

#### **WEBINAR**

# **Unleash the Power of Al Agents**

**Building Effective Agent Systems** 

Wednesday, March 12th 2025: 8 PM CET / 7:00 PM GMT

## **Recording Notice**

This Webinar Is Being Recorded

By remaining in this session, you consent to being recorded.

Content Distribution

Recordings will be shared online for those who couldn't attend live.

If you prefer not to be recorded, you may leave now. A summary of key points will be available afterward.





### **EuroAl Forum - Our Mission and Vision**

#### **OUR MISSION**

Inspire and engage Europe in AI development, fostering an open platform for communication and knowledge exchange to drive positive societal and economic impact.



#### **OUR VISION**

Become Europe's leading forum for responsible Al development, connecting communities to build a global Al leader focused on ethics, trust, and collaboration.





### **EuroAl Forum - Our Values and Goals**

#### **VALUES**

- 1 Collaboration
- **2** Communication
- **3** Engagement
- 4 Inspiration

#### GOALS

- 1 Exchange European Al Experiences

  Learn from collective successes and setbacks
- 2 Empower European Workforce
  Cultivate Al proficiency for productivity gains
- 3 Foster Pan-European Cooperation

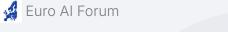
  Ensure responsible Al adoption across Europe

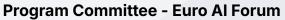


## **Our Structure - Program Committee**

Meet the experts guiding the EuroAl Forum's vision and direction







EuroAl Forum -- Cooperation for the Future of Al in Europe -- Meet Our Program Committee



### How are we different?

# Al Implementation Showcase and Toolset

A platform or event for European businesses to showcase successful Al implementations, fostering knowledge sharing and inspiration.

# Regulatory Sandbox Partnerships

Collaborative efforts with regulatory bodies to establish "sandbox" environments for safe Al testing within compliant frameworks.

# **European Al Talent Pipeline**

Programs designed to connect skilled Al professionals with European businesses, encouraging talent retention and development within the region.

# Sector-Specific Workshops

Specialized forums or events focusing on Al applications in key sectors of the European economy, such as manufacturing, healthcare, and finance.



### **Our Why**

We recognize the challenging legal and regulatory landscape that complicates effective navigation.

# Challenging Legal Landscape

We recognize the challenging legal and regulatory landscape that complicates effective navigation.

# **Gap in Practical Implementation**

We identify a **gap in practical case studies** and implementations that go beyond proof of concept.

# **Limited Media Attention**

We observe **limited media attention** and support for these critical issues.

## Untapped Al Potential

We acknowledge **limited opportunities for Al development** but see
significant potential in
adopting tools from
American companies.

Let's start Al Agents part.

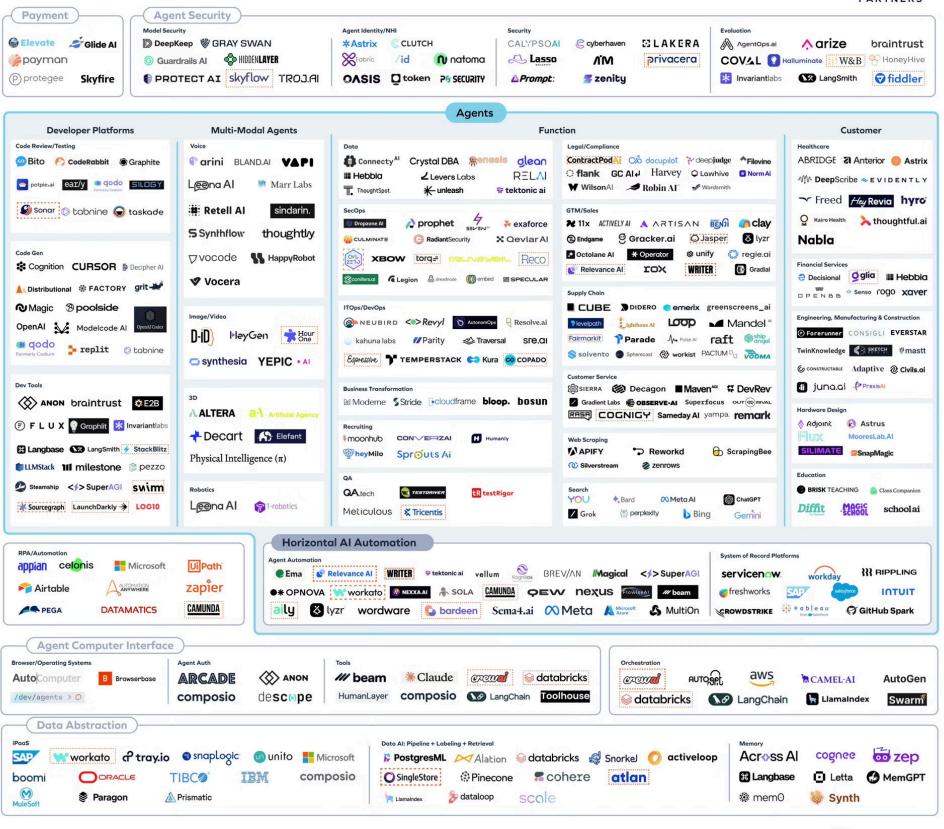


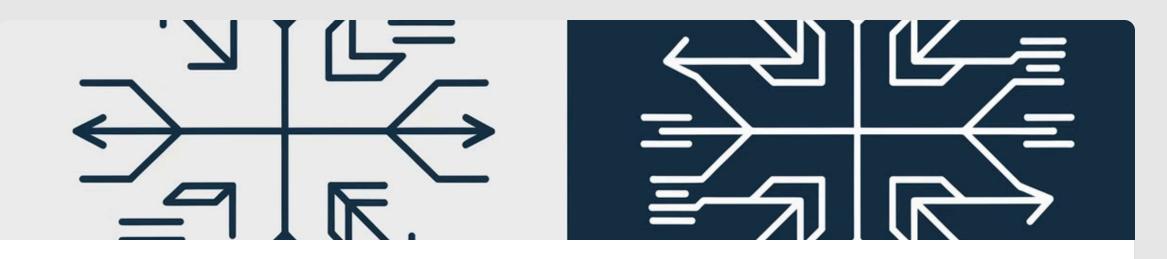


#### Al Automation & Agents Market Map



Insight Partners investment





### What Are Agents?

#### **Agentic Systems**

At Anthropic, we categorize all variations as **agentic systems**, but draw an important architectural distinction between workflows and agents.

#### **Workflows**

Systems where LLMs and tools are orchestrated through predefined code paths.

#### **Agents**

Systems where LLMs dynamically direct their own processes and tool usage, maintaining control over how they accomplish tasks.



### **When To Use Agents**

#### **Chatbots**

Chatbots use a source of knowledge or a single Al model.

- Best for simple Q&A.
- Lack complex problem-solving skills.

Chatbot

Al Model

Source

#### **Al Agents**

Al agents use multiple Al models and tools.

- Better at dynamic tasks.
- Can achieve complex goals.

Al Agent

Al Model

Tools

### **When To Use Agents**

**1** Find the Simplest Solution

When building applications with LLMs, we recommend finding the simplest solution possible, and only increasing complexity when needed (Source: Anthropic guide)

**2** Consider the Tradeoffs

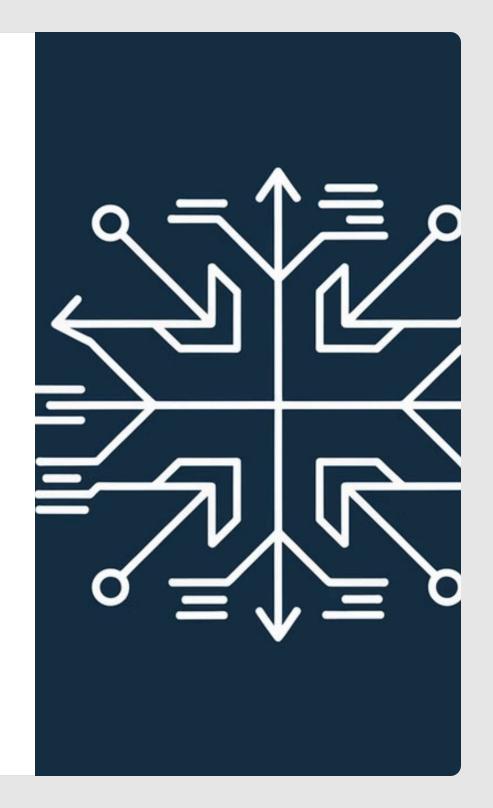
Agentic systems often trade latency and cost for better task performance, and you should consider when this tradeoff makes sense.

**3** Choose Workflows for Predictability

Workflows offer predictability and consistency for well-defined tasks.

4 Choose Agents for Flexibility

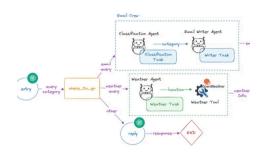
Agents are the better option when flexibility and model-driven decision-making are needed at scale.

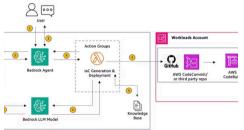


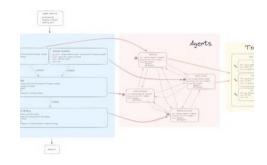


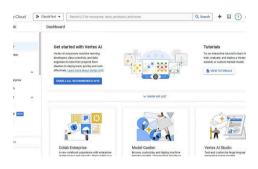
### Frameworks: When and How to Use Them

Frameworks simplify agent development but come with trade-offs between ease of use and complexity.









# LangGraph (LangChain)

Popular framework that simplifies standard low-level tasks like calling LLMs and chaining calls together.

#### **Amazon Bedrock**

Cloud-based Al Agent framework that streamlines development while potentially adding layers of abstraction.

#### **CrewAl**

Framework for streamlining workflows across industries with powerful Al agents on any LLM and cloud platform.

#### **Google Vertex**

Enterprise AI platform with agent capabilities that simplifies deployment but may obscure underlying prompts and responses.

While these frameworks make it easy to get started, they often create extra layers of abstraction that can obscure the underlying prompts and responses, making them harder to debug. They can also make it tempting to add complexity when a simpler setup would suffice.





# **Building Block: The Augmented LLM**



#### Retrieval

Enhances the LLM with the ability to access and retrieve information from external knowledge bases.



#### **Tools**

Allows the LLM to interact with external systems and APIs to perform specific actions.



#### **Memory**

Enables the LLM to retain information across multiple interactions or sessions.

The basic building block of agentic systems is an LLM enhanced with augmentations such as retrieval, tools, and memory. Our current models can actively use these capabilities—generating their own search queries, selecting appropriate tools, and determining what information to retain.



### **Case study: Manus**

#### **Autonomous Operation**

Manus operates independently to execute complex tasks.

#### **Tool Integration**

It integrates with web browsers and database managers.

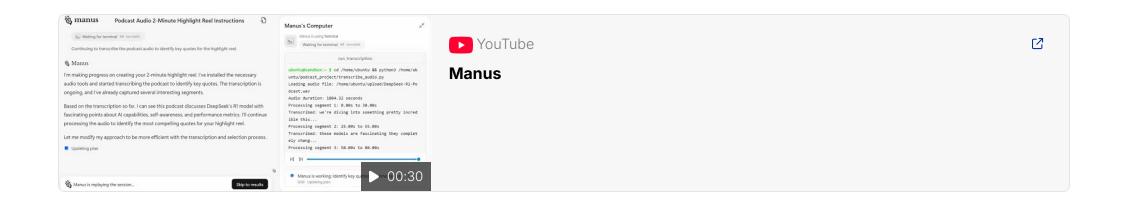
#### **Multi-Modal Capabilities**

The agent uses a variety of inputs.

#### **Adaptive Learning**

Manus continuously learns and improves its performance.







# **Case study Anything LLM**





- 01. Type of building to be equipped (e.g., school, office, residential)
- 02. Location of the building
- 03. Planned heating/cooling area (in m²)
- 04. Type of heating installation planned or existing
- 05. Whether domestic hot water will be prepared only by the heat pump
- 06. Estimated heat load of the building (in kW)
- 07. Whether the building requires cooling and the estimated cooling capacity
- 08. Type of air-solar collectors planned for regeneration
- 09. Information about additional heat sources and preferred system operation mode
- 10. Preferred type of energy storage (ice tank)
- 11. Requirements for the hydraulic module with intelligent installation management

The document shows a questionnaire format where these details are collected to provide accurate cost estimates for components like heat pumps, gas boilers, ice storage tanks, and control systems.

ð

Show Citations >



### **Anything LLM**

Everything great about AI in one desktop application.

Chat with docs, use Al Agents, and more - full locally and offline.



### **Agents in Practice: Real-World Applications**

#### **Customer Support (Salesforce)**

- Combines familiar chatbot interfaces with enhanced capabilities through tool integration
- Support interactions naturally follow a conversation flow while requiring access to external information and actions
- Tools can be integrated to pull customer data, order history, and knowledge base articles
- Actions such as issuing refunds or updating tickets can be handled programmatically
- Success can be clearly measured through userdefined resolutions

#### **Coding Agents (Zencoder)**

- Software development space has shown remarkable potential for LLM features
- Code solutions are verifiable through automated tests
- Agents can iterate on solutions using test results as feedback
- The problem space is well-defined and structured
- Output quality can be measured objectively
- Agents can now solve real GitHub issues in the SWE-bench Verified benchmark



### **Pillars of Al Agent Governance**

#### **Human Oversight**

Control based on risk level. "Al agents should not have full autonomy without human control. Humans should be able to choose the level of involvement based on the use case and the risk level of the decision."

#### **Explainability**

Clear justifications for decisions "Al agents must provide clear justifications for their decisions. Users should have access to decision logs that track how Al arrived at conclusions."

#### **Ethical Auditing**

Regular bias checks. "Al governance must include regular audits to check for biases"

#### **Regulatory Safeguards**

Defined accountability. "Include business context and ensure large language model (LLM) prompt guardrails through business rules."

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<sup>&</sup>lt;sup>1</sup> Source: SAS (**link**)





Share your Al Agent journey and let us know your learning goals.

# Stay Connected: EuroAl Forum Calendar

Never miss a breakthrough moment in European Al development.



Upcoming Events

Join Al implementation

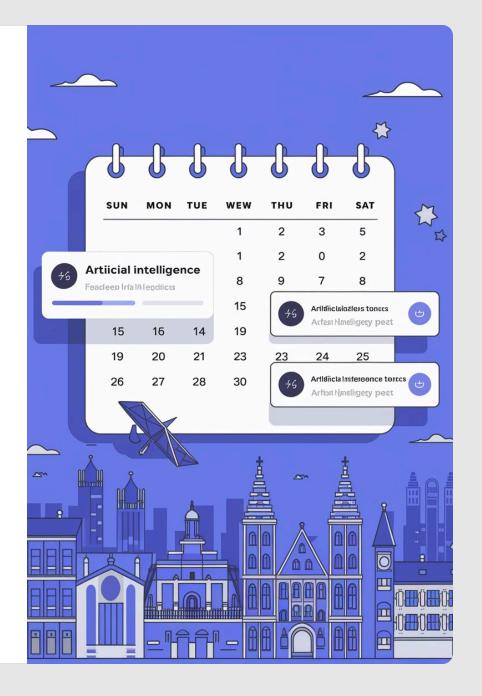
Add our calendar to your favorite platform with one click.

workshops and regulatory discussions across Europe.

**Personalized Notifications** 

Get alerts for events matching your specific AI interests.

Visit <u>calendar</u> to access our full calendar of Al innovation.





### Our next webinar

#### **Navigating Legal Aspects of Al in Europe (May 2025)**

Join us for our upcoming webinar exploring the complex legal landscape of Al development and implementation across Europe. Legal experts will discuss regulatory frameworks, compliance challenges, and practical guidance for businesses.

Don't miss this opportunity to stay ahead of the evolving legal requirements in the Al space.



#### Register

Learn more and register at euroaiforum.eu

# **Key Takeaways**

Our journey through Al agents has explored governance, frameworks, and real-world applications.

#### **Al Agent Governance**

Human oversight, explainability, ethical auditing, and regulatory safeguards form the foundation.

#### Practical Applications

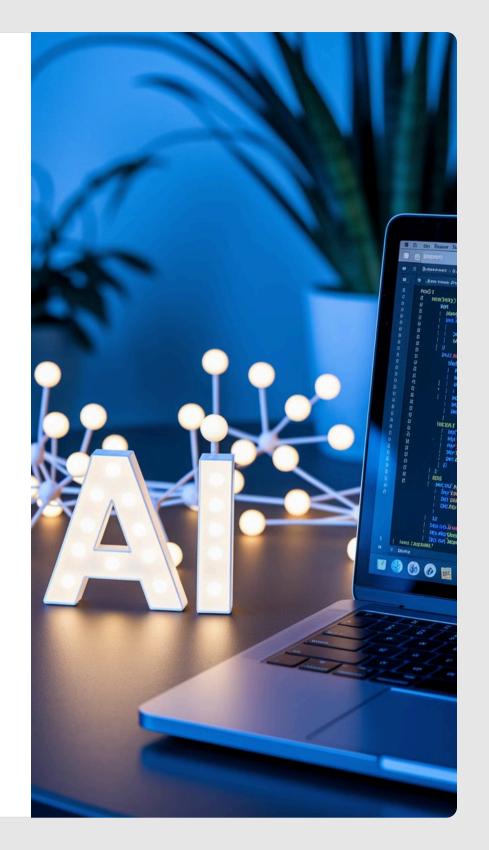
Case studies like Manus and Anything LLM demonstrate realworld implementation success.

#### Community Engagement

Connect through upcoming events, webinars, and our personalized calendar system.

#### **Next Steps**

Share your Al agent journey and help build Europe's leading Al platform.





# Join us to build a platform for leading Al companies and organizations in Europe.



#### **Become a Volunteer**

Contribute your time and skills to help advance AI initiatives across Europe.



#### **Become a Member**

Access exclusive benefits and join a network of Al professionals shaping Europe's future.



#### Be With Us on LinkedIn

Stay connected with our community and the latest European Al developments.