

# Introduction to



# Serverless **Workflow**

# Today's Speakers

---



**Charles d'Avernas**

Neuroglia – Brussels BE

- Specification
- Synapse Runtime
- .NET SDK
- Rust SDK
- ...



**Jean-Baptiste Bianchi**

Neuroglia – Brussels BE

- Synapse Dashboard
- TypeScript SDK
- VS Code Extension
- Website
- ...



**Ricardo Zanini**

Red Hat – Toronto CA

- Specification
- Go SDK
- Java SDK
- Website
- ...

# Serverless Workflow's Community

## Current Active Contributors (alphabetical)



Charles d'Avernas  
Neuroglia



J.-B. Bianchi  
Neuroglia



Matthias Pichler  
Warrify



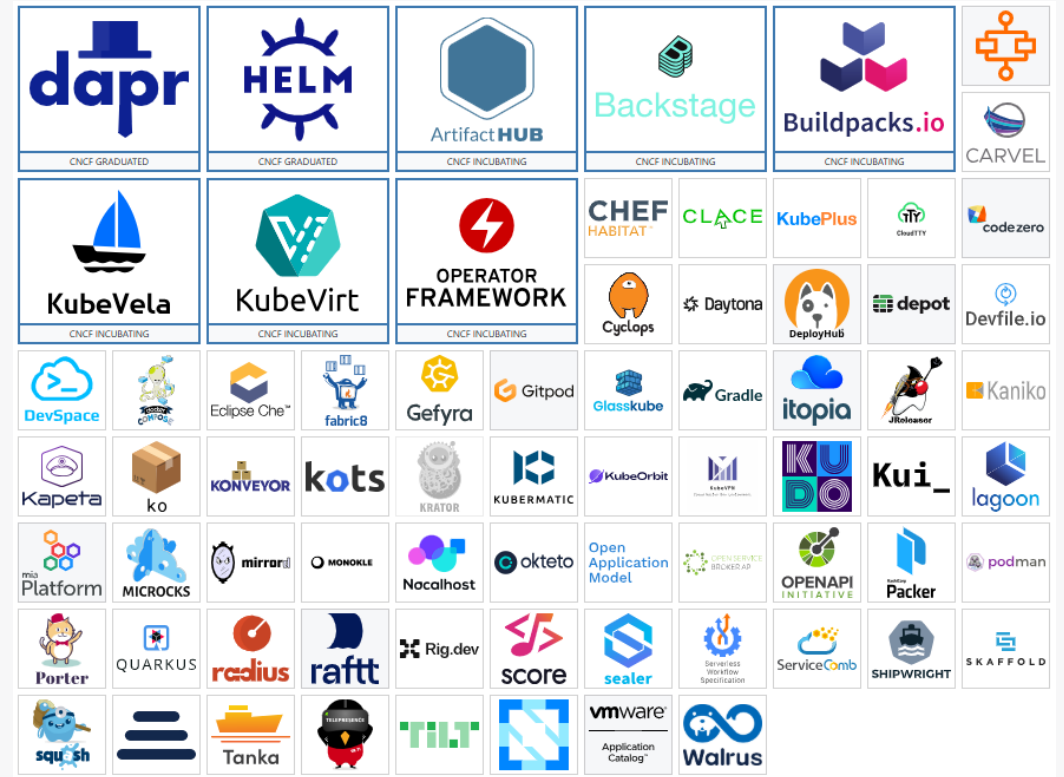
F.J. Tirado Sarti  
Red Hat



Ricardo Zanini  
Red Hat



## Application Definition & Image Build landscape



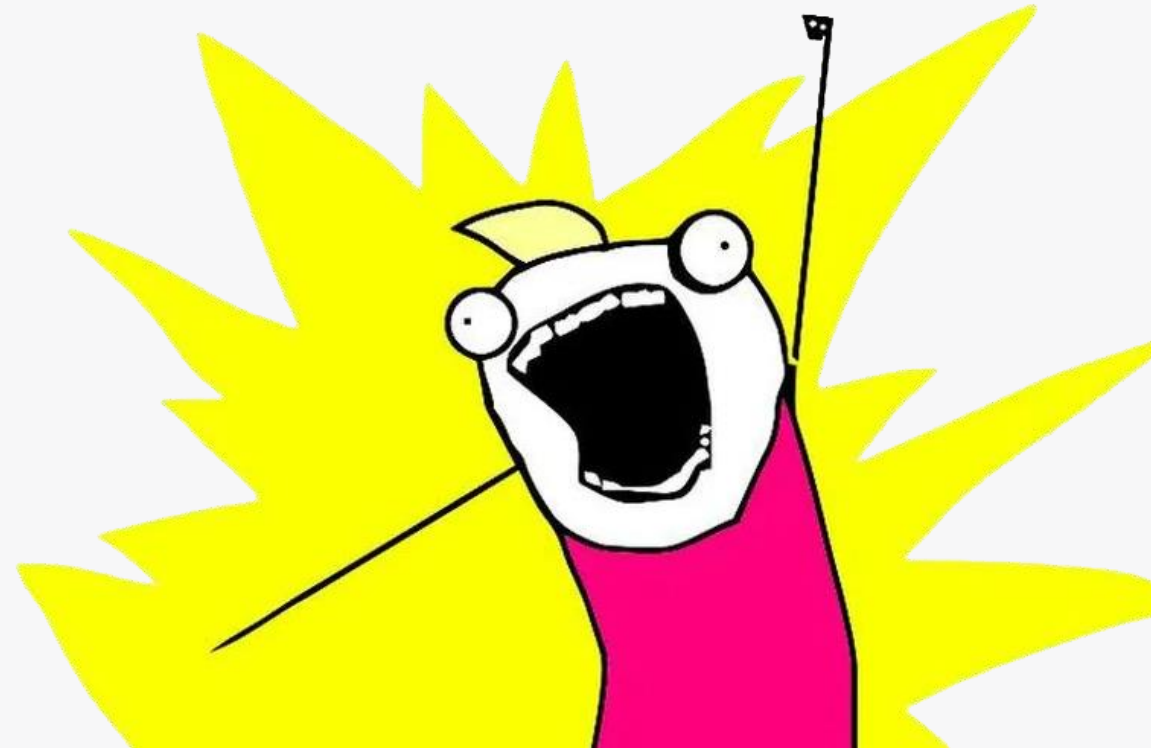
# What is Serverless Workflow?

---

- Vendor-neutral **Specification**
  - Usability
  - Interoperability
  - Extensibility
  - Event-driven
  - Fault-tolerant
- **SDKs**: .NET, Go, Java, PHP, Python, Rust & TypeScript
- **Runtime**: Synapse

# Why create Serverless Workflow?

- Prevent vendor-lock
  - Portability
  - Cost management
  - Hybridization
  - Data ownership
  - ...
- Empowers the developers



# What are the use-cases?

- Agentic **AI**
- **IoT** Workflows
- Data Processing/**ETL** Pipelines
- **CI/CD** Pipelines
- Application **Integration**
- **Event-Driven** Workflows
- Multi/**Hybrid Cloud** Workflows
- ...

# Building Blocks of the Specification

- **Document:** Documents the workflow, its name, version, namespace, tags, etc.
- **Input/Output:** Defines data flowing in and out
- **Schedule:** Specifies execution timing
- **Use:** Includes reusable components like secrets or retry policies
- **Timeout:** Handles workflow timeouts
- **Do:** Outlines the tasks to be executed

# The Tasks That Power Automation

---

- **Call:** call services/functions
- **Do:** group tasks
- **Emit:** emit events
- **For:** iterate
- **Fork:** parallel execution
- **Listen:** listen for events
- **Raise:** raise error
- **Run:** run container, script, workflow
- **Set:** set data
- **Switch:** conditional execution
- **Try:** error handling
- **Wait:** pause execution



# And Much More to Discover...

---

- Runtime Expressions
- Custom Functions
- Extensions
- Flow Directives
- Data Flow
- Lifecycle Events
- External Resources
- Streaming
- ...



<https://github.com/serverlessworkflow/fosdem-2025>

# Future of Serverless Workflow

---

- Reintroduce **Workshops**
- Go, Java, Rust runners/**implementation references**
- Expanding the custom functions & extensions **catalog**
- Graphical **Workflow builder**
- **Migration tool** for v0.8.0 to v1.0.0
- Renaming/**Rebranding**
- ...

# Get in touch!

---

- Star our GitHub repositories

★ <https://github.com/serverlessworkflow/> ★

- Visit our website

🌐 <https://serverlessworkflow.io>

- Join us on Slack

💬 <https://slack.cncf.io/> - #serverless-workflow

# Q&A

## Thanks for your time



**FOSDEM**'25



NEUROGLIA



**CLOUD NATIVE**  
COMPUTING FOUNDATION



Serverless**Workflow**