



GROWING **UP!**



Veille et Tendances de l'IT

Zenika

Julien Landuré & Jimmy Kasprzak

Julien Landuré



Practice Cloud Zenika

Google Cloud 4x certified



Official Trainer

GDE Cloud



@jlandure



Jimmy Kasprzak



CTO Zenika



@jimmykasprzak



@Orodan

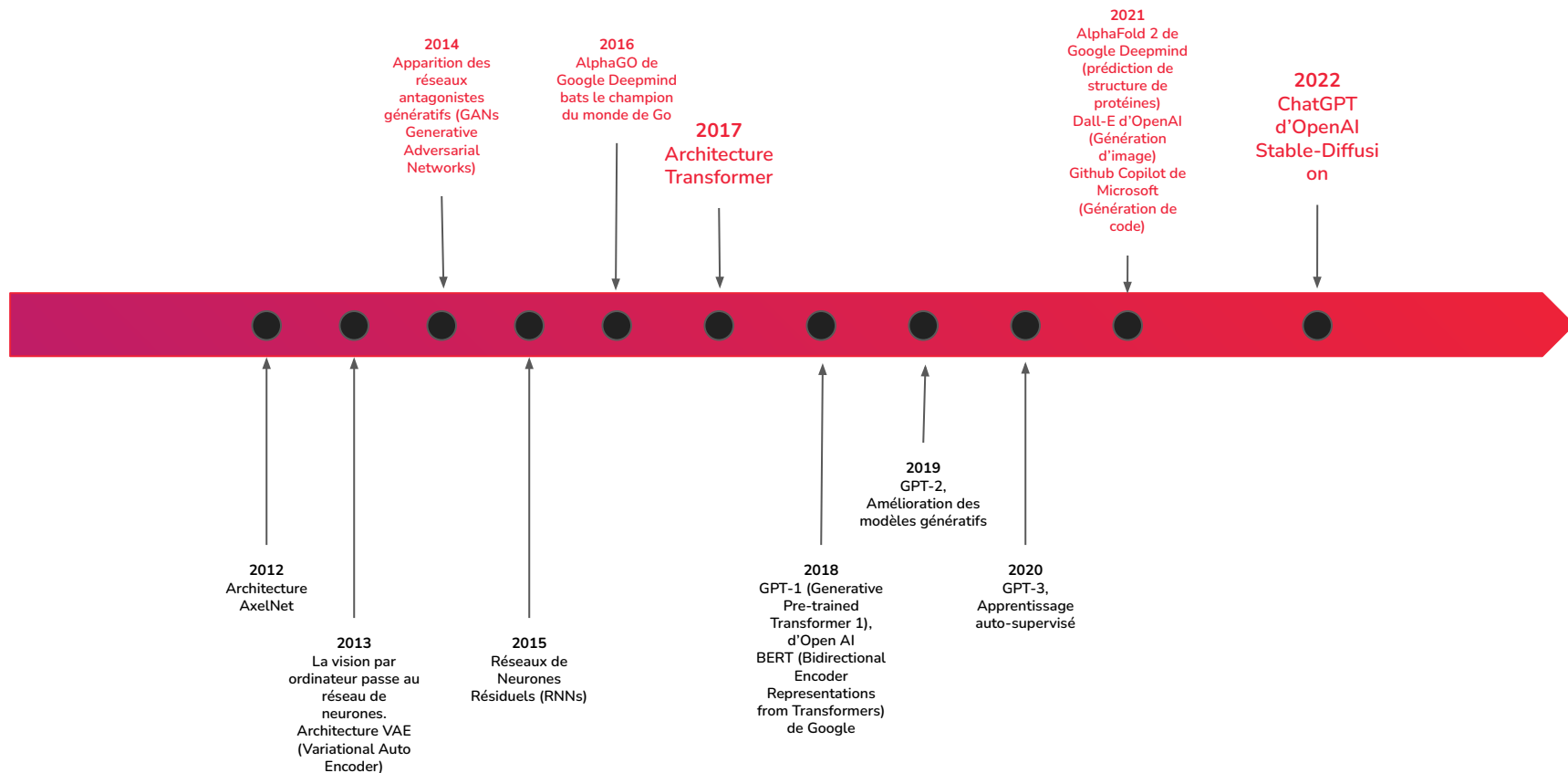




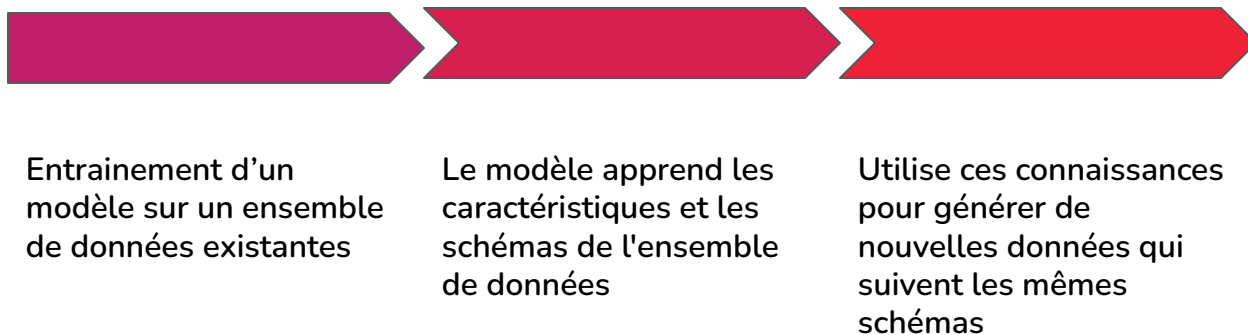
IA génératives



Un bref historique de l'IA



Principes de base de l'IA générative



LLMs: Les Big Players



OpenAI

- GPT 4
- GPT3.5 Turbo

ChatGPT4 /ChatGPT3



Meta

- Llama
- Llama 2

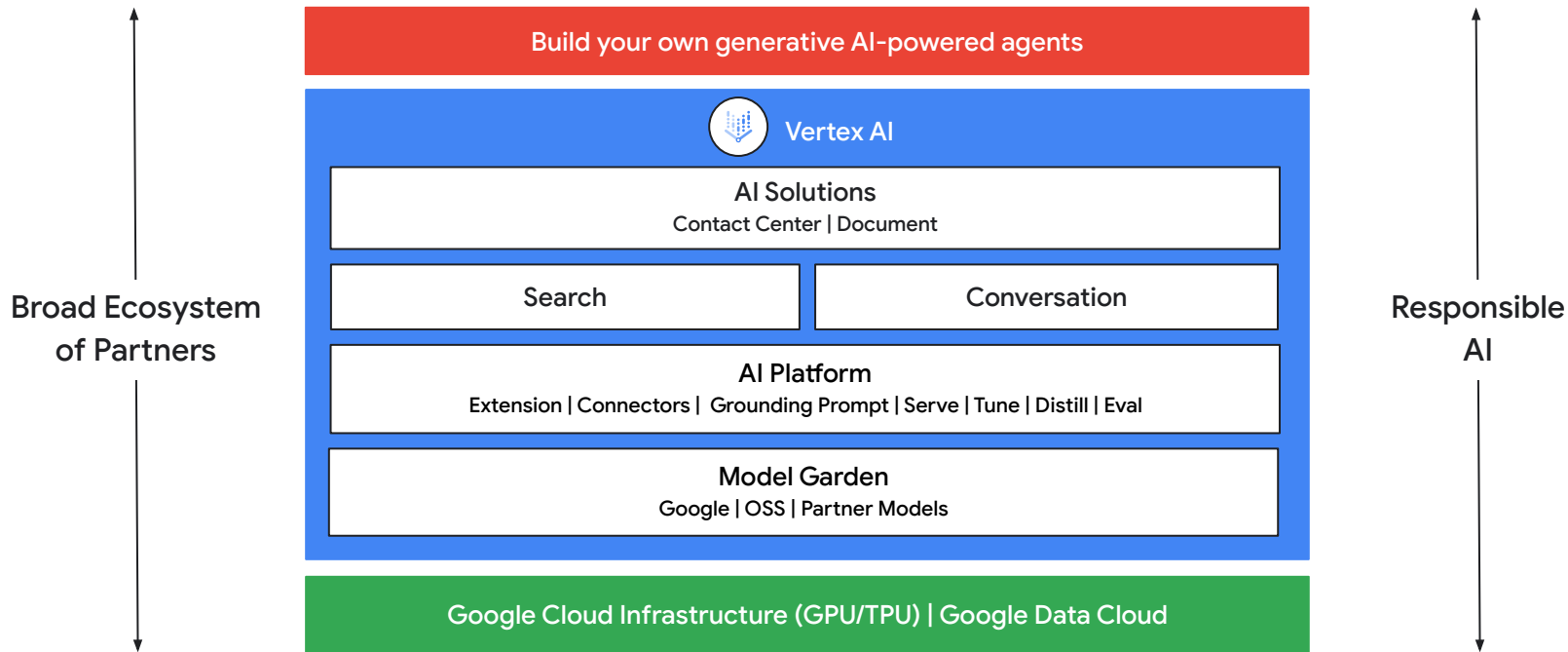
Instruct/chat



- Bard
- Plateforme Vertex

Google Cloud's Generative AI Portfolio

To support the needs of **Generative AI** centric enterprise development



DEMO



LLMs: Dans les métiers du numérique



GitHub
Copilot



ChatGPT

LLMs: Cas d'usages dans le dev

- Génération de code
- Explication de code
- Refactorisation de code
- Génération de tests unitaires
- Génération de requêtes SQL
- Génération de message de commits





Quel avenir dans les métiers du numérique ?

- De nouvelles **pratiques**
- De nouveaux **métiers**
- **Uniformité** dans les résultats et les pratiques
- **Régulation** encore en questionnement





IA génératives

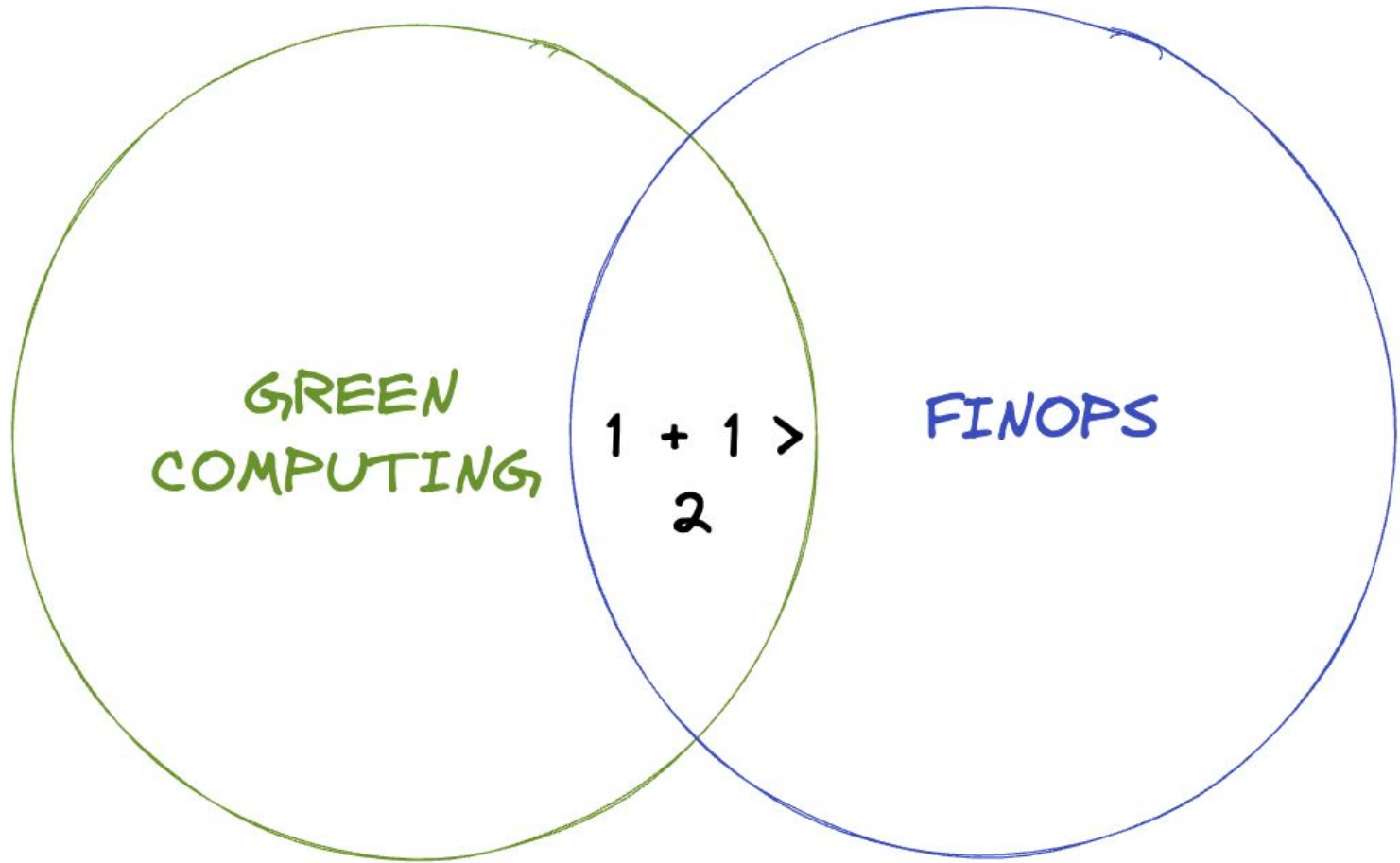
Des questions ?



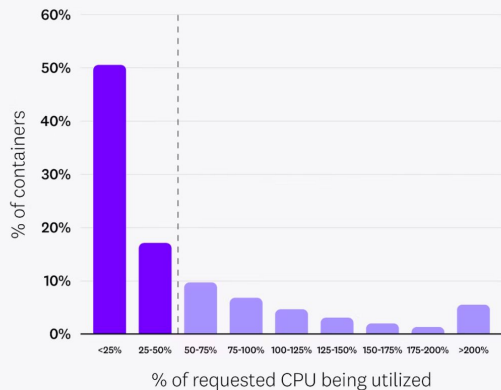


Green IT & Green Ops





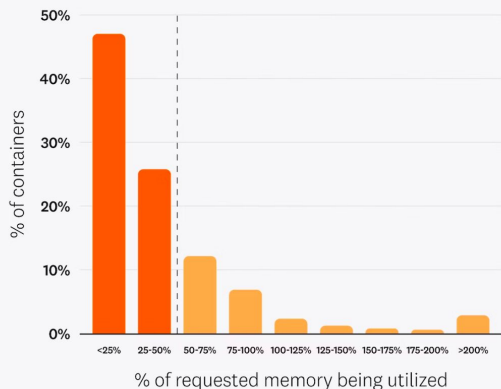
Usage of requested CPU



**>65% OF
CONTAINERS
USE LESS
THAN HALF OF
REQUESTED CPU**

Source: Datadog

Usage of requested memory



**>65% OF
CONTAINERS USE
LESS THAN HALF
OF REQUESTED
MEMORY**

Source: Datadog

Cloud & Kubernetes

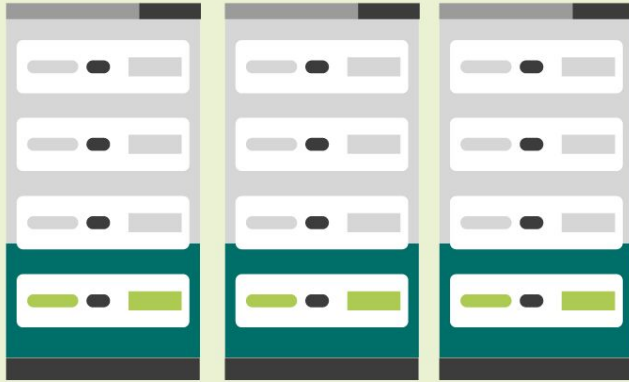
Waste of resources vs
Elastic resources

Lack of confidence

<https://www.datadoghq.com/container-report/>

PRIVATE CLOUD

33%
utilisation



spare capacity - 67%

PUBLIC CLOUD

100%
utilisation



spare capacity - ∞

Google Cloud Region Picker

This tool helps you pick a Google Cloud region considering approximated carbon footprint, price and latency.

This is not an officially supported Google product and does not cover all [Google Cloud locations](#).

Optimize for

-  Lower carbon footprint ⓘ
Not important
 Important
-  Lower price ⓘ
Not important
 Important
-  Lower latency ⓘ
Not important
 Important

Recommended regions

1.  europe-north1   
Hamina, Finland \$   

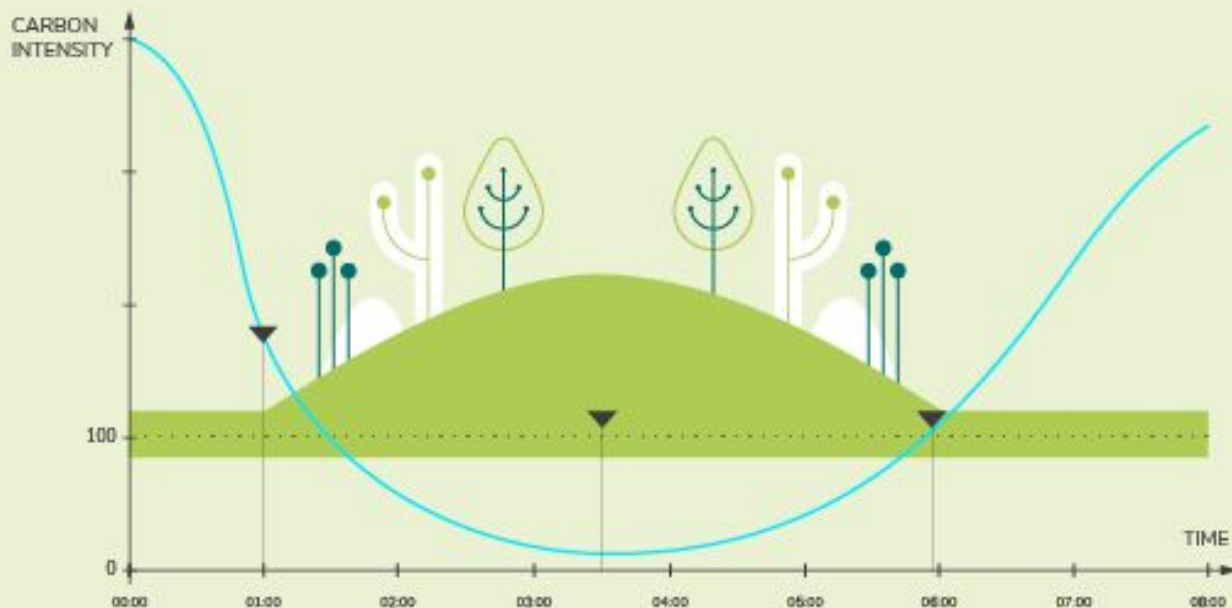
2.  us-central1   
Iowa, USA \$   

3.  northamerica-northeast1   
Montréal, Canada \$   



Carbon
Aware SDK

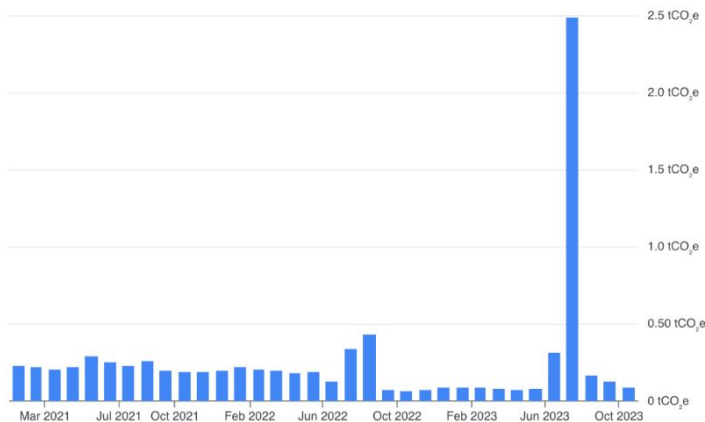
Carbon aware software does more when the electricity is clean and less when it's dirty.



Learn more and join our Carbon Aware Hackathon at grnsft.org/hack22

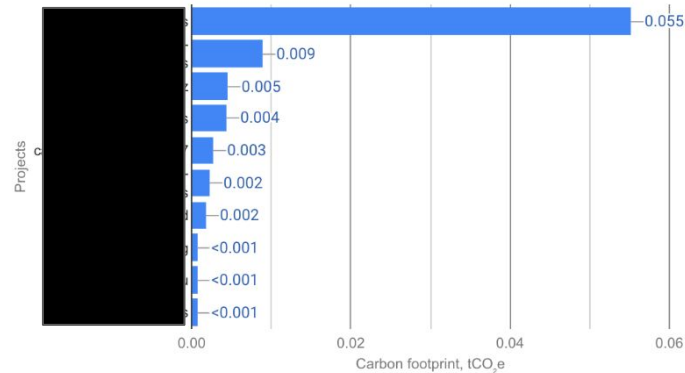


Location-based monthly carbon footprint estimate



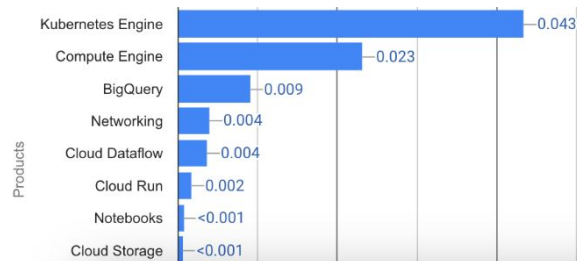
Location-based carbon footprint estimate by project in October 2023

Chart view ▾



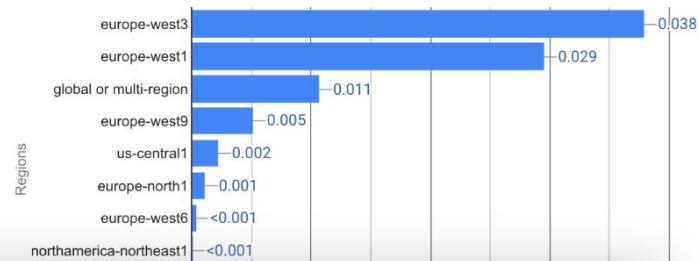
Location-based carbon footprint estimate by product in October 2023

Chart view ▾



Location-based carbon footprint estimate by region in October 2023

Chart view ▾





**Green
Software
Foundation**



Green
Software
Foundation



The Linux Foundation hereby certifies that

Julien Landuré

has successfully completed

Green Software for Practitioners (LFC131)

A handwritten signature in black ink, appearing to read 'Timothy Serewicz'.

TIMOTHY SEREWICZ,
TRAINING PROGRAM DIRECTOR

December 03, 2023

DATE OF COMPLETION

LF-y9lwlrzdoi

CERTIFICATE ID NUMBER



Green IT & Green Ops

Des questions ?



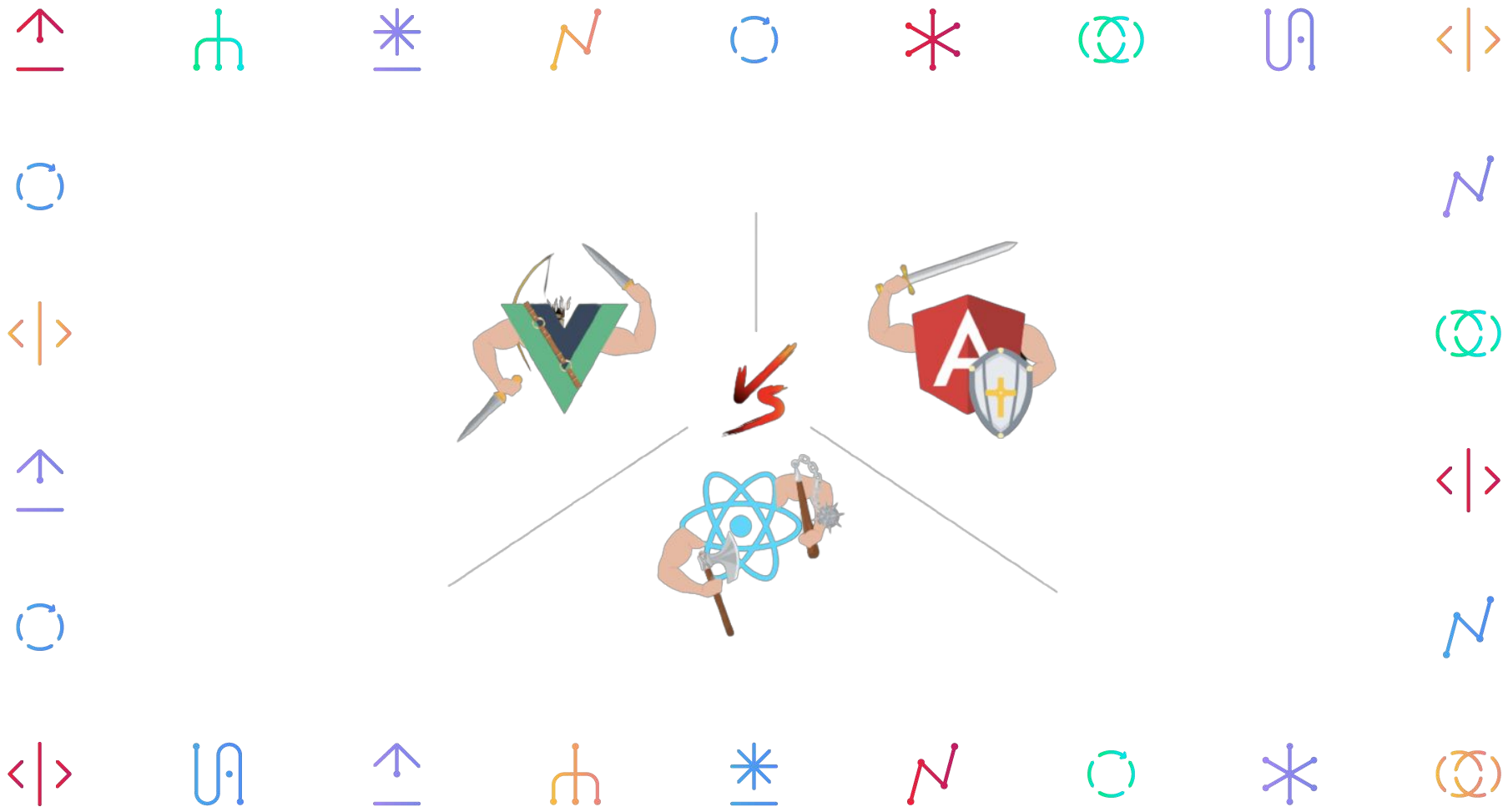
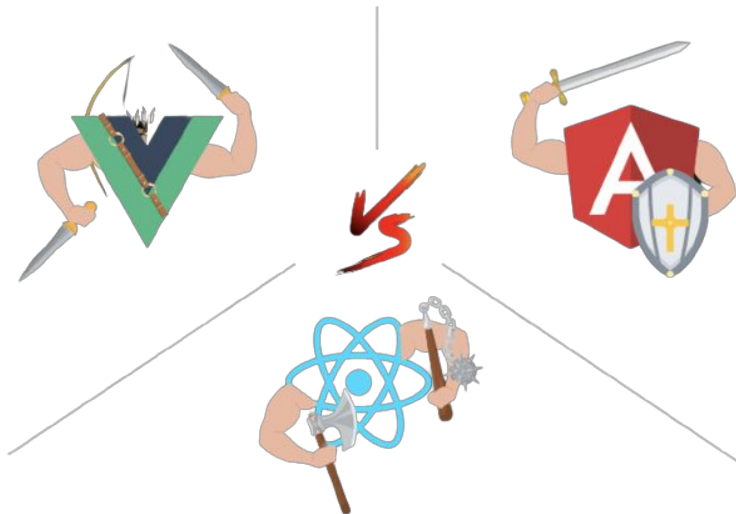
Web



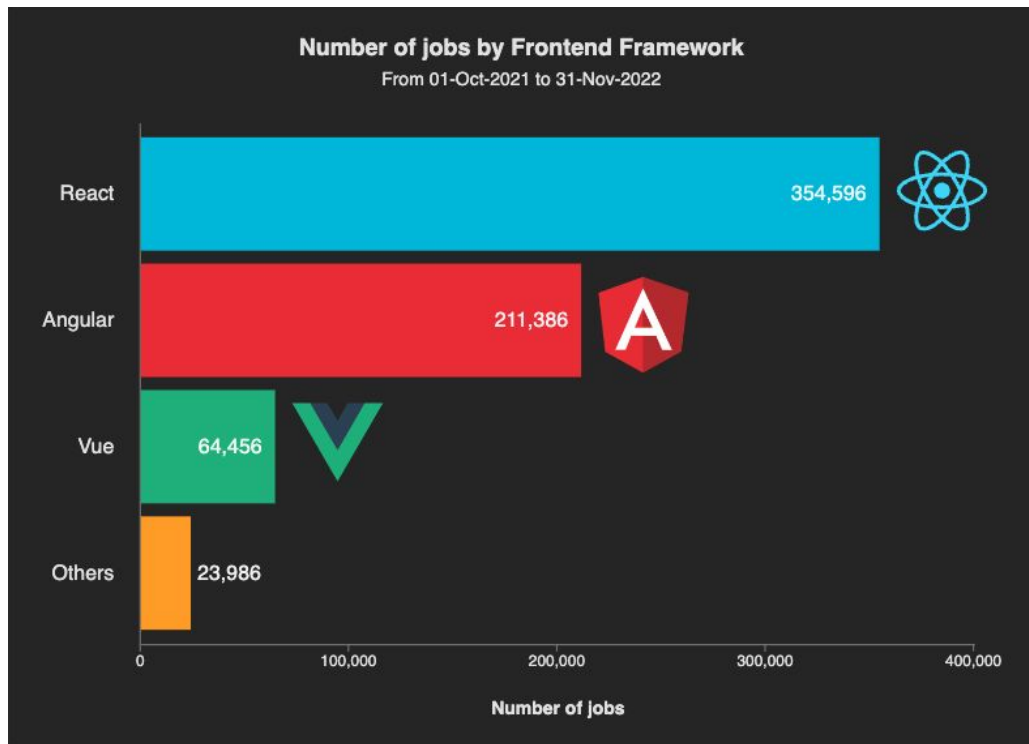


Les grands frameworks



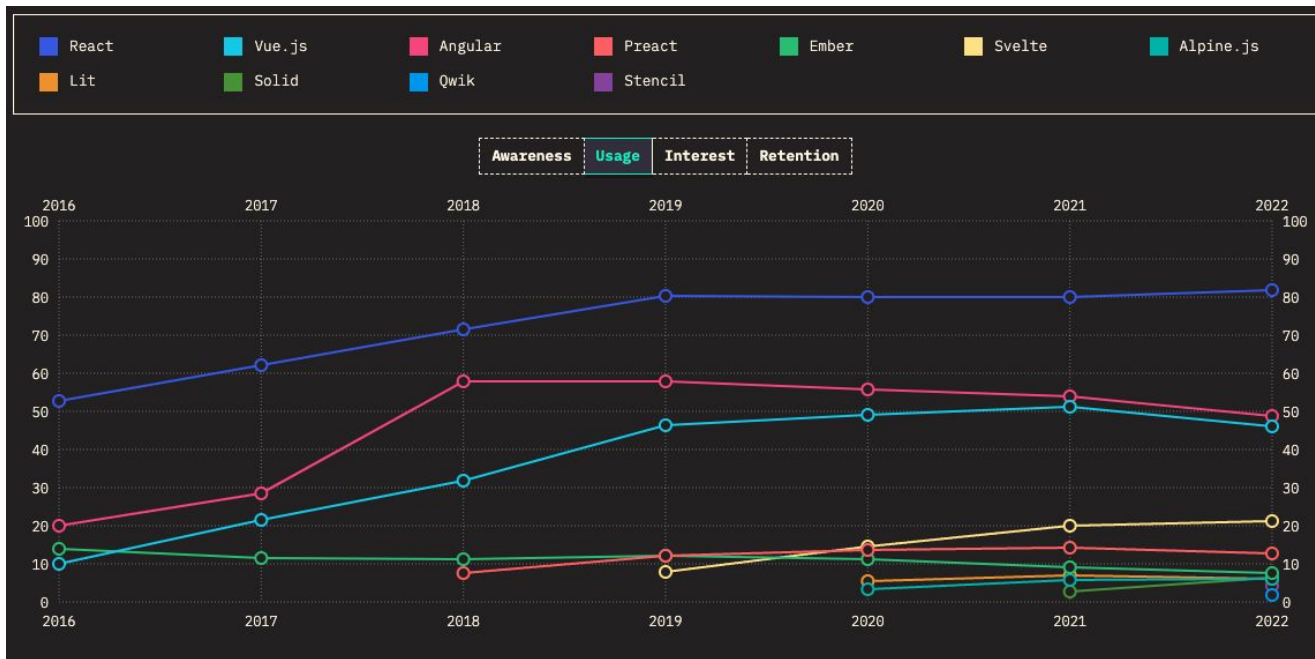


Les grands frameworks



<https://www.devjobsscanner.com/blog/the-most-demanded-frontend-frameworks-in-2022/>

Les grands frameworks



<https://2022.stateofjs.com/en-US/libraries/front-end-frameworks/>

Les grands frameworks - Vue

“Vue 2 will reach End of Life (EOL) on December 31st, 2023.”

<https://v2.vuejs.org/lts>

Les grands frameworks - Vue

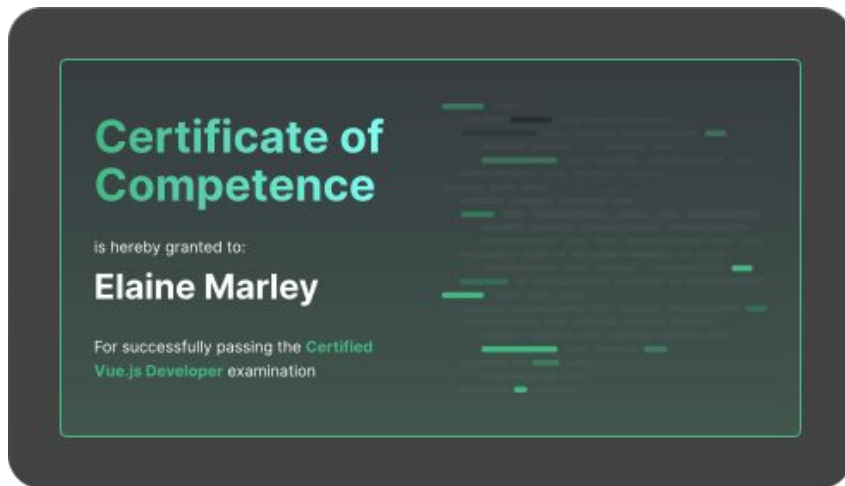


**1 certification
officielle**

Examen :

- 1 QCM
- 1 feature à développer
- 1 application à débbugger

Review par un comité



Les grands frameworks - Angular



Angular.dev



16

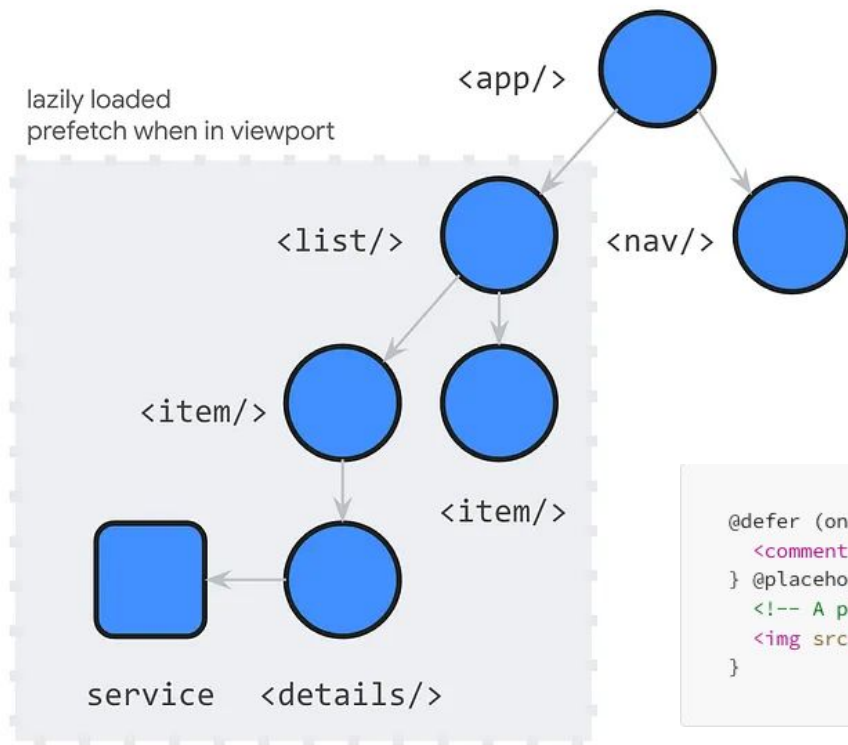
Standalone
components
Angular Signals
Non destructive
hydration



17

New control flow
Deferrable views
Vite + esbuild by
default

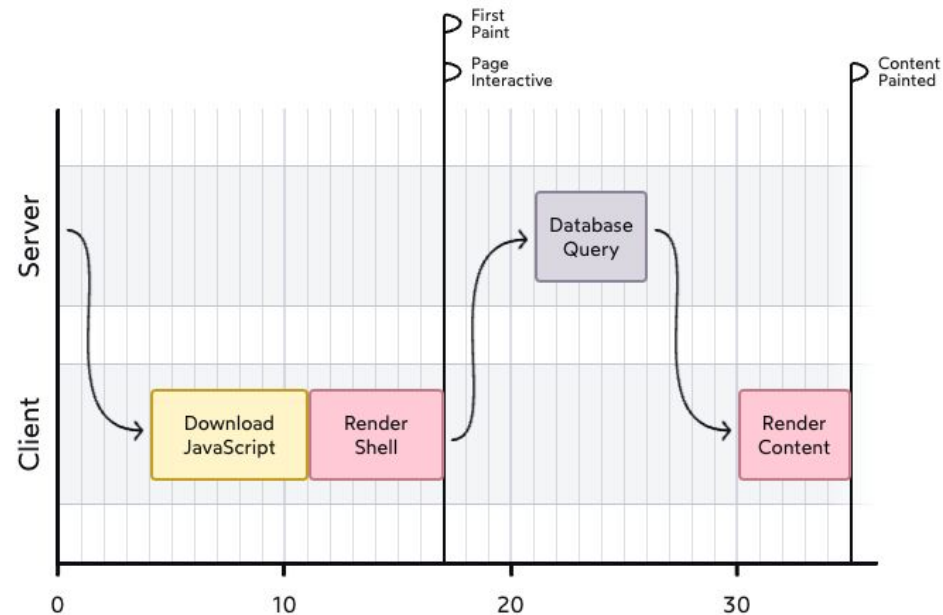
Les grands frameworks - Angular



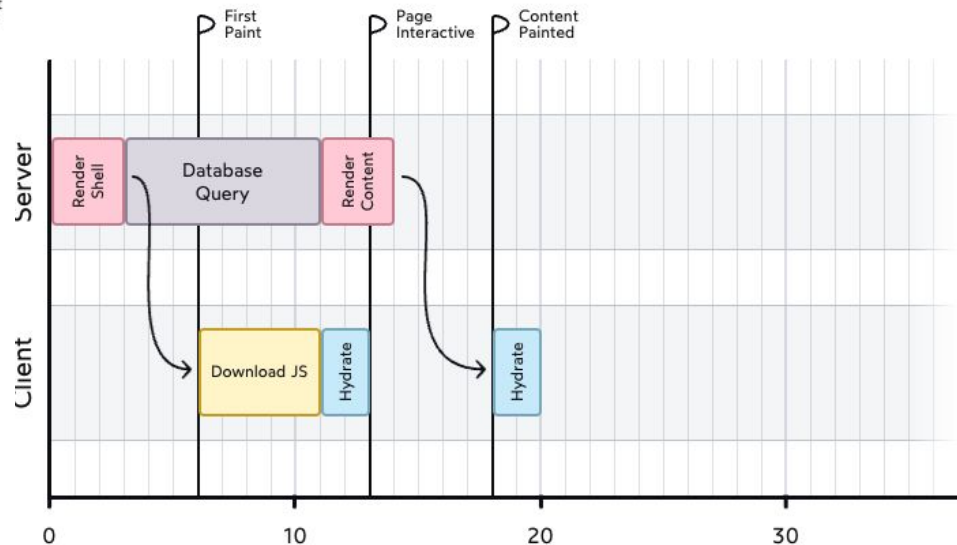
```

@defer (on viewport) {
  <comment-list />
} @placeholder {
  <!-- A placeholder content to show until the comments load -->
  
}
  
```

Les grands frameworks - React



Client side rendering



Server components

Les grands frameworks - React

```
import getBlogPosts from '@lib/getVideoCourse'
import AddPostButton from '@components/add-post'

export async function ServerComopnent(){
  const posts = await getBlogPosts()

  return(
    <>
      {posts.map((post, index) => {
        <Post key={index} post={post} />
      })}
      <AddPostButton />
    </>
  )
}
```

```
// AddButton.tsx
"use client"
import { useState } from 'react'
import { addNewPost } from '@lib/addNewPost'

const [isLoading, setIsLoading] = useState(false)

export default function AddButton(){
  return (
    <button onClick={addNewPost({ /* new post */ })}>
      {isLoading ? 'Loading...' : 'Add New Post'}
    </button>
  )
}
```

Les grands frameworks - React

“Si vous voulez créer une nouvelle appli ou un nouveau site avec React, nous recommandons de choisir un des frameworks React populaires auprès de la communauté.”

<https://fr.react.dev/learn/start-a-new-react-project>



Les grands frameworks - React

NEXT .JS



Les méta-frameworks



Les méta-frameworks - Nuxt

Date de sortie : 26 octobre 2016

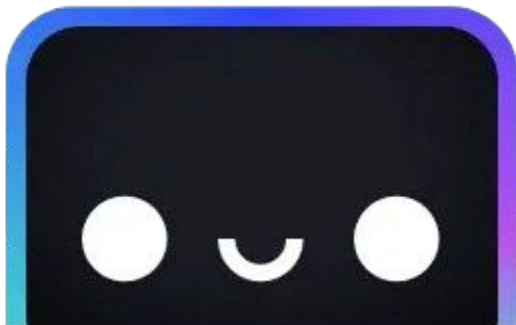
Version : 3.5.3

Cycle de release : souvent

C'est français !



Les méta-frameworks - Astro





Astro - design principles



content-driven



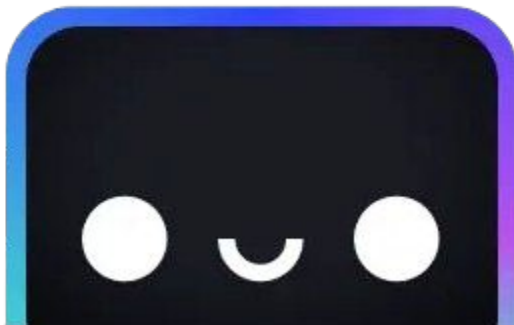
server-first



fast by default



easy to use



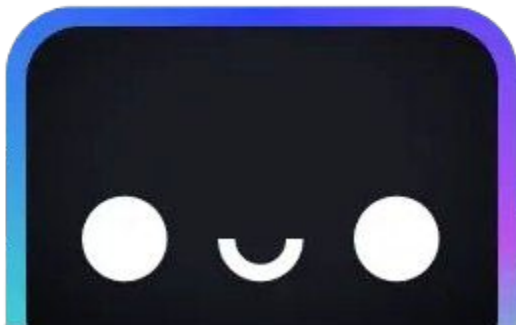
Astro - features



Easy to use

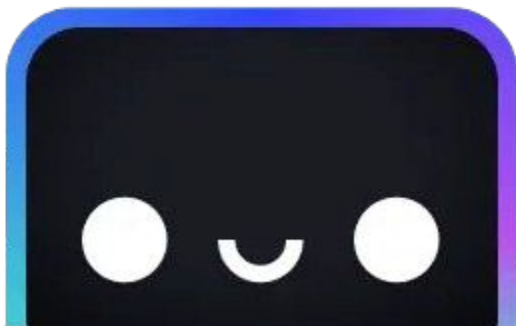
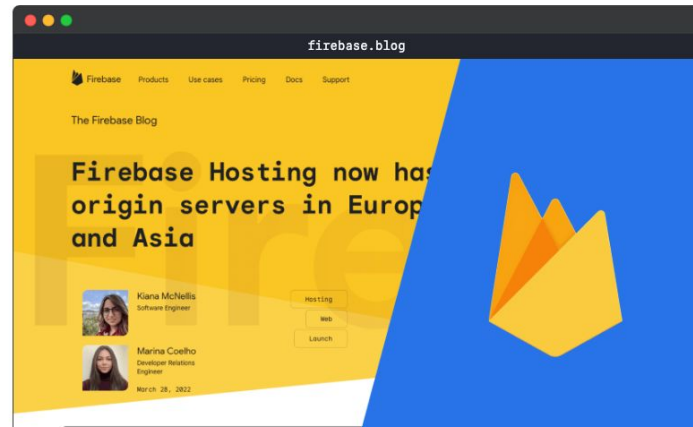
Designed for your favorite UI library

Keep using your favorite UI framework and existing UI components in Astro. Migrate from [Create React App](#) to Astro in minutes.

A collection of eight circular icons representing different UI frameworks: React (blue atom), Vue (green V), Svelte (purple atom), SolidJS (red S), Next.js (blue Z), Nuxt.js (teal wave), Remix (blue person), and SvelteKit (light blue Z).



Astro - examples

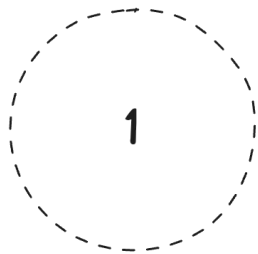




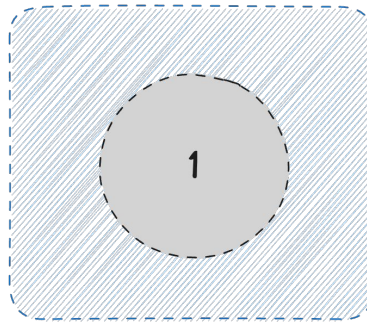
Les dernières tendances



Les dernières tendances - Signals



```
const myVar = 1
```



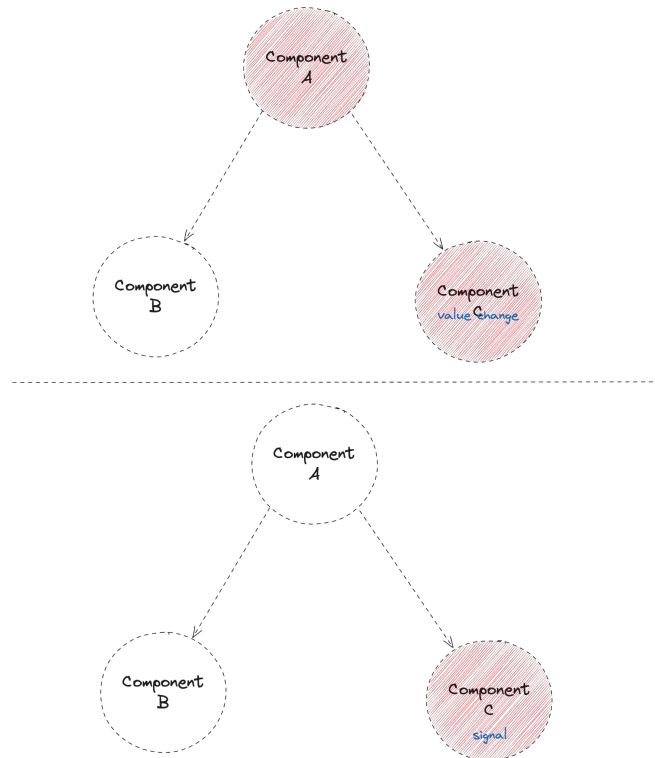
```
const myVar = signal(1)
```

Les dernières tendances - Signals

Mécanismes de réactivité

Expérience développeur

Optimise la détection de changements



Les dernières tendances

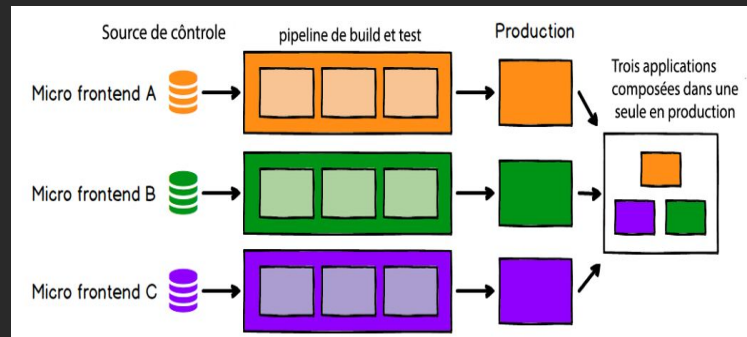
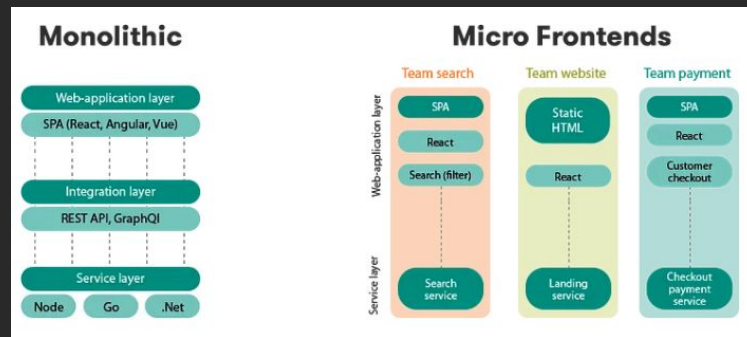
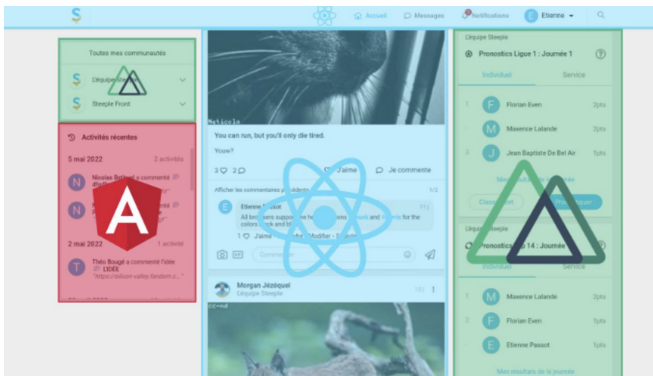
Les micro frontends

Diviser pour mieux régner

Chaque partie est indépendante

~= microservices en backend

~= mêmes avantages et inconvénients





 Web

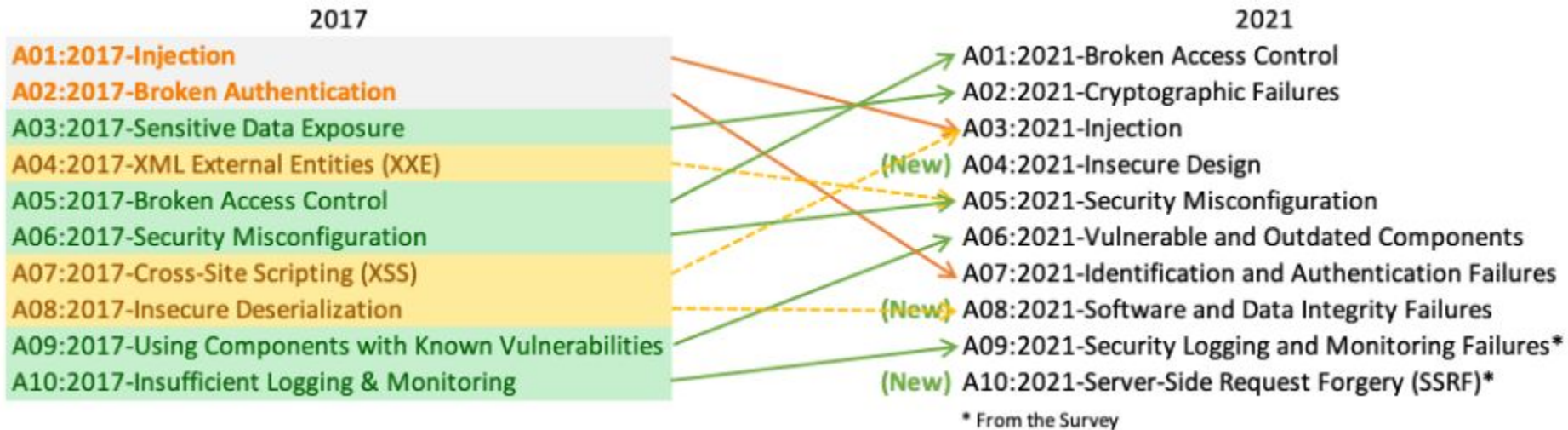
Des questions ?



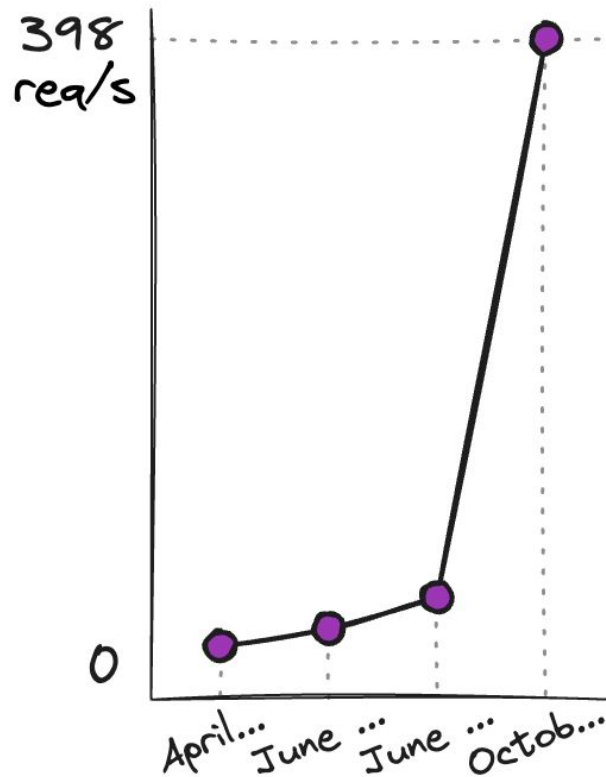
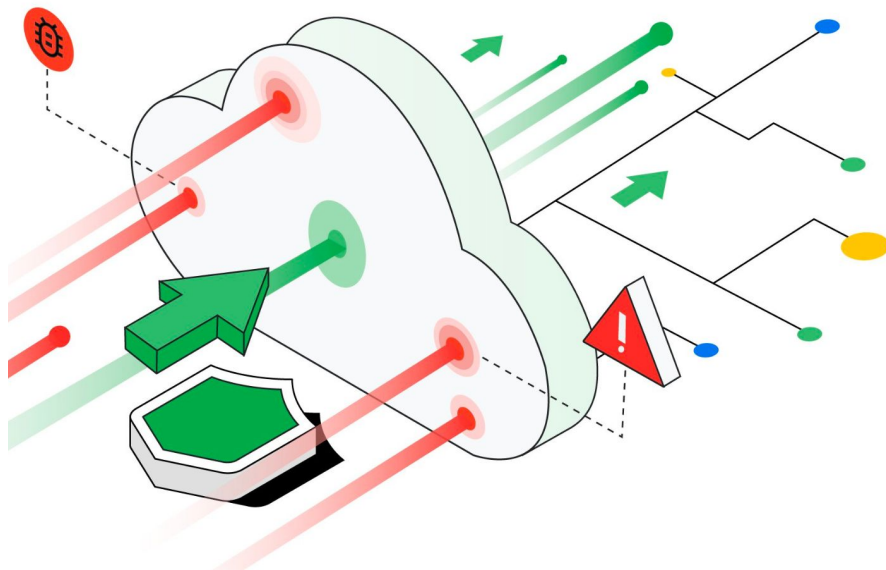
Cybersécurité



Top 10 Web Application Security Risks



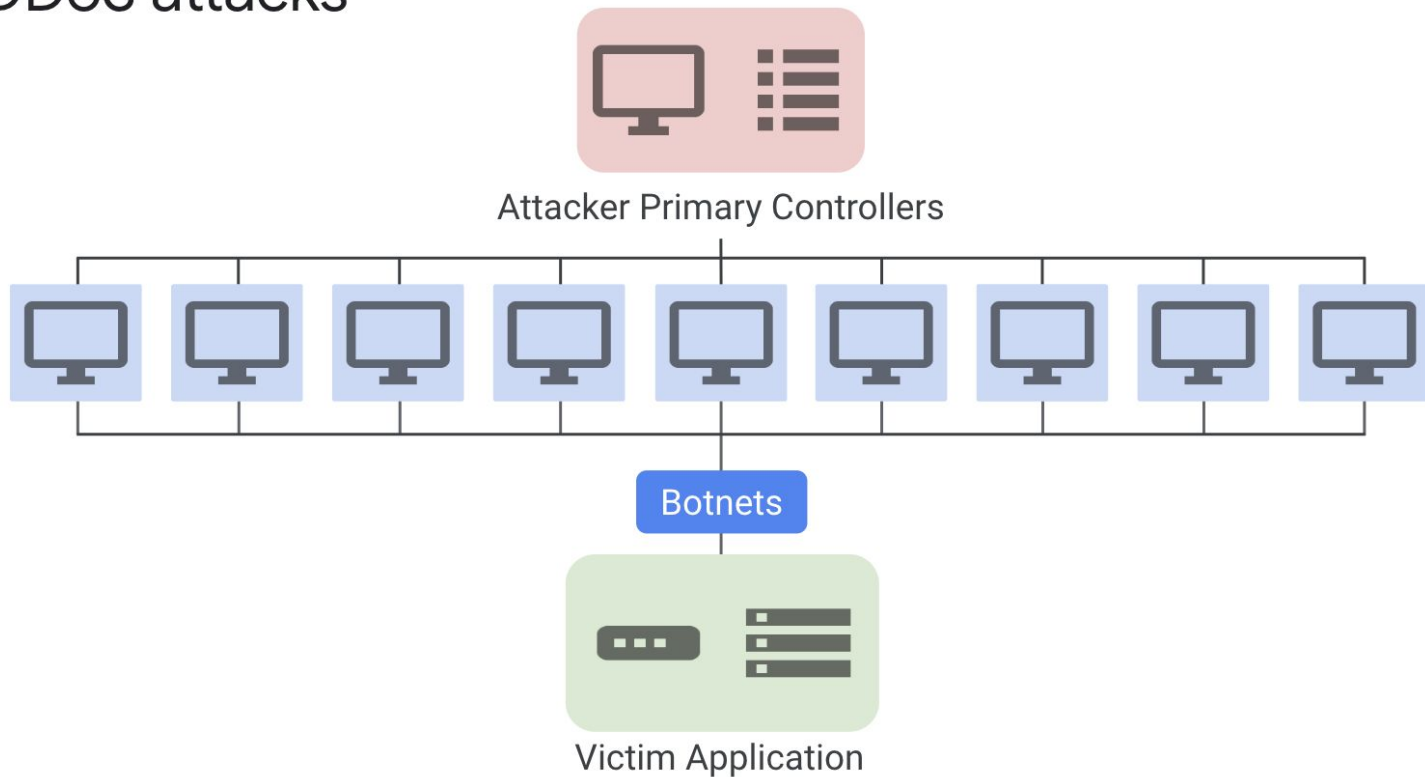
Attaque DDOS : toujours plus importante



Source : <https://cloud.google.com/blog/products/identity-security/google-cloud-mitigated-largest-ddos-attack-peaking-above-398-million-rps>

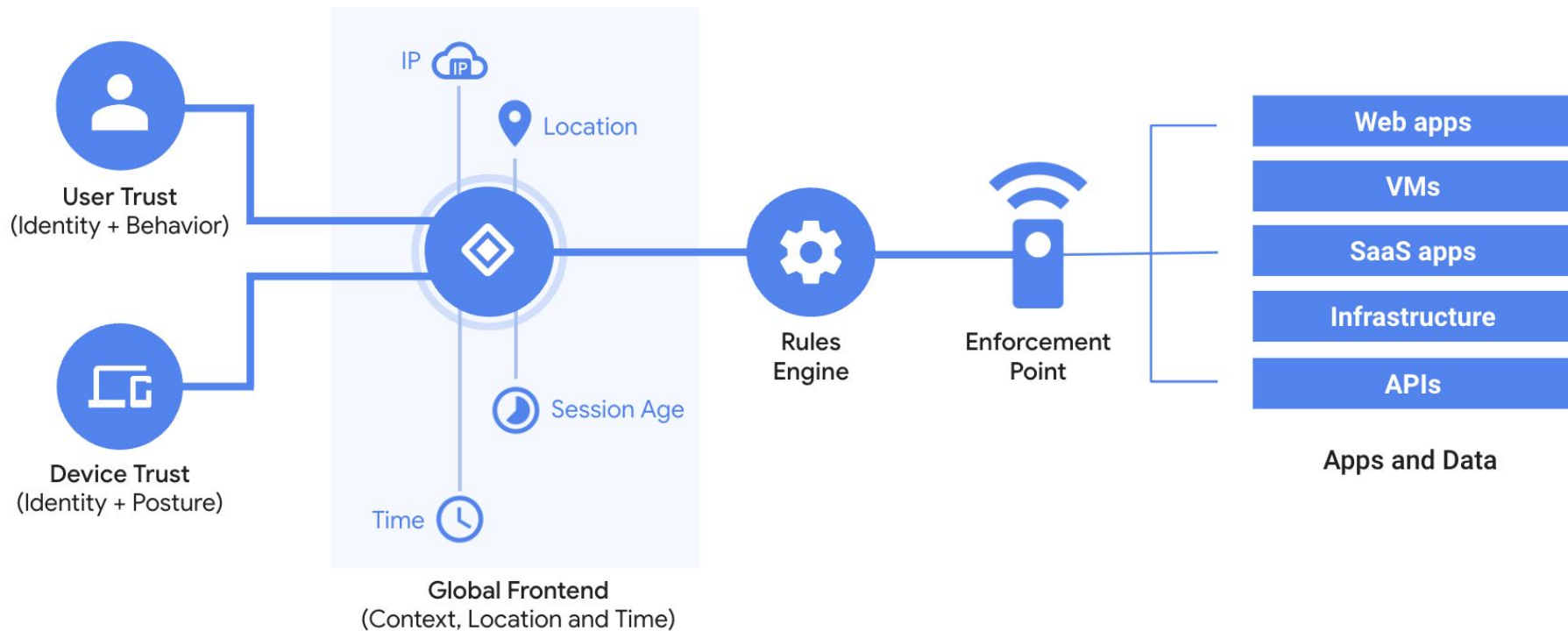
Principe

DDoS attacks





Zero Trust Security Model





GROWING UP!



Merci 🙏

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