# INTRODUCTION TO MICROSOFT COPILOT TUNING

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# WHATIS COPILOT TUNING?



## WHATIS COPILOT TUNING?

Copilot Tuning is a set of low-code "eyes-off" fine-tuning capabilities in copilot studio using your own data. This enables building context-aware agents as experts in performing specific tasks



## WHATIS COPILOT TUNING?

- Tailoring Large Language Models (LLMs) for specific tasks
- Augmenting RAG solutions and prompt optimisations
- Especially useful for emphasising the domain, expertise, knowledge for specific problems.
- Starting with 3 specific task types
  - Document Generation
  - Summarisation & Analysis
  - Expert Q&A



## COPILOTTUNING?

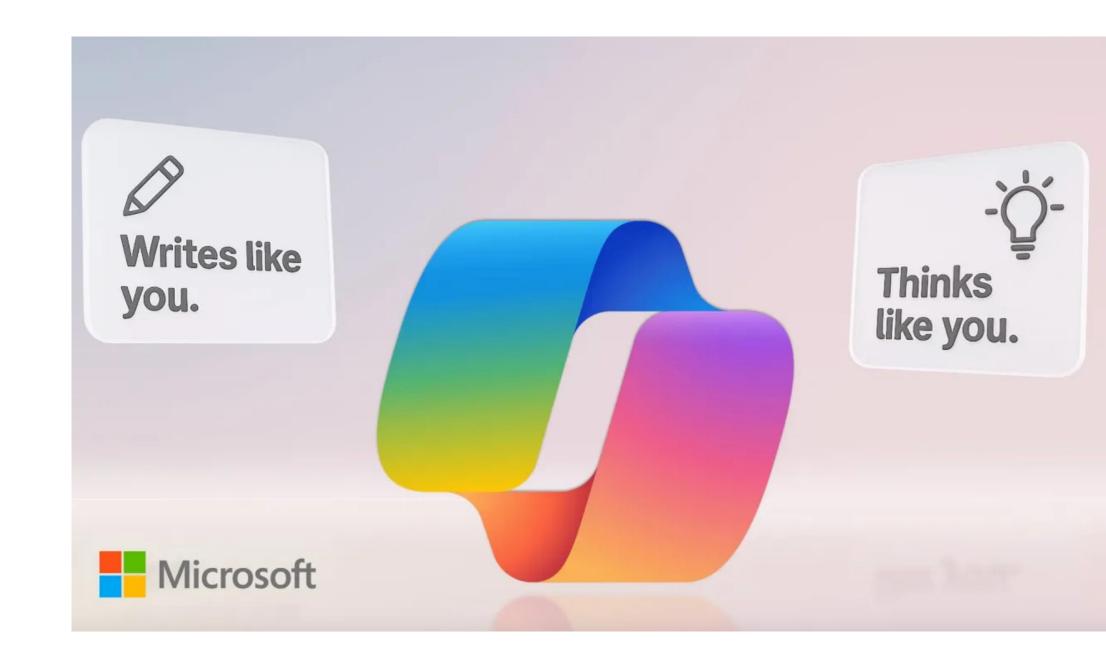
### **Model Fine-tuning Technique**





## MANAGED / ABSTRACTED TASKS

- Simplified Data Selection
- Data Ingestion and processing
- Access Lists (ACLs) are built-in — The model preserve data ACLs and ensures alignment access/use of the data.
- Pre-defined / Reusable tasks

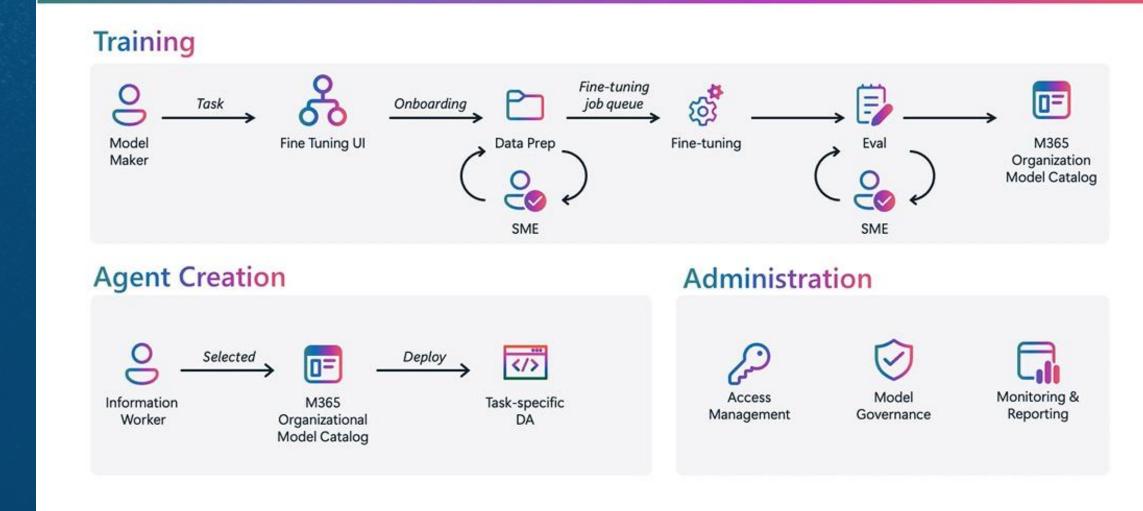




## SECURITY

- Enhanced governance by having your own SMEs control what models and what access is deployed
- Eyes-off approach for complete data sovereignty. Training & inference happens in isolated environments

#### **Microsoft 365 Copilot Tuning**

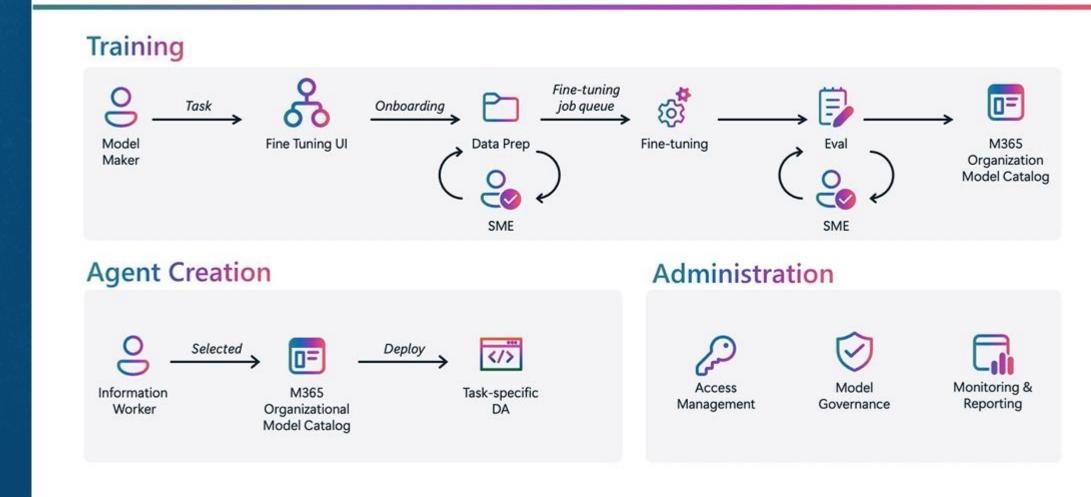




## TUNING

- Al assisted data preparation for more efficient and quick customisation
- Low-code self-service interface for more control and less infrastructure to manage.
- Task-specific tuning for better and more targeted outcomes.

#### **Microsoft 365 Copilot Tuning**



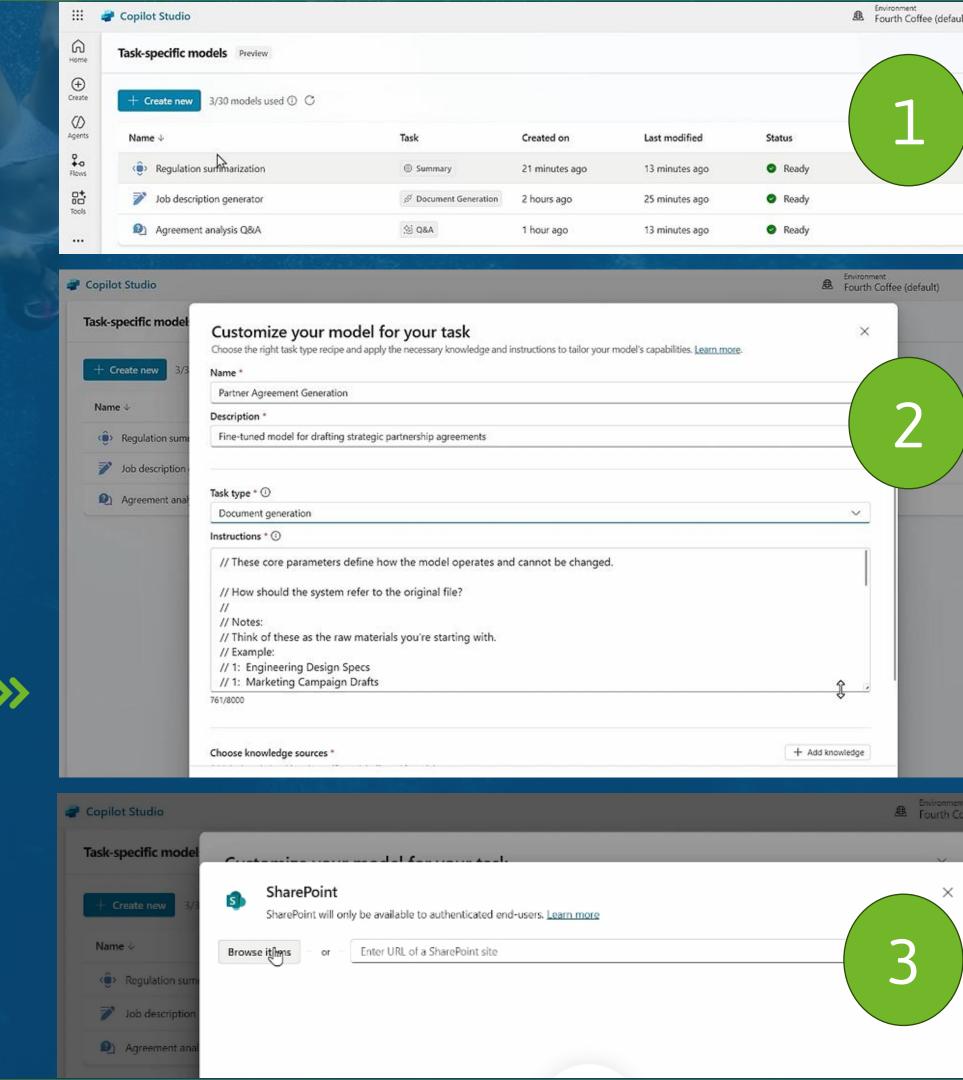


# HOW DOES COPILOT TUNING WORK?



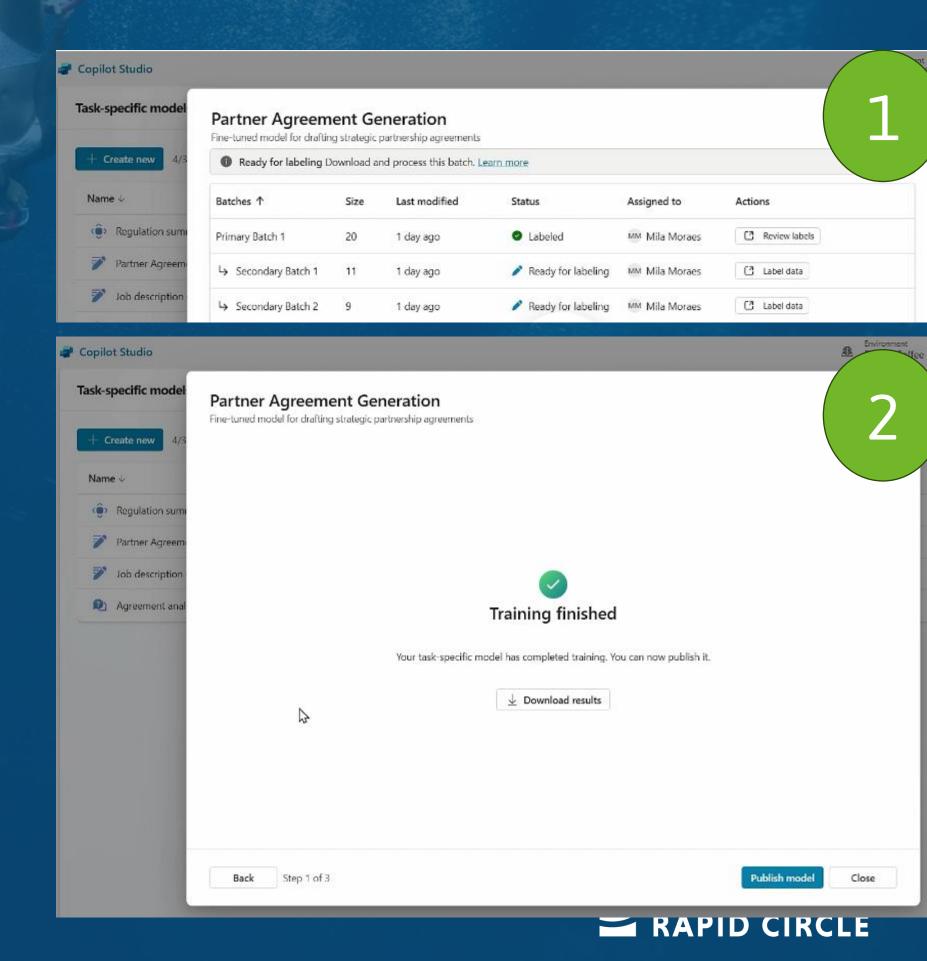
## CREATE MODELS

- Requires "modelmaking" permissions.
- You can create any task-specific models with one of the 3 available types.
- You can choose a knowledge source. At this point, only SharePoint is supported.
- The tuning happens in Copilot Studio



## DATA PREP & TRAINING

- AI-assisted data prep and labelling, which enables infusing SMEs domain knowledge when training task-specific models.
- The user can compare sideby-side output of finedtuned vs standard models.
- Once the fine-tuned model is published, new agents could be built of this model in Copilot Studio.



## WHY COPILOT TUNING

#### **Enhancing Personalization**

The Copilot Tuning feature aims to enhance personalization, making user interactions more tailored to individual needs and preferences.

#### Increasing Relevance of Suggestions

By improving the relevance of suggestions, the feature ensures that users receive the most applicable and useful information for their tasks.

#### **Driving Better Outcomes**

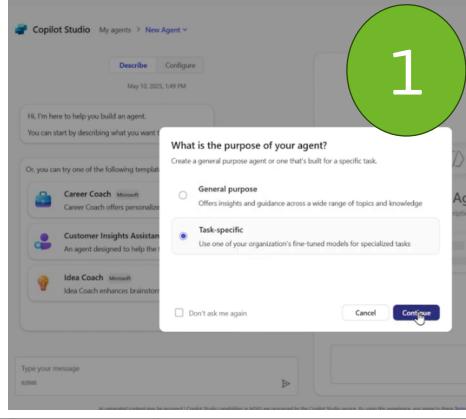
The ultimate goal is to drive better outcomes for users, enabling them to complete their daily tasks more efficiently and effectively.

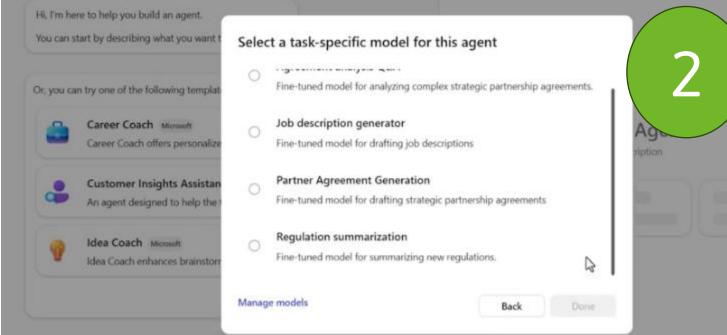


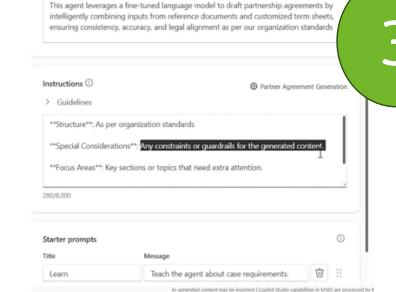


## AGENT CREATION

- Fine-tuned models can be used to create contextaware agents that use the organization's expertise, tone, and style
- You can also customise the agent instructions, starter prompts, etc
- The agent can be shared with other users/groups and ensures alignment between who can access and who can use the agent/data.









## LIMITATIONS OF COPILOT TUNING



### LIMITATIONS

- Currently in Private Preview and not open to users to explore and experiment with.
- There is a licensing limit currently where the service is only available for organisations with 5000+ copilot licenses.
- There are only 3 types of Tasks supported today (Docs generation, summarisation, and Q&A)
- There is currently on one supported data source which is SharePoint. Microsoft is working on other integration w the Microsoft Graph API.
- Data prep, training, and labeling can take long times (ie: hours and/or days).
- No clear guidance at this point on the cost.
   Given the models are traied and run on
   isolated environments, we can expect this to
   be a little expensive





## CONCLUSIONS

#### Powerful feature

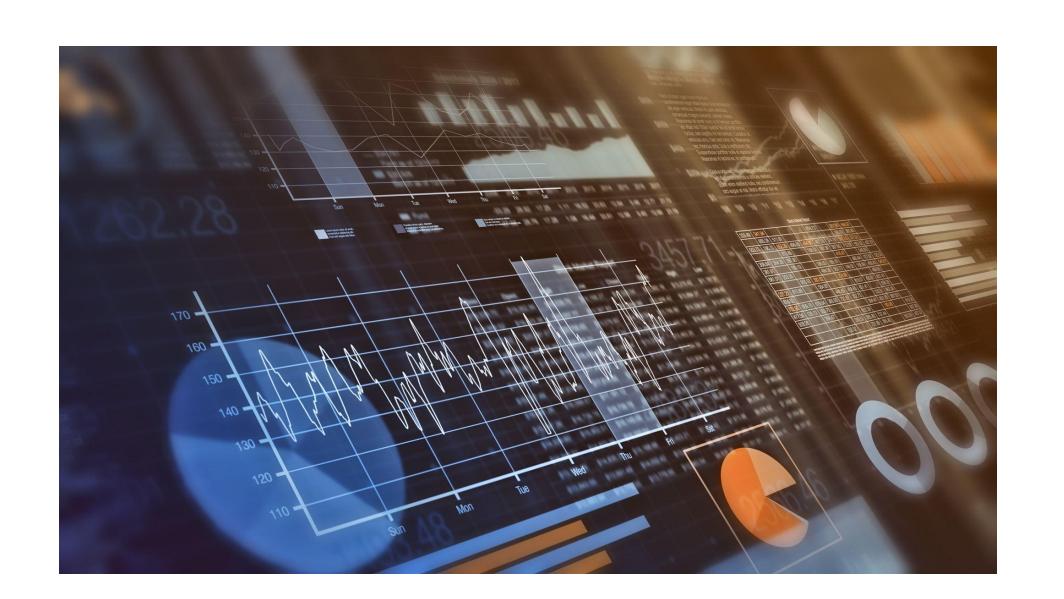
Highly requested feature that can cut down the manual work of tuning models and embedding organizational knowledge into context-aware agents.

### **Technical limitations** Limited types of tasks, and data

sources are available today

#### Early days

Would be great to trial and experiment with once it's available for the public. I expect Microsoft to change/lower the license requirements.





## QUESTIONS?

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