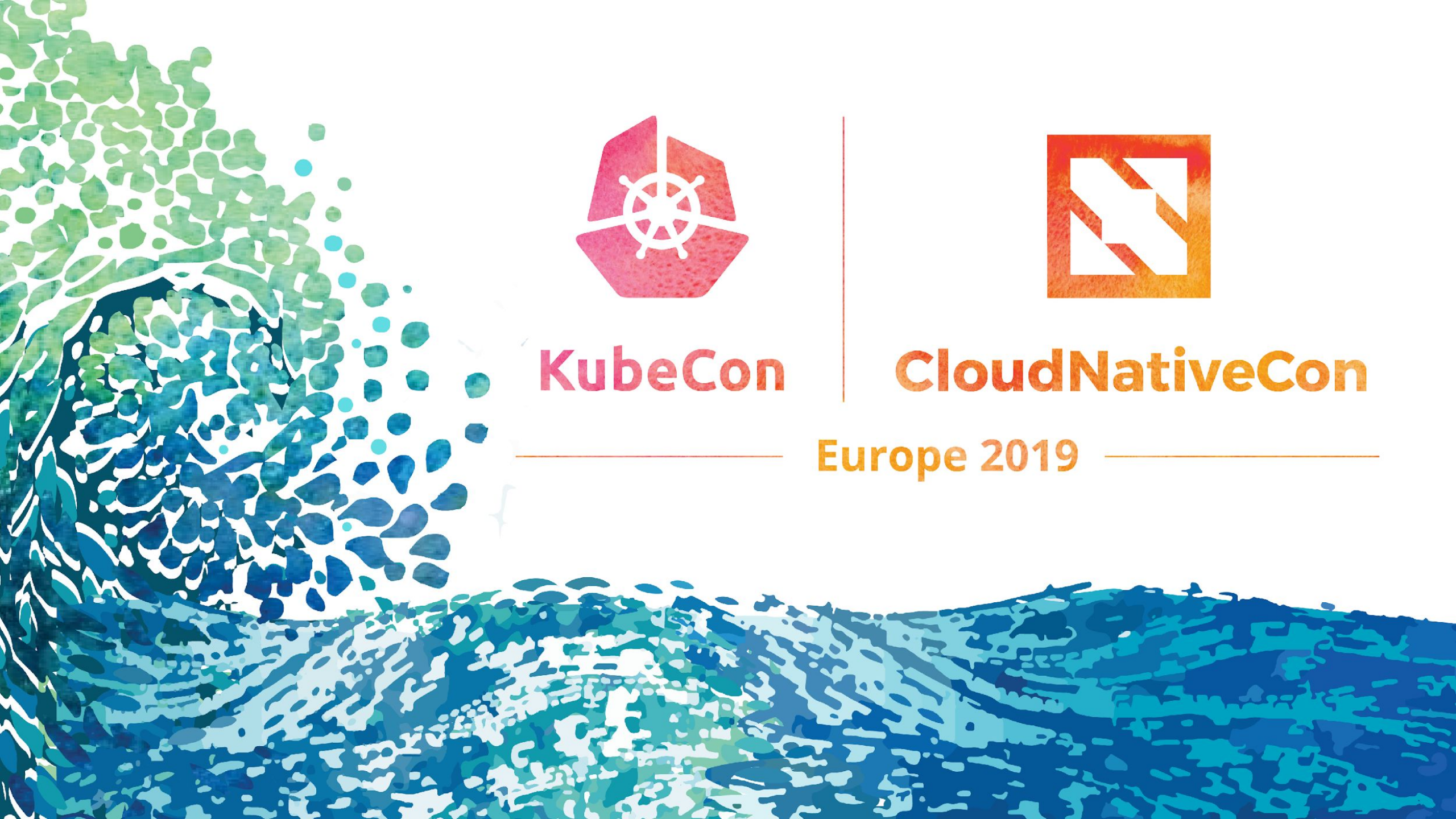

KubeCon
CloudNativeCon
Europe 2019

Intro: CoreDNS

Daniel Garcia, Michael Grosser

Speakers

Daniel Garcia

Contributor: CoreDNS
SaaS Architect: Infoblox
@daniel-garcia @

Michael Grosser

Maintainer: CoreDNS | Contributor: K8s
Founder: Okkur Labs & Rekkur Solutions
@stp_ip @stp-ip

Agenda

- Introduction
- State of Affairs
- Roadmap
- Plugins
- Configuration (Corefile)
- Use-cases
- Community/Contributing

CoreDNS

Introduction

- Flexible DNS server written in Go
- Plugin-based architecture, easily extended
- Supports DNS, DNS over TLS and others
- Started and led by Miek Gieben
- Based on Caddy HTTP server

Introduction

- Focus on service discovery
- Native support of Kubernetes
- Integration with etcd and other data sources
  - incl. AWS's Route 53, Redis, SQL, plain files
- Support for Prometheus metrics
- Forward to recursive DNS server

State of Affairs

- Version 1.5.0 (released 2019-04-07)
- Graduated CNCF project
  - Inception (2017)
  - Incubation (2018)
  - Graduation (2019)
- Growing community
  - 150+ contributors (Big Thanks!)
  - 15 maintainers
  - 30 public adopters
  - ~4000 stars

State of Affairs

- Each plugin is backed by an additional set of OWNERs
- New plugins:
  - Response Rate Limiting (rrl)
  - Block ANY queries (any)
- Kubernetes plugin:
  - Generally available (GA) since Kubernetes 1.11
  - Now the recommended default since Kubernetes 1.13

State: GSoC 2019

Google Summer of Code 2019

- Project ideas: github.com/cncf/soc#coredns
  > great contribution ideas

- Mentor: **Yong Tang** (GitHub: @yongtang)

Roadmap

- Core
  - Performance and stability improvements
- Plugin
  - GRPC transport iteration client and server
  - DNS over HTTPS
  - resolver plugin as external plugin (#2216)
  - more plugins

Configuration

- An authoritative DNS server
  - coredns.io {
  - file coredns.io {
  - transfer to * 185.49.140.62
  - }
  - errors
  - log
  - }
- A recursive DNS server
  - . {
  - proxy . 8.8.8.8
  - cache
  - errors
  - log
  - }

Community

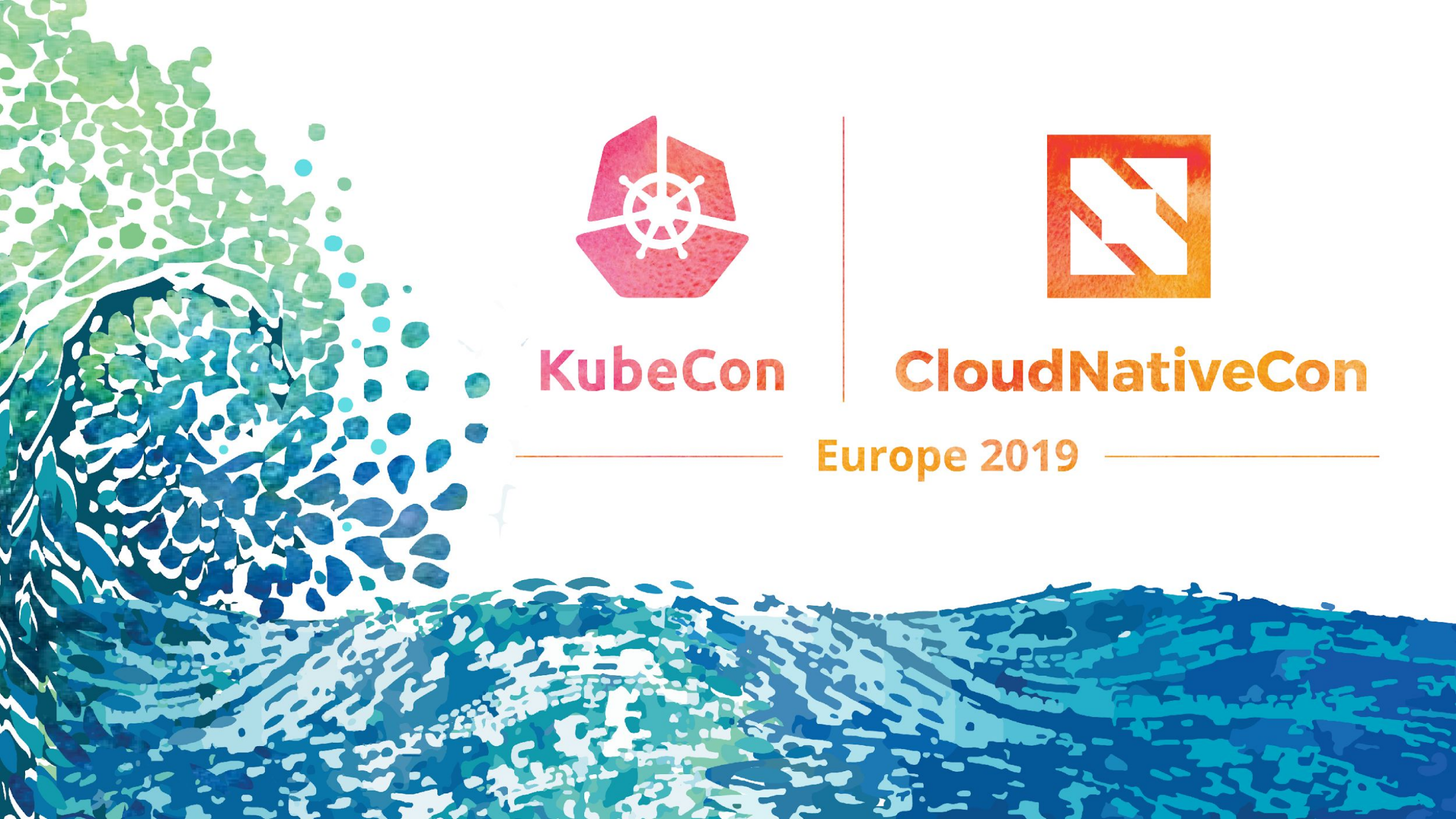
- Most active:
  - GitHub: github.com/coredns/coredns
  - Slack: #coredns on slack.cncf.io
- More resources:
  - Web: coredns.io
  - Blog: blog.coredns.io
  - Twitter: @corednsio
  - Mailing list/group (not very active)
    coredns-discuss@googlegroups.com

Contributions Welcome

- Star CoreDNS at github.com/coredns/coredns
- Add your company to ADOPTERS.md
- File bugs and contribute to issue discussions
- Create your first PR for docs or code
- Create a custom plugin for your use-case

THANK YOU

CoreDNS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