

# FENNEC

## Functional Exploration of Natural Networks and Ecological Communities

Markus Ankenbrand und Sonja Hohlfeld  
14. Juli 2017

Sofern nicht anders angegeben, stehen die Inhalte dieser Präsentation unter 

Hintergrundbild abgewandelt von [su neko](#) unter 

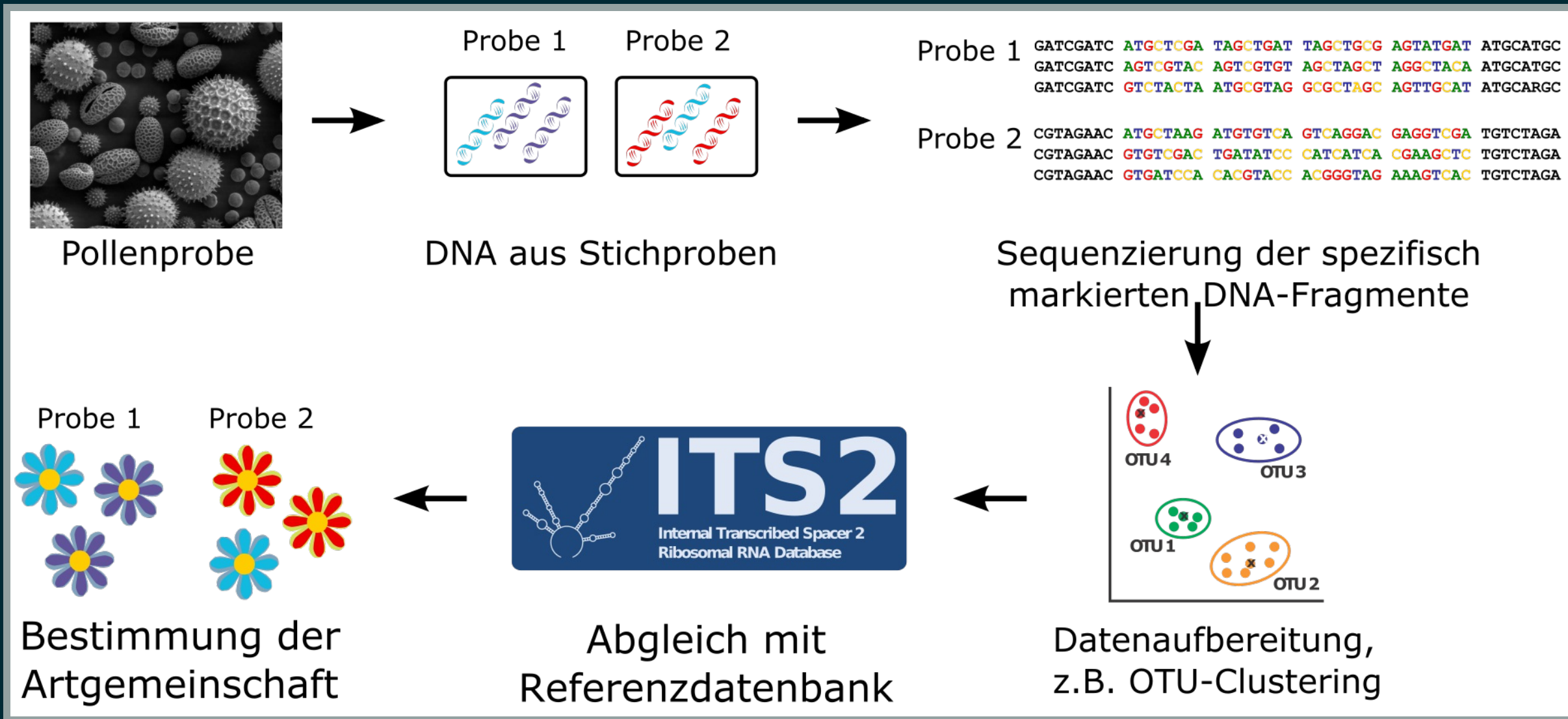
# THE CHALLENGE

# BIENCHEN UND BLÜMCHEN



Analyse von Pollendaten anhand ihrer DNA

- Wann fliegt welcher Pollen wo?
- Gibt es interessante Organismen in unseren Daten?
- Welche Eigenschaften von Pflanzen beeinflussen das Sammelverhalten der Bienen?



Modifiziert nach Keller et. al., BIoSpektrum, 2016

# ROHDATEN

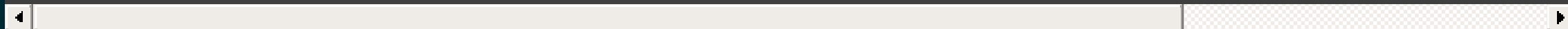
```
@M02015:57:000000000-A9PCK:1:1101:15986:1725 1:N:0:193
TACAGAGGATGCAAGCGTTATCCGGAATGATTGGGCGTAAAGCGTCTGTAGGTGGCTT
+
BABBBFFBFFFFGGGGGGGGGGGGHGGGGFHFHGGHHHGGGGGGHHGGGGGGHHGG
@M02015:57:000000000-A9PCK:1:1101:12879:1879 1:N:0:193
TACAGAGGATGCAAGCGTTATCCGGAATGATTGGGCGTAAAGCGTCTGTAGGTGGCTT
+
AAAAAFFBFFFFGGGCGGGGGHDFEEFHFHGGHHGGCEHHGGGGGGHHHFDFF
@M02015:57:000000000-A9PCK:1:1101:12886:1898 1:N:0:193
TACAGAGGATGCAAGCGTTATCCGGAATGATTGGGCGTAAAGCGTCTGTAGGTGGCTT
+
AABBBFFBFFFFGGGGGEGGGGGHGGFCFHFHGGHHHGGGGGEHHGGGGGGHHHGFH
...
```



# AUFBEREITETE DATEN

```
#OTUID Sample1 Sample2 Sample3 Sample4 Sample5 Sample6 Sample7
OTU1 13 27 23 0 1 111 0
OTU2 1 0 0 3 32 191 1
OTU3 11 2 0 1 12 82 0
OTU4 55 101 13 82 0 0 2
...
```

```
#OTUID Kingdom Phylum Class Order Family Genus Speci
OTU1 Viridiplantae Streptophyta Rosids Brassicales Brassicaceae Brassica
OTU2 Viridiplantae Streptophyta Rosids Brassicales Brassicaceae Brassica
OTU3 Viridiplantae Streptophyta Asterids Asterales Asteraceae Arctium A
OTU4 Viridiplantae Streptophyta Asterids Lamiales Lamiaceae Galeopsis
...
```



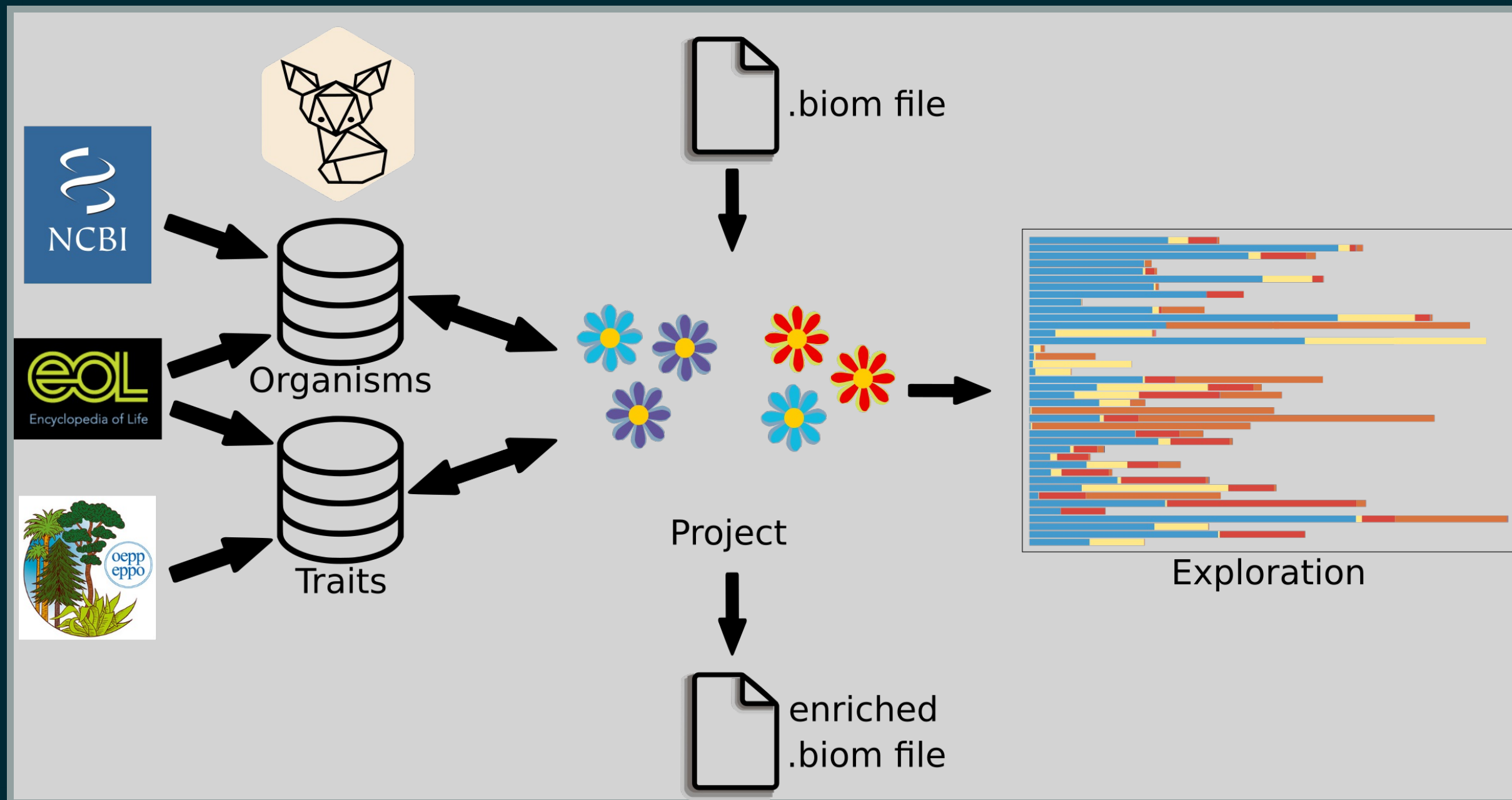
# UND JETZT?

- Analyse und Visualisierung
- Ergänzende Eigenschaften zu den Arten

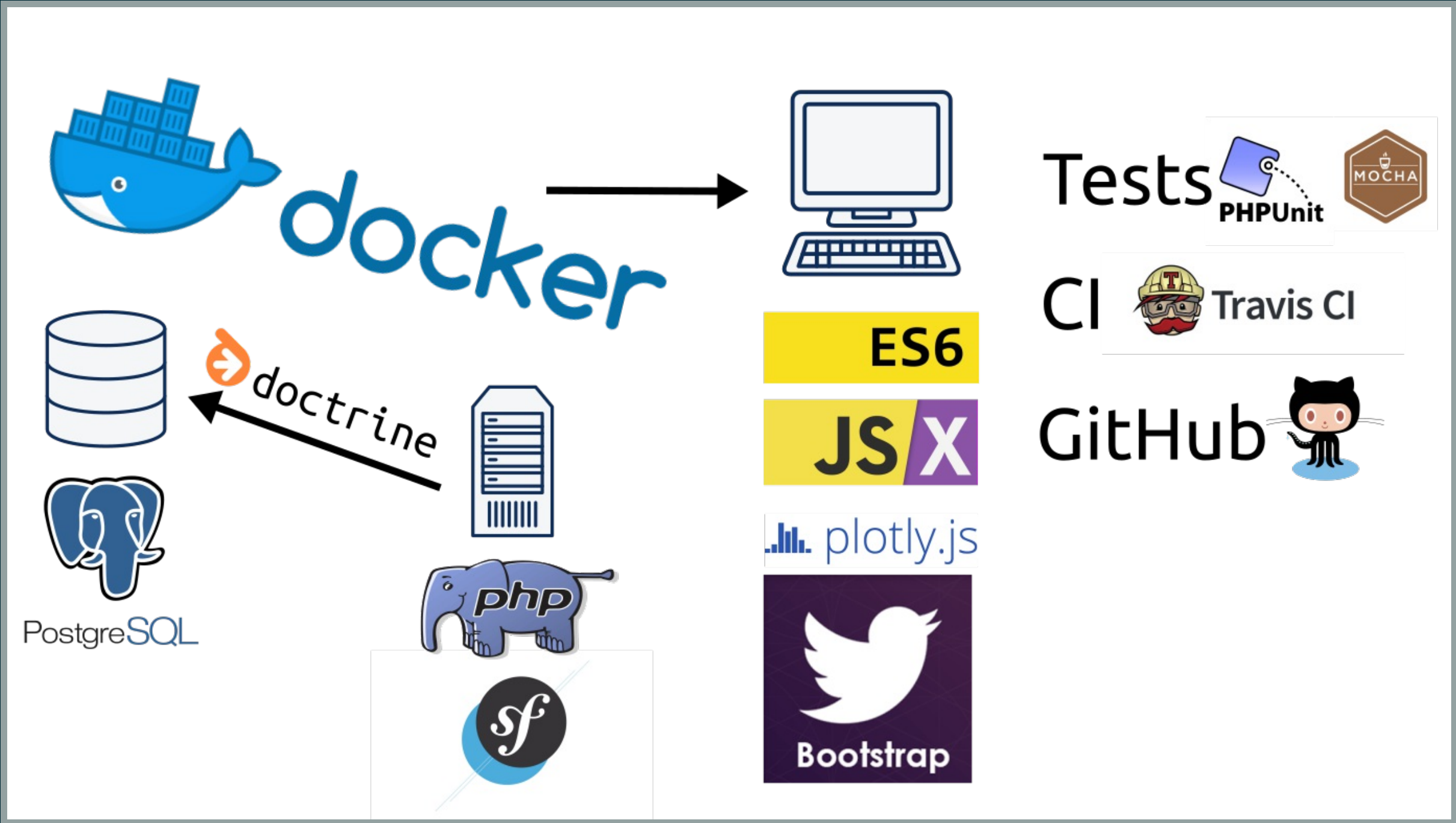
Problem: Existierende Analysetools reichen nicht aus



# FENNEC



# TECHNISCHE DETAILS



Fennec


fennec.molecular.eco/1.0/startpage

Search Google

Fennec 0.7.2

version: 1.0 help iimog

## Welcome iimog



This is Fennec. It helps you add trait information from various sources to your community data. You can upload your own communities or just explore the database of organisms and traits. To see how many organisms and traits there are just look at the boxes below.

Category	Count
Projects	4
Organisms	1614104
Traits	142319

View Details

Here you can upload new projects or explore your existing ones.

Here you can search for organisms in the database to get specific information.

Here you can browse existing traits to see what is available.

Reset 100%

# AUSBlick

- Benutzerverwaltung, Gruppen, Rechte, Teilen
- Eigene Daten hochladen
- Weitere Analysetools