross-Modal Retrieval

Audio



Crackle of a Fire



Baby Cooing

Images & Videos



Depth



Text

"A fire crackles while a pan of food is frying on the fire."

"Fire is crackling then wind starts blowing."

"Firewood crackles then music..."

"A baby is crying while a toddler is laughing."

"A baby is laughing while an adult is laughing."

"A baby laughs and something..."

2) Embedding-Space Arithmetic



Waves



3) Audio to Image Generation



Dog



Engine



Fire

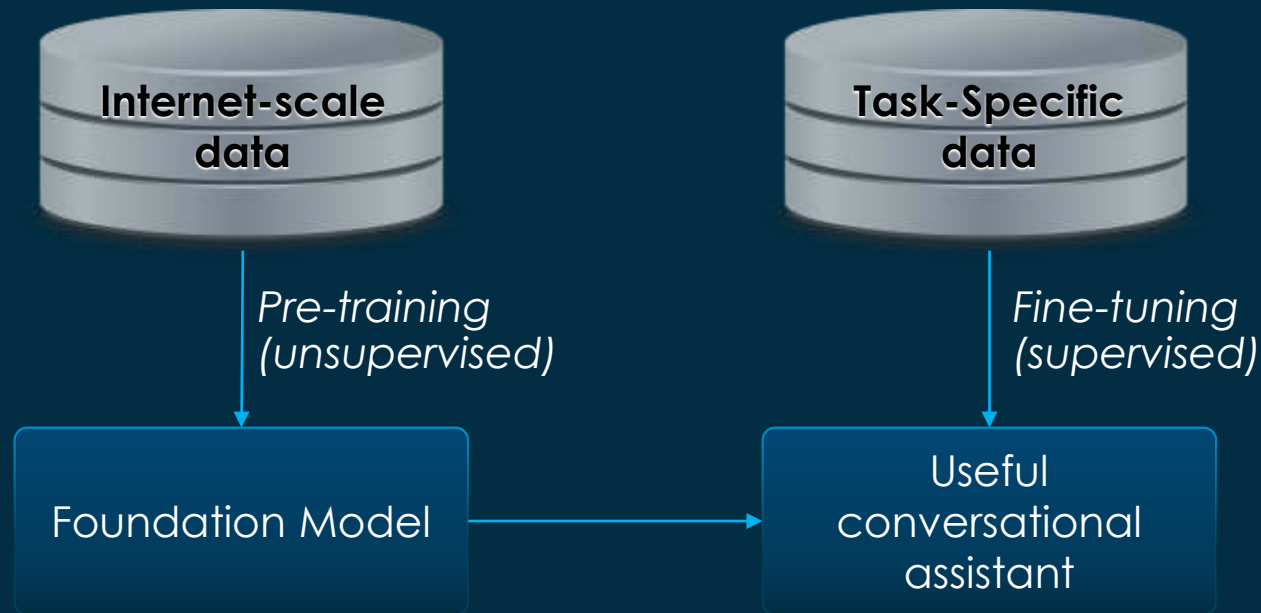


Rain



Instruction Tuning for Open Assistants

By themselves, foundation models are not great conversational assistants. They need to be fine-tuned on specific data for such.



Commercial vendors keep their fine-tuning datasets private.

The open-source community has been active in building high-quality datasets that enable useful and trustworthy assistants:



AI & the ServiceNow Platform

The Now® Platform

Digital workflows

Seamless across departments, vendors, partners and customers



Customer Workflows



Employee Workflows



Technology Workflows



Creator Workflows

Cloud platform

The foundation for all workflows
One data model
One architecture

Platform Foundation

- Workflow and task management
- Service catalog
- CMDB / Service Graph
- Security/ Vault
- Seamless upgrades
- Industry data model

Configuration

- Omni-channel user experience
- Low code
- Developer tools
- Pre-built extensions
- Process flow design
- Integrations

Intelligence

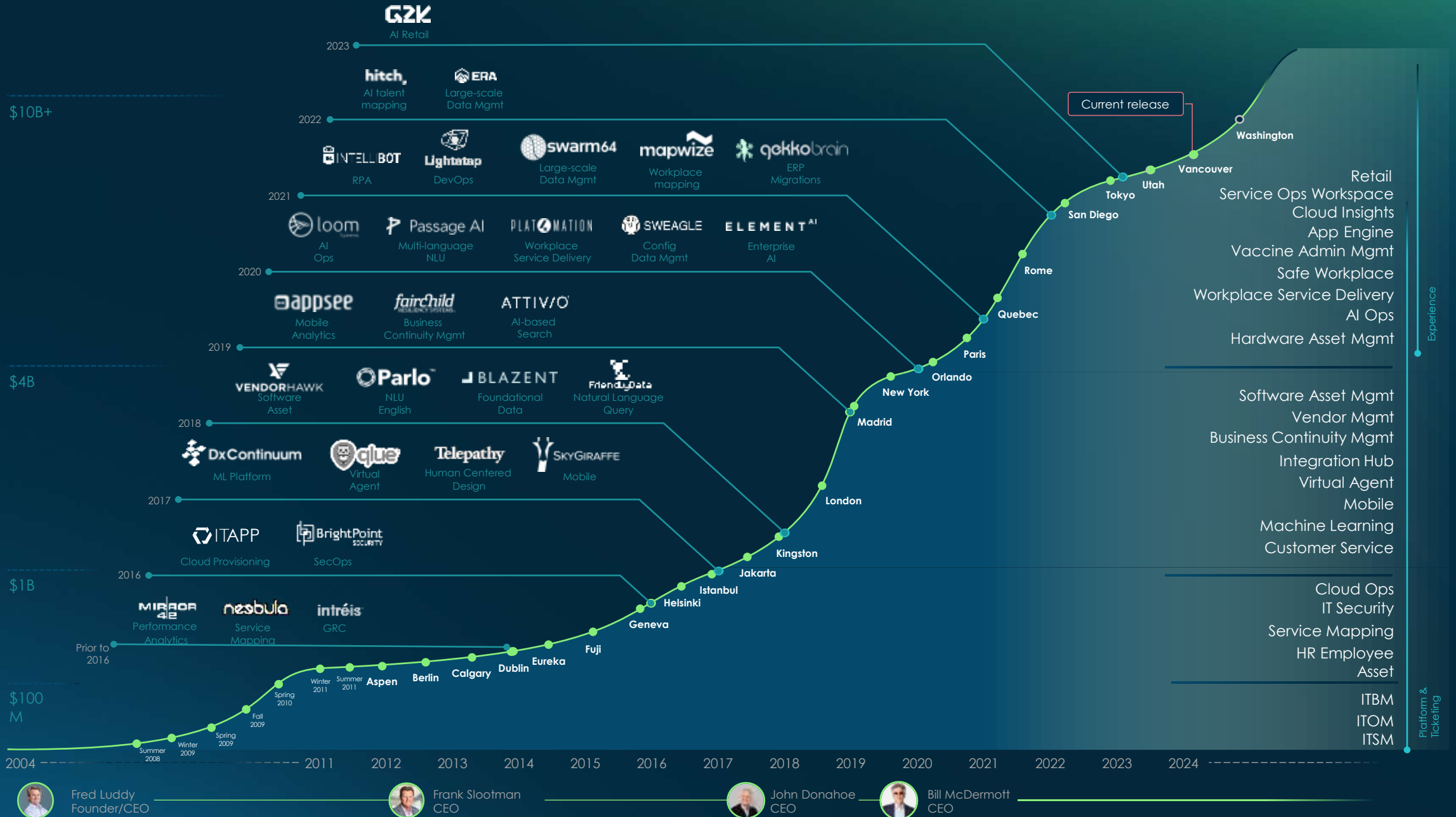
- Process mining
- Analytics and insights
- Virtual agent, Natural language AI
- Machine learning
- Robotic Process Automation

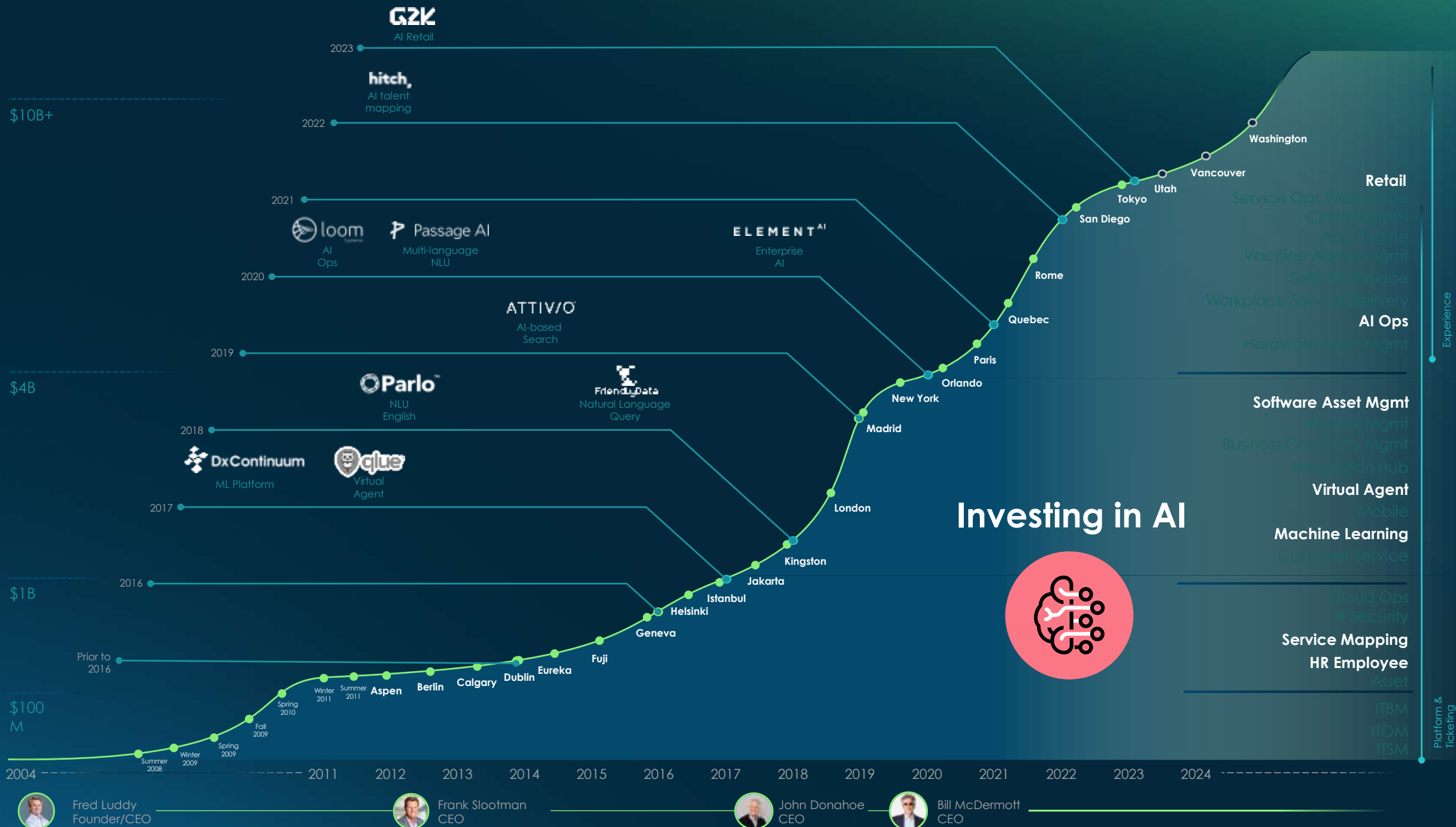
Cross-Functional Ecosystem Connection

CRM • Supply Chain • ERP • HCM • IT • Infrastructure • Dev Ops/SRE • Any System



Note: Other company and product names may be trademarks of the respective companies with which they are associated.





The **intelligent platform** for digital business



AI Technologies



Conversational Intelligence



Search Intelligence



Predictive/Task Intelligence



Document Intelligence



Analytics Intelligence



Operations Intelligence



Customer Outcomes



Empower users to solve problems



Auto-resolution of incidents



Optimize workforce productivity



Avoid human errors



Fast time to value for customers



Increase process efficiency



Generative AI



Digital workflows
Seamless across departments, vendors, partners and customers

 **Customer Workflows**







 **Employee Workflows**

 **Technology Workflows**
 Lightstep







 **Creator Workflows**

Cloud platform
The foundation for all workflows
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One architecture






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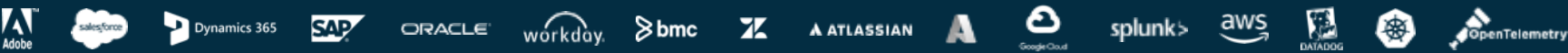
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 **Generative AI**

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GENERATIVE AI

A surreal landscape featuring a glowing green digital mountain in the center, composed of many small, bright green points. The mountain is set against a backdrop of dark, rolling hills and a sky with a gradient from orange to blue, dotted with stars. The overall scene has a futuristic, ethereal feel.

General purpose

CURRENT



EXPLORING



ServiceNow's Generative AI strategy

Domain specific

SERVICENOW DEVELOPED MODELS



WHY IT MATTERS?

Large Language Model Accuracy

Optimized for Customer Data

Data Privacy

CUSTOMER CHOICE

Choice of Large Language Models to support specific outcomes

GEN AI BENEFITS FOR CUSTOMER



Acceleration



Augmentation



Automation

What can Generative AI do for the ServiceNow Platform?

These capabilities are relevant and valuable for all ServiceNow personas across our product portfolio



Service
Personalization



Knowledge
Synthesis



Content
Generation



Now Assist helps all of our users



Developer

Exponentially faster
time to configure and
customize apps



Admin

Easier and faster to
deploy and optimize
apps – delivering faster
value for customers



Customer

Efficient, cohesive
and simpler customer
experiences



Agent

Productivity catalyst to
resolve issues faster and
provide better support



Employee

Better, faster answers and
resolutions – smarter
service delivery

All of our workflows **will leverage** Gen AI



Technology
Workflows

EXAMPLES

Higher deflection rates for
all types of IT Incidents

Faster Root Cause
analysis on Incidents

Post-incident
summarization & analysis
in Natural Language



Employee
Workflows

EXAMPLES

Shared Services
Automation and
Cost Optimization

Faster resolution of
employee requests

Employee
skills growth



Customer & Industry
Workflows

EXAMPLES

Higher agent
productivity

Higher customer
case-deflection

Automated
knowledge creation



Creator Workflows
and Others

EXAMPLES

Text-to-code

Text-to-app

Faster document
processing



EXAMPLES



Enhanced
search



Now Assist via Domain
Specific LLMs



Automated
code generation

The future of ServiceNow and generative AI

 **Generative AI**



Now Platform®

RECAP

**The low-code, intelligent
automation platform with a
world-class experience for end-
to-end digital transformation**



Generative AI

Capabilities

Comprehends human communication
Generates natural-sounding content
Expert in most languages

Information

Applies common-sense
Remembers most of the internet
Learns from open-source to write code

Reliability

Excellent structure, spelling, grammar
Invents things it doesn't understand
Pretends to do things it can't



Now Platform®

Vastly more capable

Able to take action through workflows
True root-cause, anomaly, resolution planning
Understands NOW users, agents, admins
Learns from NOW developers for code assist

Much better informed

Knows the state of a ServiceNow instance
Knows the customer and their reality
Knows who the user is
Uses on-instance data to understand a specific situation

Safe, effective and reliable

Follows human-centric AI guidelines
Constrained by ACLs and instance security
Enterprise-ready

RECAP

Some things the NOW platform does to enhance Generative AI



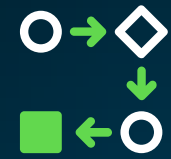
**Grounds the
Generative AI
in reality**



**Makes
Generative AI
secure**



**Allows access
to specialized
Generative AI**



**Connects
Intelligence to
Action**

Using **++ Generative AI** for language: what goes on behind the scenes?

1 PROMPT

INSTRUCTIONS: I will describe a

CONTEXT: You are a service agent

SITUATION: The customer is "Bob"

RULES: Remain polite and professional.

If you don't know the answer, respond "NO ANSWER" and stop.

If you provide knowledge, cite the URL in your answer like this: <url>.

2 GENERATE



1 trillion words from
the 2021 internet

3 INTERPRET

ACTION: Send Email

MESSAGE: Dear Bob, we are sorry to hear about your broken widget. According to our returns policy at [<http://acme.org/returns.html>](http://acme.org/returns.html) you are entitled to a free replacement...



Generative AI



Now Platform®

1 PROMPT

Grounds the
generative AI in
reality

Ensures quality
and consistency

2 GENERATE

Enhanced model
choices

Human-centric AI
governance

3 INTERPRET

Deep platform
integration

Platform security



September 2023

Vancouver



End
User

Virtual Agent Q&A

Employees and customers quickly get answers through natural-language **Q&A interactions in Virtual Agent** experiences



Agent /
Worker

Summarized Search Results

Agents and end-users get **summarized and targeted search results instantly**



Developer
/ Builder

Glide-specific code assist

Unlocks the power of Gen AI across the platform with new **text-to-flow and text-to-code**



2024 and beyond

Washington DC

And future releases

Deliver Complete Self-Service For All

Leverage **conversation and workflow** in one seamless experience, bringing virtual agent and search together to catalyze productivity

Super-Charge Agent Productivity

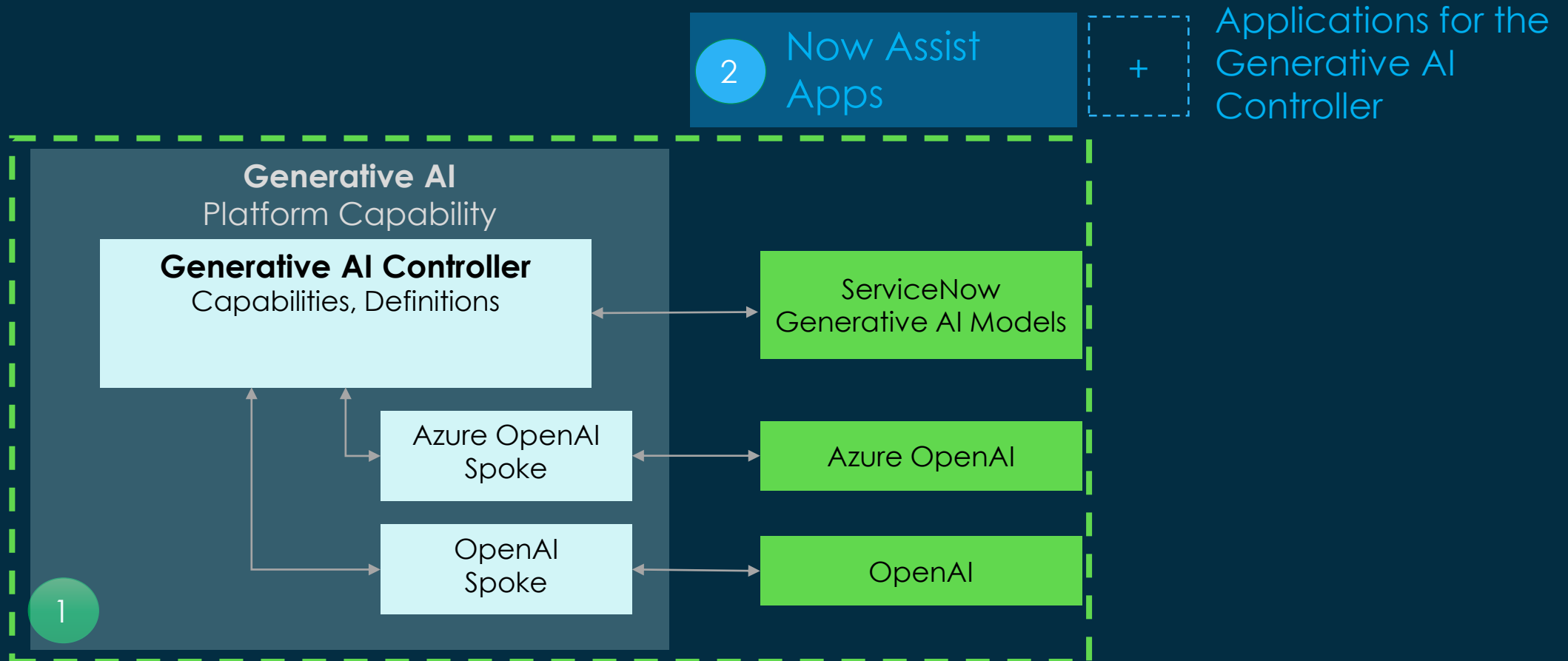
Eliminate mundane and repetitive tasks (**Automated Knowledge Creation, Case Summarization**) while also accelerating/augmenting work (**Case Insights, Recommended Resolutions, Root Cause Analysis**)

Generative AI drives Admins and Builders

Accelerate development with **text-to-application** and **deployment with admin assist**

Initial integrations with Generative AI Service Providers

Testing with a limited set of customers until Fall 2023 (Vancouver release)



Intelligence controller with connections to OpenAI, Azure OpenAI

A photograph of two young women standing on a city street, smiling warmly at the camera. The woman on the left has long, wavy blonde hair and is wearing a dark jacket over a patterned scarf. The woman on the right has dark hair and is wearing a striped shirt under a grey and orange patterned shawl. In the background, a blurred city street with trees and buildings is visible. A hand is partially visible in the foreground on the left, reaching towards the camera.

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Thank you