

Orange Open-Source Design System and Its Bootstrap Fork

by Julien Déramond



OW2con'24
June 12th, 2024



10 Years Ago...

back to 2013-2014

Accessibility was already in Orange DNA

The dedicated transversal accessibility entity was:

- providing guidelines
 - *Orange digital accessibility guidelines* at <https://a11y-guidelines.orange.com>
- sharing best practices
- providing support and training to the teams
- auditing the Orange digital products

10 Years Ago...

back to 2013-2014

Accessibility was already in Orange DNA

The dedicated transversal accessibility entity was:

- providing guidelines
 - *Orange digital accessibility guidelines* at <https://a11y-guidelines.orange.com>
- sharing best practices
- providing support and training to the teams
- auditing the Orange digital products

And 10 years ago, they were already **repeating over and over the same things during the audits.**

Stuff like:

```
A <div> is not a <button> !
```

How to Enforce the Accessibility Guidelines?

Web developers needed some help to respect the guidelines

How to Enforce the Accessibility Guidelines?

Web developers needed some help to respect the guidelines

Create a web UI library with
reusable components

How to Enforce the Accessibility Guidelines?

Web developers needed some help to respect the guidelines

Create a web UI library with reusable components

- But
 - it required a lot of resources
 - it wasn't too common back then (at least, not as common as it is today)

How to Enforce the Accessibility Guidelines?




Web developers needed some help to respect the guidelines


Create a web UI library with reusable components

- But
 - it required a lot of resources
 - it wasn't too common back then (at least, not as common as it is today)
- Studied the existing open-source UI libraries and frameworks
 - Reuse something and not reinvent the wheel
 - Bootstrap started to be a reference



Build fast, responsive sites with Bootstrap

 [NPM version](#)  [NPM Downloads](#)  [Docs](#)

 [GitHub stars](#)

HTML, CSS, JavaScript framework

Customizable components with Sass

CDN compatible

Utilities and helpers

Responsive design

Let's Make a Fork of Bootstrap!

Bootstrap's a good fit to enforce accessibility guidelines

1. **Audit of Bootstrap** → really good accessibility compliance

Let's Make a Fork of Bootstrap!

Bootstrap's a good fit to enforce accessibility guidelines

1. **Audit of Bootstrap** → really good accessibility compliance
2. **Fork of Bootstrap** with an MIT license → usable by all Orange teams, subsidiaries, etc.





Let's Make a Fork of Bootstrap!

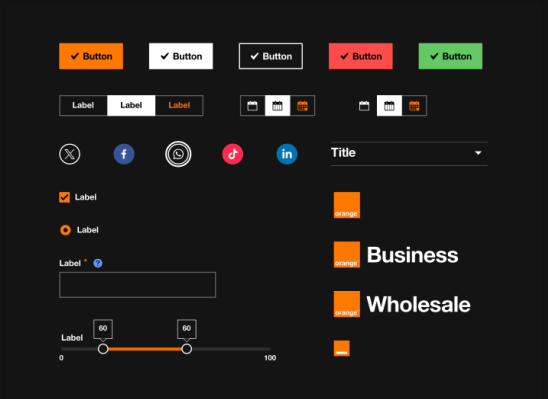
Bootstrap's a good fit to enforce accessibility guidelines

1. **Audit of Bootstrap** → really good accessibility compliance
2. **Fork of Bootstrap** with an MIT license → usable by all Orange teams, subsidiaries, etc.
3. **Customization of Bootstrap** → automatically apply the brand and design guidelines

Boosted

Build fast, responsive sites with Boosted

 NPM version  NPM Downloads  Docs
 GitHub stars



HTML, CSS, JS framework

Customized Orange components

Accessible

Utilities and helpers

Responsive design

Free

features and improvements

bug fixes

security fixes

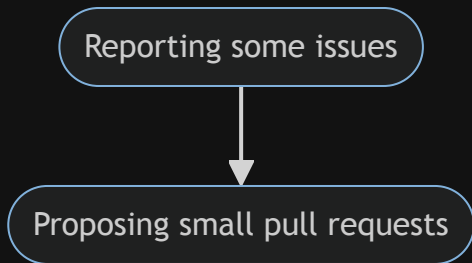
accessibility fixes

testing by millions of users in different

contexts

First Upstream Contributions to Bootstrap

between 2013 and 2018



More and More Upstream Contributions

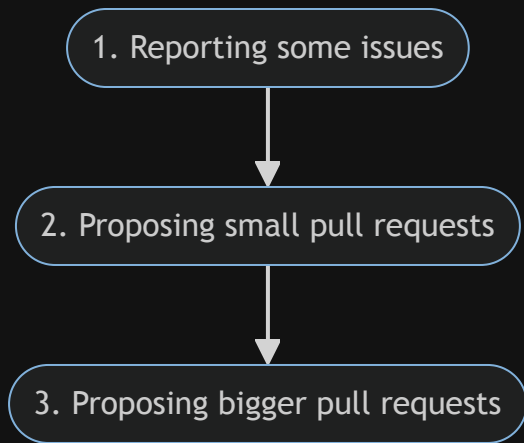
between 2018 and 2020

Boosted had finally a full-time dedicated maintainer who followed the same pattern:

More and More Upstream Contributions

between 2018 and 2020

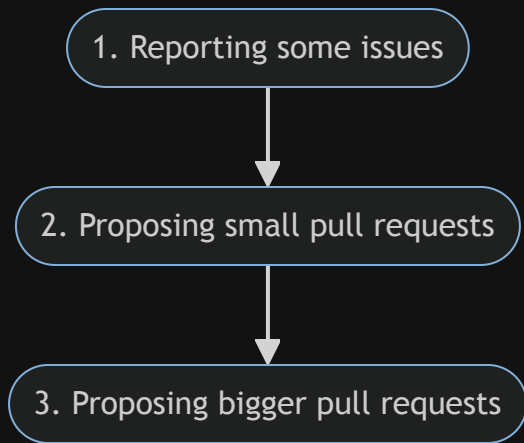
Boosted had finally a full-time dedicated maintainer who followed the same pattern:



More and More Upstream Contributions

between 2018 and 2020

Boosted had finally a full-time dedicated maintainer who followed the same pattern:

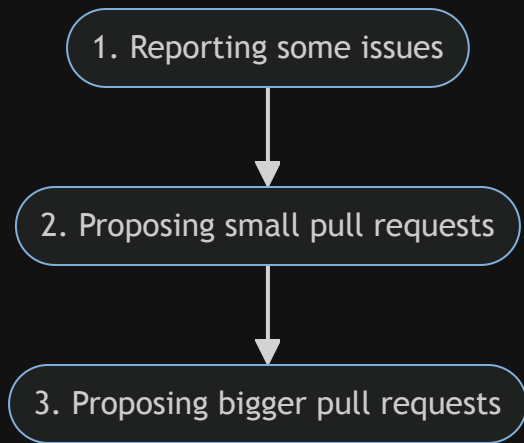


Like the RTL support!

More and More Upstream Contributions

between 2018 and 2020

Boosted had finally a full-time dedicated maintainer who followed the same pattern:



Like the RTL support!

Thanks to his great contributions, Gaël Poupard (@ffoodd) was invited to join the Bootstrap core team.

Boosted: Starting Point of Orange Design System

- Orange Design System was created in 2020.
- Boosted was at the core of it for the tech part as it was:
 1. already widely used (by hundreds of projects)
 2. qualitative
 3. and accessible

Boosted: Starting Point of Orange Design System

- Orange Design System was created in 2020.
- Boosted was at the core of it for the tech part as it was:
 1. already widely used (by hundreds of projects)
 2. qualitative
 3. and accessible

i What's a design system? It's a big toolbox containing all the elements one needs to build a digital product such as a website or an application. It's a set of design guidelines, assets, icons, components, tech libraries, accessibility guidelines, etc. Everything for a consistent great user experience for a brand or a company.

Team's Bigger, Contributions Are Bigger

In 2020, change of hands.

The previous maintainer left Orange.

I became the new maintainer of Boosted, and quickly followed the same pattern of upstream contributions:



```
graph LR; A[1. Reporting some issues] --> B[2. Proposing small pull requests]; B --> C[3. Proposing bigger pull requests]; C --> D[4. Joined the Bootstrap core team in 2022]
```

1. Reporting some issues → 2. Proposing small pull requests → 3. Proposing bigger pull requests → 4. Joined the Bootstrap core team in 2022

Team's Bigger, Contributions Are Bigger

In 2020, change of hands.

The previous maintainer left Orange.

I became the new maintainer of Boosted, and quickly followed the same pattern of upstream contributions:

```
graph LR; A(1. Reporting some issues) --> B(2. Proposing small pull requests); B --> C(3. Proposing bigger pull requests); C --> D(4. Joined the Bootstrap core team in 2022)
```

1. Reporting some issues → 2. Proposing small pull requests → 3. Proposing bigger pull requests → 4. Joined the Bootstrap core team in 2022

Same upstream contributions pattern was followed by another member of the current Boosted core team months later who also became Bootstrap's core team member.

Contributions Linked to Orange

Data manually gathered the 7th of June 2024, it may contain errors

Contribution type	Linked to Orange	Bootstrap	Percentage linked to Orange
Issues (created)	104	774	13%
Pull requests (created)	840	1,753	47%
Commits	933	3,254	29%

Contributions Linked to Orange

Data manually gathered the 7th of June 2024, it may contain errors

Contribution type	Linked to Orange	Bootstrap	Percentage linked to Orange
Issues (created)	104	774	13%
Pull requests (created)	840	1,753	47%
Commits	933	3,254	29%

- 10 developers linked to Orange have contributed to Bootstrap along the years
- 4 developers linked to Orange are in the Bootstrap's core team (not all of them are still active)
- 2 developers linked to Orange are in the top 8 contributors of all time (4 in the top 20)

Contributions Linked to Orange

Data manually gathered the 7th of June 2024, it may contain errors

Contribution type	Linked to Orange	Bootstrap	Percentage linked to Orange
Issues (created)	104	774	13%
Pull requests (created)	840	1,753	47%
Commits	933	3,254	29%

- **"Linked to Orange"** because:
 - some are not Orange employees anymore,
 - some are still working at Orange,
 - and some contribute on their spare time

Win-Win Relationship

Between Orange and Bootstrap

Now, we can say that the relationship between Orange and Bootstrap is a win-win relationship.

- Orange benefits from the free aspect of Bootstrap.
- Bootstrap benefits from the contributions of the Orange team, and the maintainers that are part of the core team.

Win-Win Relationship

Between Orange and Bootstrap

Now, we can say that the relationship between Orange and Bootstrap is a win-win relationship.

- Orange benefits from the free aspect of Bootstrap.
- Bootstrap benefits from the contributions of the Orange team, and the maintainers that are part of the core team.

△ There's a subtlety here as my contributions started on Orange time, but now are mostly done on my spare time.

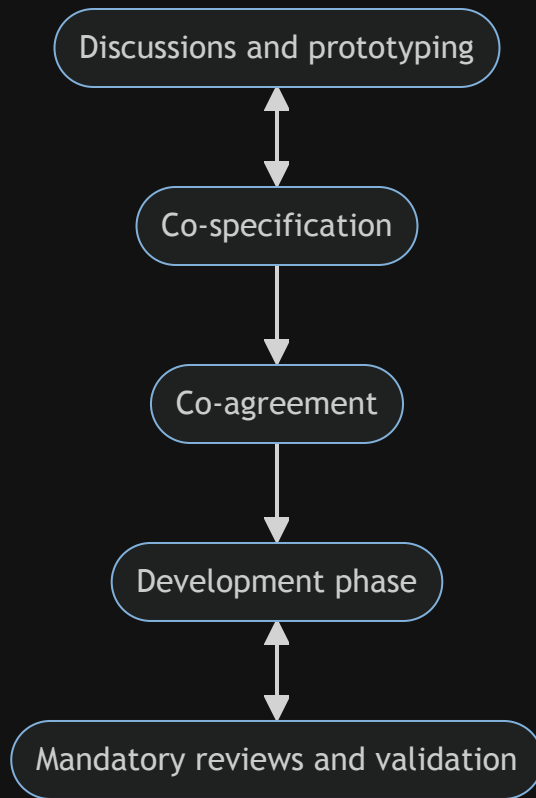
Open-Source Design System

Each tech repository is open-source with an MIT license.

- **1 web framework:** our fork of Bootstrap, Boosted
- **2 web libraries**
 - a map/cartography library based on Leaflet
 - a charts library based on Apache ECharts
- **3 mobile libraries** for Android, iOS, and Flutter
- **3 Orange themes** for Jekyll, MkDocs, and Storybook

ODS Simplified Development Process

Designers, developers, and accessibility experts meet weekly



Julien Déramond

Now, let me introduce myself without spoiling the presentation



Orange Design System tech lead



Maintainer of Boosted and Orange Design System web libraries, and tools



Bootstrap core team member



openresource.dev creator



·



·



Thank you!

Presentation under the CC BY-SA 4.0 license

