

UI5con ON AIR Keynote – Day One

The 2020 Virtual Edition

Stefan Beck, SAP SE
Peter Muessig, SAP SE
July 9th, 2020



UI5 Evolution

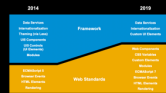


UI5con
learn.explore.connect.

Highlights Around UI5 Evolution From Keynote 2019

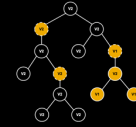
CHALLENGES OF A MODERN WEB STACK

Replace proprietary framework features with web standards



UI5 EVOLUTION FOR RENDERING & CONTROLS

"Increase the performance and the maintainability of UI5 controls!"



...apply the UI5 Evolution Concepts!

...migrate your Renderers!

Now, it's your turn to...

...help us to extend the ecosystem!

...enjoy UI5con!

A NEW ECOSYSTEM IS GROWING...

To accelerate innovation, we all need to work together...

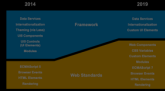


"A lot of impressive individual innovations!"

Highlights Around UI5 Evolution From Keynote 2019

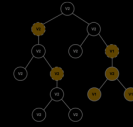
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“A lot of impressive individual innovations!”

An Community Project Born At UI5con 2019



Peter, a proxy
is missing!



Volker Buzek; @vobu

An Community Project Born At UI5con 2019



Volker, the
UI5 Tooling is
extensible, just
add it!

Hopefully...

Ok, let's
proof this
together!



Volker Buzek; @vobu

An Community Project Born At UI5con 2019



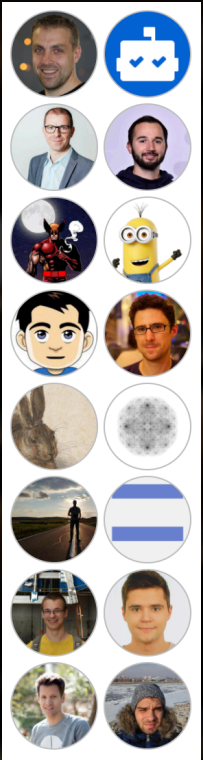
Volker Buzek; @vobu

The UI5 Ecosystem Showcase Project

“The proof to demonstrate the extensibility of the UI5 Tooling!”



CONTRIBUTORS



Thank You!



LICENSE

A large audience is seated in a conference hall, facing a stage. The audience is diverse in age and appearance. In the foreground, several people are visible from behind, some holding up smartphones to take photos or videos. The stage is dimly lit, but a large yellow logo and the text 'UI5con' are visible on the left side of the stage. The overall atmosphere is one of a professional yet collaborative event.

**”We can shape UI5
together!”**



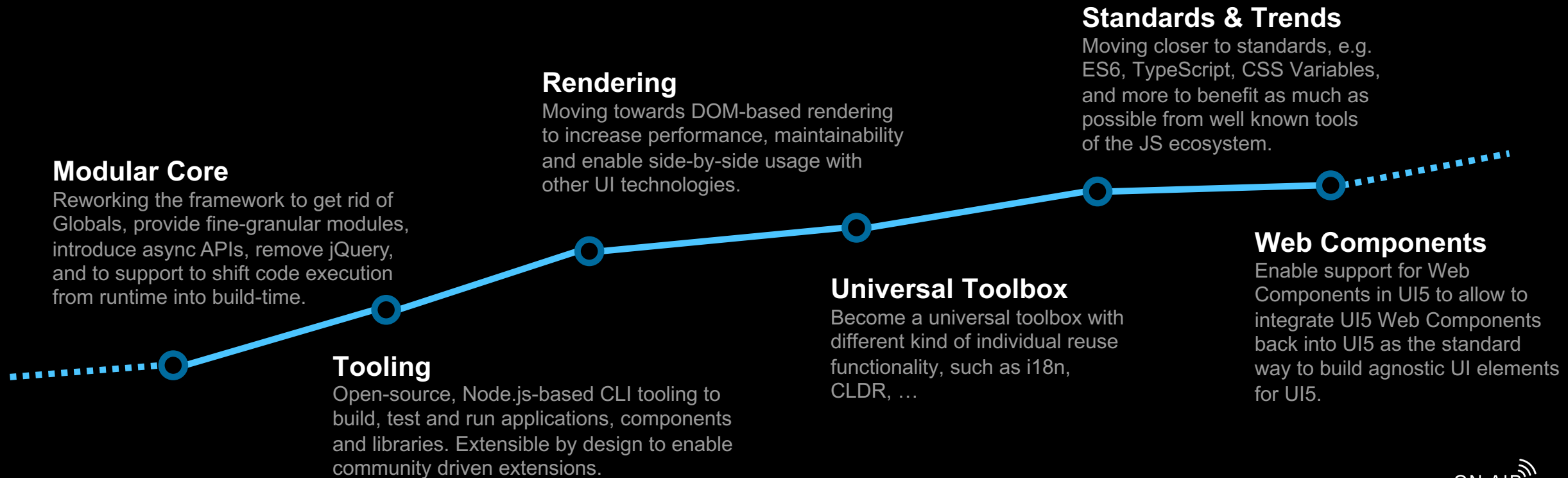


UI5con ON AIR 

UI5 Technology Innovation



“Has the goal of modernizing the foundation technology of the Fiori stack: UI5. The UI5 Evolution project, which deals with performance, modularization, standards & trends, openness and compatibility, drives the modernization!”



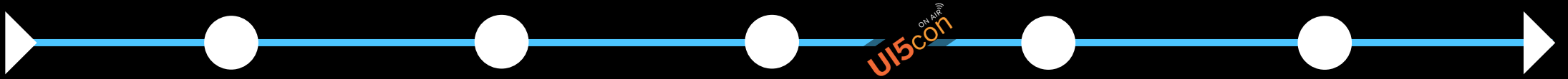
UI5 Evolution

“Individual Innovations!”

UI5 Evolution

“Connecting Innovations!”

UI5 Evolution – The UI5 Technology Innovation



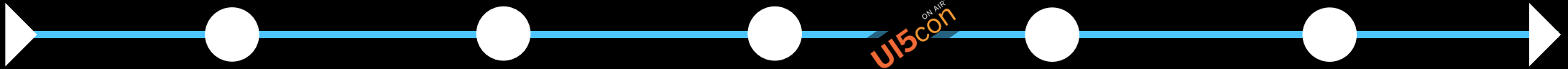
“Connecting Innovations!”

UI5con ON AIR

UI5 Evolution – The UI5 Technology Innovation



Tooling and Ecosystem

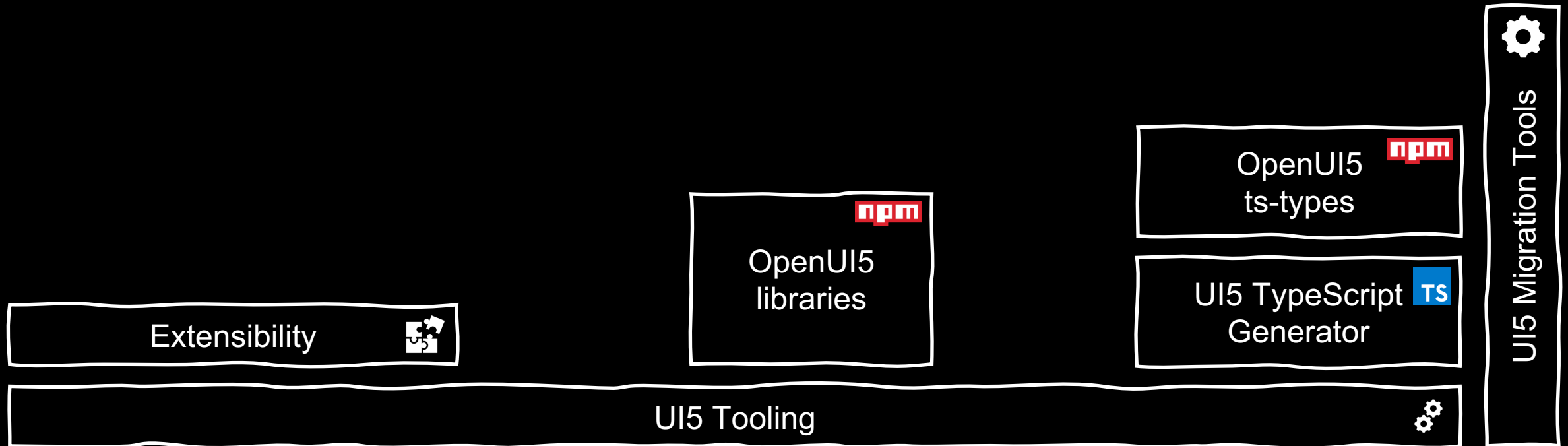


“Connecting Innovations!”

UI5con ON AIR

UI5 Tooling and Ecosystem in 2019 (UI5con)

“Modern, open and extensible development experience!”



“Connecting Innovations!”

UI5con ON AIR

UI5 Tooling and Ecosystem in 2019 (after UI5con)

“Modern, open and extensible development experience!”



Custom Extensions



UI5
Ecosystem
Showcase



Extensibility



OpenUI5
libraries

npm

OpenUI5
ts-types

npm

UI5 TypeScript
Generator

TS

UI5 Tooling



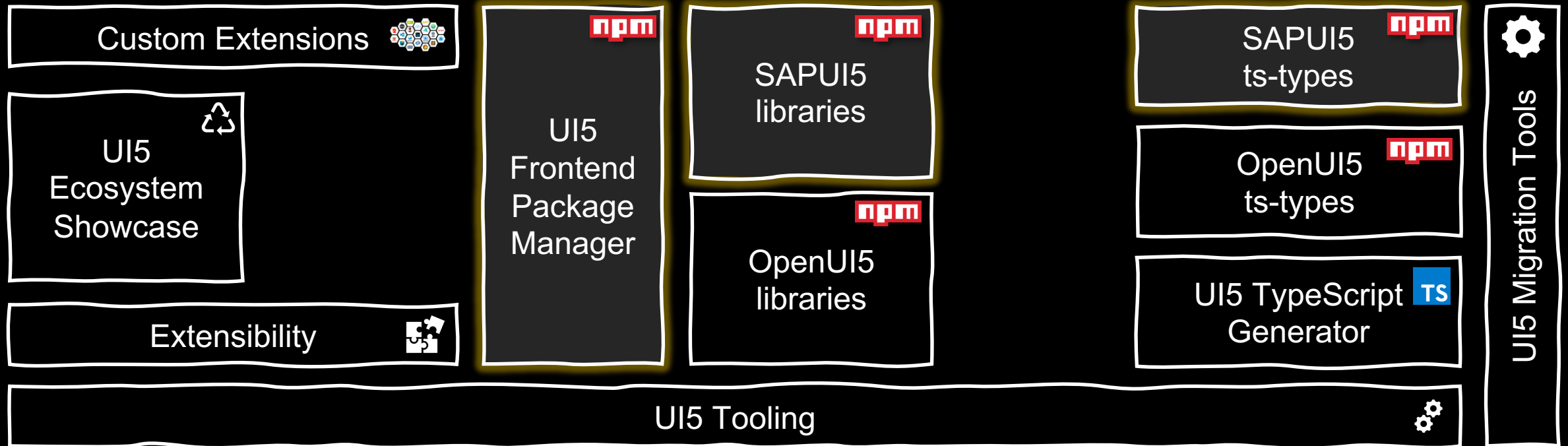
UI5 Migration Tools

“Connecting Innovations!”

ON AIR
UI5con

UI5 Tooling and Ecosystem Today

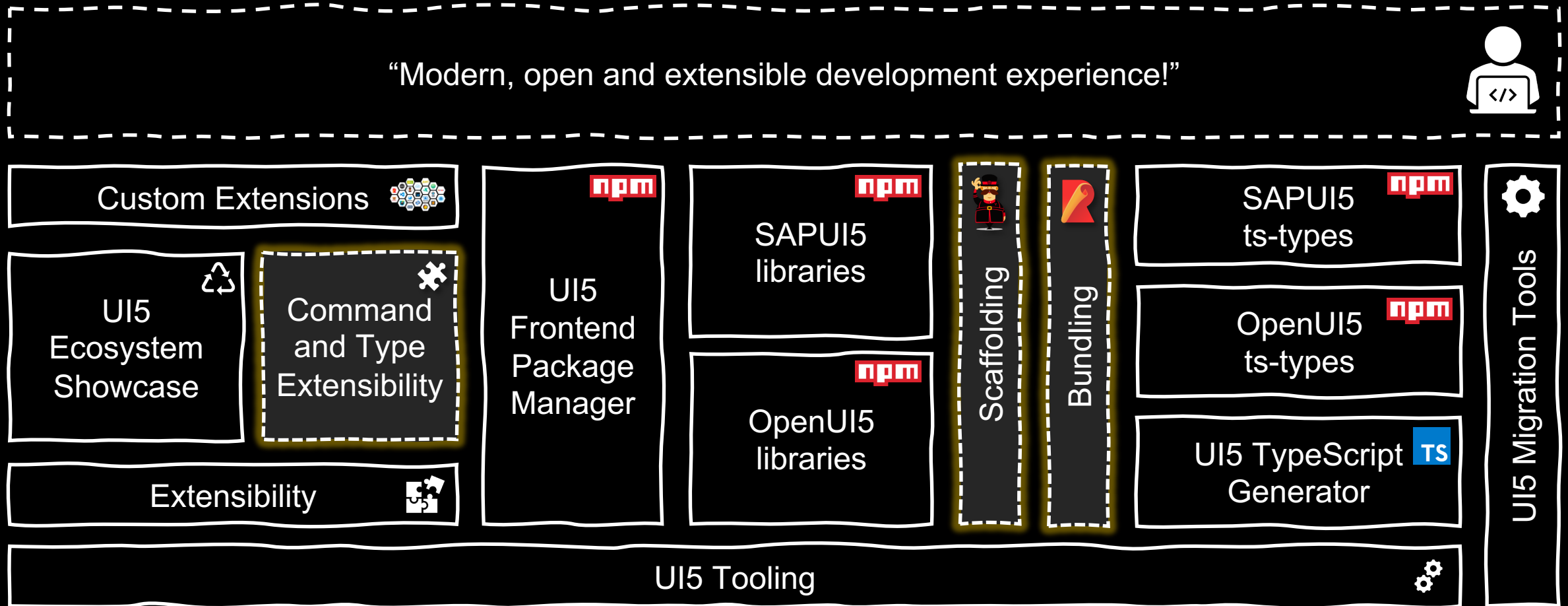
“Modern, open and extensible development experience!”



“Connecting Innovations!”

UI5con ON AIR

UI5 Tooling and Ecosystem in 2021



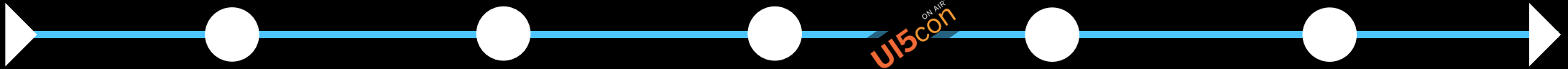
“Connecting Innovations!”

UI5con ON AIR

UI5 Evolution – The UI5 Technology Innovation



Tooling and Ecosystem



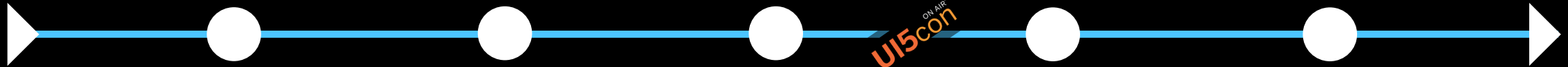
“Connecting Innovations!”

UI5con ON AIR

UI5 Evolution – The UI5 Technology Innovation



Tooling and Ecosystem



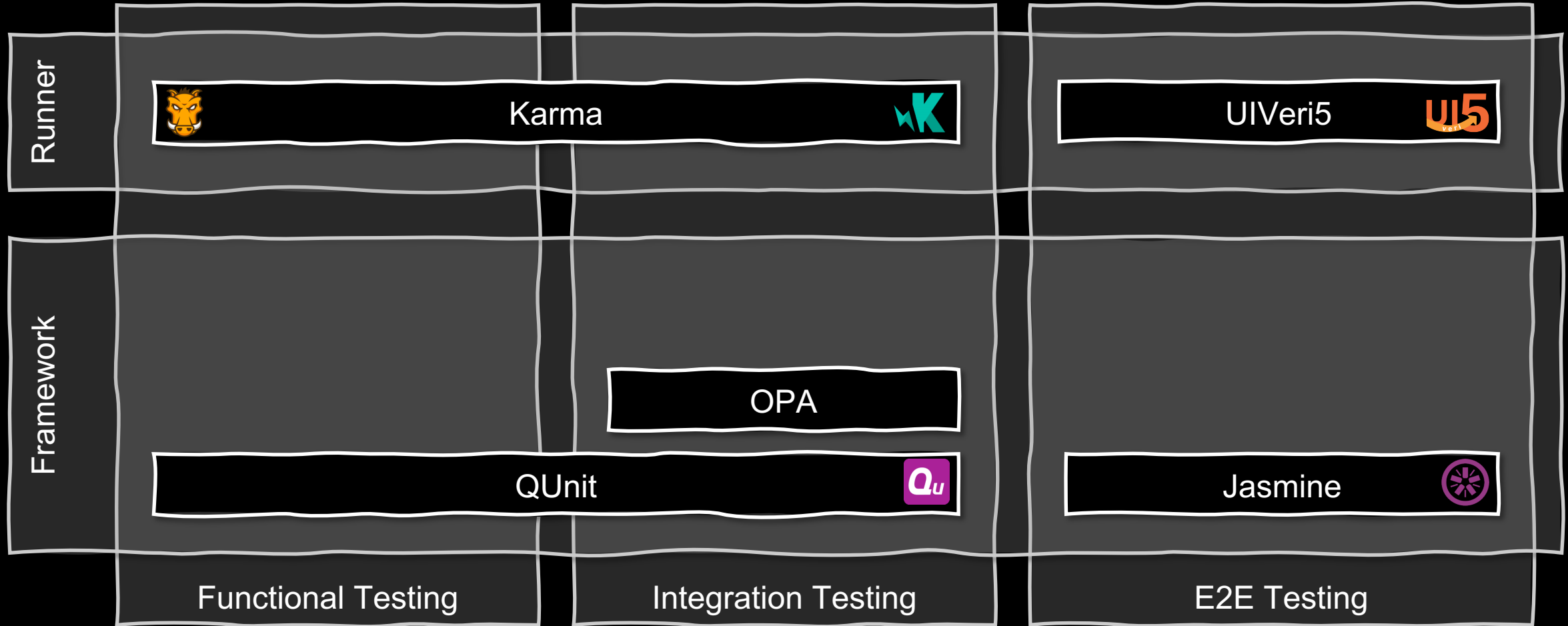
Testing Frameworks



“Connecting Innovations!”

UI5con ON AIR

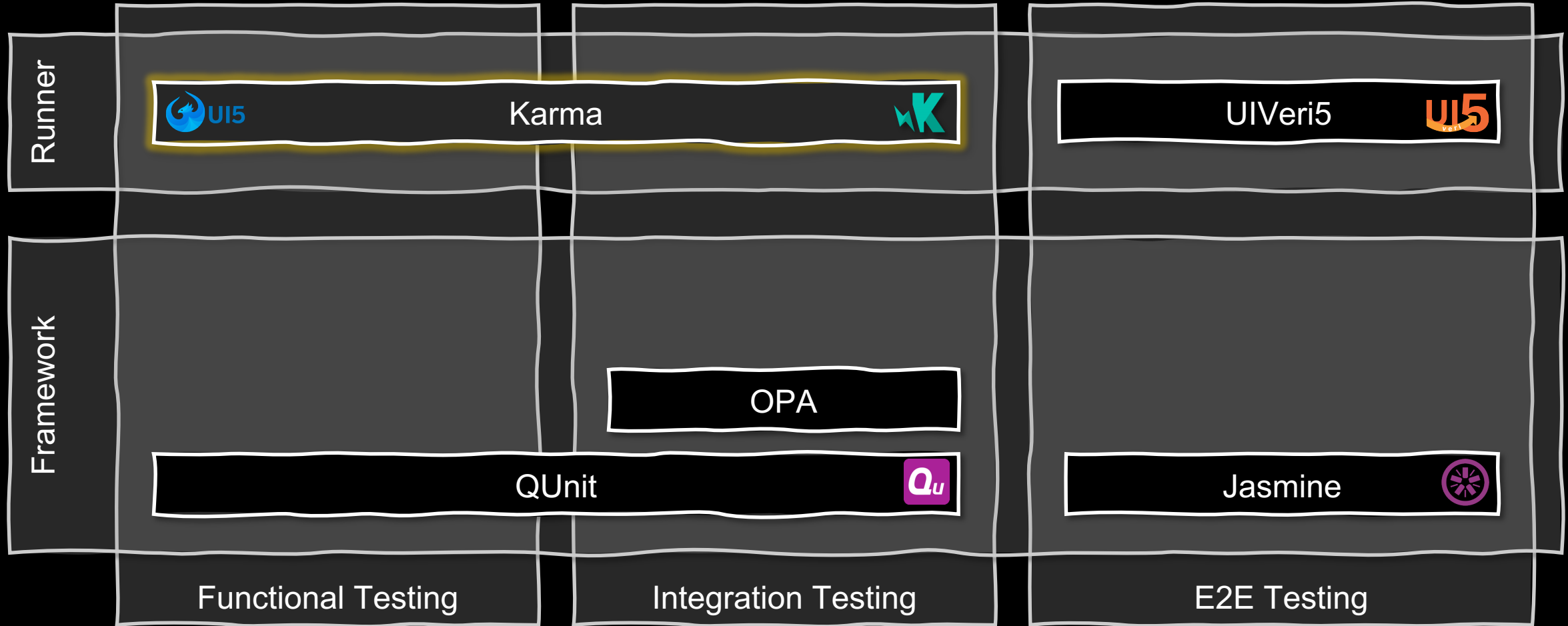
UI5 Testing Frameworks in 2019



“Connecting Innovations!”

ON AIR
UI5con

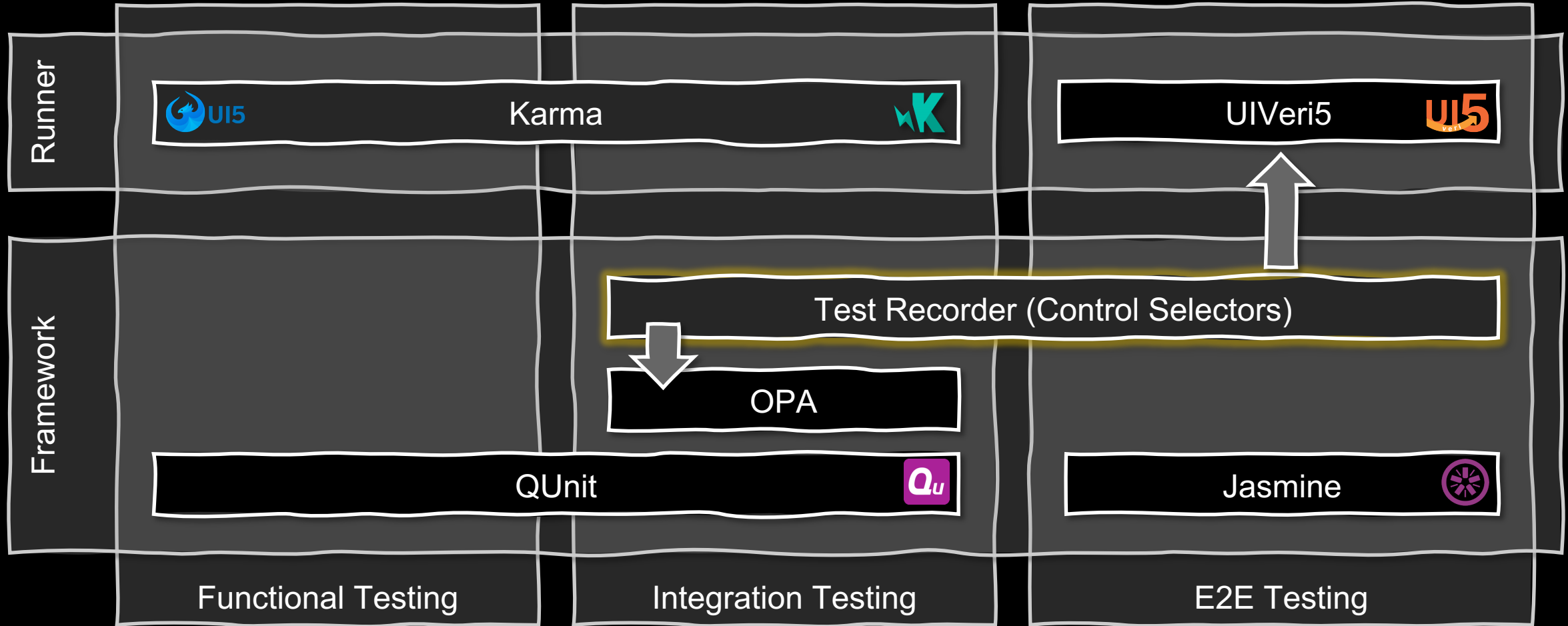
UI5 Testing Frameworks Today



“Connecting Innovations!”

ON AIR
UI5con

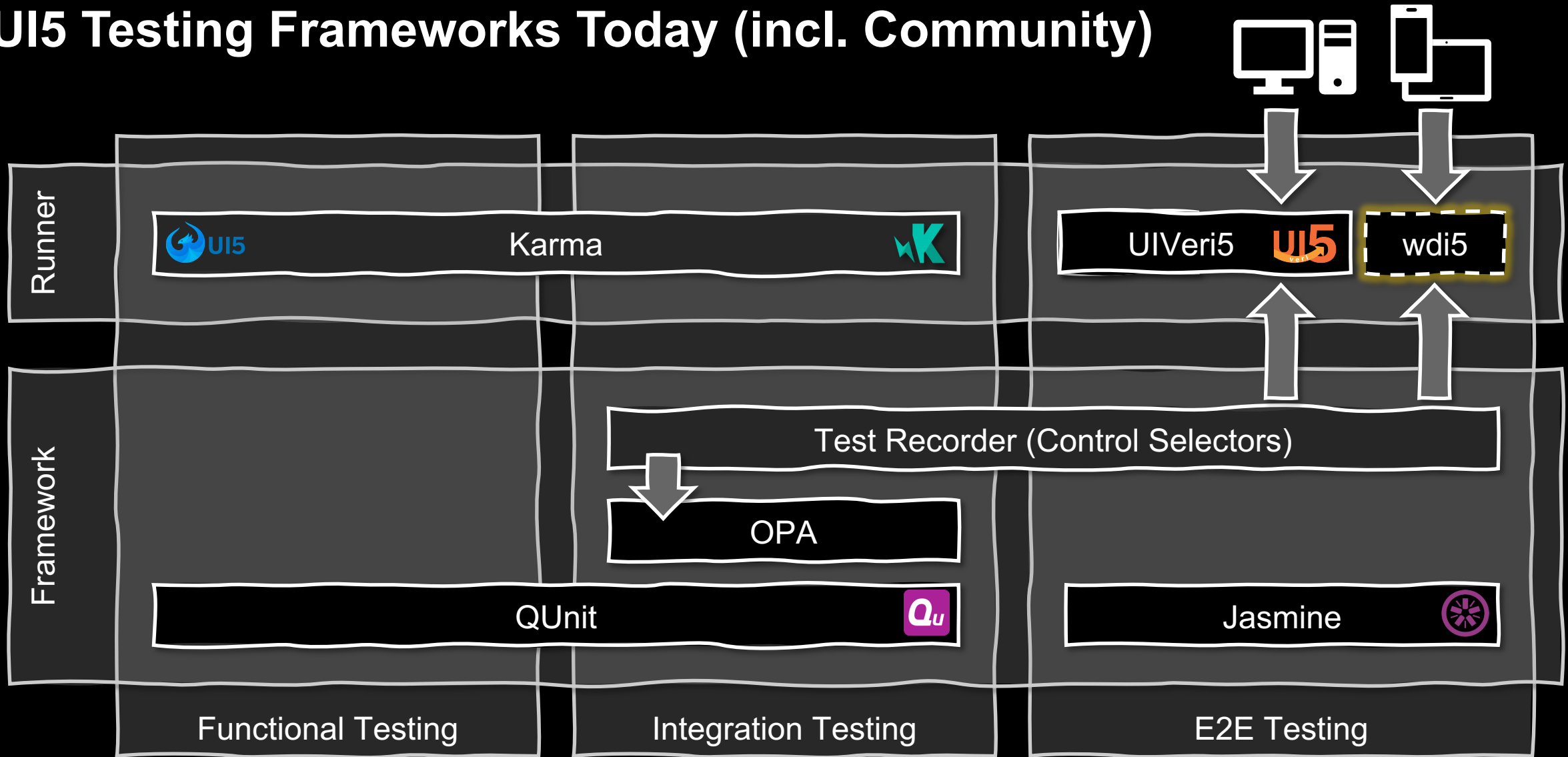
UI5 Testing Frameworks Today



“Connecting Innovations!”

UI5con ON AIR

UI5 Testing Frameworks Today (incl. Community)



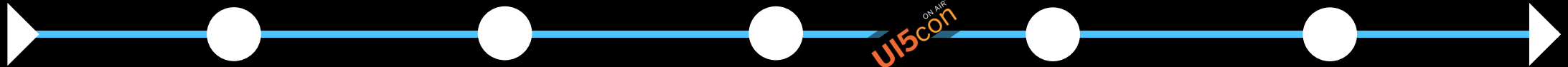
“Connecting Innovations!”

ON AIR
UI5con

UI5 Evolution – The UI5 Technology Innovation



Tooling and Ecosystem



Testing Frameworks



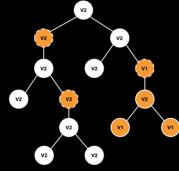
“Connecting Innovations!”

UI5con ON AIR

UI5 Evolution – The UI5 Technology Innovation

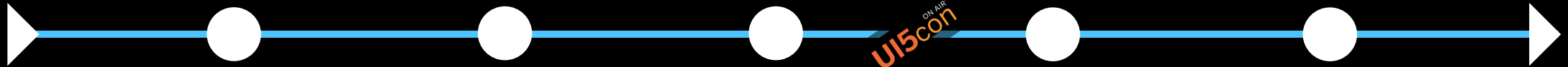


Tooling and Ecosystem



Rendering and Controls

--CSS
VARIABLES



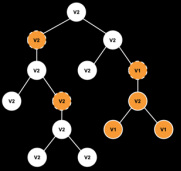
Testing Frameworks



“Connecting Innovations!”

UI5con ON AIR

UI5 Rendering and Controls



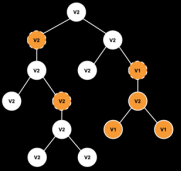
OpenUI5/SAPUI5 Controls

Semantic Rendering
(a.k.a. DOM-based Rendering)

“Connecting Innovations!”

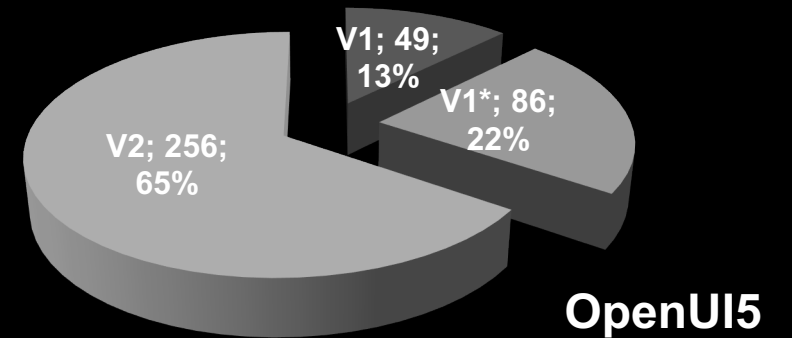
UI5con ON AIR

UI5 Rendering and Controls



OpenUI5/SAPUI5 Controls

Semantic Rendering
(a.k.a. DOM-based Rendering)



“Connecting Innovations!”

Semantic Rendering (a.k.a. DOM-based Rendering)



UI5con ON AIR

UI5 Rendering and Controls

--CSS
VARIABLES

OpenUI5/SAPUI5 Controls

Semantic Rendering
(a.k.a. DOM-based Rendering)

UI5 Web Components

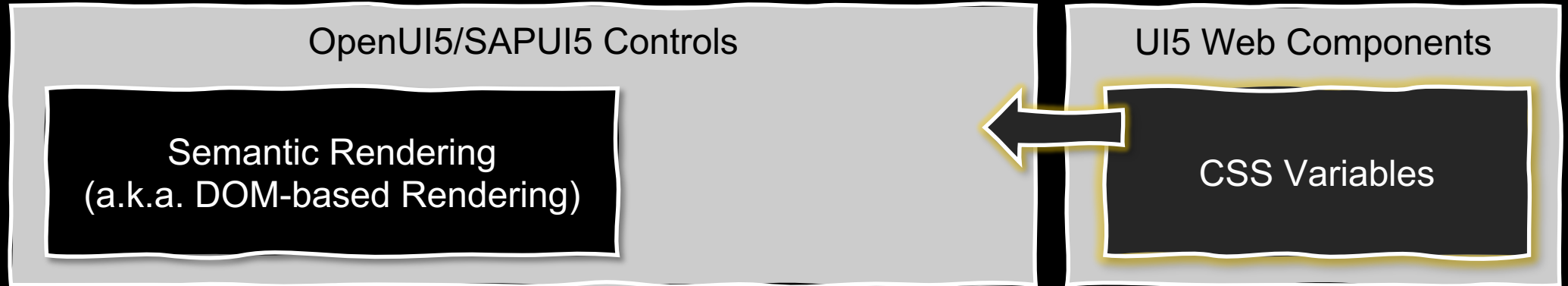
CSS Variables

“Connecting Innovations!”

UI5con ON AIR

UI5 Rendering and Controls

--CSS
VARIABLES

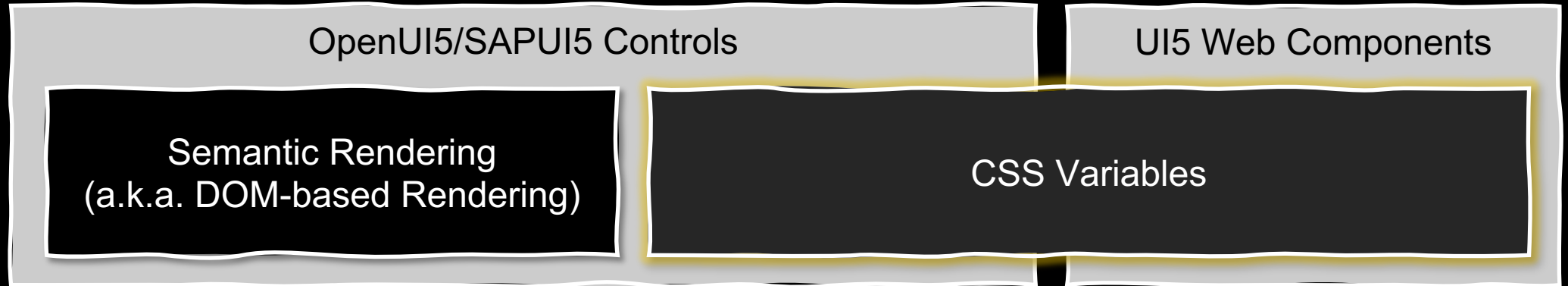


“Connecting Innovations!”

UI5con ON AIR

UI5 Rendering and Controls

--CSS
VARIABLES

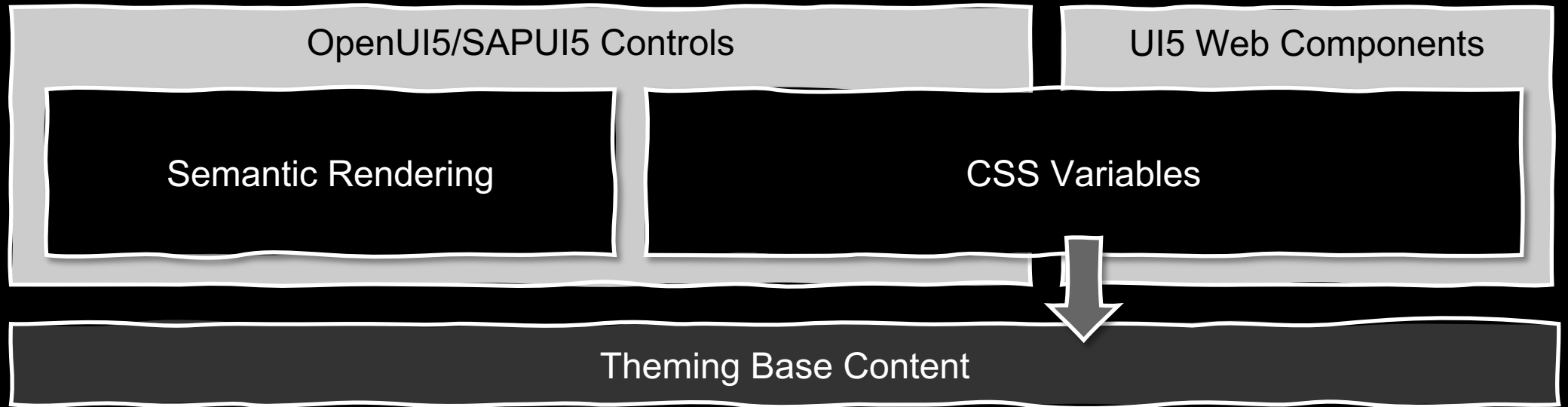


“Connecting Innovations!”

UI5con ON AIR

UI5 Rendering and Controls

--CSS
VARIABLES

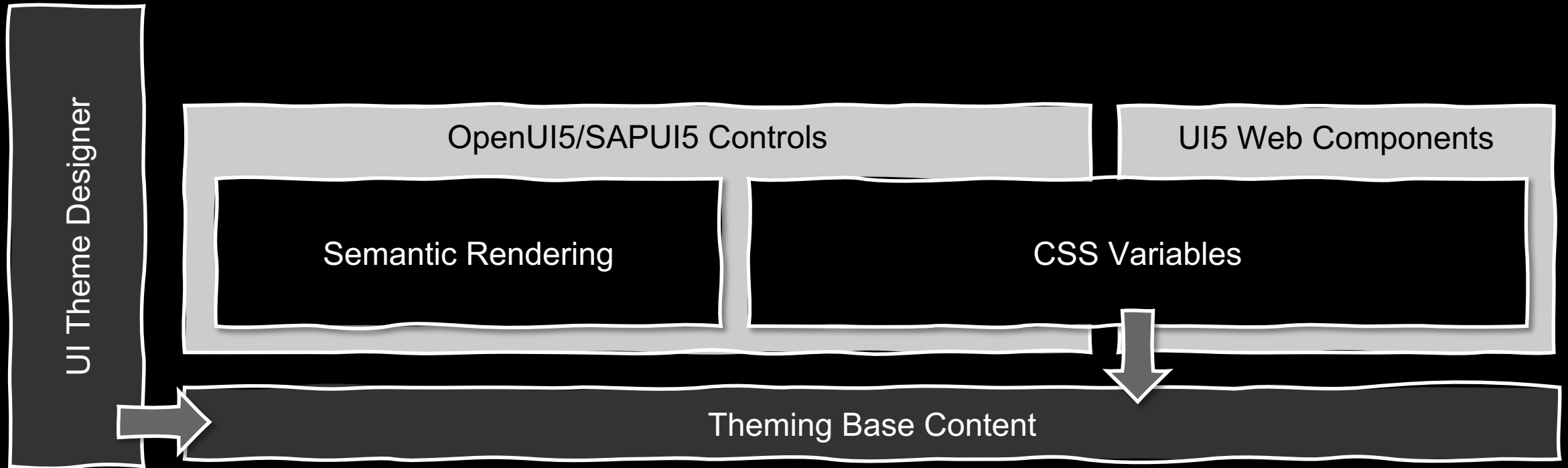


“Connecting Innovations!”

ON AIR
UI5con

UI5 Rendering and Controls

--CSS
VARIABLES

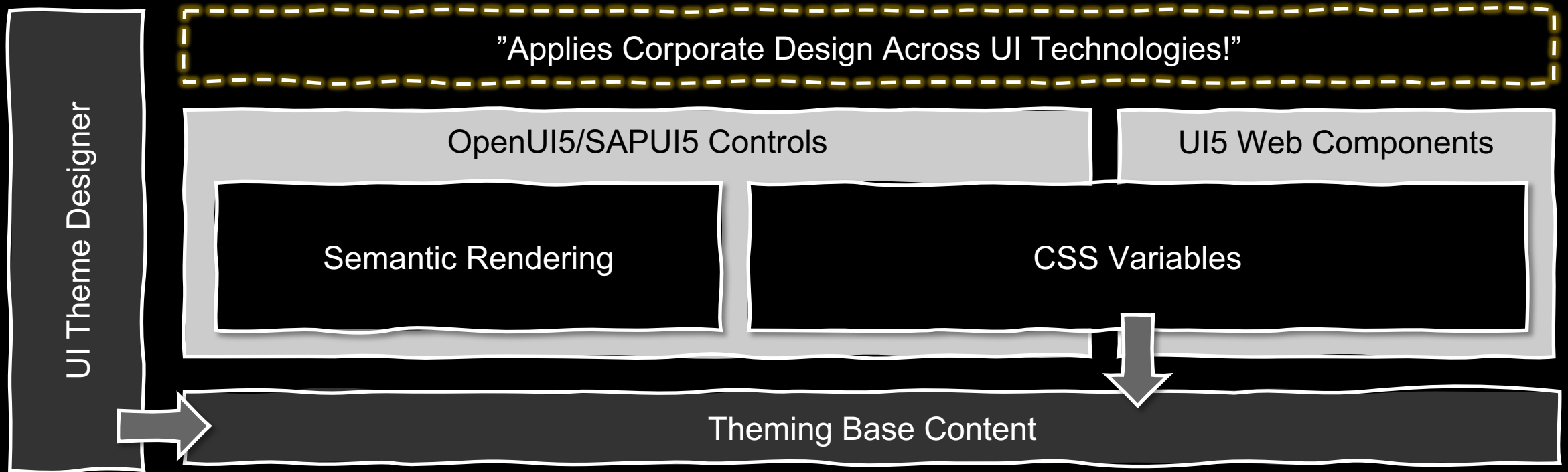


“Connecting Innovations!”

UI5con ON AIR

UI5 Rendering and Controls

--CSS
VARIABLES



“Connecting Innovations!”

UI5con ON AIR

CSS Variables in Action

--CSS
VARIABLES



Stefan Beck

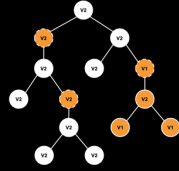


Peter Muessig

UI5 Evolution – The UI5 Technology Innovation

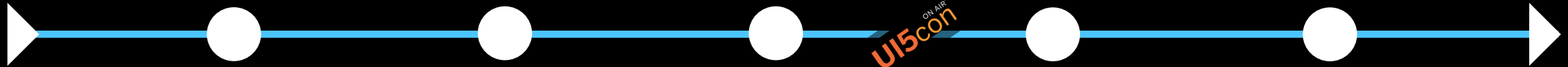


Tooling and Ecosystem



Rendering and Controls

--CSS
VARIABLES



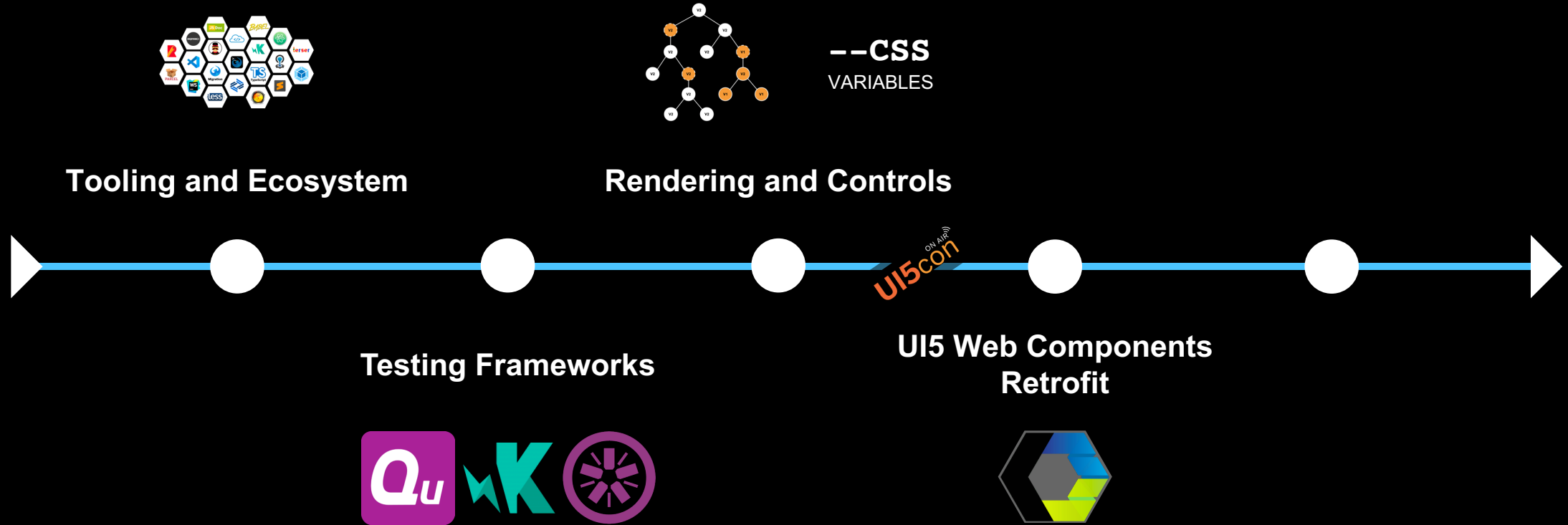
Testing Frameworks



“Connecting Innovations!”

UI5con ON AIR

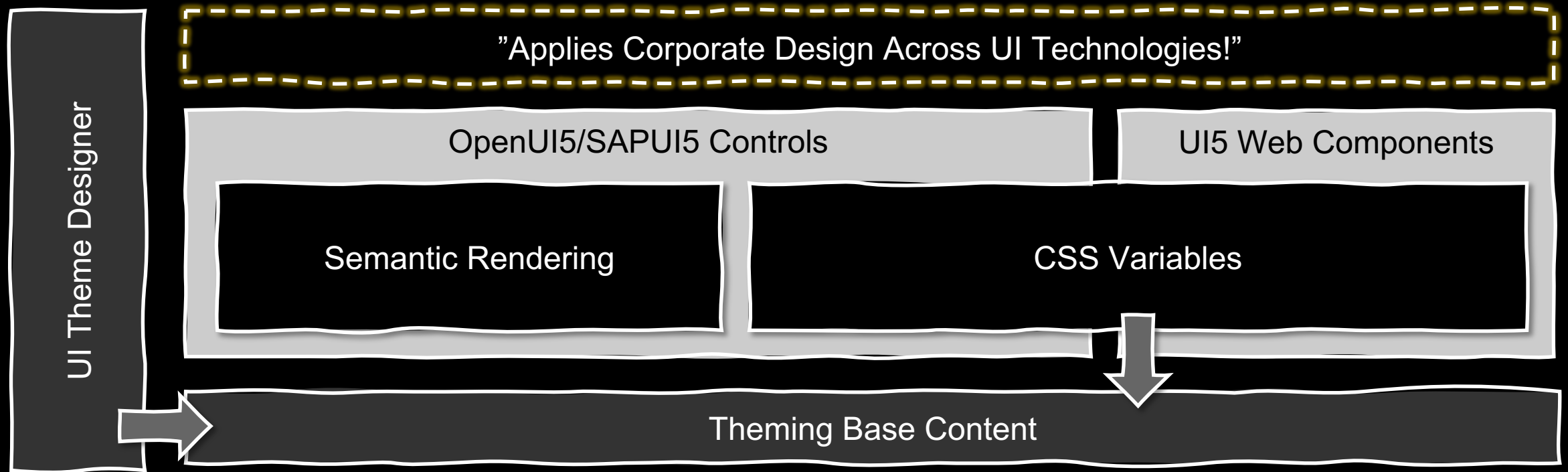
UI5 Evolution – The UI5 Technology Innovation



“Connecting Innovations!”

UI5con^{ON AIR}

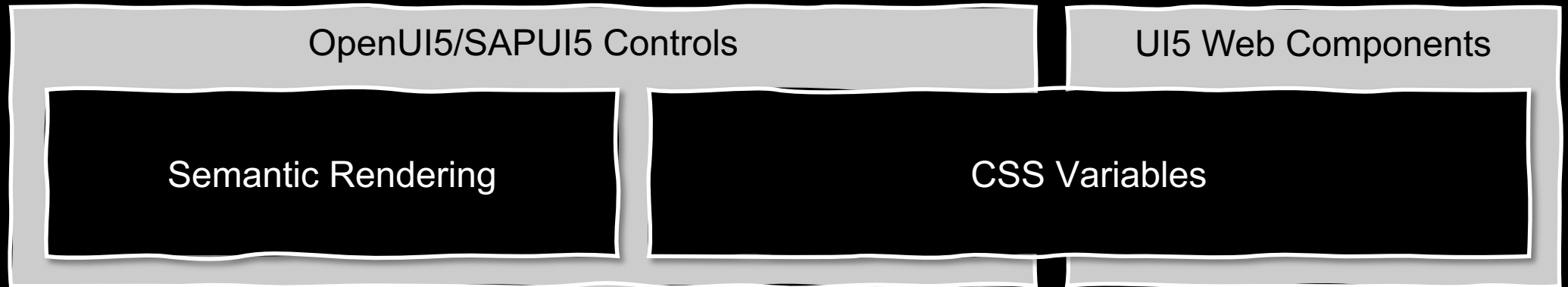
UI5 Web Components Retrofit



“Connecting Innovations!”

UI5con ON AIR

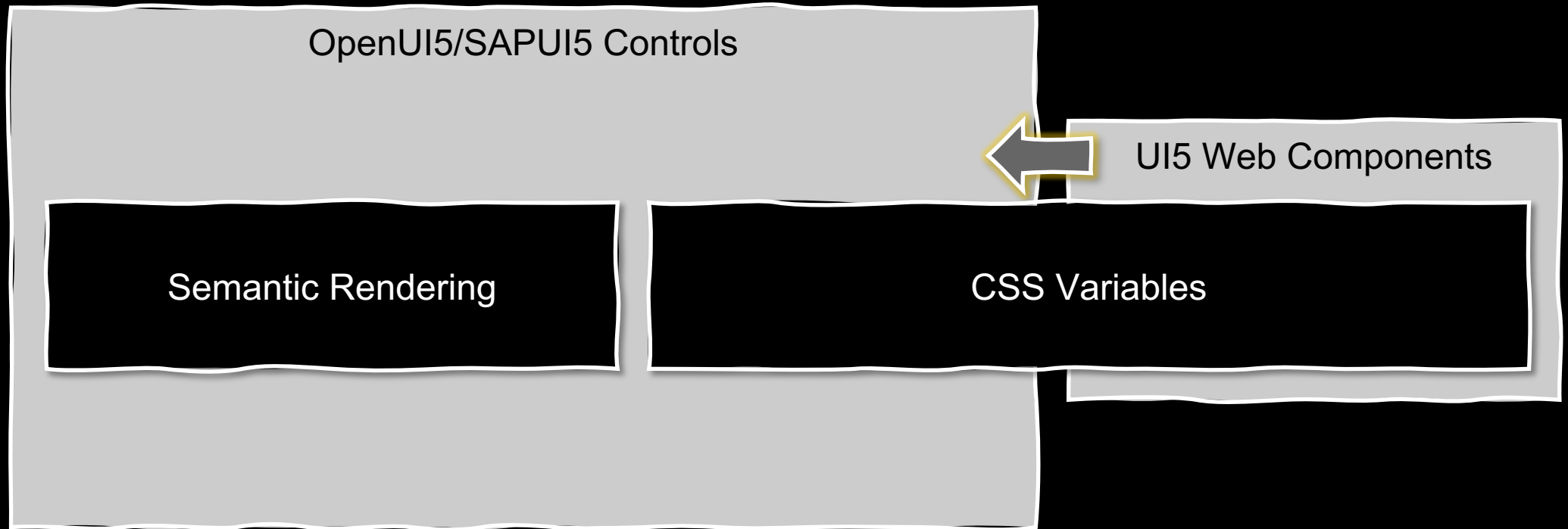
UI5 Web Components Retrofit



“Connecting Innovations!”

UI5con ON AIR

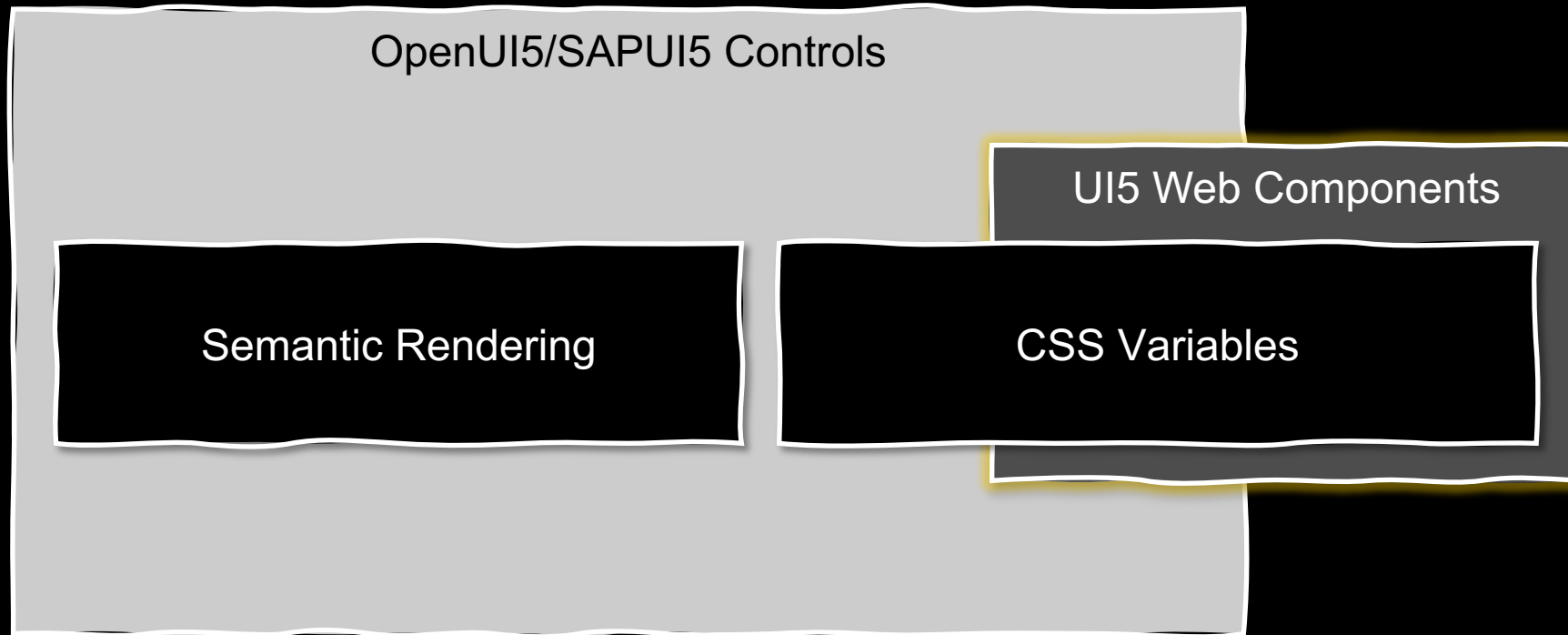
UI5 Web Components Retrofit



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UI5con ON AIR

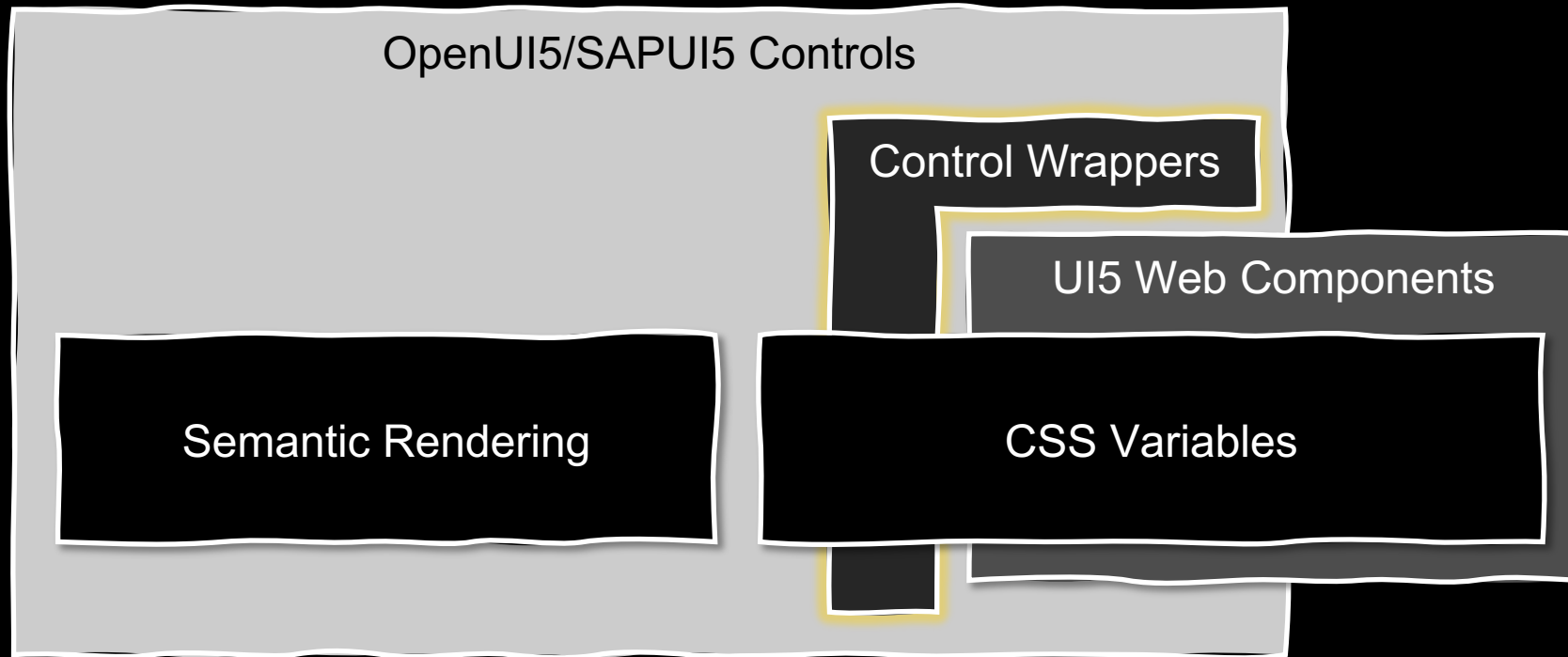
UI5 Web Components Retrofit



“Connecting Innovations!”

UI5con ON AIR

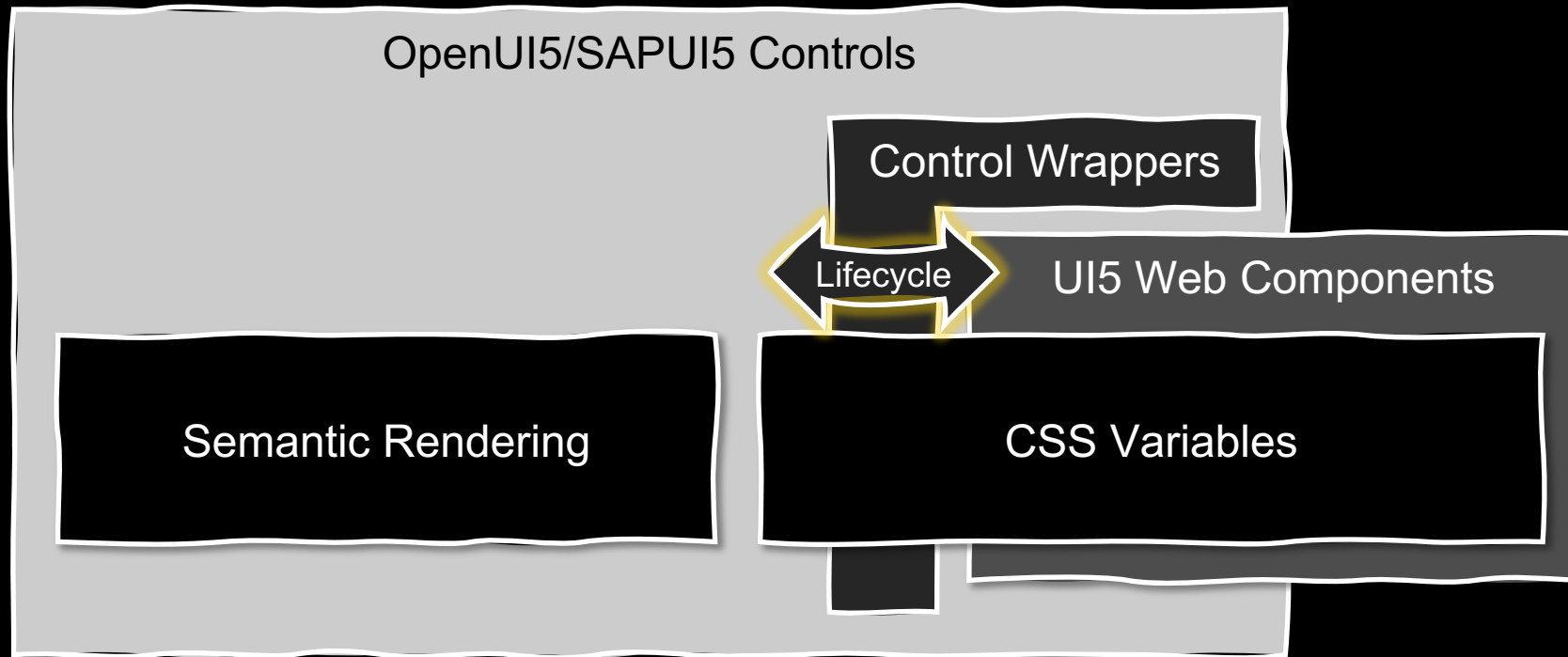
UI5 Web Components Retrofit



“Connecting Innovations!”

UI5con ON AIR

UI5 Web Components Retrofit



“Connecting Innovations!”

UI5con ON AIR

UI5 Web Components Retrofit – POC

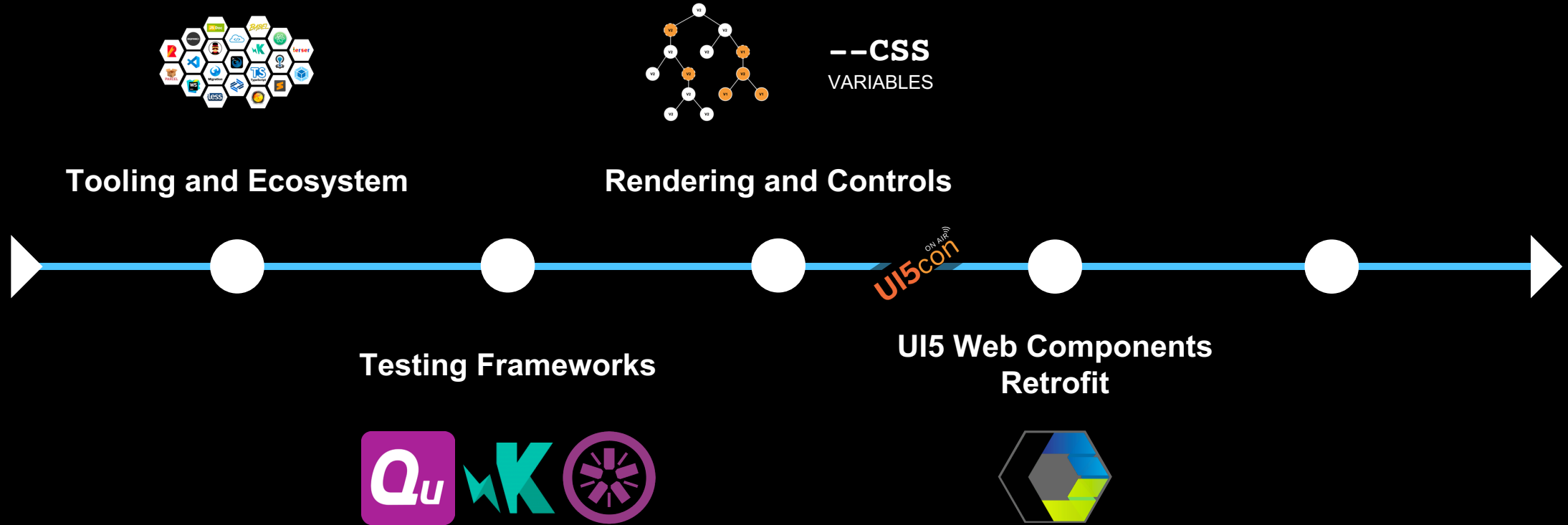


Stefan Beck



Peter Muessig

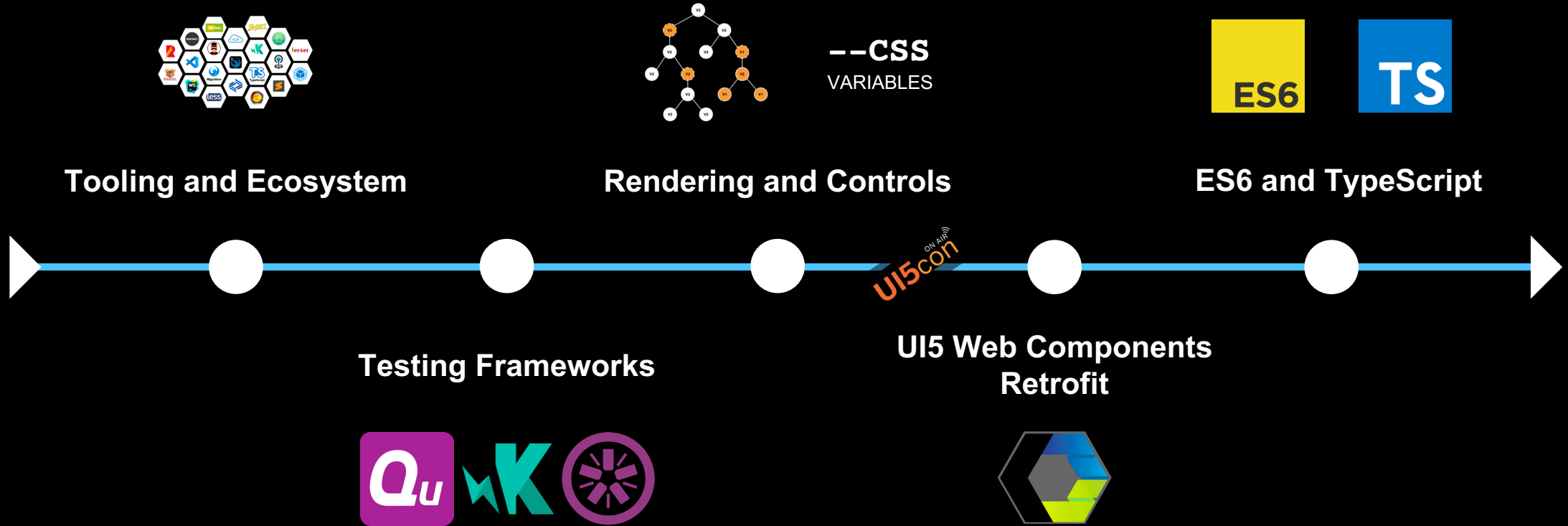
UI5 Evolution – The UI5 Technology Innovation



“Connecting Innovations!”

UI5con^{ON AIR}

UI5 Evolution – The UI5 Technology Innovation



“Connecting Innovations!”

UI5con ON AIR

ES6 and TypeScript Enablement

ES6

TS

```
packages > ui > src > Ts Component.ts > ...  
1 import UIComponent from "sap/ui/core/UIComponent";  
2 import Device from "sap/ui/Device";  
3 import models from "../model/models";  
4 import ComponentSupport from "sap/ui/core/ComponentSupport";  
5  
6 @namespace("ui5tssampleapp")  
7 export default class Component extends UIComponent {  
8  
9     public static metadata = {  
10         manifest: "json",  
11         properties: {  
12             "text": {  
13                 type: "string",  
14                 bindable: true  
15             }  
16         }  
17     };  
18  
19     private _sContentDensityClass: string | undefined;  
20  
21     public init() {  
22         // call the base component's init function  
23         super.init();  
24  
25         // set the device model  
26         // get the device model  
27  
28         _oModel.attachEvent("_onDataReceived", () => {  
29             // call the base component's init function  
30             super.init();  
31         });  
32  
33         _oModel.attachEvent("_onDataReceived", () => {  
34             // call the base component's init function  
35             super.init();  
36         });  
37     }  
38 }  
39
```

TS



SAPUI5 ts-types



UI5con ON AIR

ES6 and TypeScript Enablement

TS

```
packages > ui > ts Component.ts > ...  
1 import UIComponent from "sap/ui/core/UIComponent";  
2 import Device from "sap/ui/Device";  
3 import models from "../model/models";  
4 import ComponentSupport from "sap/ui/core/ComponentSupport";  
5  
6 @namespace("ui5tssampleapp")  
7 export default class Component extends UIComponent {  
8  
9     public static metadata = {  
10         manifest: "json",  
11         properties: {  
12             "text": {  
13                 type: "string",  
14                 bindable: true  
15             }  
16         }  
17     };  
18  
19     private _sContentDensityClass: string | undefined;  
20  
21     public init() {  
22         // call the base component's init function  
23         super.init();  
24  
25         // set the device model  
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99         // call the base component's init function  
100        // call the base component's init function
```

```
packages > ui > webapp > JS Component.js >  sap.ui.define() callback >  Component >  init
1  sap.ui.define(["sap/ui/core/UIComponent", "sap/ui/Device", "./model/models"], function()
2  {
3      function _interopRequireDefault(obj) {
4          return obj && obj.__esModule && typeof obj.default !== "undefined" ? obj.default :
5          obj;
6      }
7      const models = _interopRequireDefault(__models);
8      const Component = UIComponent.extend("ui5tssampleapp.Component", {
9          metadata: {
10             manifest: "json",
11             properties: {
12                 "text": {
13                     type: "string",
14                     bindable: true
15                 }
16             }
17         },
18         init: function _init() {
19             // call the base component's init function
20             UIComponent.prototype.init.call(this); // set the device model
21             this.setModel(models.createDeviceModel(), "device"); // create the views based on
22             the given model
23             initialize();
24         }
25     });
26 }
```

JS

BABEL

SAPUI5 ts-types

npw



UI5con ON AIR

ES6 and TypeScript Enablement

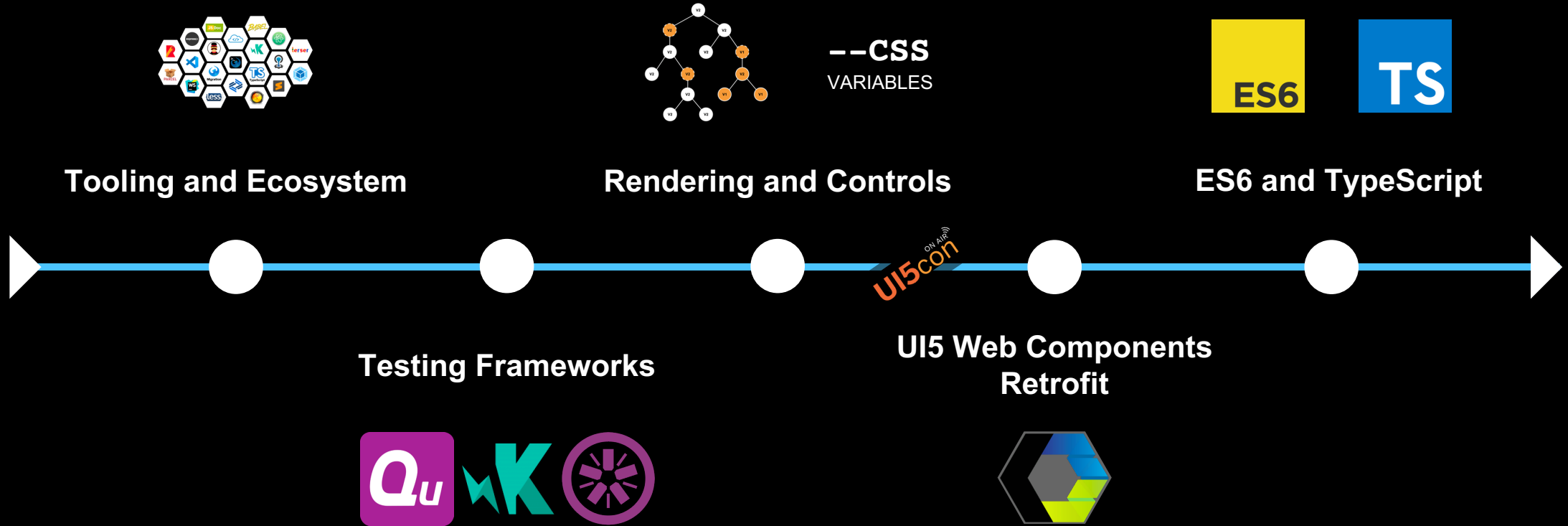


Stefan Beck



Peter Muessig

UI5 Evolution – The UI5 Technology Innovation



“Connecting Innovations!”

UI5con^{ON AIR}

Again, it's your turn to...

**...contribute to the
UI5 Ecosystem!**

**...keep pace with
our innovations!**

Again, it's your turn to...

**...help us to shape
UI5 together!**

...enjoy UI5con!

Thank you.

Stefan Beck

Chief Product Owner, UI5

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Peter Muessig

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peter.muessig@sap.com

[@pmuessig](https://twitter.com/pmuessig)

