

# Angular Keynote

AngularMix, October 2018



Brad Green  
@bradlygreen

<http://bit.ly/AngularMix-2018>



@

Google



First eng  
review:  
Nov 16,  
2010

“

You are all liars!

Urs Hölzle

”

Later that day...



*Check out the framework Urs  
doesn't want you to use!*



# Angular in 2018

Used by more  
Google  
developers  
than any  
other front  
end framework



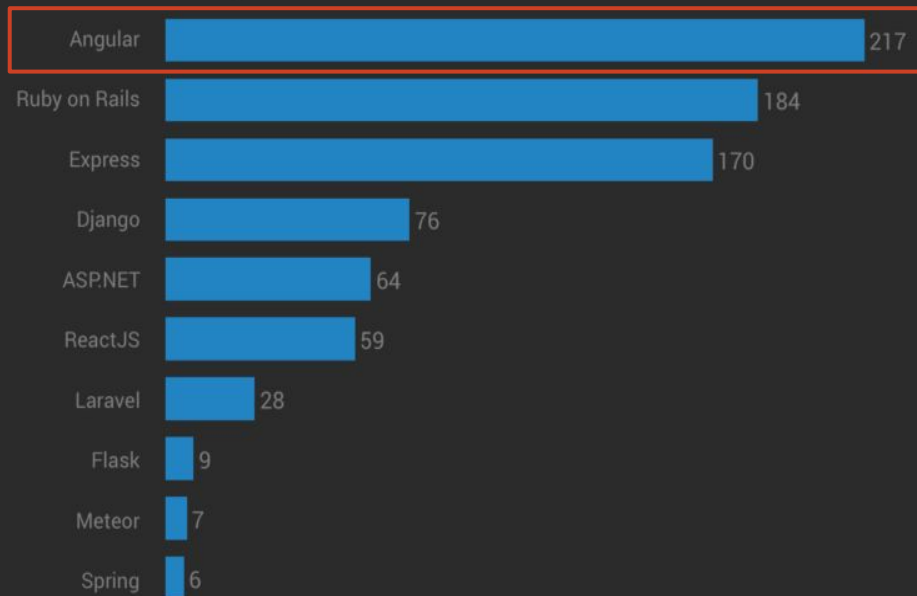
# Angular Everywhere

# Startups Choosing Angular

[news.crunchbase.com/news/popular-web-frameworks-seed-early-stage-startups/](https://news.crunchbase.com/news/popular-web-frameworks-seed-early-stage-startups/)

## Most Popular Web Frameworks Among Seed And Early-Stage Startups

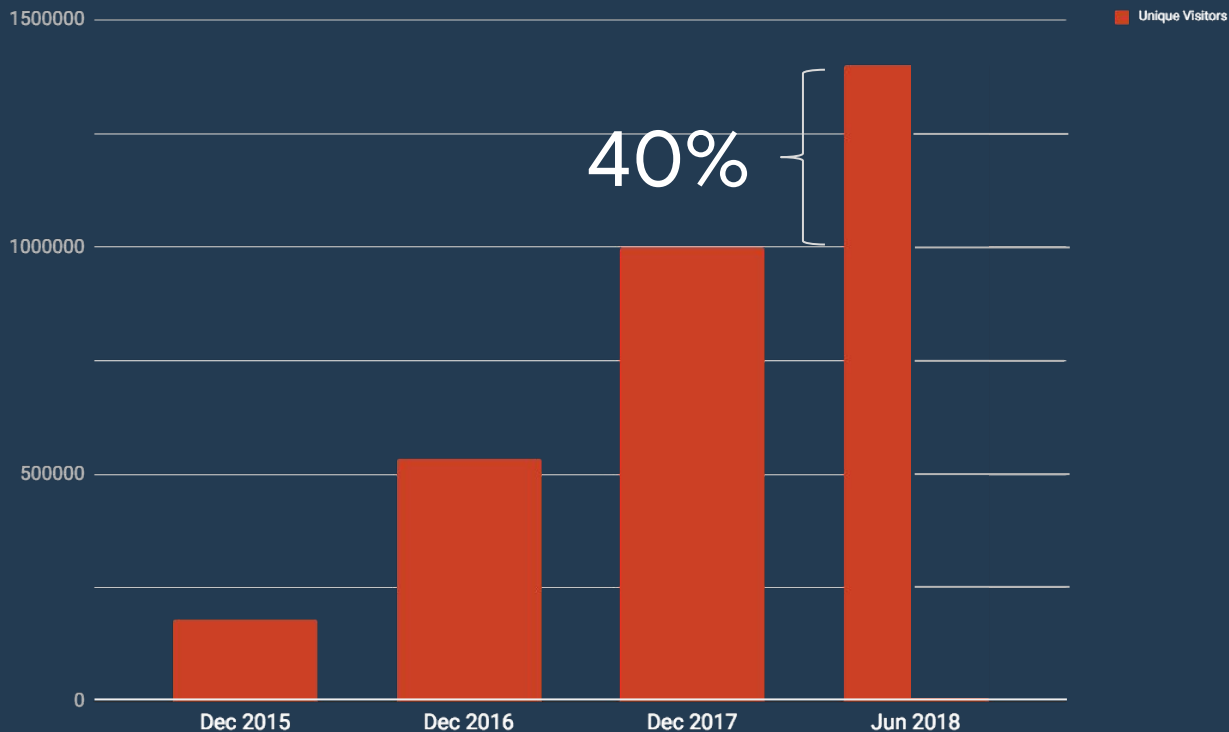
Count of US-based companies using each framework that raised a seed- or early-stage funding round since January 2017. Data sourced from Siftify using the Crunchbase marketplace.



crunchbase news

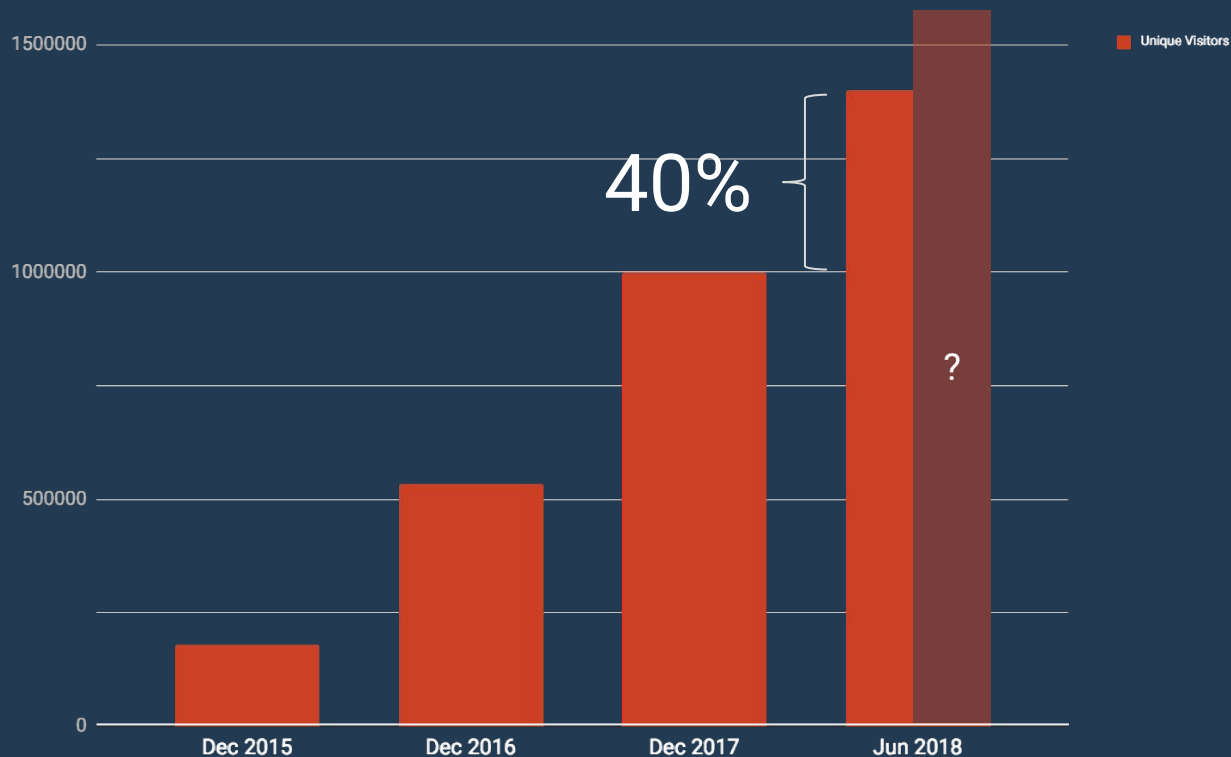


# 30-day active visitors to angular.io





# 30-day active visitors to angular.io

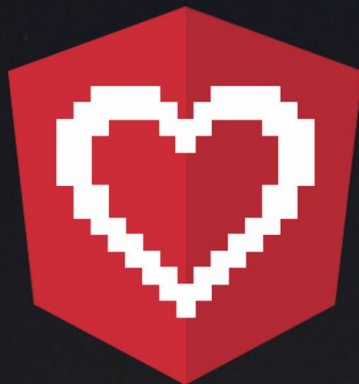




Help us grow



*"Brad will never go to college and will likely never have a full-time job"*



# ngGirls

## Upcoming Events:

October 17th, 2018, Karlsruhe

October 20th, 2018, Krakow

October 20th, 2018, Seattle

October 27th, 2018, Vienna

November 5th, 2018, London

November 12th, 2018, Sofia

November 17th, Warsaw

November 24th, Munich





# Corporate Sponsorship




Email

[info@ng-girls.org](mailto:info@ng-girls.org)




# Individual Sponsorship

PATREON | Search | Create On Patreon | Explore Creators | Sign Up | Log In



**ngGirls** is creating communities of women programming with Angular



Overview | Posts

**BECOME A PATRON**

**1**  
patron

**\$5**  
per month

+ FOLLOW | SHARE

🔖

### Welcome to the ngGirls Patreon page! :)

**ngGirls** aims to introduce women to the world of technology and increase the diversity. Angular is a great technology to start with. We believe this is a win-win situation!

Our main activity is one-day workshops, where the participants build and deploy their very first Web application with Angular. The day starts with an intro to Angular, and then, with the guidance of volunteer, experienced mentors, the participants build and deploy their very first Web application, by following our [open-source tutorial](#).

Sponsor

[patreon.com/ngGirls](https://patreon.com/ngGirls)



# Mentoring



Volunteer

[ng-girls.org/#description](https://ng-girls.org/#description)





# Create excellent interactions



Daddy, do you pick your nose?

When you were a kid, did you  
pick your nose and eat your  
boogers?

Do you want to see me eat my  
boogers?

Then don't look at me...

# Contributor Code of Conduct

---

## Version 0.3b-angular

---

As contributors and maintainers of the Angular project, we pledge to respect everyone who contributes by posting issues, updating documentation, submitting pull requests, providing feedback in comments, and any other activities.

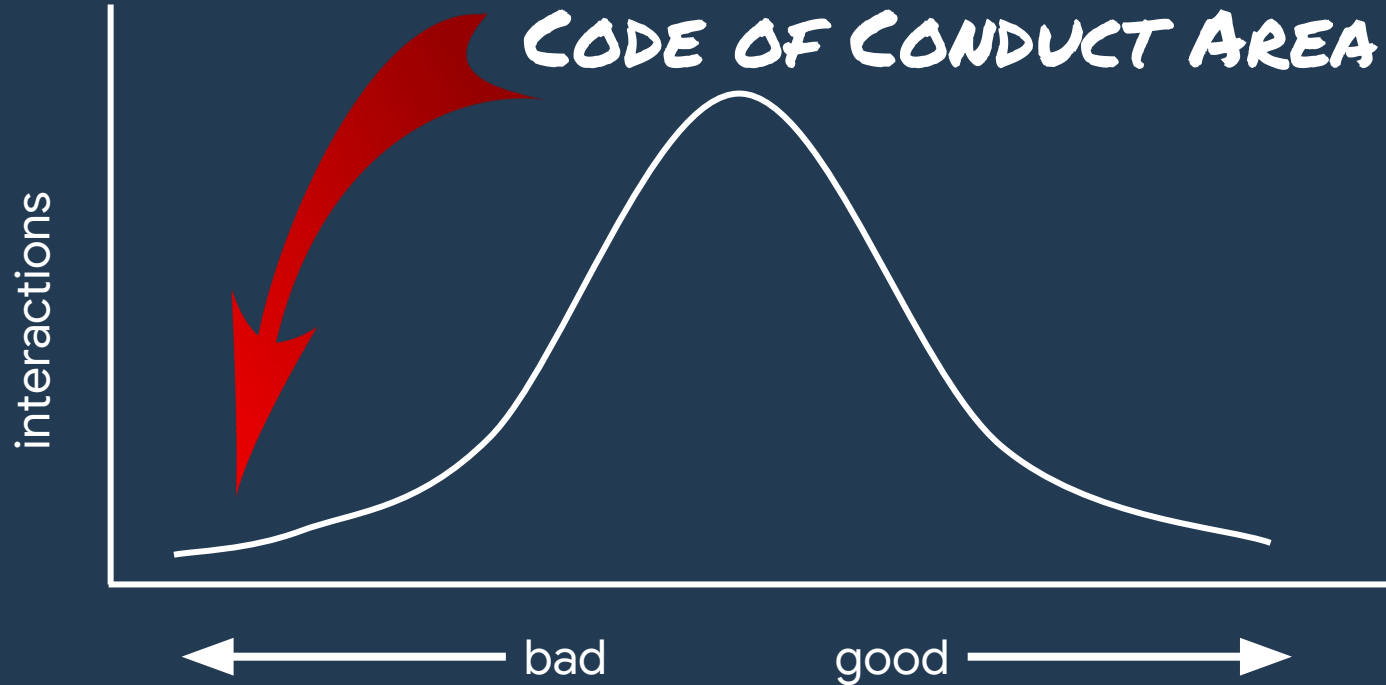
Communication through any of Angular's channels (GitHub, Gitter, IRC, mailing lists, Google+, Twitter, etc.) must be constructive and never resort to personal attacks, trolling, public or private harassment, insults, or other unprofessional conduct.

We promise to extend courtesy and respect to everyone involved in this project regardless of gender, gender identity, sexual orientation, disability, age, race, ethnicity, religion, or level of experience. We expect anyone contributing to the Angular project to do the same.

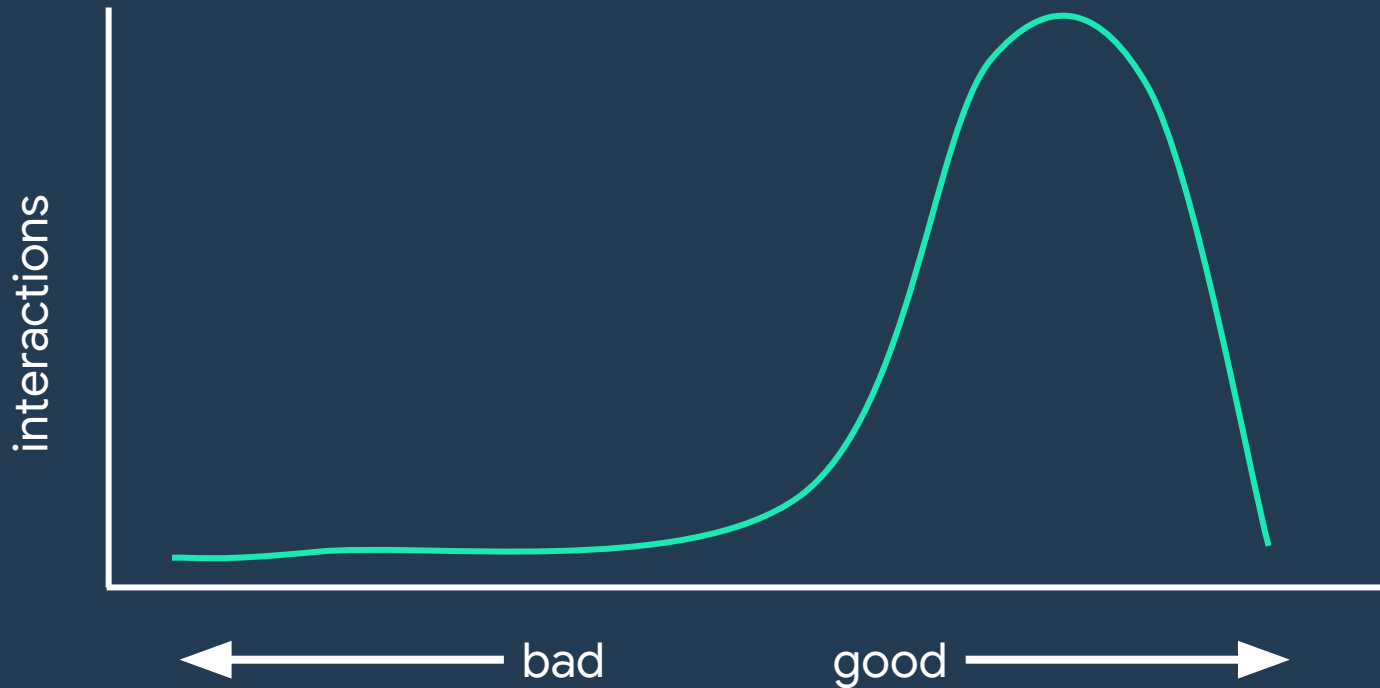
If any member of the community violates this code of conduct, the maintainers of the Angular project may take action, removing issues, comments, and PRs or blocking accounts as deemed appropriate.

If you are subject to or witness unacceptable behavior, or have any other concerns, please email us at [conduct@angular.io](mailto:conduct@angular.io).

# Mostly good stuff happens



# What we're after



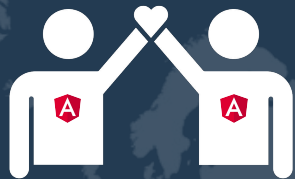
# What to do

Bad Stuff

**Tell us**

Good Stuff

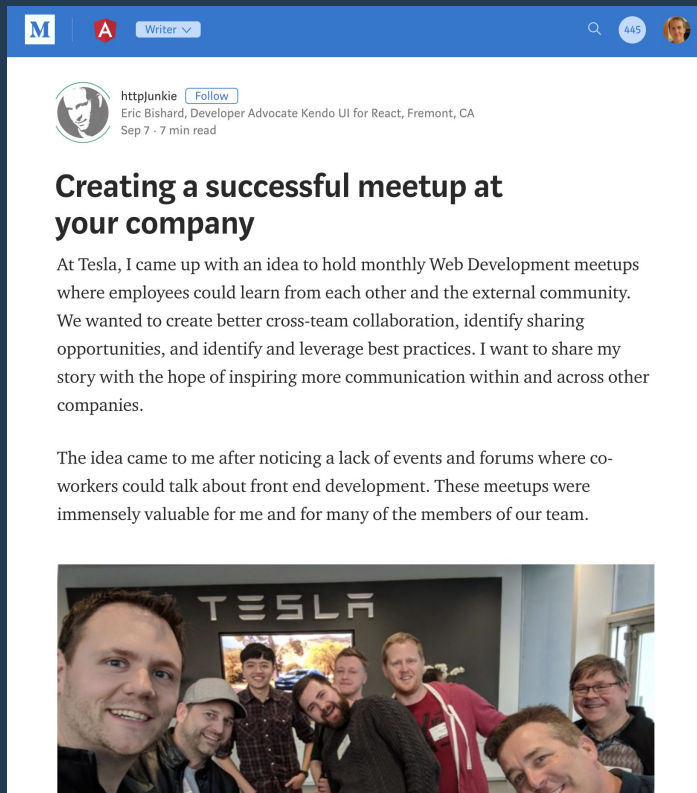
**Tell everyone!**



# 799 Worldwide Meetups

[angular.meetup.com](https://angular.meetup.com)

# Building meetups at work



New concepts

Friendships / networks

Company-wide visibility

Personal confidence

[Creating a Successful Meetup at Your Company](#)





# Angular 6 & 7

Building a better developer experience

# Fully supported, fully integrated



Angular



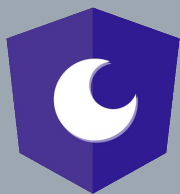
Protractor



Forms



PWA



Augury



Language  
Services



Router



Elements



CDK



Universal



Karma



Labs



Compiler



i18n



Http



Material



Animations



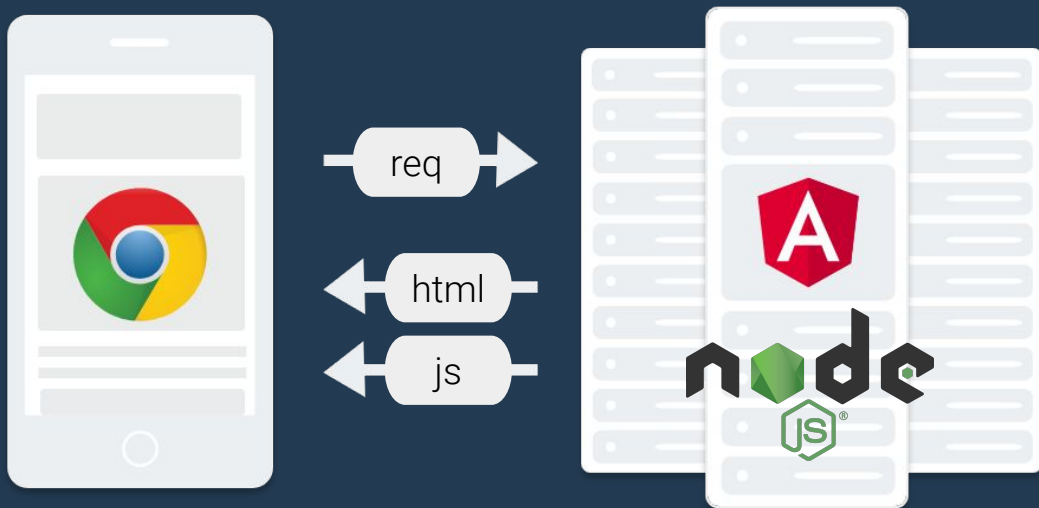
CLI



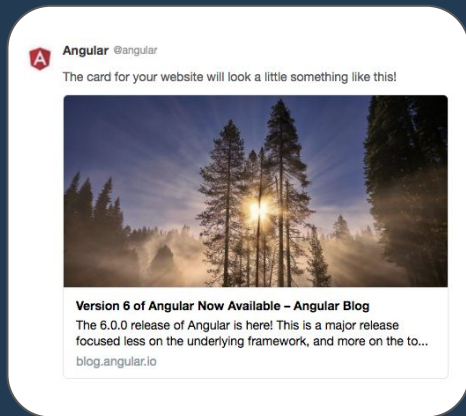
# Angular Universal



# Angular Universal



# The cause for server side rendering



Preview



Speed



SEO

# The cause for server side rendering

**GOOD**

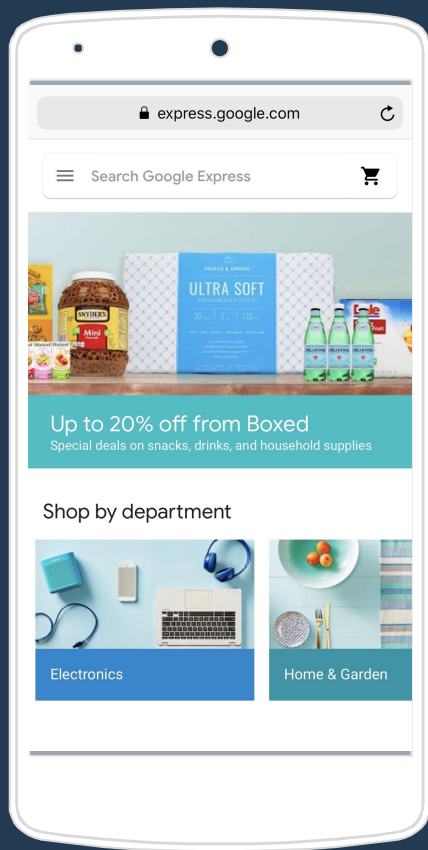
Preview

**FAST**

Speed

**POPULAR**

SEO



# Shopping Express

**2.3x  
Faster!**





# Migration Assistant



AngularJS

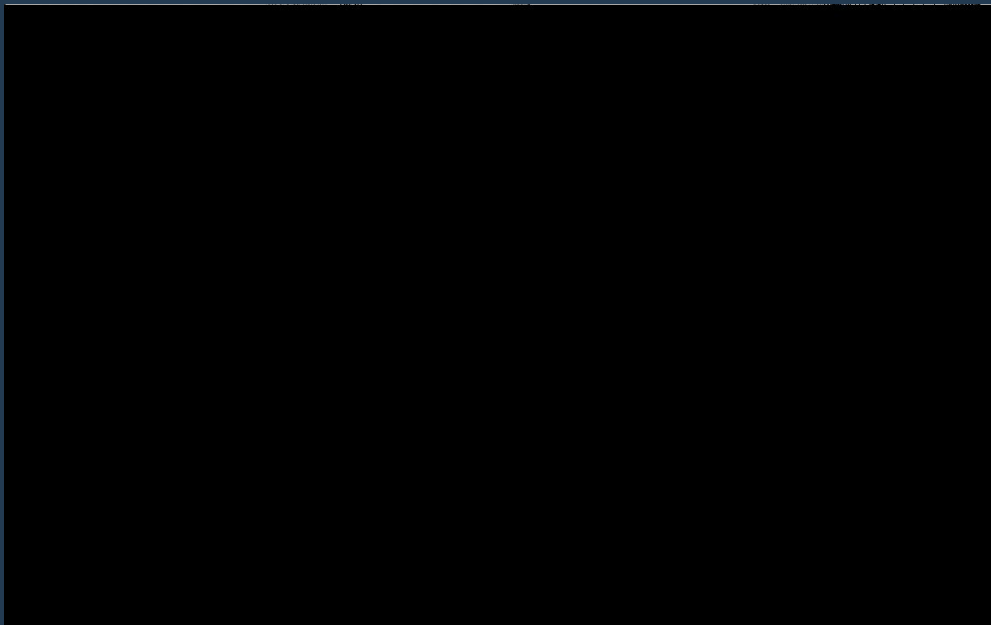


Angular





# Migration Assistant



Analyzes AngularJS apps

Outlines prep work

Recommends migration path

# Extensible CLI Ecosystem



new



generate




update



add

component  
directive  
pipe  
service  
...

# Using 'ng add'



```
> ng add @angular/pwa
> ng add @angular/elements
> ng add @angular/material
> ng add @ng-bootstrap/schematics
> ng add @clr/angular
> ng add @nativescript/schematics
```

# Per-library 'generate' schematics



```
> ng g @angular/material:material-nav --name=main-nav
```

# Ecosystem supporting 'ng add'



Material



Elements



PWA



ng-bootstrap



Clarity

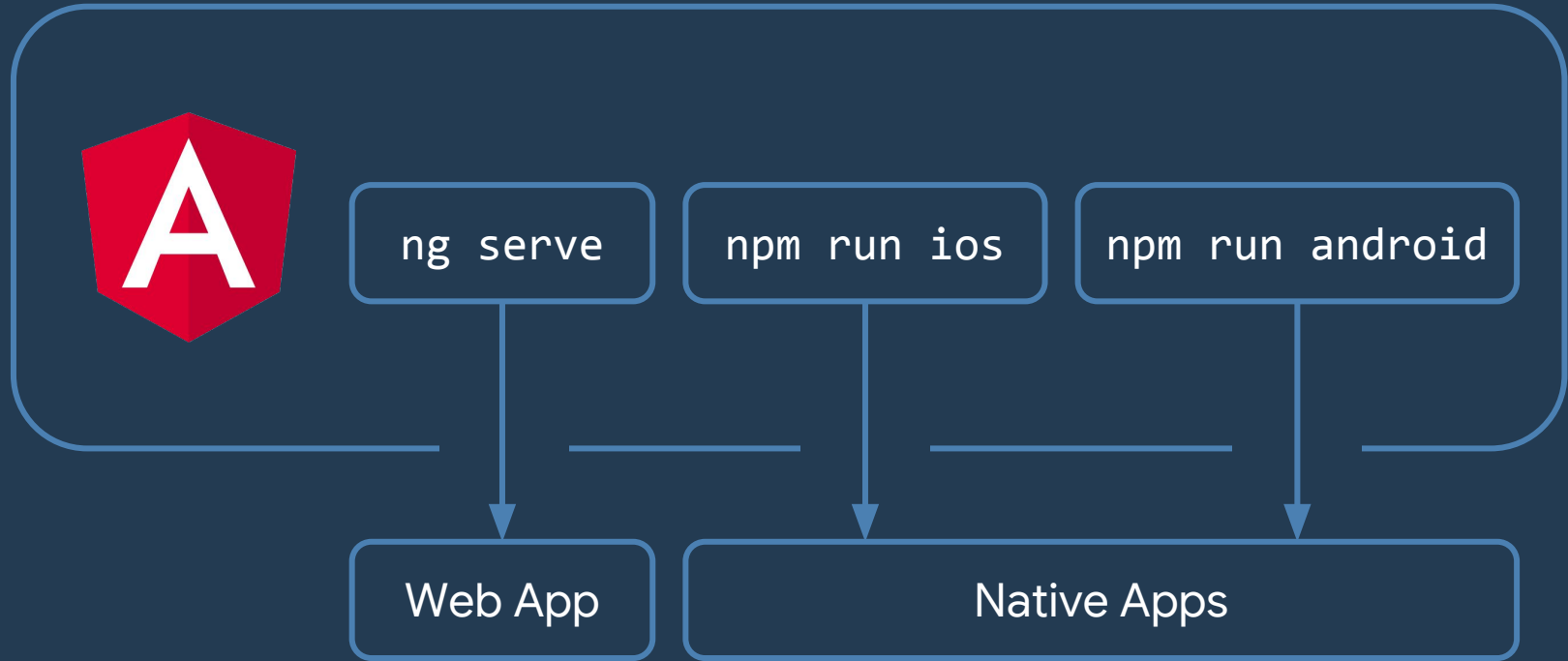


NativeScript

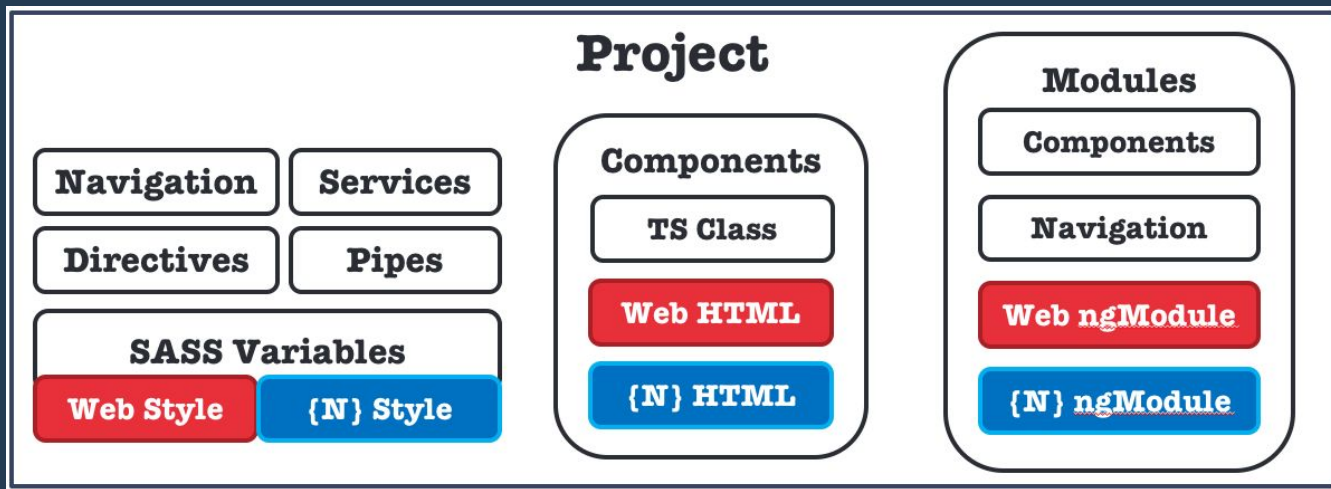
# NativeScript



# Code sharing with native mobile



# Code sharing with native mobile



[docs.nativescript.org/angular/code-sharing/intro](https://docs.nativescript.org/angular/code-sharing/intro)





# Angular Console

The screenshot shows the Angular Console web interface. At the top, there's a title bar with 'Angular Console' and standard window controls. Below it is a menu bar with 'File', 'Edit', 'View', and 'Window'. The main header is 'Create an Angular component' with a 'Generate' button on the right. The form is divided into 'Important fields' and 'Optional fields'. Under 'Important fields', there are three input fields: 'name \*' with the value 'mycmp', 'project \*' with the value 'myproject', and 'module' with the value 'app'. A dropdown menu is open for the 'module' field, showing the path 'apps\myproject\src\app\app.module.ts'. There is also a toggle switch for 'export' which is currently turned off. Under 'Optional fields', there is a terminal window showing the command '@schematics/angular - component' and the output of the 'ng generate' command, which lists the files created and updated.

Angular Console

File Edit View Window

× Create an Angular component Generate

Important fields

name \*  
mycmp  
The name of the component. Required.

project \*  
myproject  
The name of the project. Required.

module  
app  
apps\myproject\src\app\app.module.ts

export  
Specifies if declaring module exports the component. (Default: false)

Optional fields

@schematics/angular - component Hide

```
$ ng generate component mycmp --project=myproject --module=app --dry-run
CREATE apps/myproject/src/app/mycmp/mycmp.component.html (24 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.spec.ts (621 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.ts (265 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.css (0 bytes)
UPDATE apps/myproject/src/app/app.module.ts (619 bytes)
```

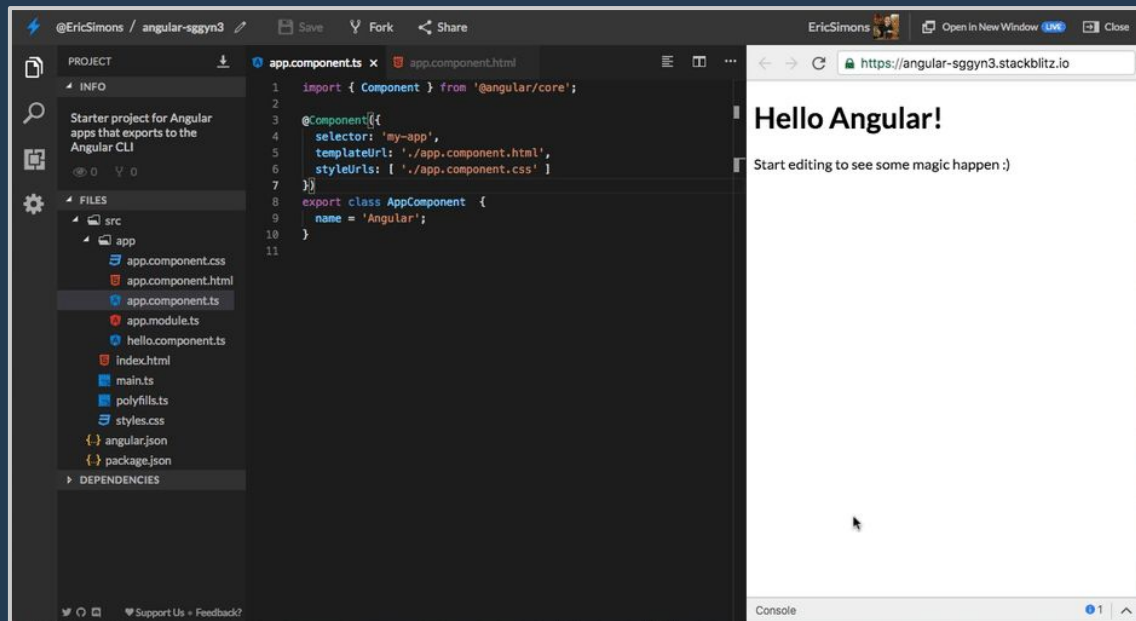
CLI Graphical UI

One-step install

Interactive command  
discovery



# StackBlitz



CLI Schematics Extensions

Angular Language Service

Faster than desktop



# CLI Docs now in angular.io

The screenshot shows a web browser window with the URL `https://next.angular.io/cli`. The page has a red header with the Angular logo and navigation links: FEATURES, DOCS, RESOURCES, EVENTS, and BLOG. A search bar is also present. On the left, a sidebar lists various documentation sections, with 'CLI COMMANDS' highlighted in red and marked with a checkmark. The main content area is titled 'CLI Command Reference' and contains the following text:

The Angular CLI is a command-line tool that you use to initialize, develop, scaffold, and maintain Angular applications.

## Getting Started

### Installing Angular CLI

The current version of Angular CLI is 6.x.

- Both the CLI and the projects that you generate with the tool have dependencies that require Node 8.9 or higher, together with NPM 5.5.1 or higher.
- Install the CLI using npm: `npm install -g @angular/cli`
- The CLI is an open-source tool: <https://github.com/angular/angular-cli/tree/master/packages/angular/cli>

For details about changes between versions, and information about updating from previous releases, see the Releases tab on GitHub.

### Basic workflow

The sidebar on the left includes the following links:

- GETTING STARTED
- TUTORIAL >
- FUNDAMENTALS >
- TECHNIQUES >
- SETUP & DEPLOYMENT >
- RELEASE INFORMATION >
- QUICK REFERENCE >
- API
- CLI COMMANDS** ✓
  - Using the CLI
  - ng add
  - ng build
  - ng config
  - ng doc
  - ng e2e



# Material & CDK

# Angular Material Design Components

auto-complete	badge	bottom sheet	button	card	checkbox	chips
date-picker	dialog	expansion	grid-list	icon	input	list
menu	progress	radio	select	sidenav	slide toggle	slider
snack bar	stepper	table	tabs	toolbar	tooltip	tree

# Angular Component DevKit (CDK)

## Behaviors

Accessibility

Bidirectionality

Drag & Drop

Layout

Observers

Overlay

Portal

Scrolling

Virtual Scroll

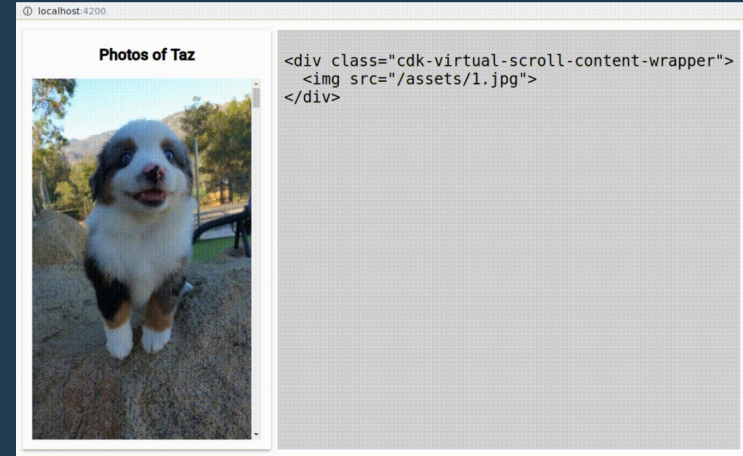
## Generic Components

Stepper

Table

Tree

# Virtual Scroll & Drag-n-Drop



# Nebular Using CDK

A collection of various white UI components on a purple gradient background. These include a search bar, a calendar, a list of items labeled 'a', 'b', and 'c', a sidebar with user avatars, a modal dialog, a form with an 'OK' button, and several other smaller elements like a refresh icon and a warning icon.

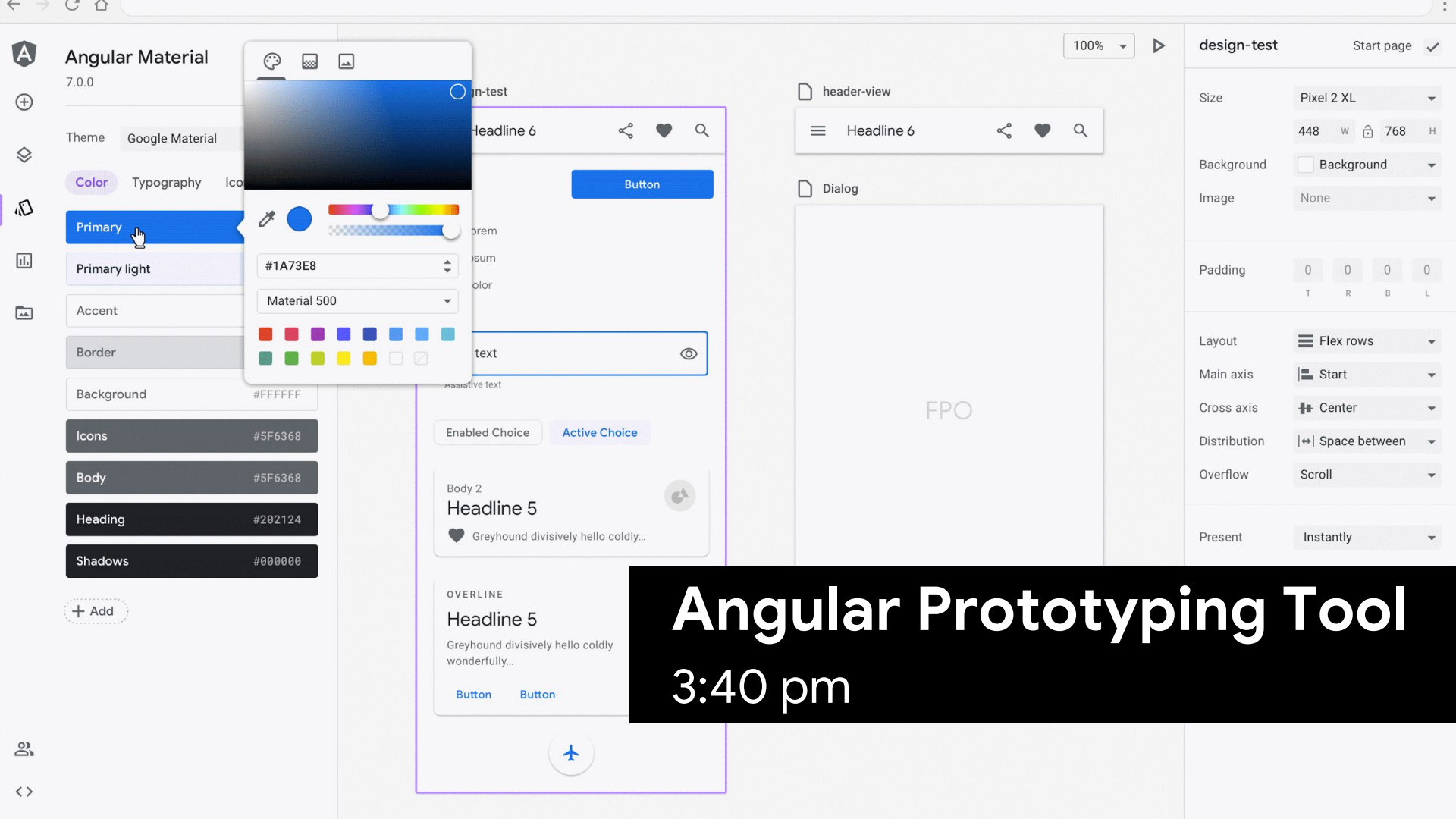
## Nebular

- 30+ **FRESH** COMPONENTS
- 3 VISUAL THEMES
- 3 AUTH STRATEGIES
- SECURITY

Star 2,145 downloads 188k

[akveo.github.io/nebular/](https://akveo.github.io/nebular/)





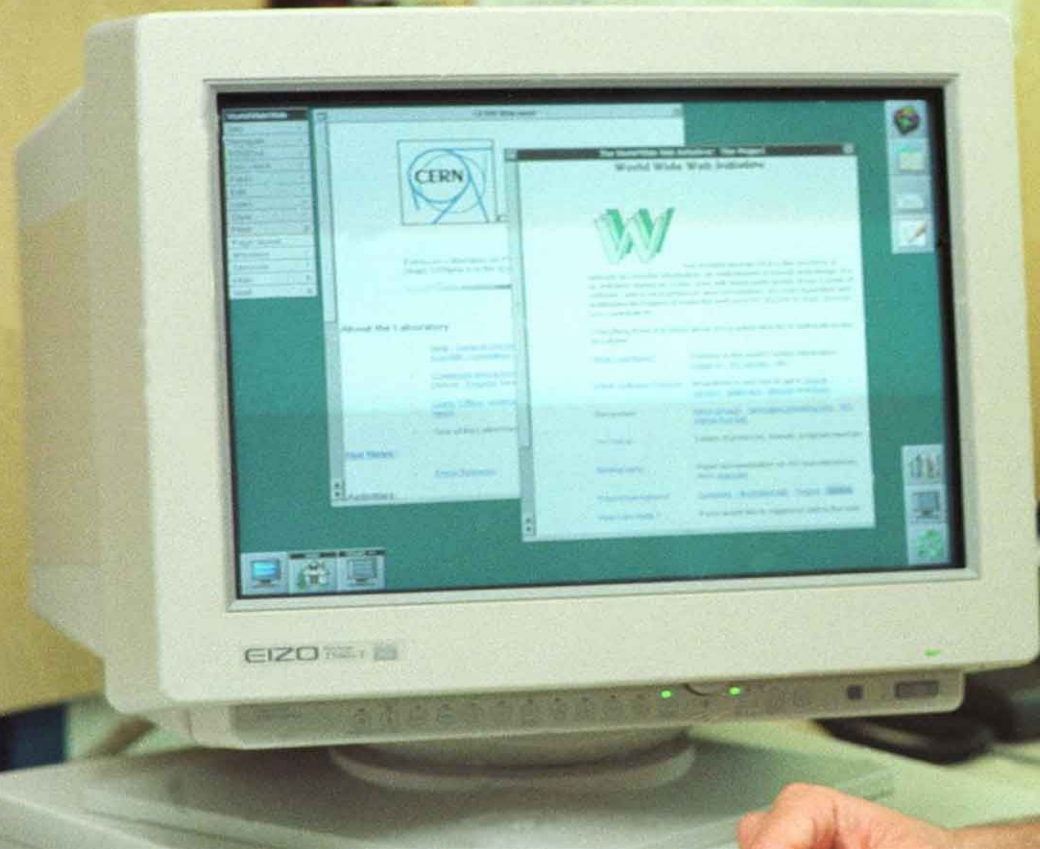
Angular Prototyping Tool  
3:40 pm



ME

STEVE







# Angular Future

Smaller, faster, easier

# Fast, stable builds



# Bazel

Scale

Speed

Multi-language

In the CLI (later)

# Fast, stable builds



# Bazel



In Angular Labs

Accepting early access

Used by Angular itself

Office hours tomorrow!

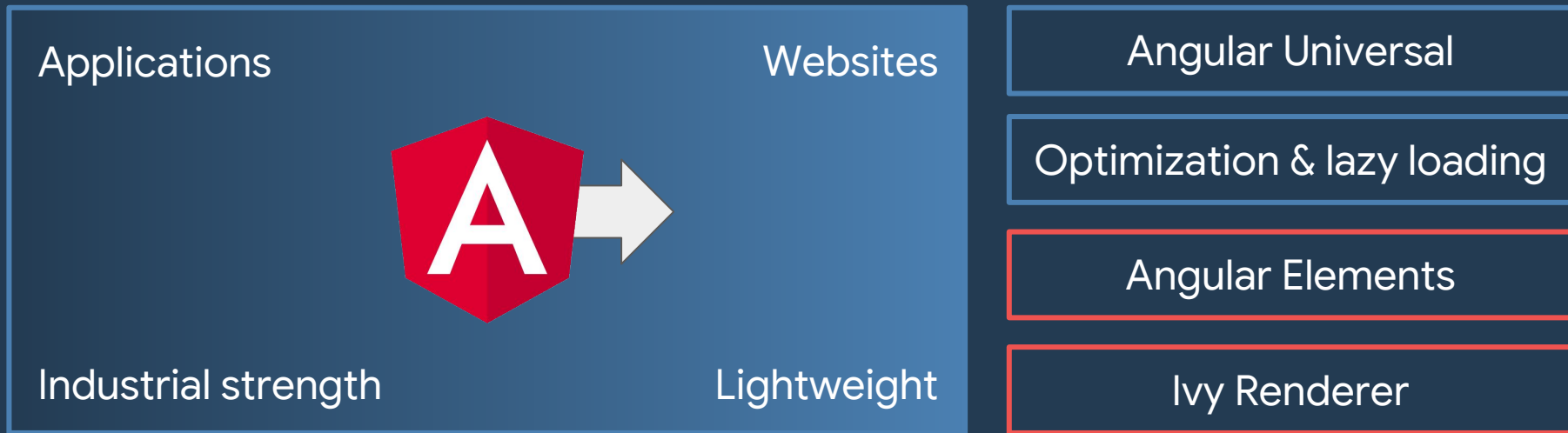


# Expanding Angular Use Cases

Ivy Renderer + Angular Elements



# Expanding Angular Use Cases





# Embed anywhere with Angular Elements



Standards-based

Self bootstrapping

Works everywhere

Available now



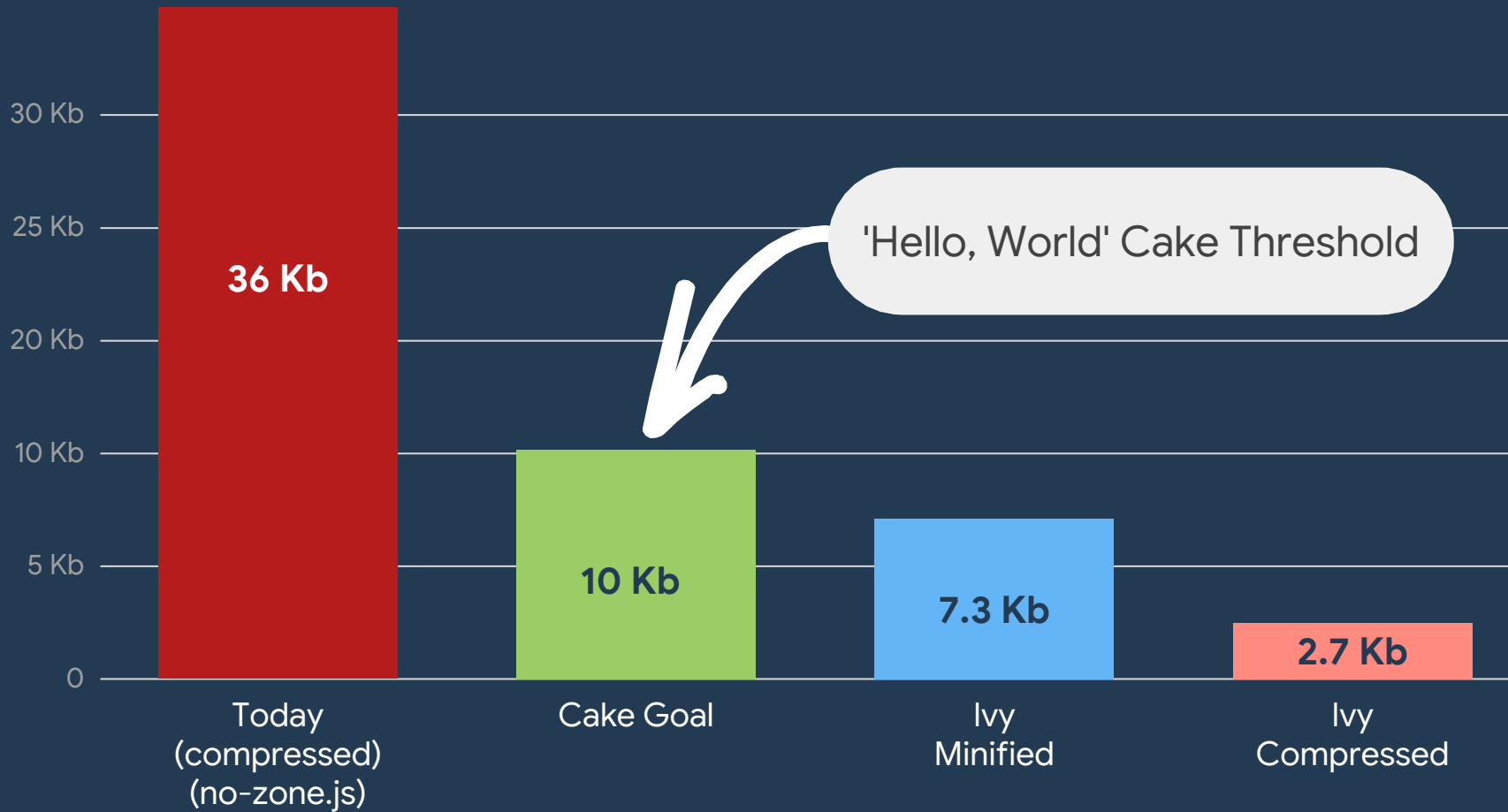
Ivy Renderer

Smaller

Faster compilation

Dead-simple debugging

# Smaller



# Backwards Compatible



Firebase



Google  
Analytics



Google  
Express



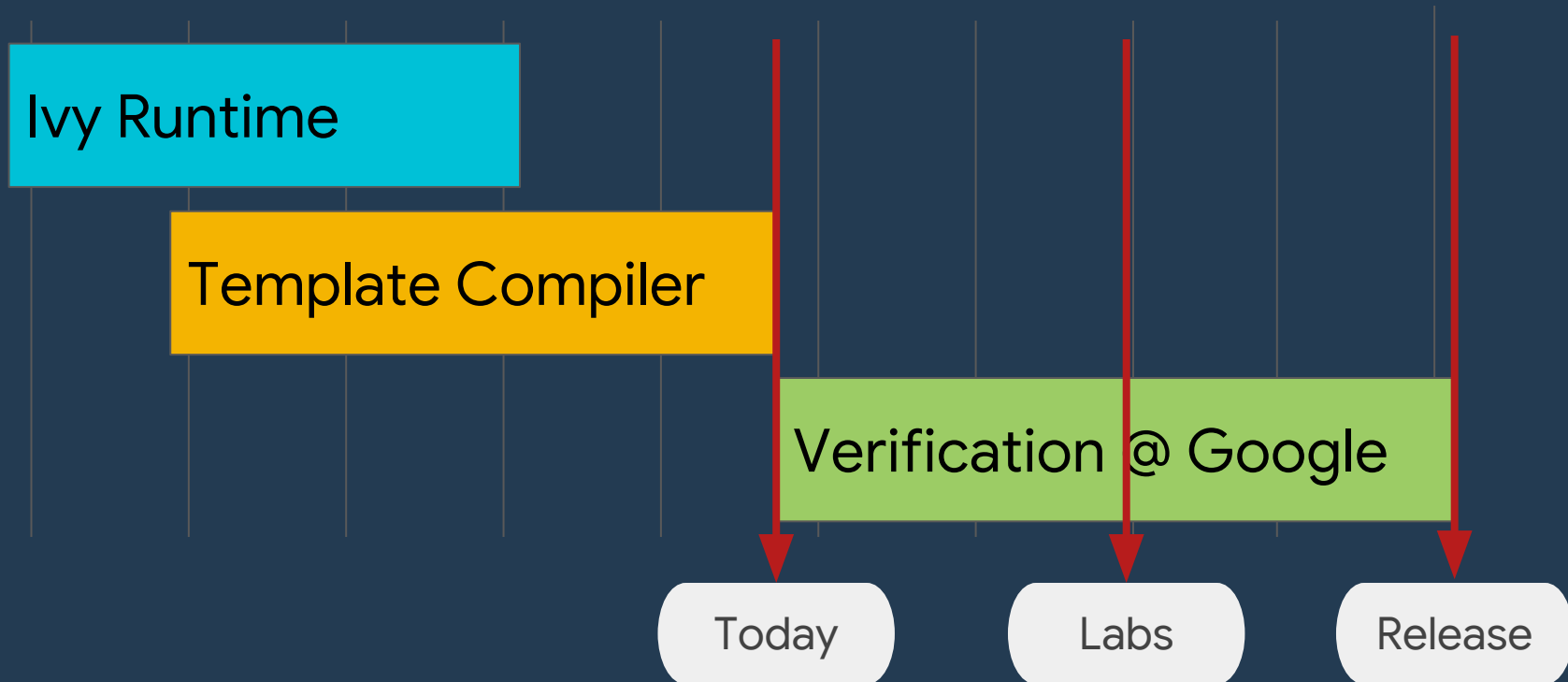
Google  
Cloud  
Platform

...

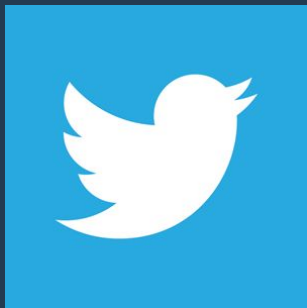


+600  
more

# Roadmap



# Stay in touch



[twitter.com/angular](https://twitter.com/angular)



[youtube.com/angular](https://youtube.com/angular)



What about Urs?



# Thanks!



@bradlygreen



<http://bit.ly/AngularMix-2018>