

# Introduction à Flutter

Et pourquoi ce framework mérite votre attention



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## **Software engineer**

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Passionné par la programmation

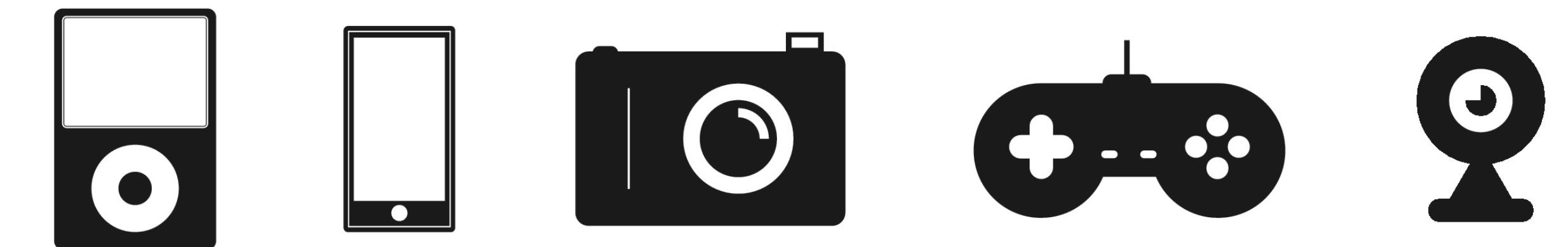
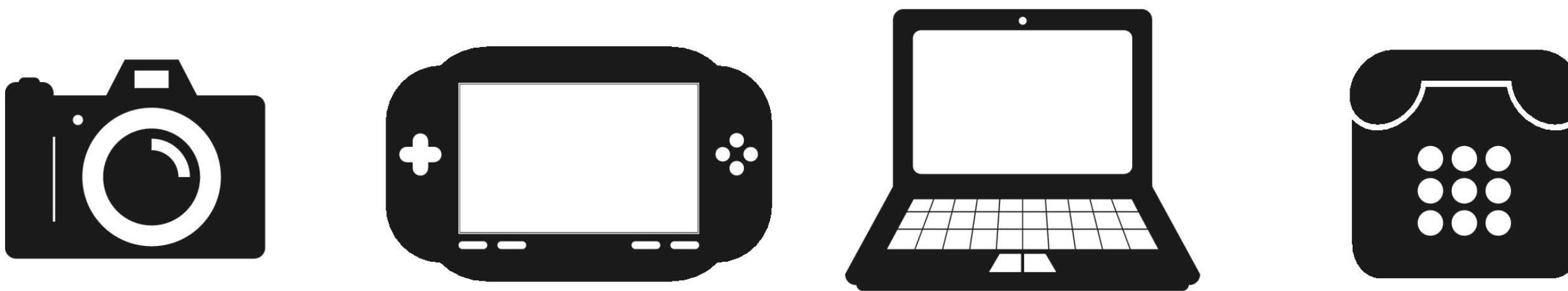
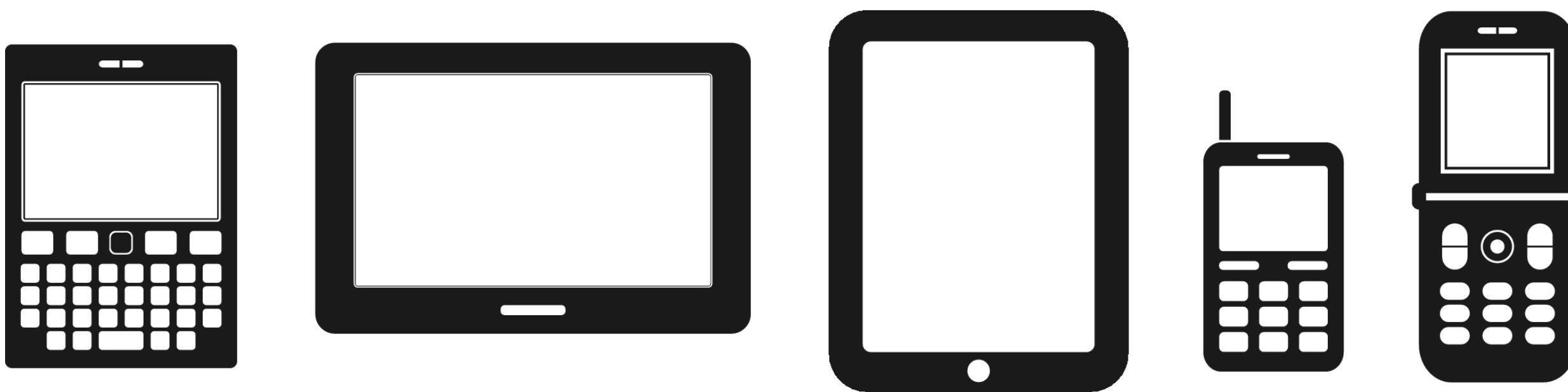
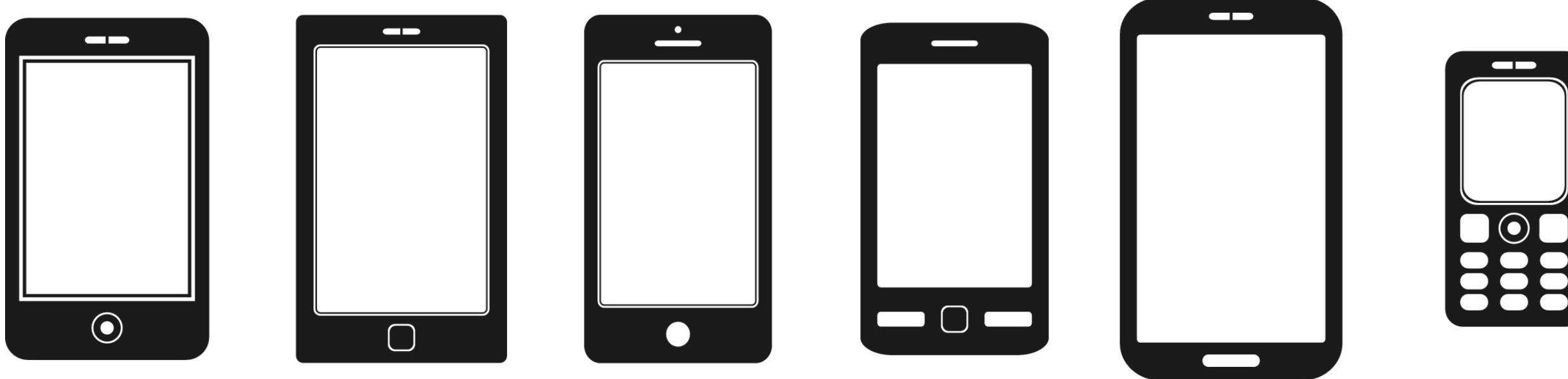
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Flutter



**iOS    Android    Web    Windows    macOS    Linux    Embarqué**



iOS    Android    Web    Windows    macOS    Linux    Embedded

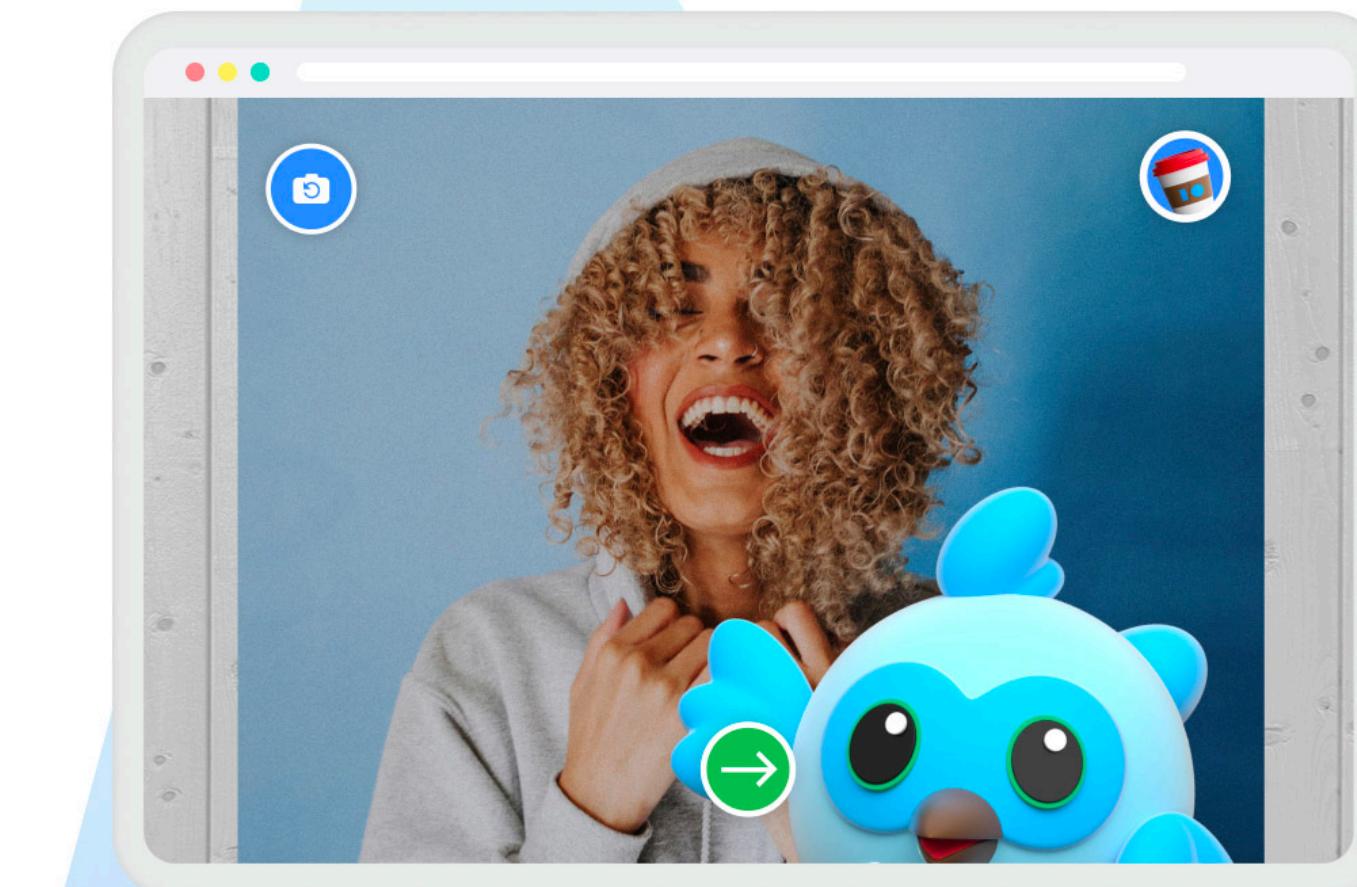
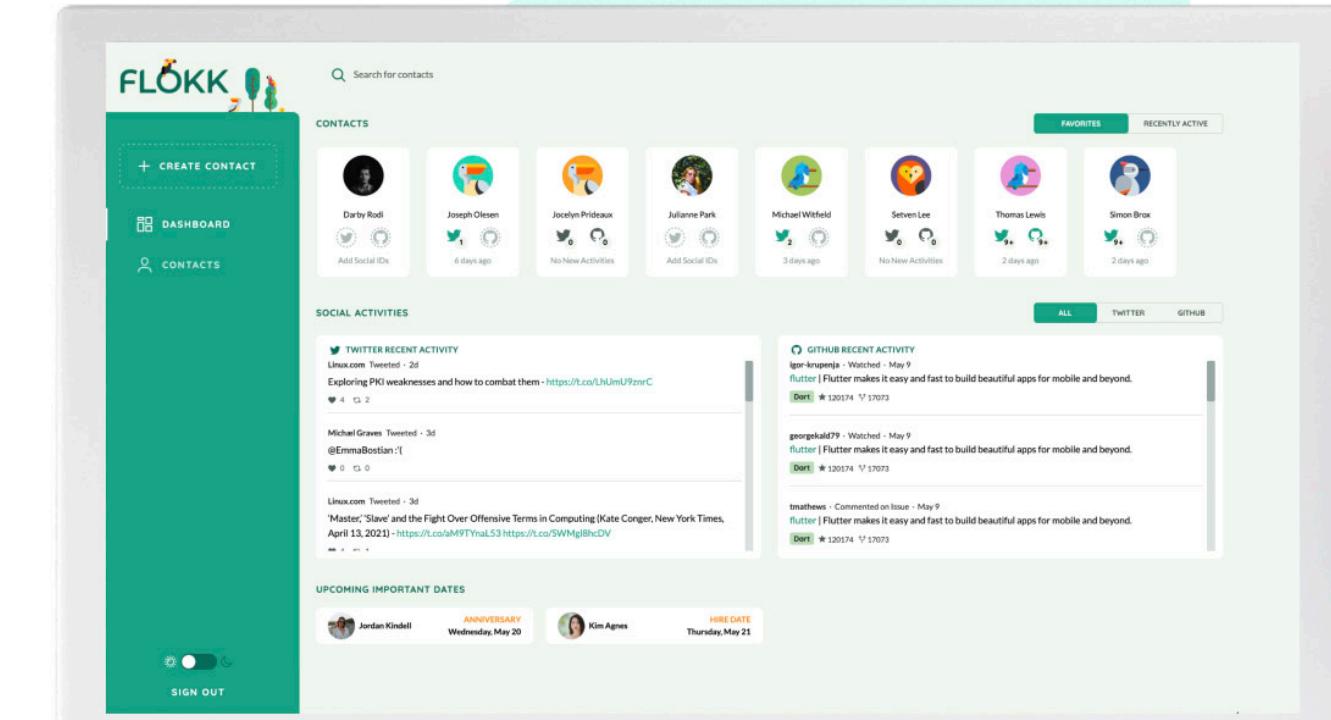
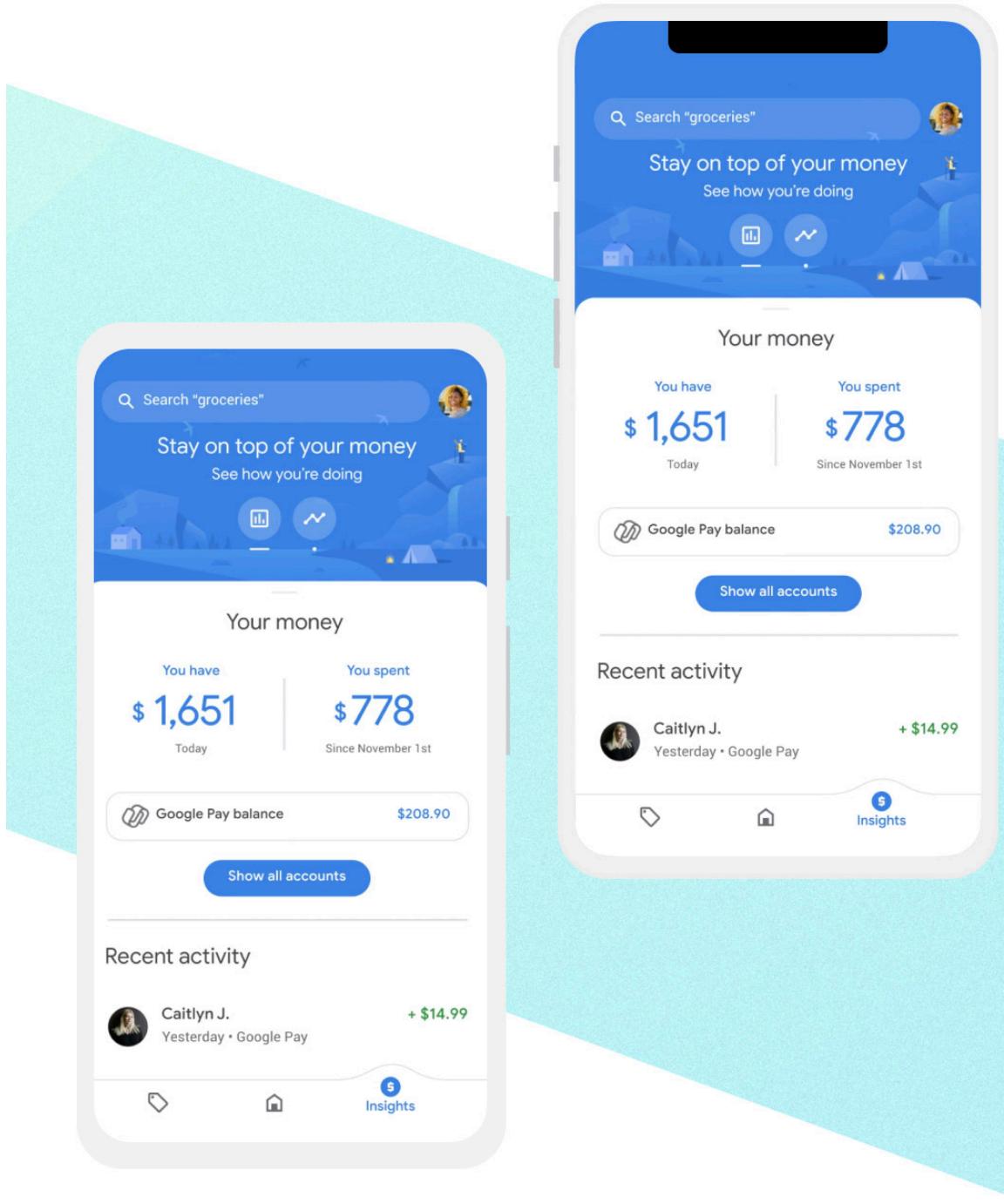


# Aujourd’hui on va voir :

- Qu'est-ce que Flutter ?
- Quel est l'environnement de développement ?
- Comment s'en servir pour développer de superbes applications

# **Qu'est-ce que Flutter ?**

# Un framework cross-plateforme



# Gratuit et Open Source

| **127k**

Stars on GitHub

| **151.4k**

Followers on Twitter

| **106k**

Members on Meetup

Flutter is the most popular cross-platform framework in the world\*

\*According to the JetBrains 2021 State of Developer Ecosystem survey

# Dart comme langage de programmation

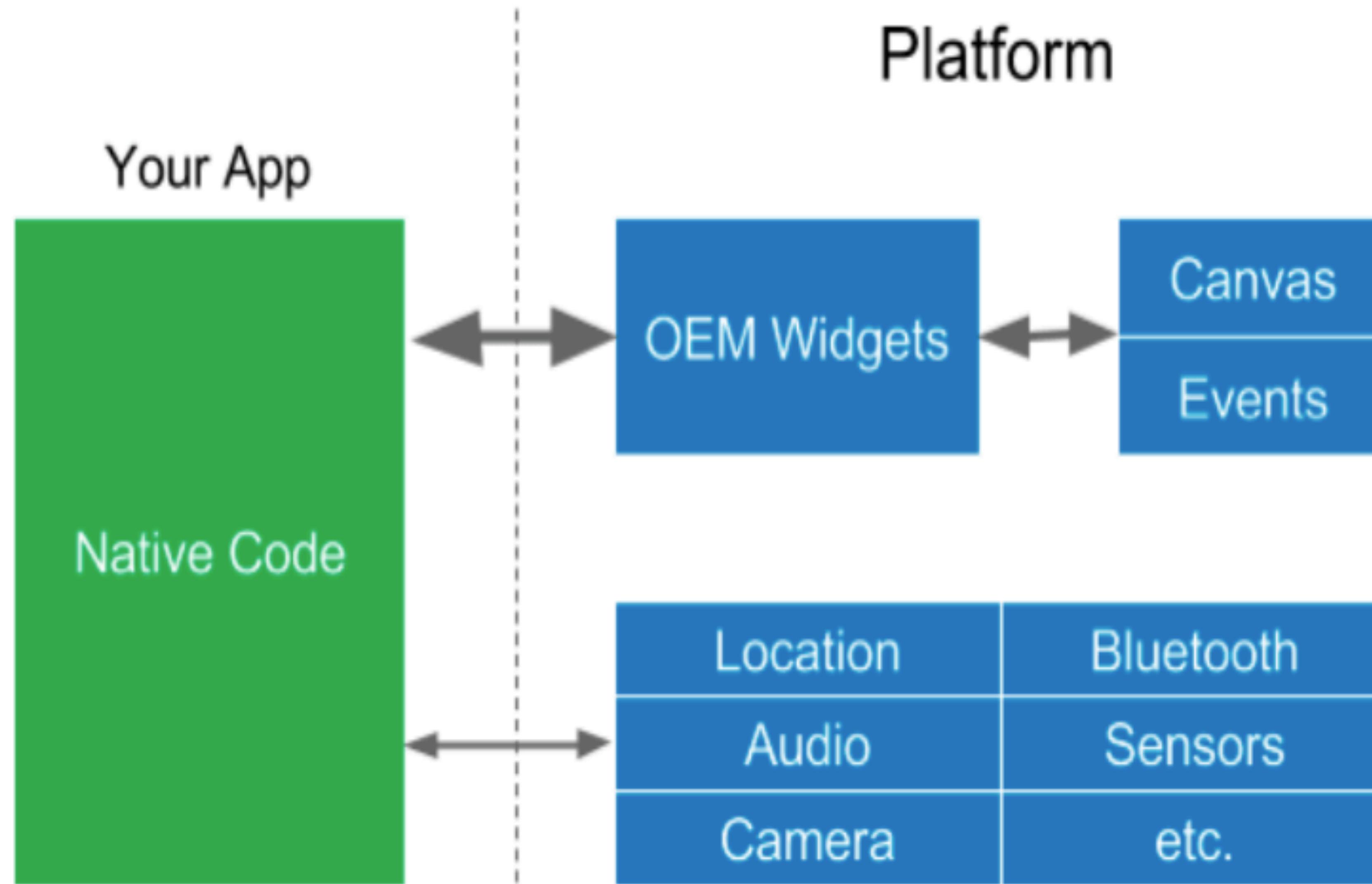
```
● ● ●  
main () {  
    String name = "GDG Sophia Antipolis";  
  
    print("Hello $name");  
}
```

# Qu'est-ce que Flutter ?

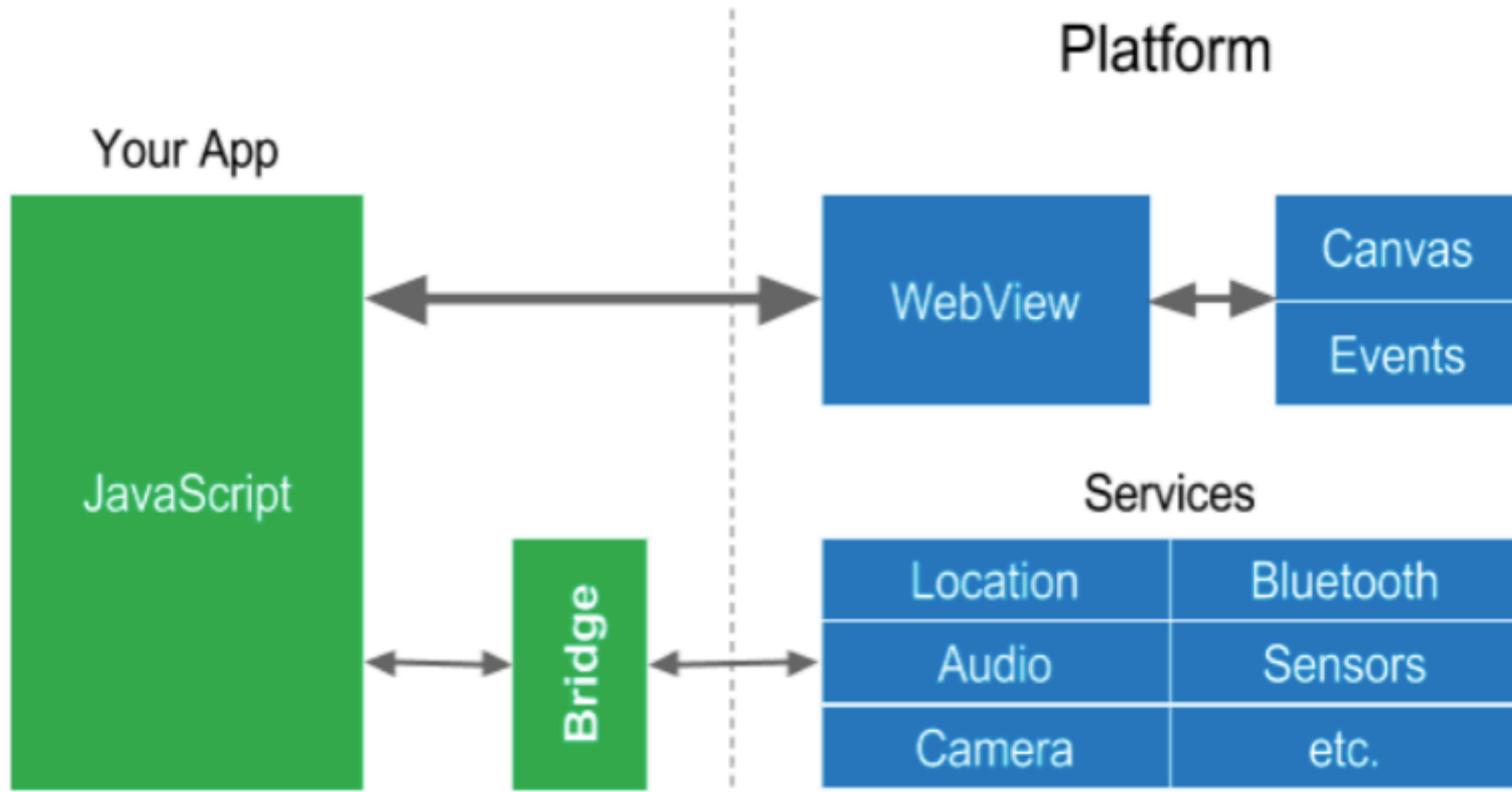
- Un framework cross-plateforme
- Gratuit et open source
- Utilise Dart comme langage de programmation

# A propos des performances

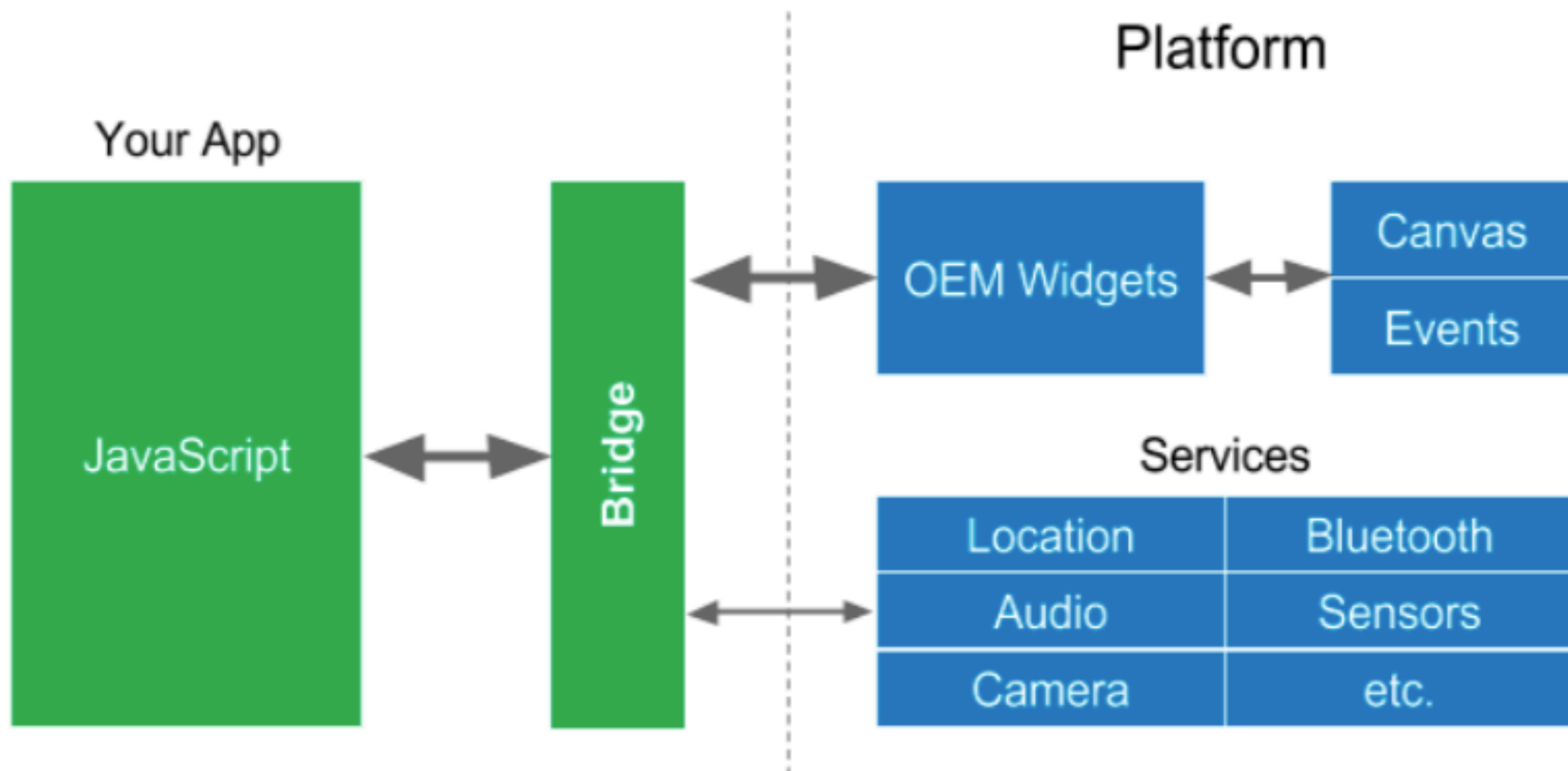
# Les applications natives



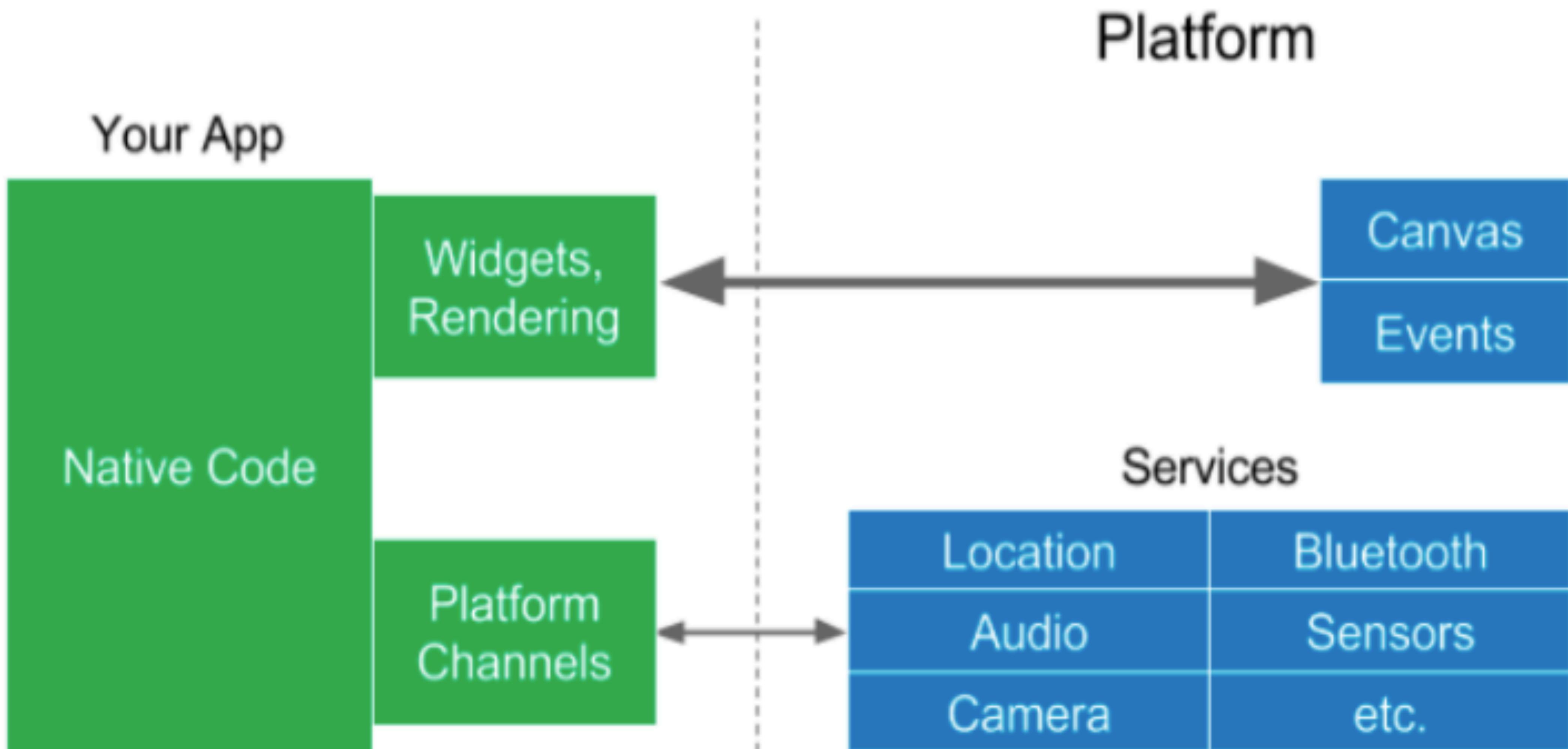
# Webview



# React Native



# Flutter



# A propos des performances

- Compile en code natif
- Utilise un canvas pour dessiner l'application
- Utilise des platform channels a la place des bridges

# **L'environnement de développement**



Le langage Dart

# Le langage Dart

- Syntaxe C# avec des points-virgules

```
● ● ●

import 'package:flutter/material.dart';

class Application extends StatelessWidget {
    Widget build(BuildContext context) {
        print("Build called");

        return Text("Hello world");
    }
}
```

# Le langage Dart

- Pas de mot clef public ou private

```
class SomeObject {  
  String _privateField;  
  String publicField;  
  
  ( . . . )  
}
```

# Le langage Dart

- Utilisation de types simplifiés



```
num numericField = 5.6;  
int intField = 3;  
double doubleField = 2.0;  
String someString = "Hello";  
List<String> someList = ["A", "B", "C"];  
Map<String, num> someMap = { "A": 1, "B": 2 };
```

# Le langage Dart

- Null Safety



```
String nonNullableString = "Some string";
```

```
String? nullableString = null;  
nullableString = "Some value";  
print(nullableString!);
```

```
late String nonNullableButNotInitialized;
```



**Tout est un widget**

# Éléments UI



```
ElevatedButton(  
    style: ElevatedButton.styleFrom(  
        textStyle: const TextStyle(fontSize: 20),  
    ),  
    onPressed: () {},  
    child: const Text('Enabled'),  
) ,
```

Enabled

# Layout



```
GridView.count(  
    padding: const EdgeInsets.all(20),  
    crossAxisSpacing: 10,  
    mainAxisSpacing: 10,  
    crossAxisCount: 2,  
    children: <Widget>[  
        Container(  
            padding: const EdgeInsets.all(8),  
            child: const Text("He'd have you all unravel at the"),  
            color: Colors.teal[100],  
        ),  
        (...)  
    ],  
)
```

He'd have you all  
unravel at the

Heed not the  
rabble

Sound of  
screams but the

Who scream

Revolution is  
coming...

Revolution,  
they...

# Éléments fonctionnels



```
GestureDetector(  
    onTap: () {  
        print("Widget taped")  
    },  
    child: Text("Any child widget")  
);
```

# Catalogue de Widget [\(https://docs.flutter.dev/development/ui/widgets\)](https://docs.flutter.dev/development/ui/widgets)

Create beautiful apps faster with Flutter's collection of visual, structural, platform, and interactive widgets. In addition to browsing widgets by category, you can also see all the widgets in the [widget index](#).

## Accessibility

Make your app accessible.

[Visit](#)

## Animation and Motion

Bring animations to your app.

[Visit](#)

## Assets, Images, and Icons

Manage assets, display images, and show icons.

[Visit](#)

## Async

Async patterns to your Flutter application.

[Visit](#)

## Basics

Widgets you absolutely need to know before building your first Flutter app.

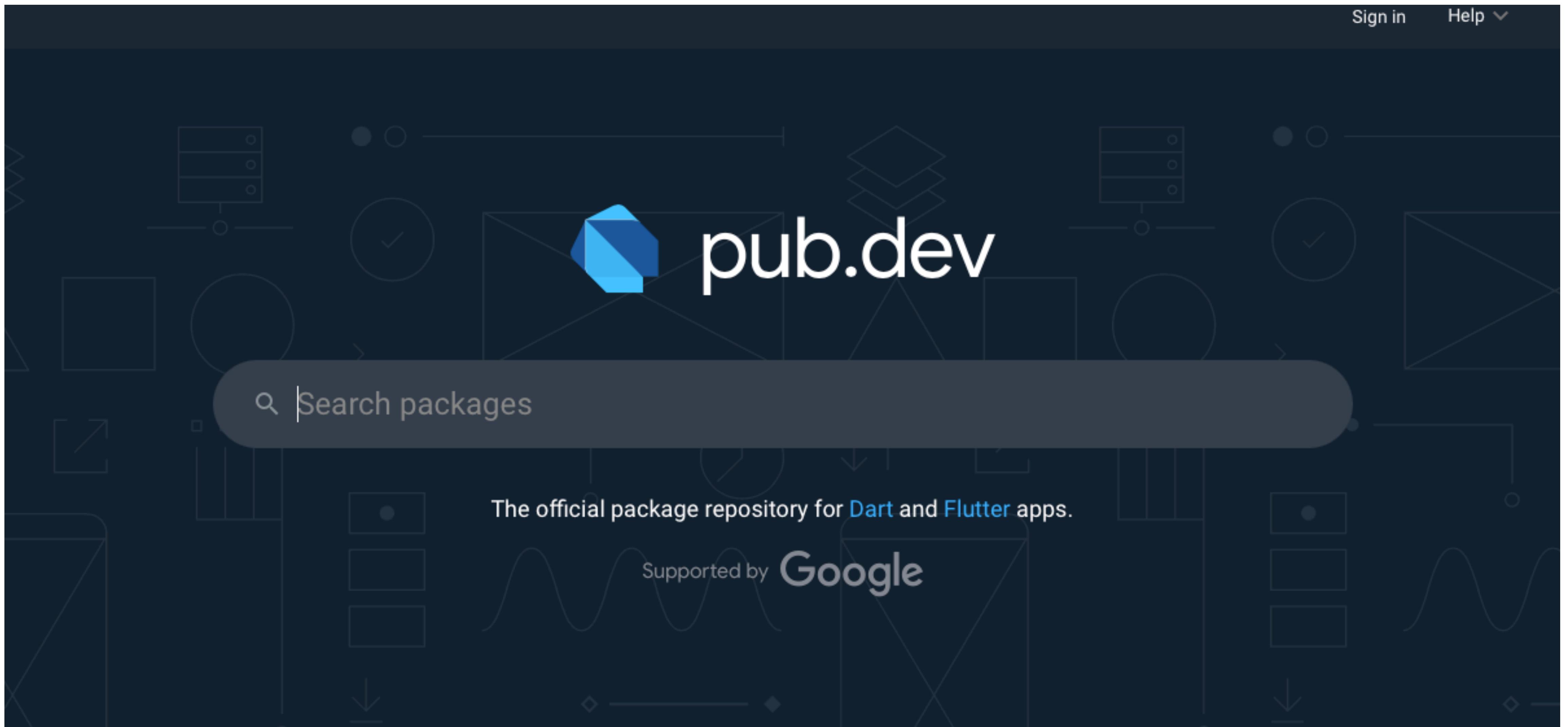
[Visit](#)

## Cupertino (iOS-style widgets)

Beautiful and high-fidelity widgets for current iOS design language.

[Visit](#)

# Packages de la communauté [\(https://pub.dev/\)](https://pub.dev/)



# Environnement de développement

- Plugins pour Android Studio, IntelliJ, Visual Studio Code et Emacs

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- Stateful hot reload

# Environnement de développement

- Plugins pour Android Studio, IntelliJ, Visual Studio Code et Emacs
- Stateful hot reload
- Outils d'analyse de performance et de debug

# Demo

# Pour aller plus loin

- <https://flutter.dev/learn>
- <https://docs.flutter.dev/>
- <https://itsallwidgets.com/>

