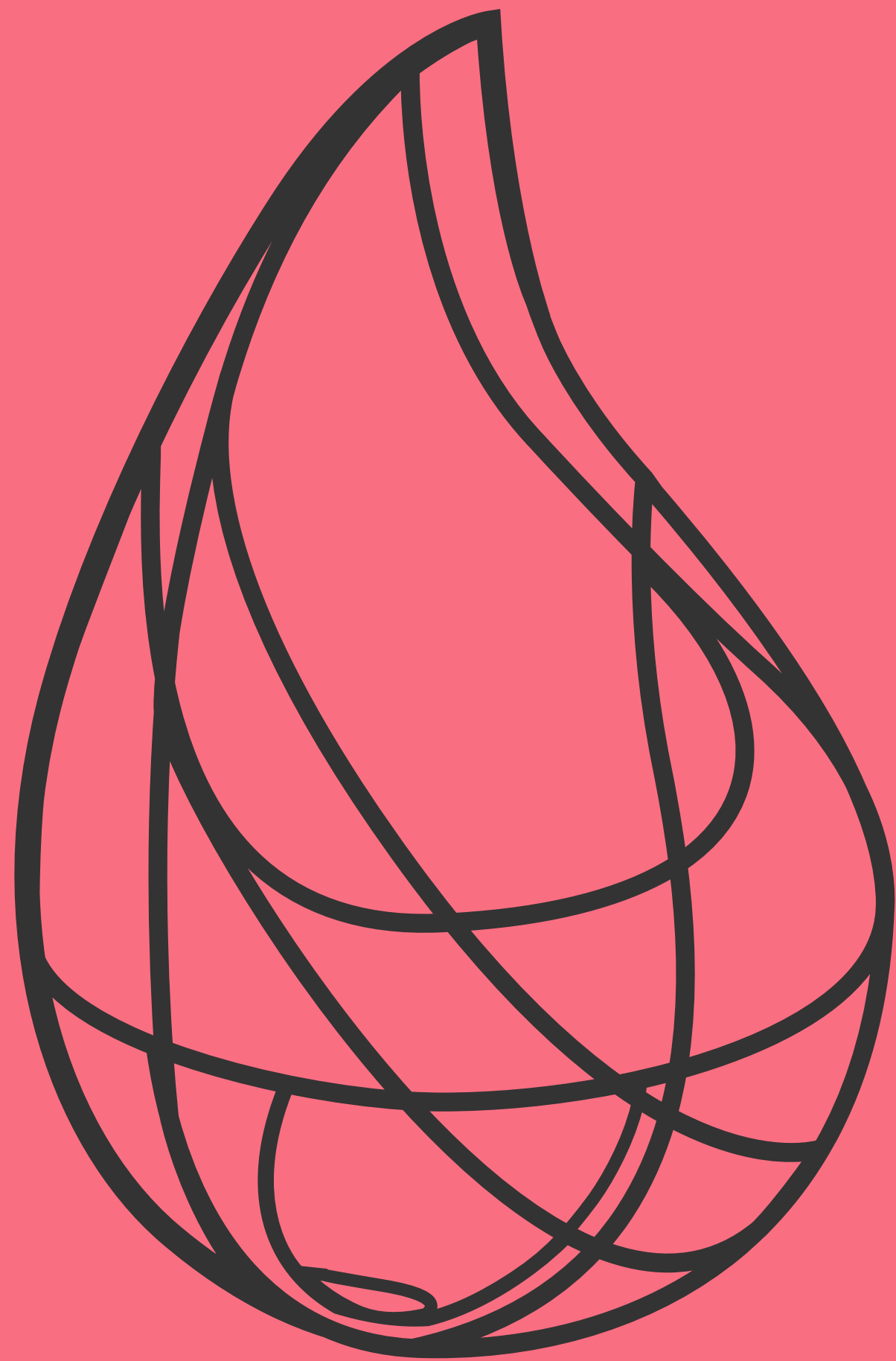


The
EVOLUTION
of a
LANGUAGE



@WHATYOUHIDE











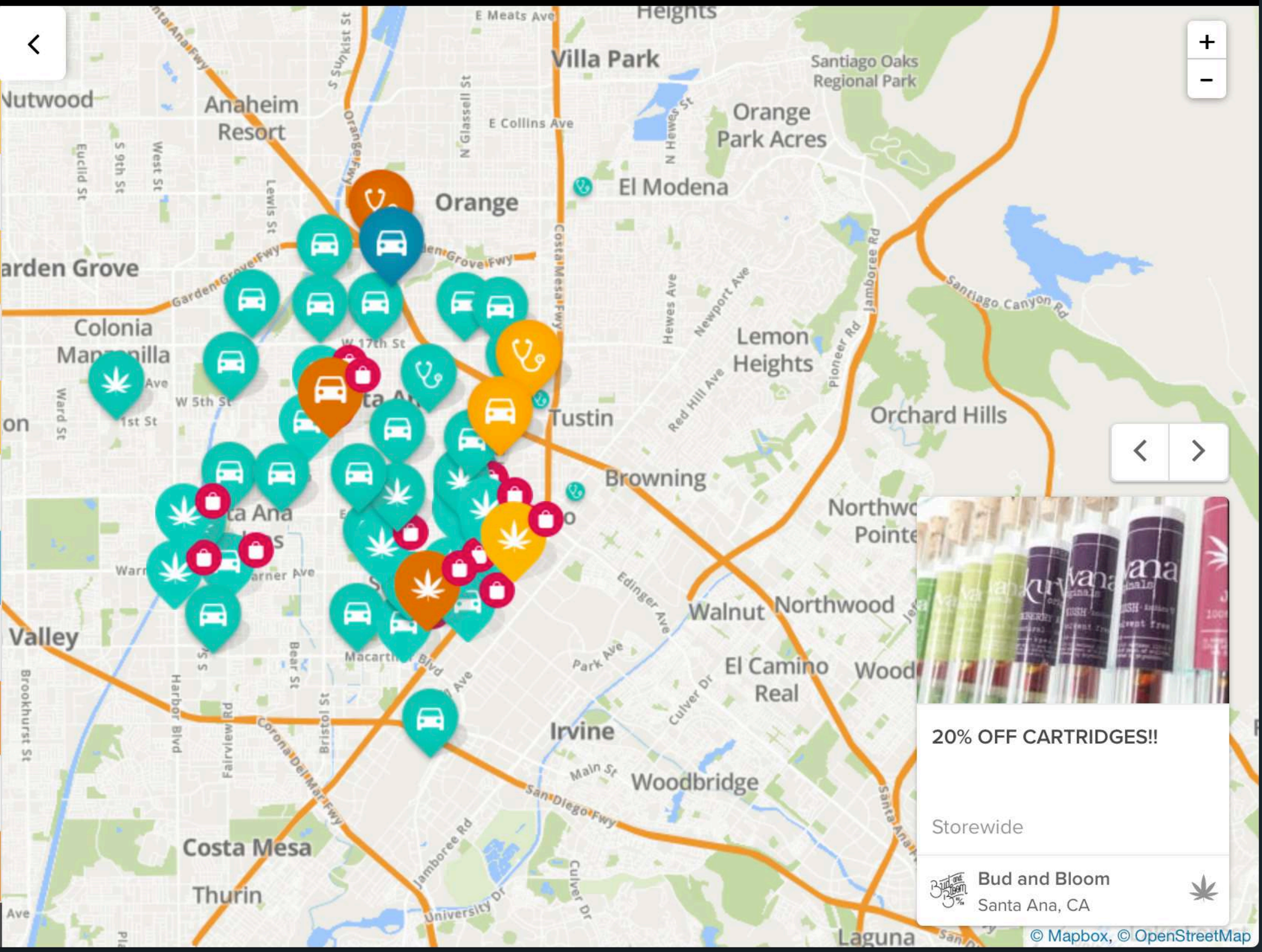
weedmaps®



3 BUSINESS TYPES FILTER

MARIJUANA LISTINGS in Santa Ana, California

- 
SCSA South Coast Safe Access ...
 ★★★★★ 4.8 BY 1927 REVIEWS
 SANTA ANA, CA
 CLOSED 913 MENU ITEMS
- 
SKY HIGH HOLISTIC DELIVERY
 ★★★★★ 4.6 BY 67 REVIEWS
 SANTA ANA, CA
 CLOSED 175 MENU ITEMS
- 
Steady Care Medical Center
 ★★★★★ 4.9 BY 175 REVIEWS
 SANTA ANA, CA
 CLOSED
- 
EDC - ELEVATED DREAMS COL...
 ★★★★★ 4.4 BY 36 REVIEWS
 SANTA ANA, CA
 CLOSED 175 MENU ITEMS
- 
10 Spot Collective
 ★★★★★ 4.8 BY 2424 REVIEWS
 SANTA ANA, CA
 CLOSED 467 MENU ITEMS
- 
Golden Leaf
 ★★★★★ 5.0 BY 28 REVIEWS



20% OFF CARTRIDGES!!

Storewide

 **Bud and Bloom**
Santa Ana, CA



weedmaps.com/careers

TIMELINE

Erlang
1988

Programming Ruby
2001

Clojure
2007

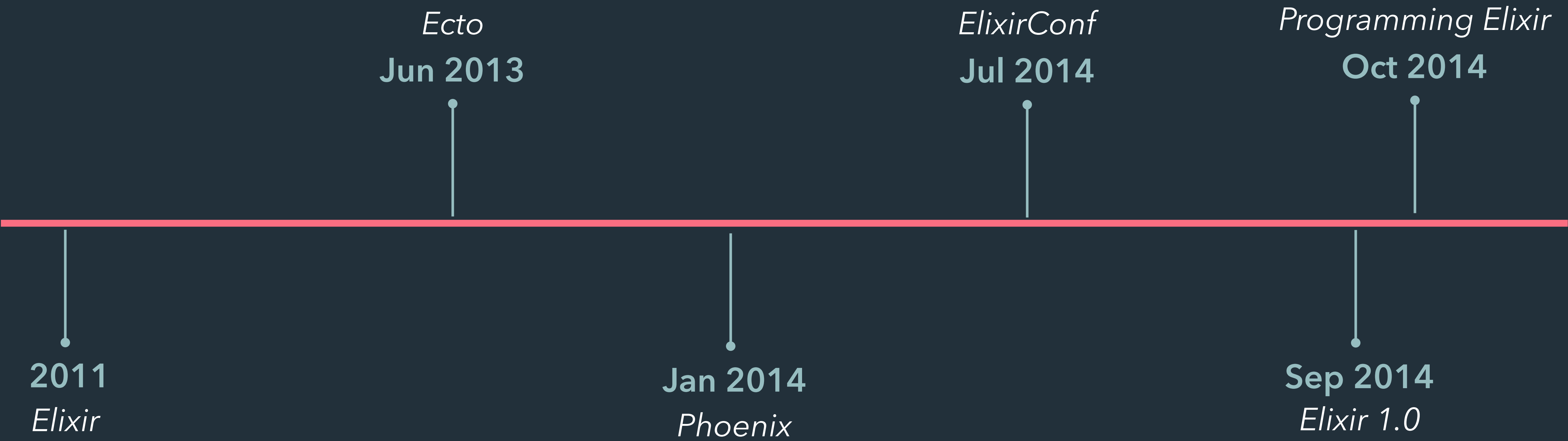
Elixir
2011

1993
Ruby

2004
Rails

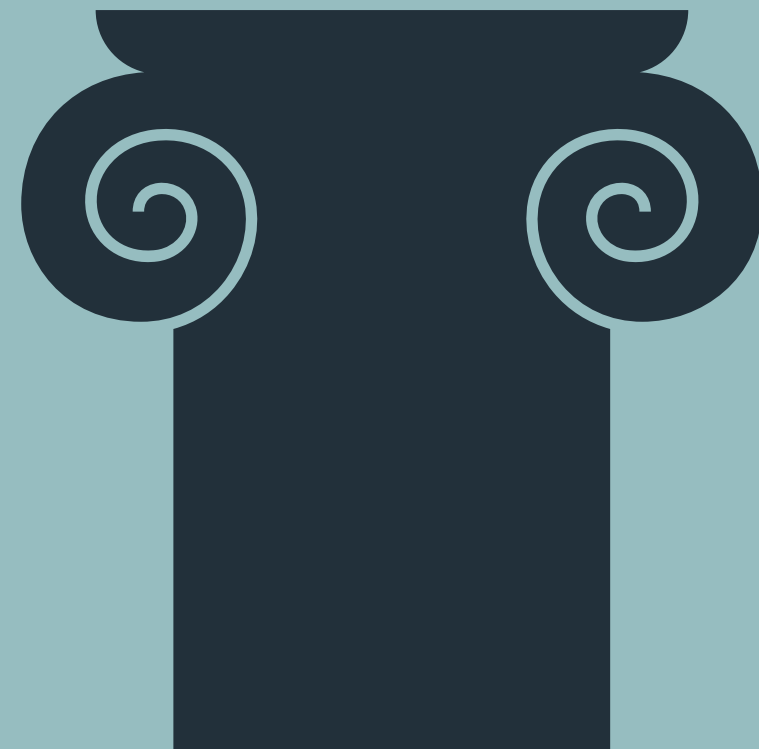
2010
*7 Languages in
7 Weeks*



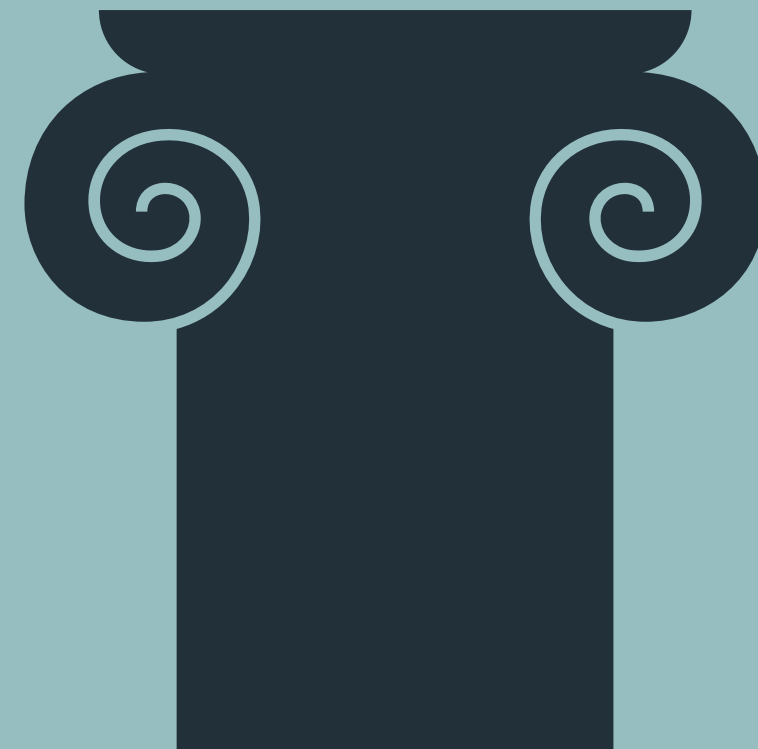


LANGUAGE EVOLUTION

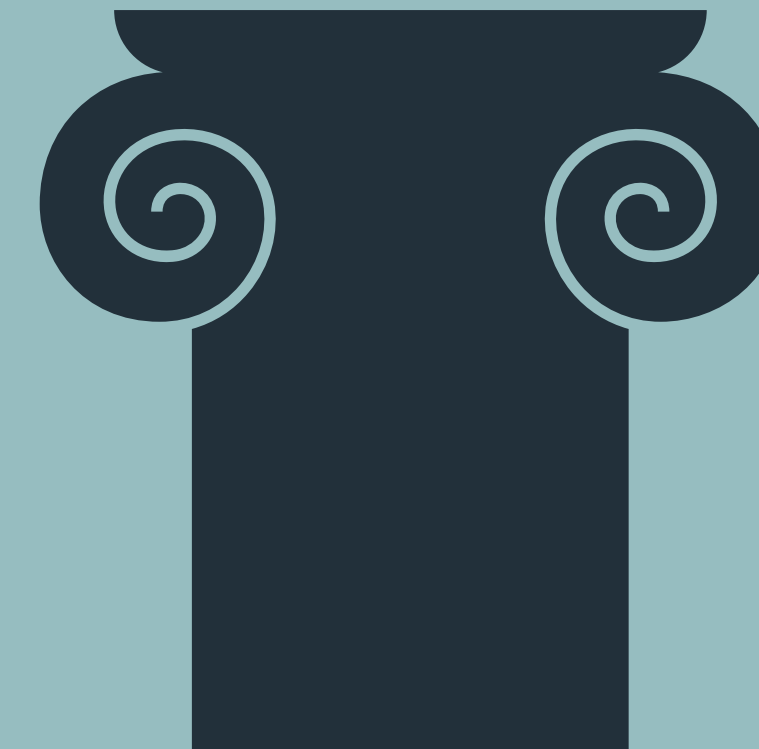
TEAM



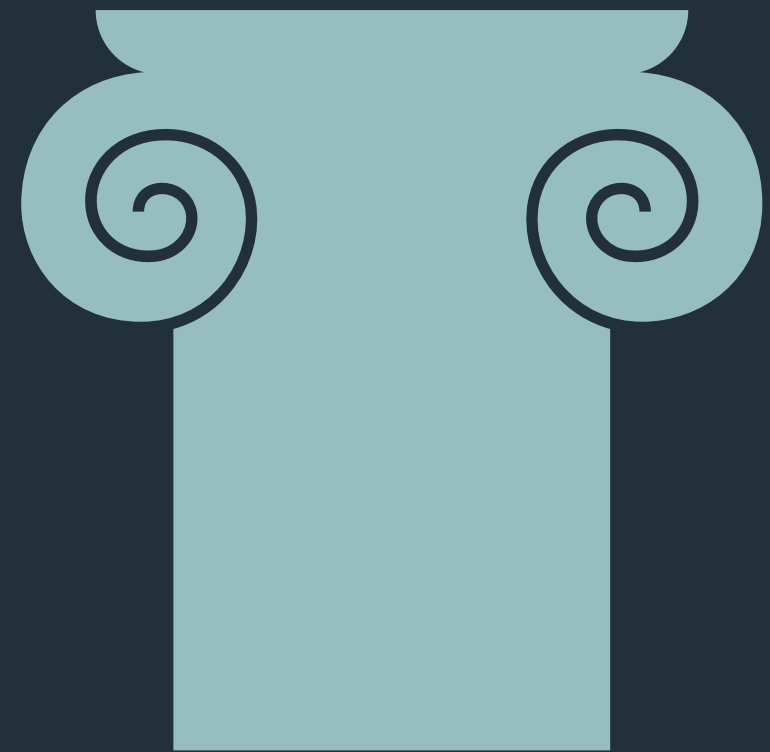
COMMUNITY



ECOSYSTEM

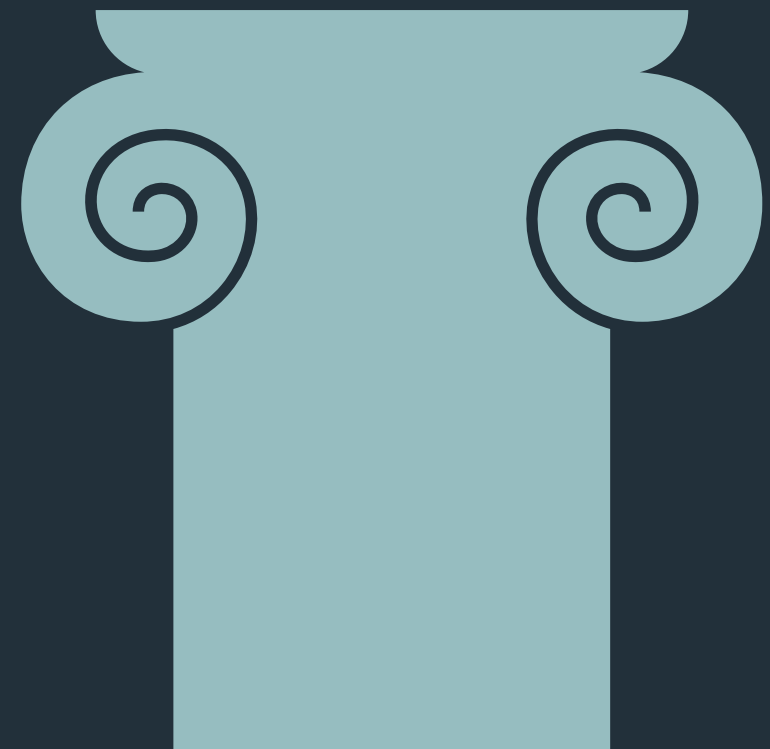


TEAM



coordination
quality assurance
maintenance

COMMUNITY



experimentation

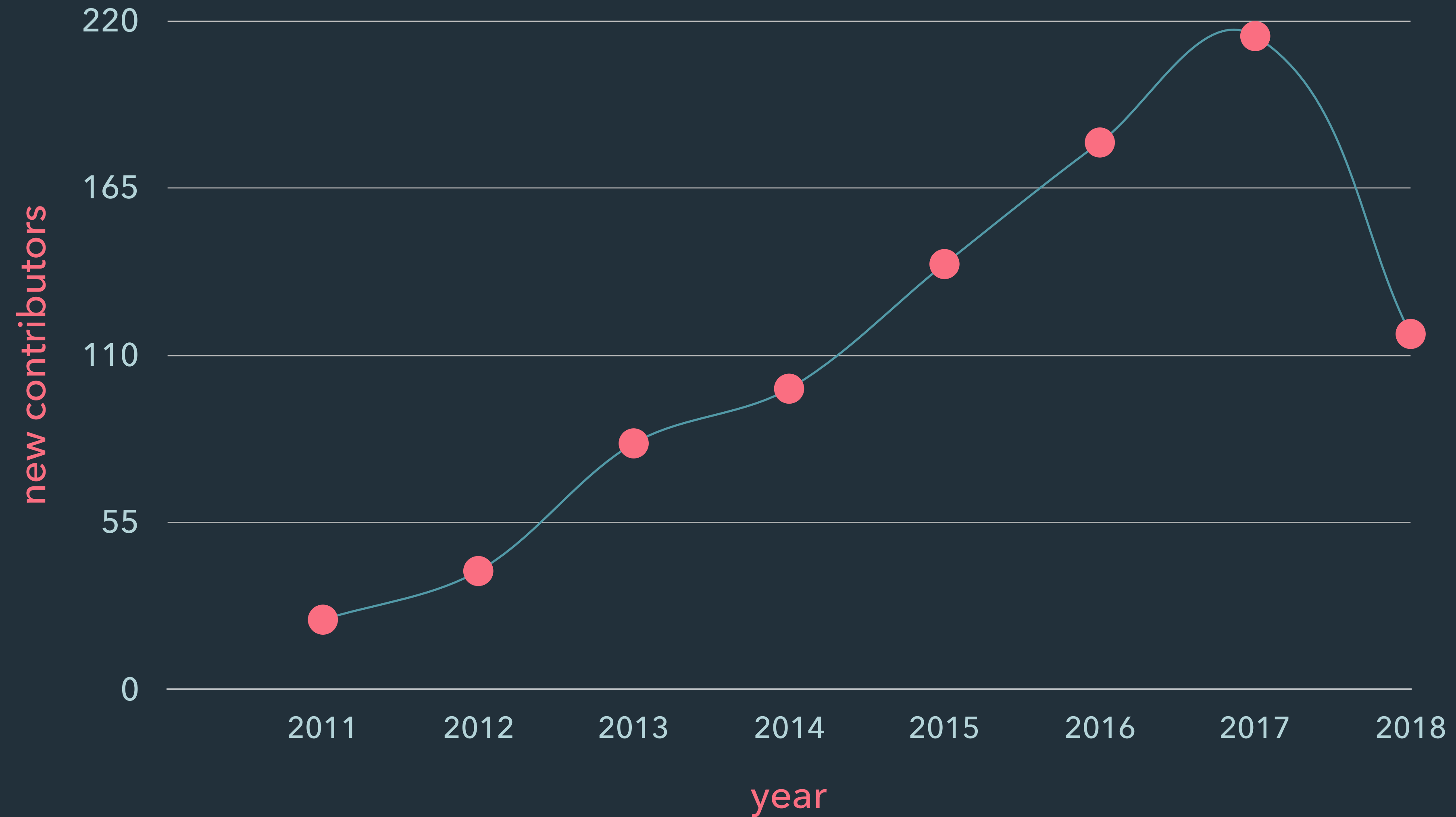
ecosystem

usage

has Elixir been

GROWING?

CONTRIBUTORS



ELIXIR CONFERENCES



2014

● ElixirConf



2015

● ElixirConf

● ElixirConf MX

● ElixirConf EU



2016

- 
- A world map with a light blue background and dark blue landmasses. Six red dots are placed on the map to indicate event locations. Each dot is accompanied by a text label in a bold, black, sans-serif font. The labels are: 'Elixir.LDN' (London), 'ElixirConf EU' (Berlin), 'EMPEX' (Mexico City), 'ElixirDaze' (San Francisco), 'ElixirConf' (San Francisco), and 'ElixirConf MX' (Mexico City).
- Elixir.LDN
 - ElixirConf EU
 - EMPEX
 - ElixirDaze
 - ElixirConf
 - ElixirConf MX

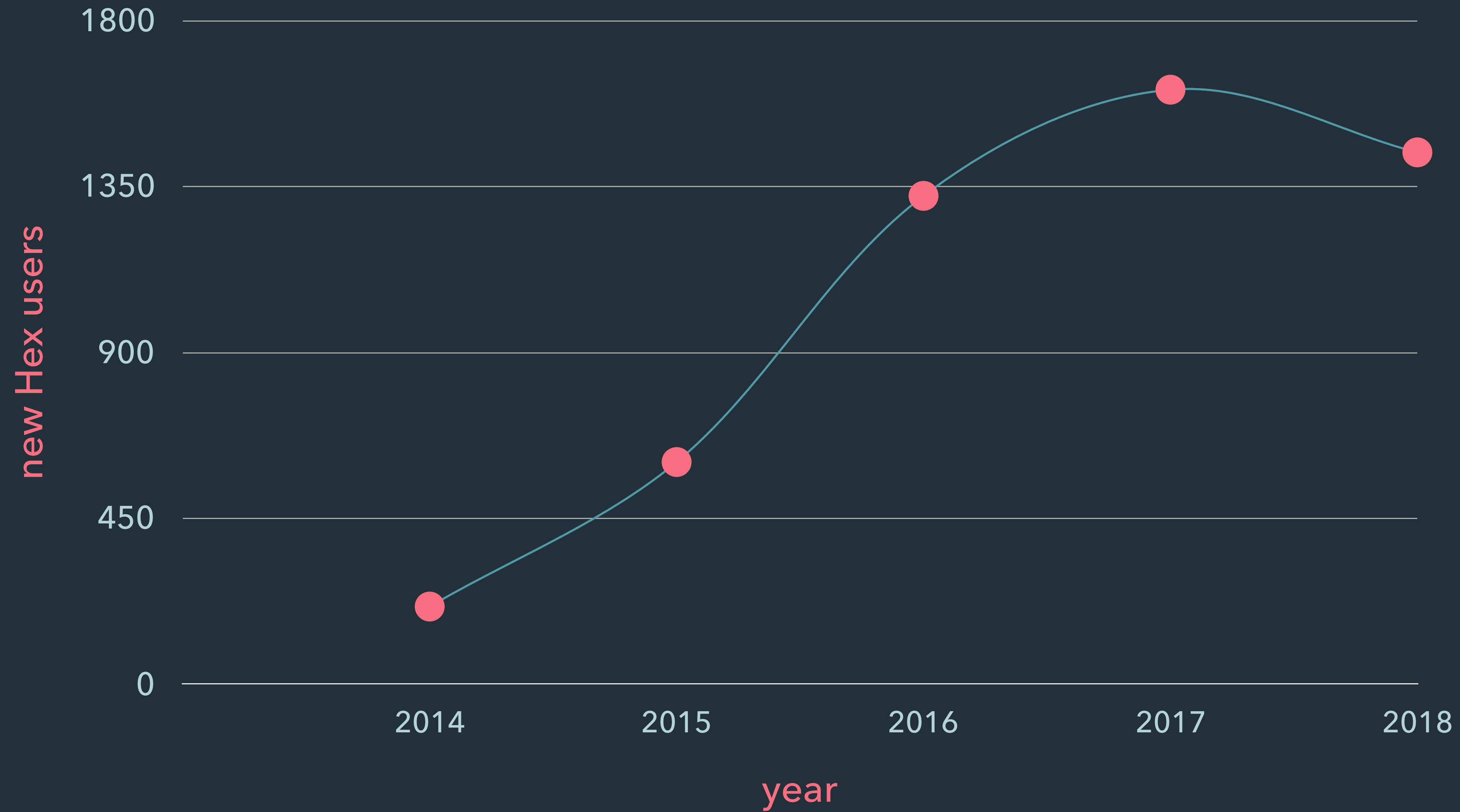
2017



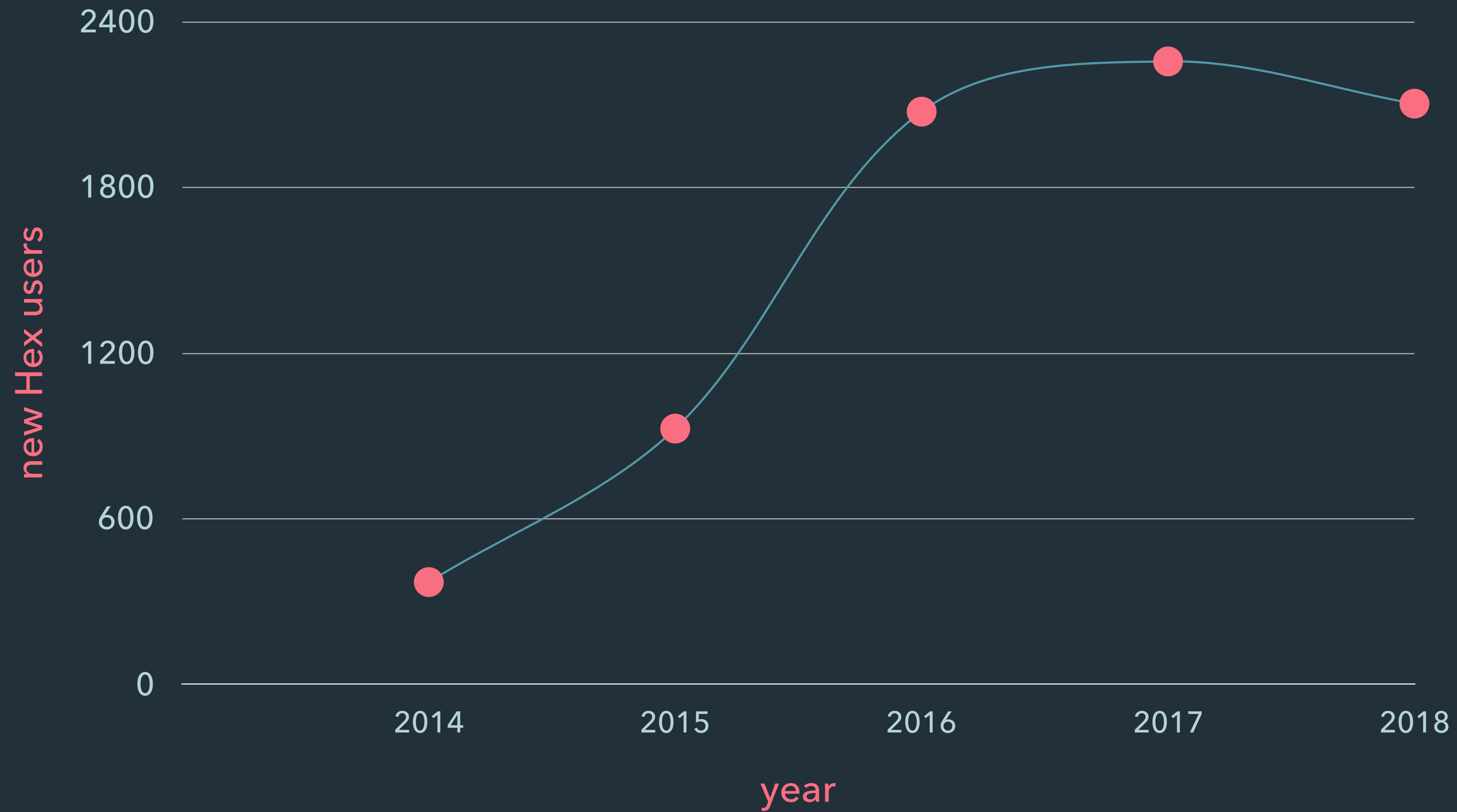
2018



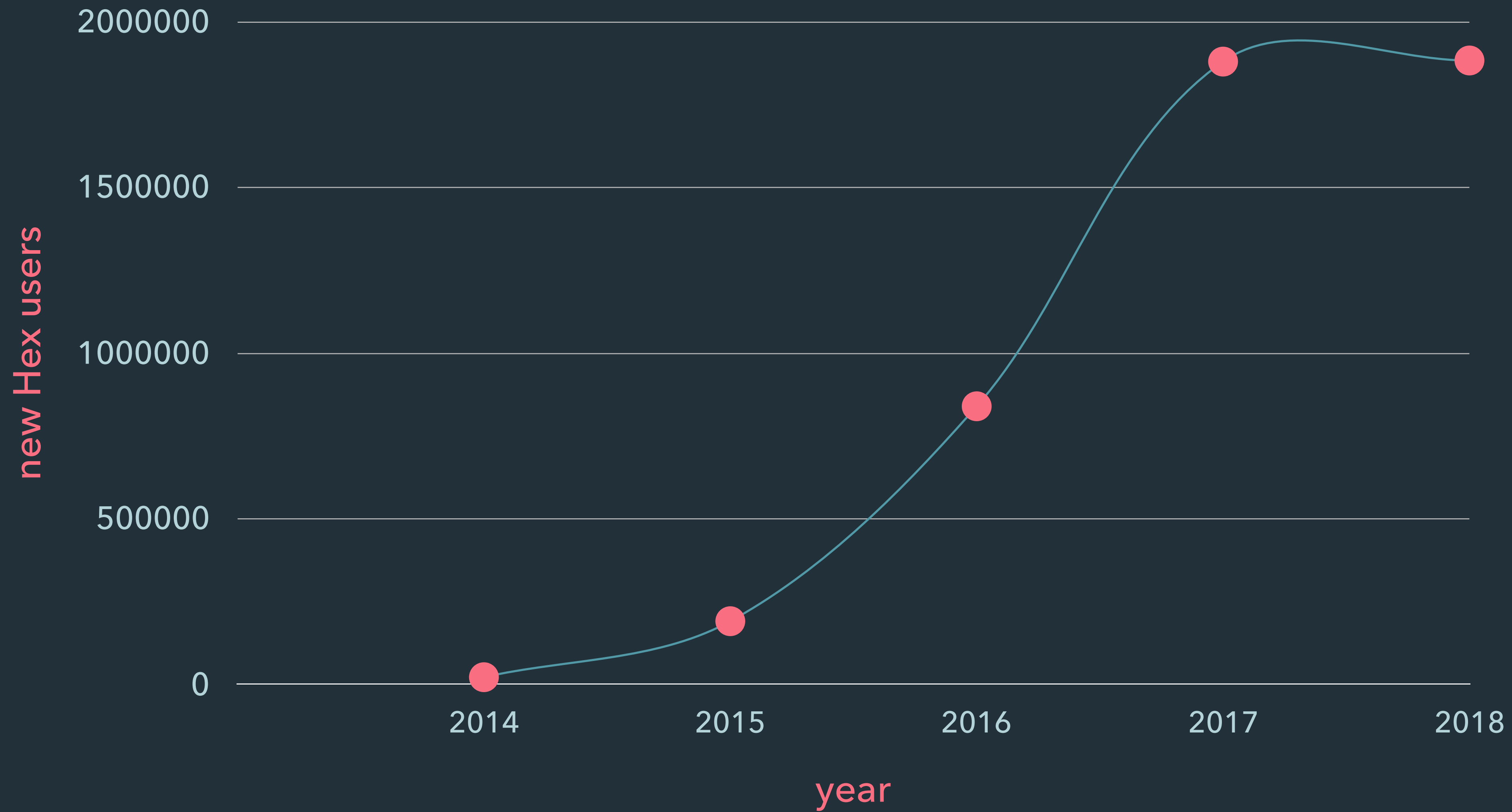
HEX (users)



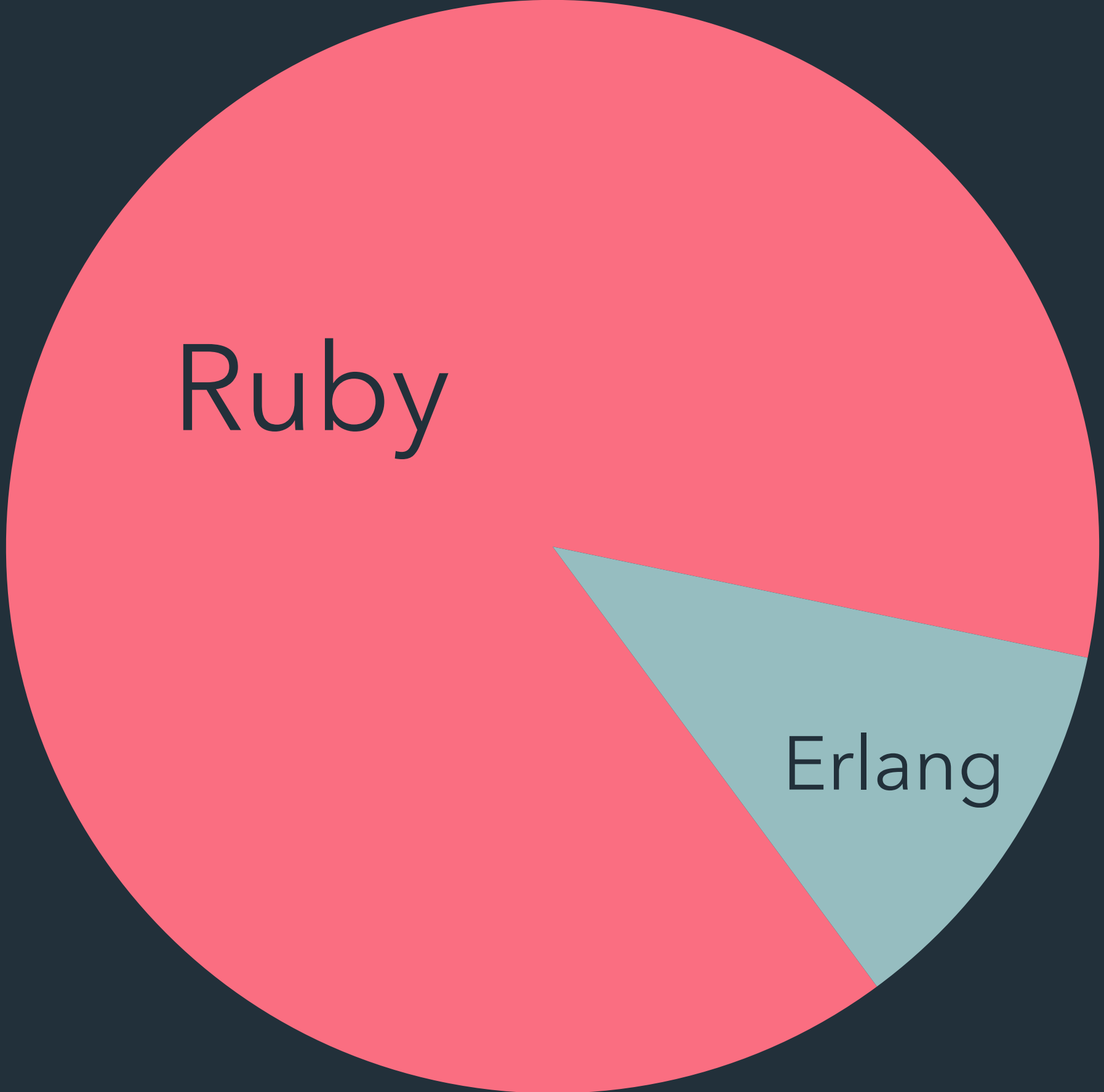
HEX (packages)



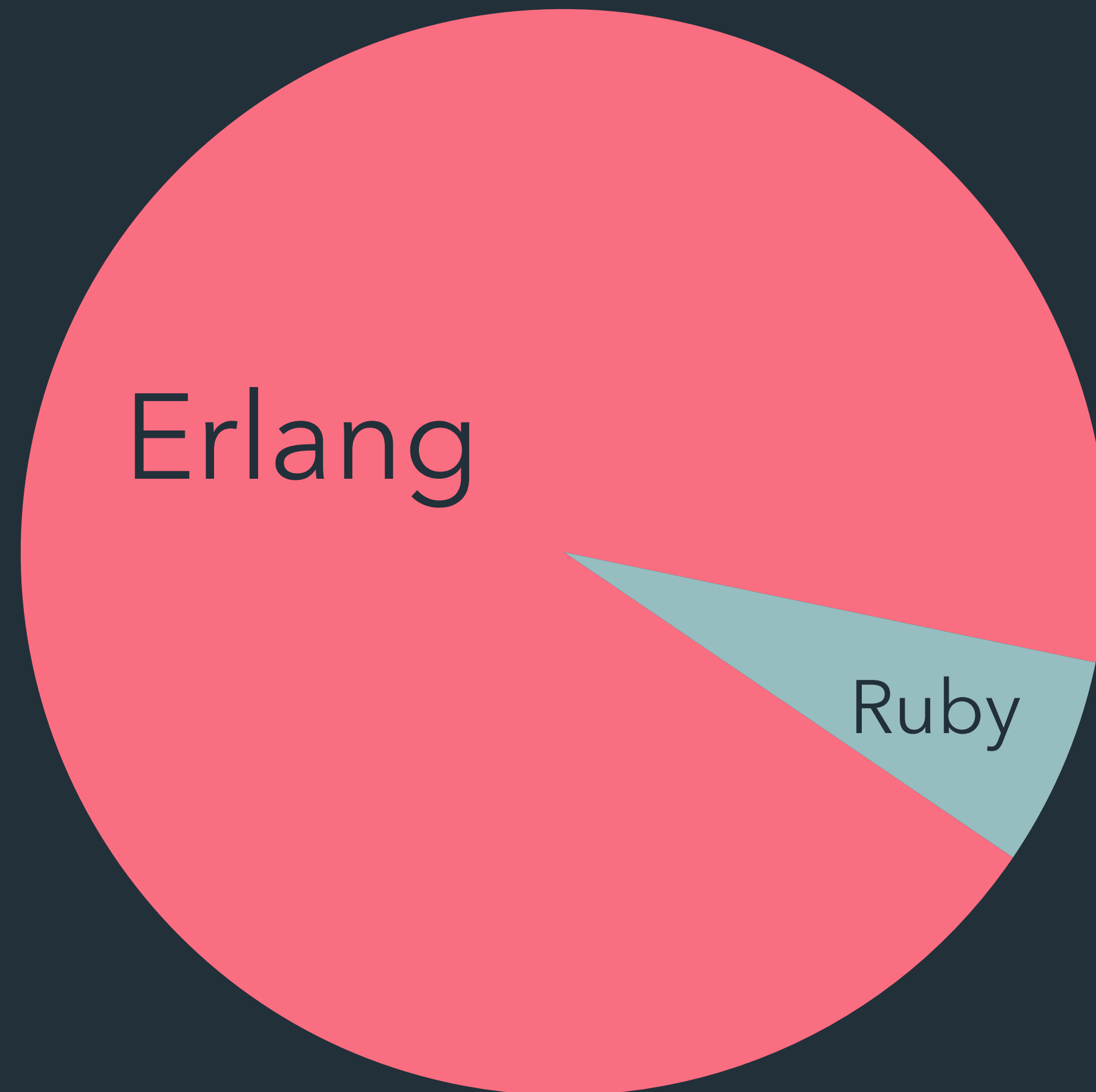
HEX (downloads)

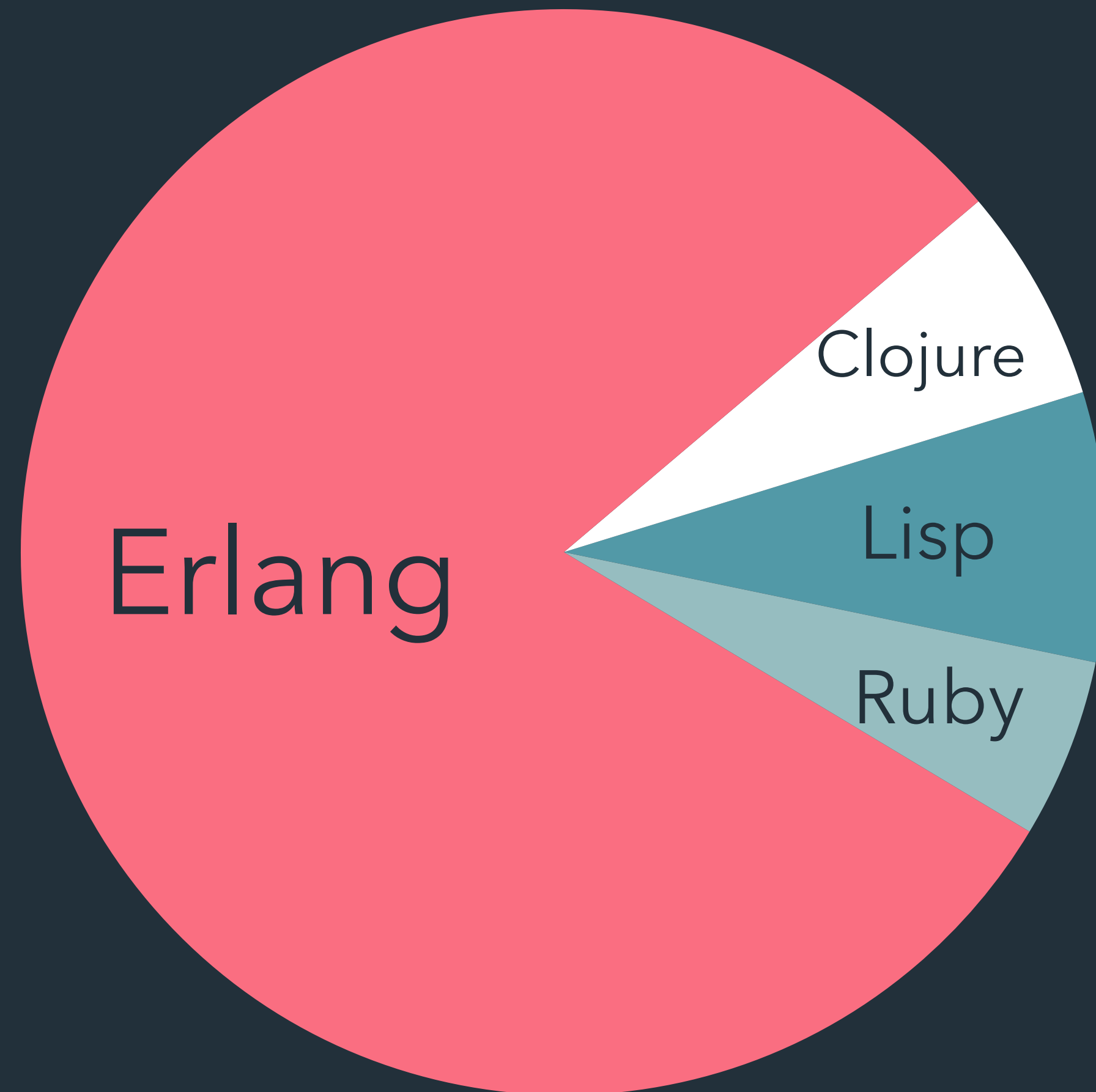


THINGS WE GOT **BETTER** AT



OTP?





EMBRACING OTP

DESIGNING BETTER LIBRARIES



pipe (in elixi... [Proposal] A... [Proposal] !... Re: [elixir-ta... Proposal: Pi... L... +

Google pipe

Groups NEW TOPIC

★ Results for **pipe** in elixir-lang-core [Search all groups](#)

Sort by relevance Sorted by date Results: about 20 for pipe

[\[Proposal\] Debug macro like dbg! in Rust 1.32](#)
: :**pipe**) > iex:5: **pipe** #=> "11:54" (34µs) > "11:54" > > I think it needs to be a function on Kernel to be the most easily > accessible, eg we wouldn...
Feb 18 by [Chris Keathley](#)

[\[Proposal\] Remove ":" from stacktrace output](#)
> at **Pipe**._handle.close [as _onclose] (net.js:498:12) >>> >>> >>> Python: >>> >>> >>> ***
print_exception:Traceback...
10/25/18 by [Denis Gorbachev](#)

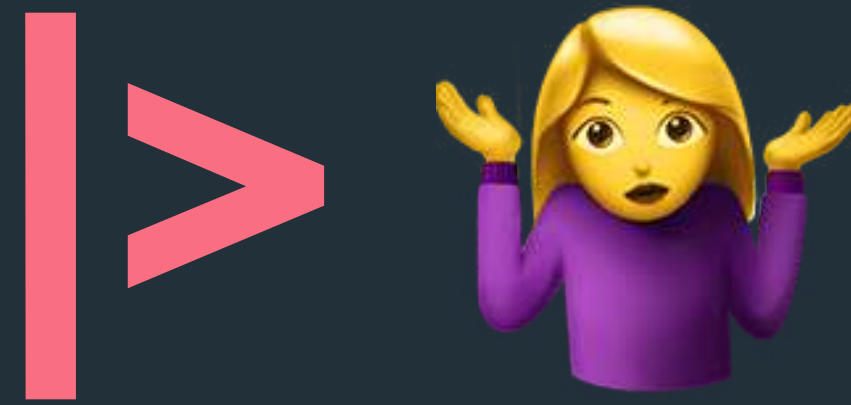
[Proposal: analogue of node's .editor for iex](#)
of the **pipe** operator. If I want to paste code such as >>> >>> value >>> |> fun1() >>> |> fun2() >>> >>>
into iex I must...



```
[1, [2], 3]
```

```
|> List.flatten()
```

```
|> Enum.map(fn x => x * 2 end)
```



significant

EVENTS

the importance of

ECTO

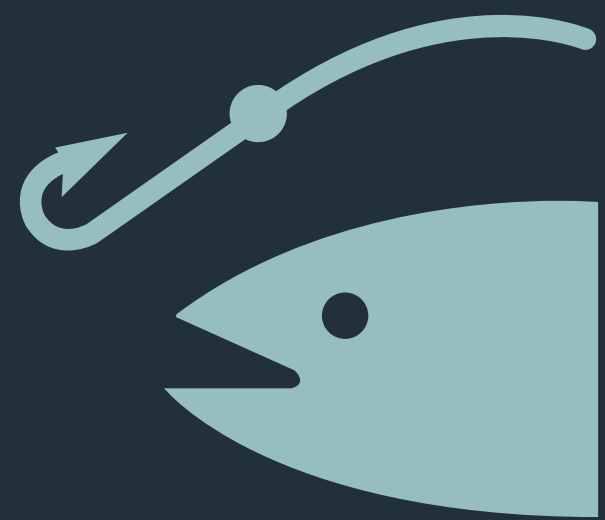
SHOWS A NEW WAY TO DO THINGS

DATA + PURE CODE

VALIDATES METAPROGRAMMING IN ELIXIR

SHOWS POWER OF METAPROGRAMMING
(WILL SLIGHTLY REGRET LATER)

PHOENIX



hooks users on Elixir through web



channels

NERVES

Elixir is not **just** for the web?!



(key)

GROWTH FACTORS

DOCS

```
atom.ex — ~/Code/elixir
atom.ex
23
24 @doc """
25 Converts an atom to a charlist.
26
27 Inlined by the compiler.
28
29 ## Examples
30
31     iex> Atom.to_charlist(:"An atom")
32     'An atom'
33
34     """
35 @spec to_charlist(atom) :: charlist
36 def to_charlist(atom) do
37     :erlang.atom_to_list(atom)
38 end
39
```

lib/elixir/lib/atom.ex 0 0 LF UTF-8 Elixir master Fetch 0 files 3 up

The image shows a browser window with the URL `hexdocs.pm`. The page content is as follows:

```
to_charlist(atom) </>
to_charlist(atom()) :: charlist()
```

Converts an atom to a charlist.

Inlined by the compiler.

[Examples](#)

```
iex> Atom.to_charlist(:"An atom")
'An atom'
```



1. beam.smp

```
iex(4)> h Atom.to_charlist
```

```
def to_charlist(atom)
```

```
@spec to_charlist(atom()) :: charlist()
```

Converts an atom to a charlist.

Inlined by the compiler.

Examples

```
iex> Atom.to_charlist(:"An atom")  
'An atom'
```

```
iex(5)>
```


TOOLING / UX / DEVELOPER HAPPINESS

xref

IEx breakpoints

syntax highlighting in IEx

formatter

ExUnit diff



1. zsh

→ mix test

.....

1) test pack/1 regular strings (Redis.ProtocolTest)

test/redis/protocol_test.exs:16

Assertion with == failed

code: assert IO.iodata_to_binary(pack(["foo", "bar"])) == "*2\r\n\$3\r\nfoo\r\n\$4\r\nbar\r\n"

left: "*2\r\n\$3\r\nfoo\r\n\$3\r\nbar\r\n"

right: "*2\r\n\$3\r\nfoo\r\n\$4\r\nbar\r\n"

stacktrace:

test/redis/protocol_test.exs:17: (test)

.....

Finished in 2.1 seconds

6 doctests, 5 properties, 81 tests, 1 failure

Randomized with seed 725795

andrea ~/Code/redis (master *)

→ _

2s

COMMUNITY



WHAT'S NEXT

what will the

TEAM

focus on?

MAINTENANCE

+

RESEARCH

+

DEVELOPER HAPPINESS



Andrea Leopardi

@whatyouhide



Hey [@elixirlang](#) community! I have a question. What do you expect most from Elixir, its team, and its development focus?

40% Developer happiness

21% Performance

20% Stability

19% Innovation

624 votes • Final results

COMMUNITY / ECOSYSTEM

(hopefully)

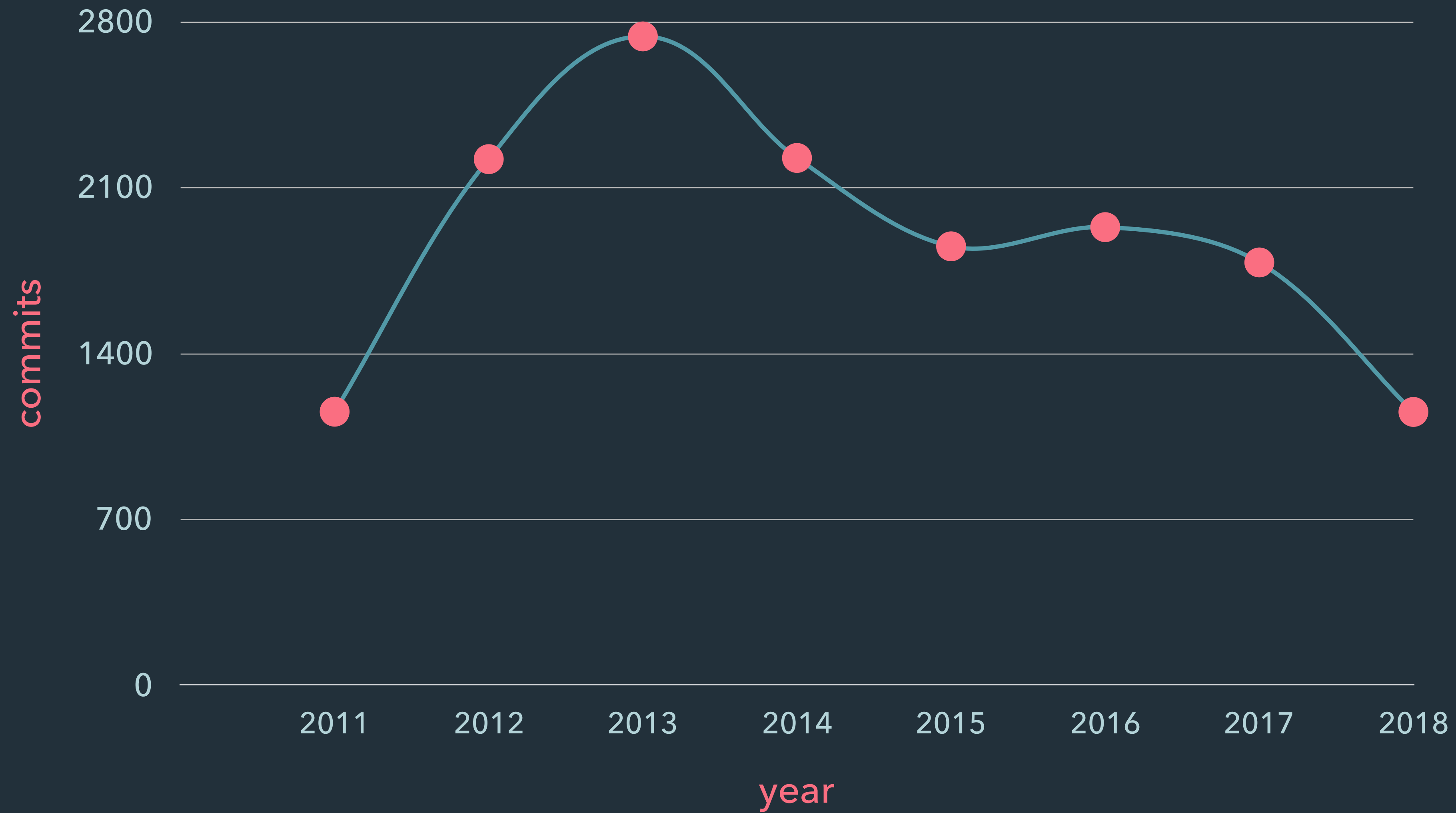
**ELIXIR GETS PICKED UP
BY BIG COMPANIES**

**ECOSYSTEM WILL GET
LARGER AND BETTER**

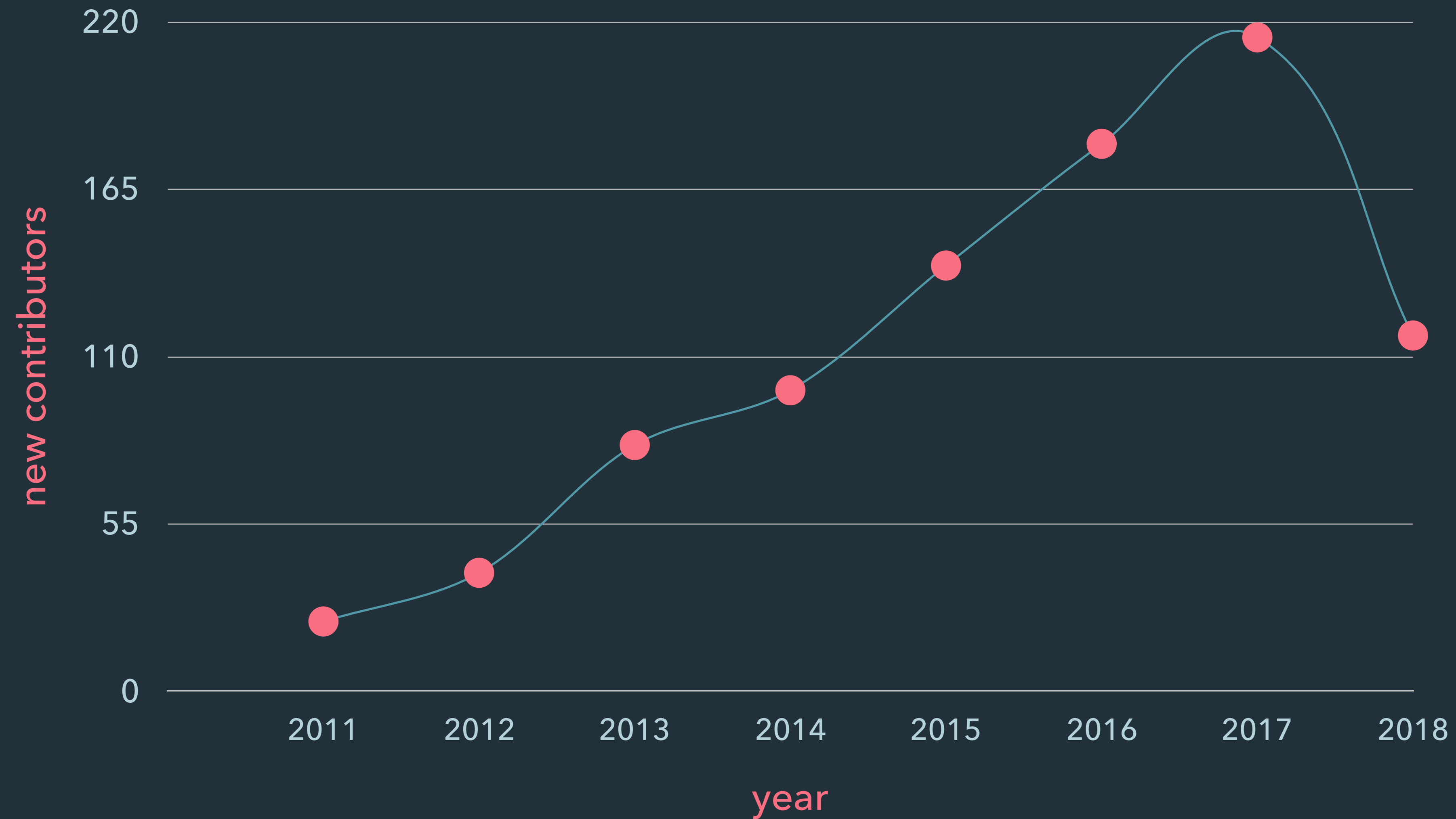
LESS CORE CONTRIBUTORS

MORE ECOSYSTEM CONTRIBUTORS

COMMITTS



CONTRIBUTORS



LESS ELIXIR CONTRIBUTORS

MORE BEAM CONTRIBUTORS

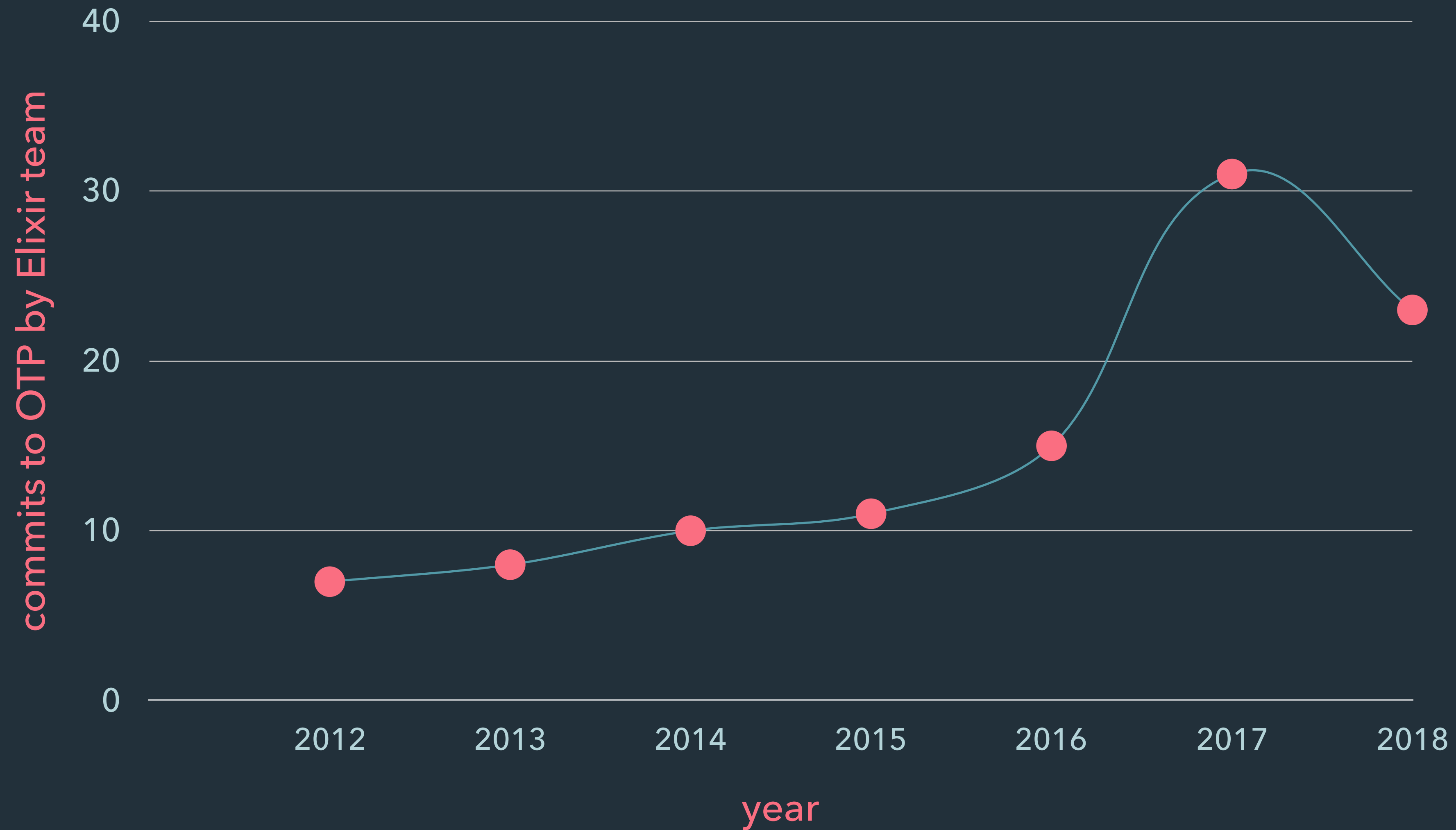
ELIXIR



ERLANG



ERLANG CONTRIBUTORS



Benchee.run/2

benchee:run/2

```
: telemetry.execute/3
```

```
telemetry:execute/3
```


Author: José Valim <jose(dot)valim(at)gmail(dot)com>, Eric Bailey, Radek Szymczyszyn
Status: Draft
Type: Standards Track
Created: 04-Jan-2018
Post-History:

EEP 48: Documentation storage and format

Abstract

This EEP proposes an official API documentation storage to be used by BEAM languages. By standardizing how API documentation is stored, it will be possible to write tools that work across languages.

Rationale

Currently, different programming languages and libraries running on BEAM devise their own schemas for storing and accessing documentation.

For example, Elixir and LFE provide a `h` helper in their shell that can print the documentation of any module:

```
iex> h String  
A String in Elixir is a UTF-8 encoded binary.
```

However, Elixir is only able to show docs for Elixir modules. LFE is only able to show docs for LFE functions and so on. If documentation is standardized, such features can be easily added to other languages in a way that works consistently

is Elixir

SUCCESSFUL?

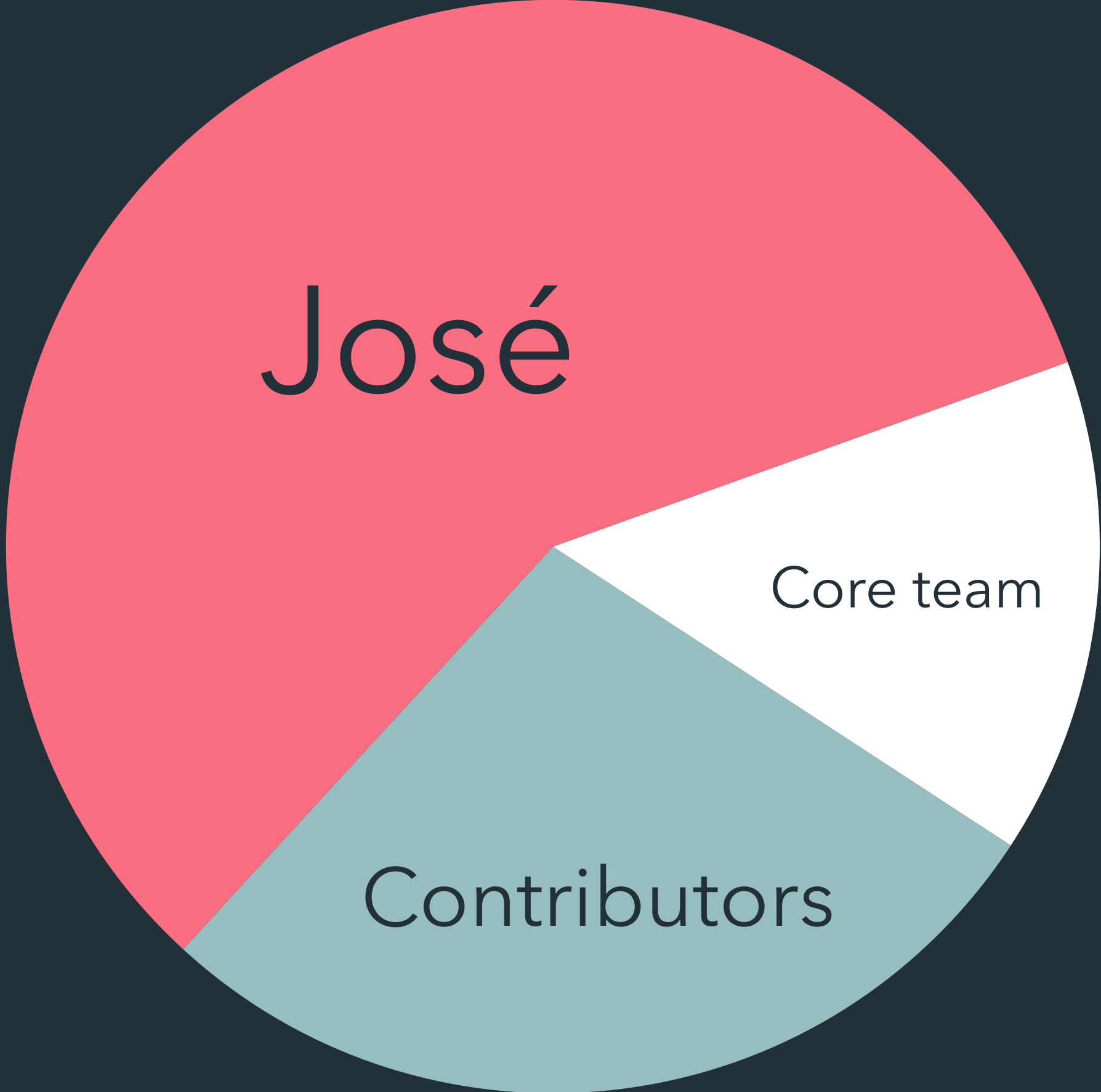
will Elixir

SURVIVE?



not much relying on the

TEAM + LANGUAGE



WITH

CONTRIBUTE

START DISCUSSIONS



thanks

@WHATYOUHIDE

elixir-lang.org