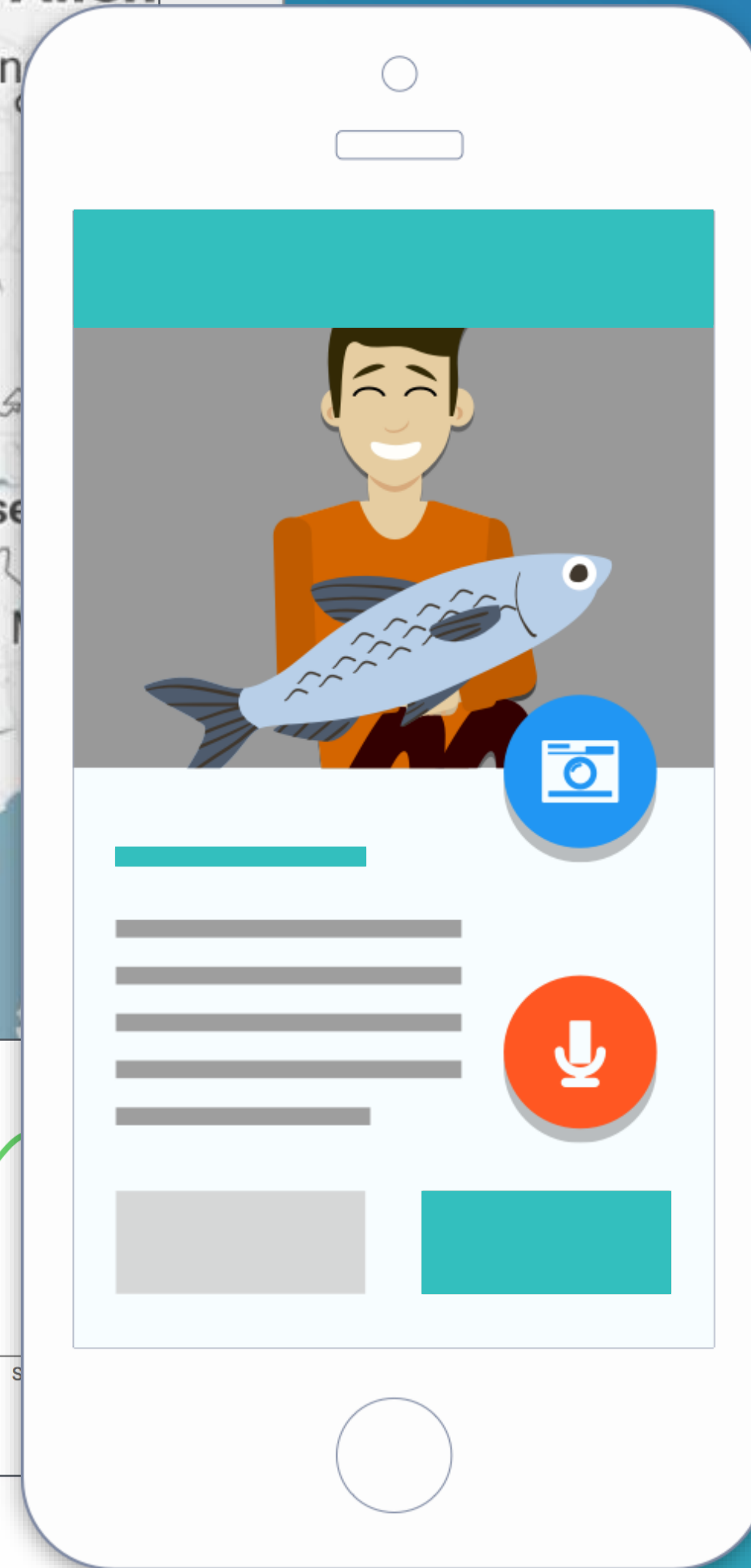
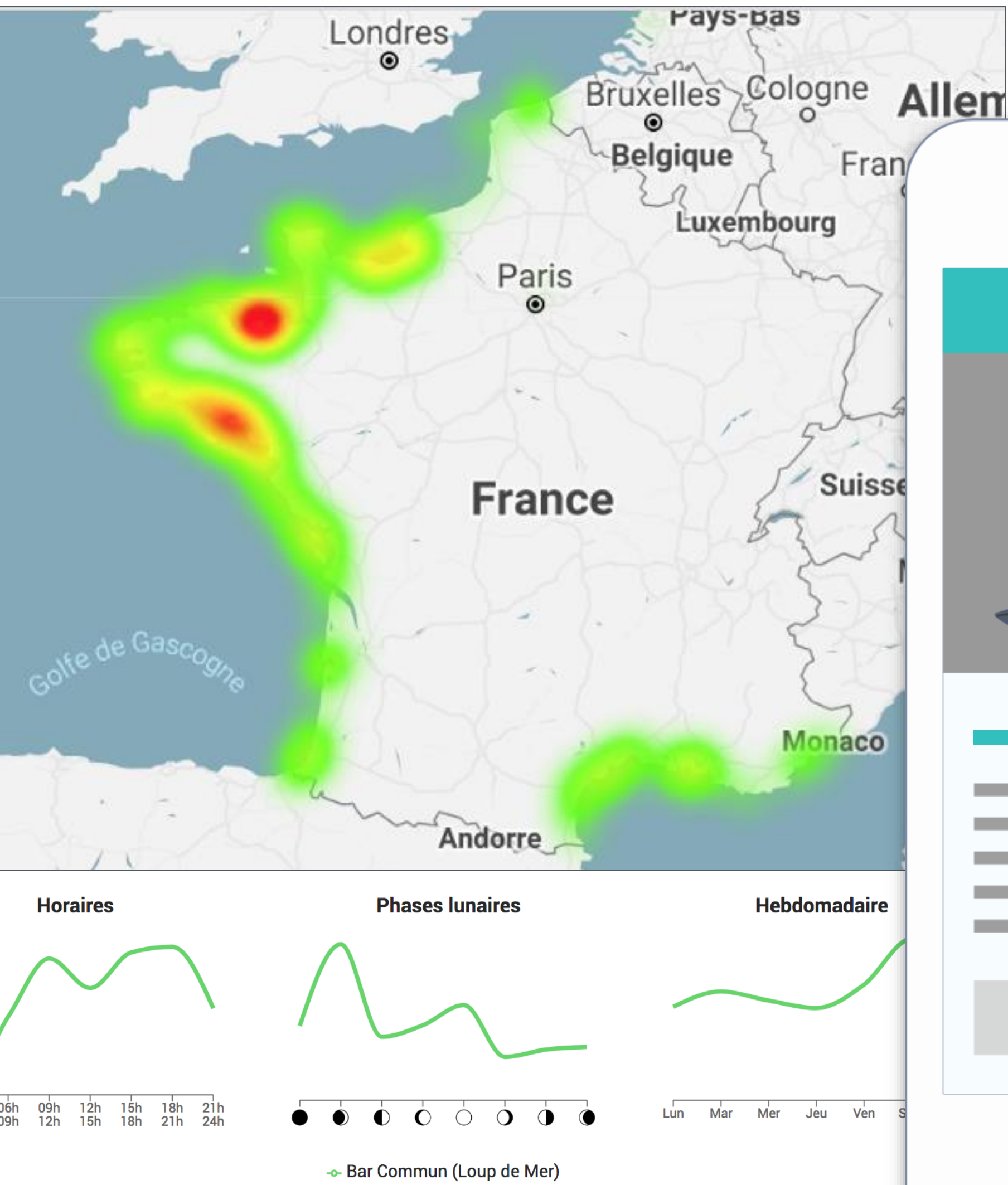




FishFriender

Monitoring and catch reporting system



- Fishing log
- Statistics
- Wheater conditions
- Fishing equipment
- Find professionals
- Collaborative Map
- News
- Social network
- Challenges & rankings

BIG PICTURE



Build the future of fishing thanks to Data

Improve performance and get a better impact on resource thanks to collaborative technology and Big Data

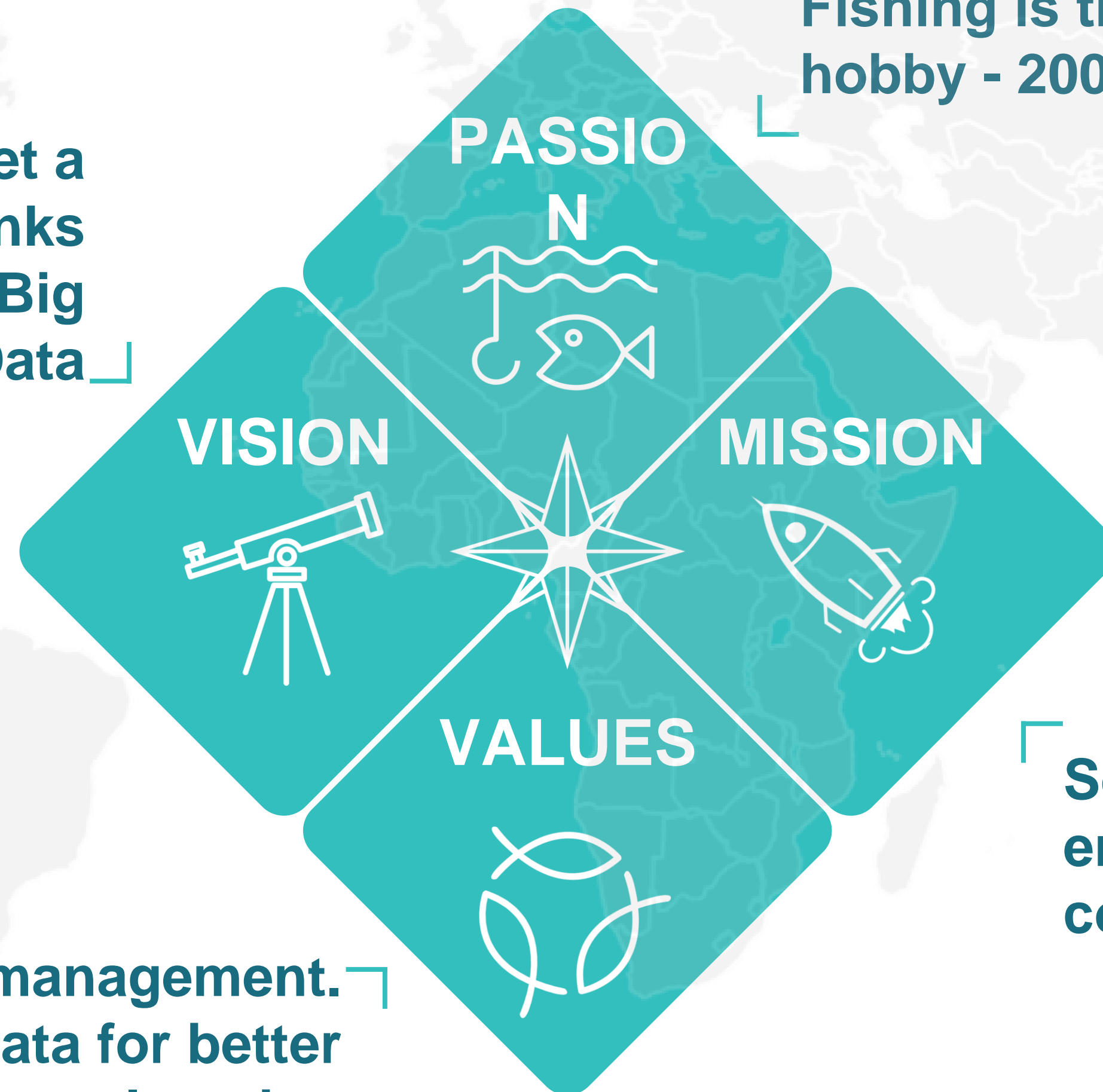


85%
NO KILL



625
SPECIES

Promote sustainable resource management.
Get more transparency on Data for better learning



Fishing is the world's most popular hobby - 200M worldwide / 25M Europe



139
COUNTRIES



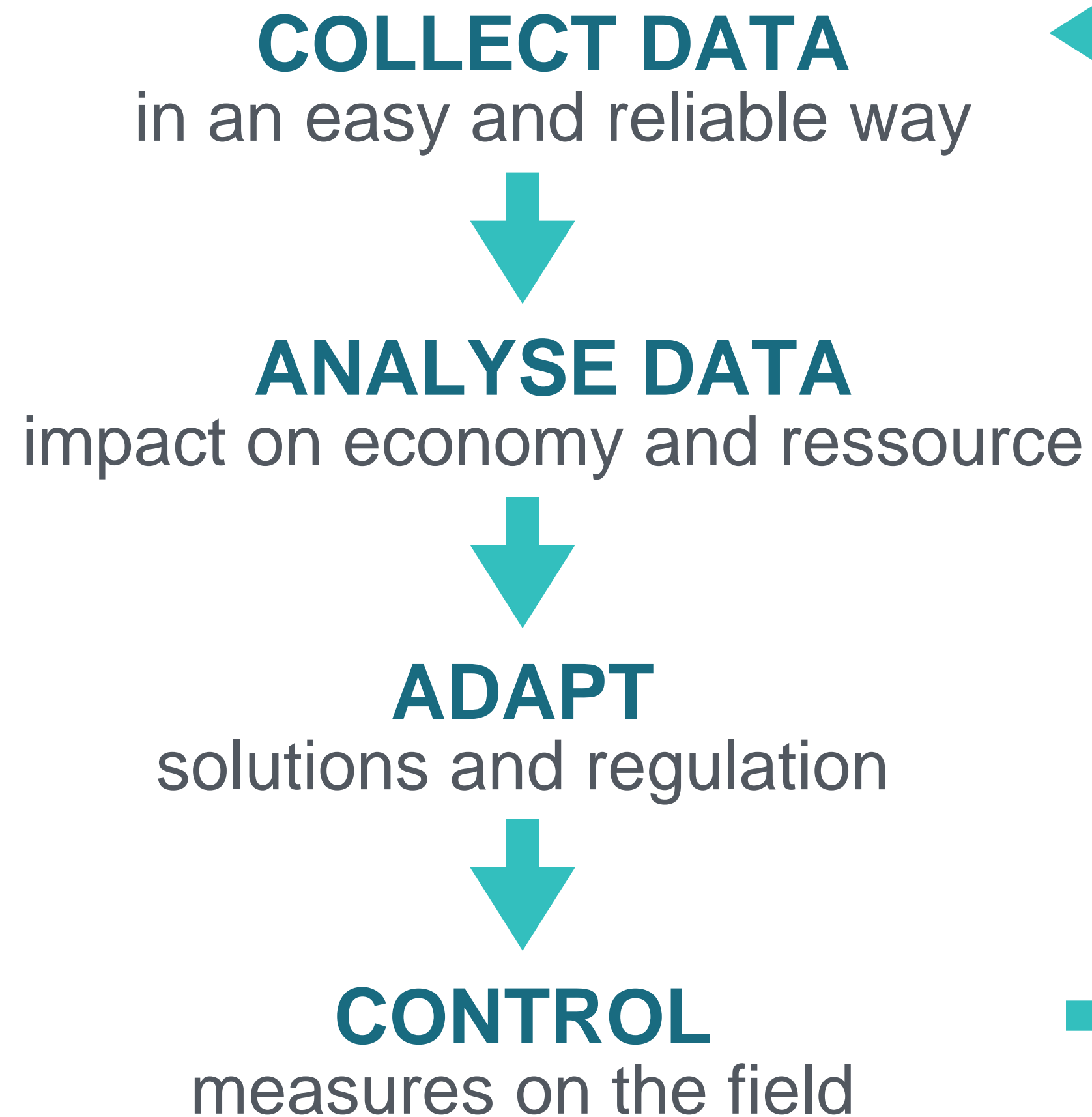
4.7 ★
TOP APP
on 900 ratings

Socialize fishing and encourage scalable data collection

KEYS TO SUCCEED SUSTAINABLE FISHING



Need for Data to protect resources / Need for people to collect Data



**INFORM FISHERMEN &
GENERATE MUTUAL
INTEREST**

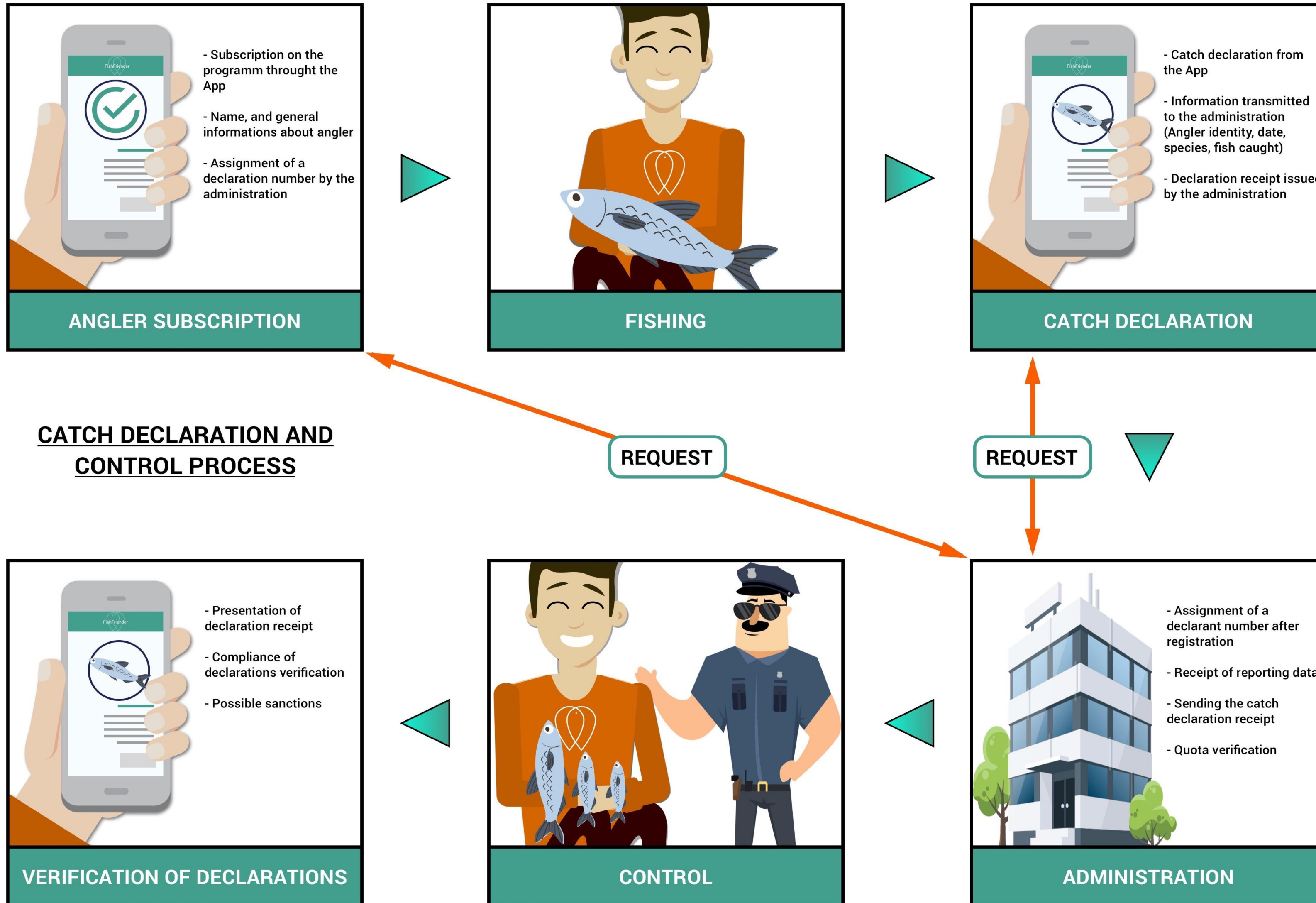
**Plan ahead and create an App the user
would use because he wants to, not
only because it is mandatory**

**IT HAS TO BE A PLEASANT
EXPERIENCE**

EUROPEAN SEABASS EXEMPLE



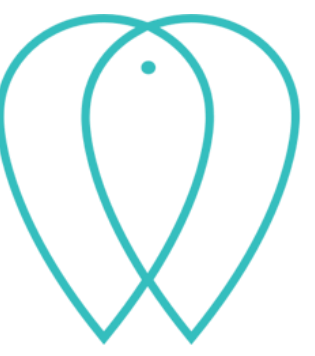
Control scheme prototype



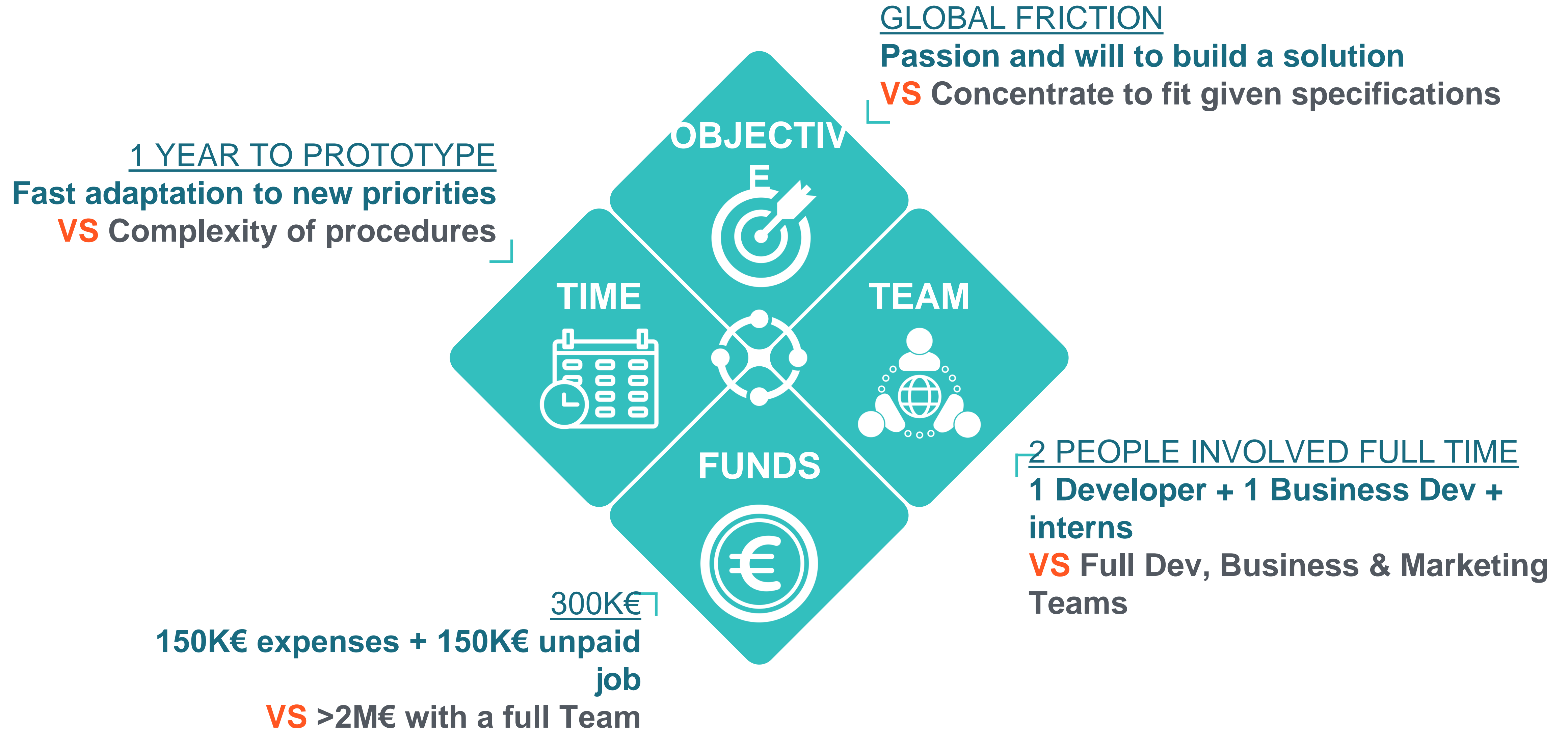
Secrétariat général de la mer



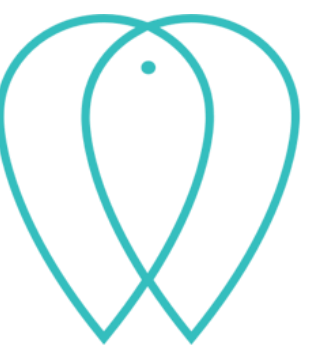
PLATFORM DEVELOPMENT



Startup case (compared to classic company)



BUILDING AN APP



A portable software providing specific and limited functionality

WHAT USERS SEE

DATA THEY ENTERED

Identification, catch history, past declarations

INPUTS FORM TO CREATE DATA

INFORMATION AVAILABLE

Fishing regulations, regulated areas map

SUPPORT CONTACT

WHAT USERS DON'T SEE

SERVERS

Secure encrypted synchronization of users data, updates concerning regulations, data analysis, ...

UP-TO-DATE DATA

Two ways sync : users data and information
Regulation maps, species list translated

PROJECT RULES

What to do if a user has inaccurate GPS location / is near forbidden area ? Alert / wait signal ?

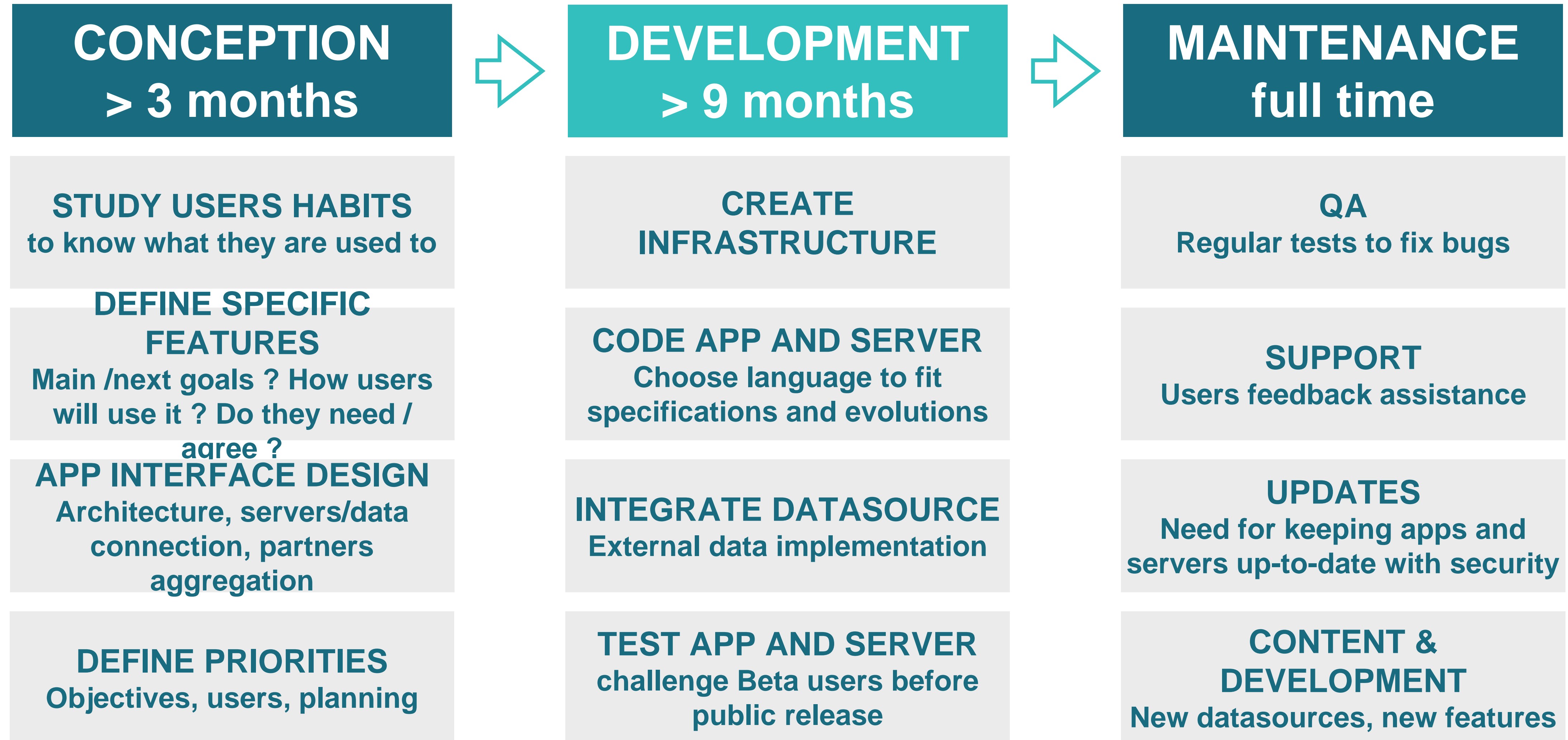
DATA ANALYSIS

Creating reports based on declarative data to learn and adapt regulation



TIME TO DEVELOP AN APP

Three phases to solve a problem

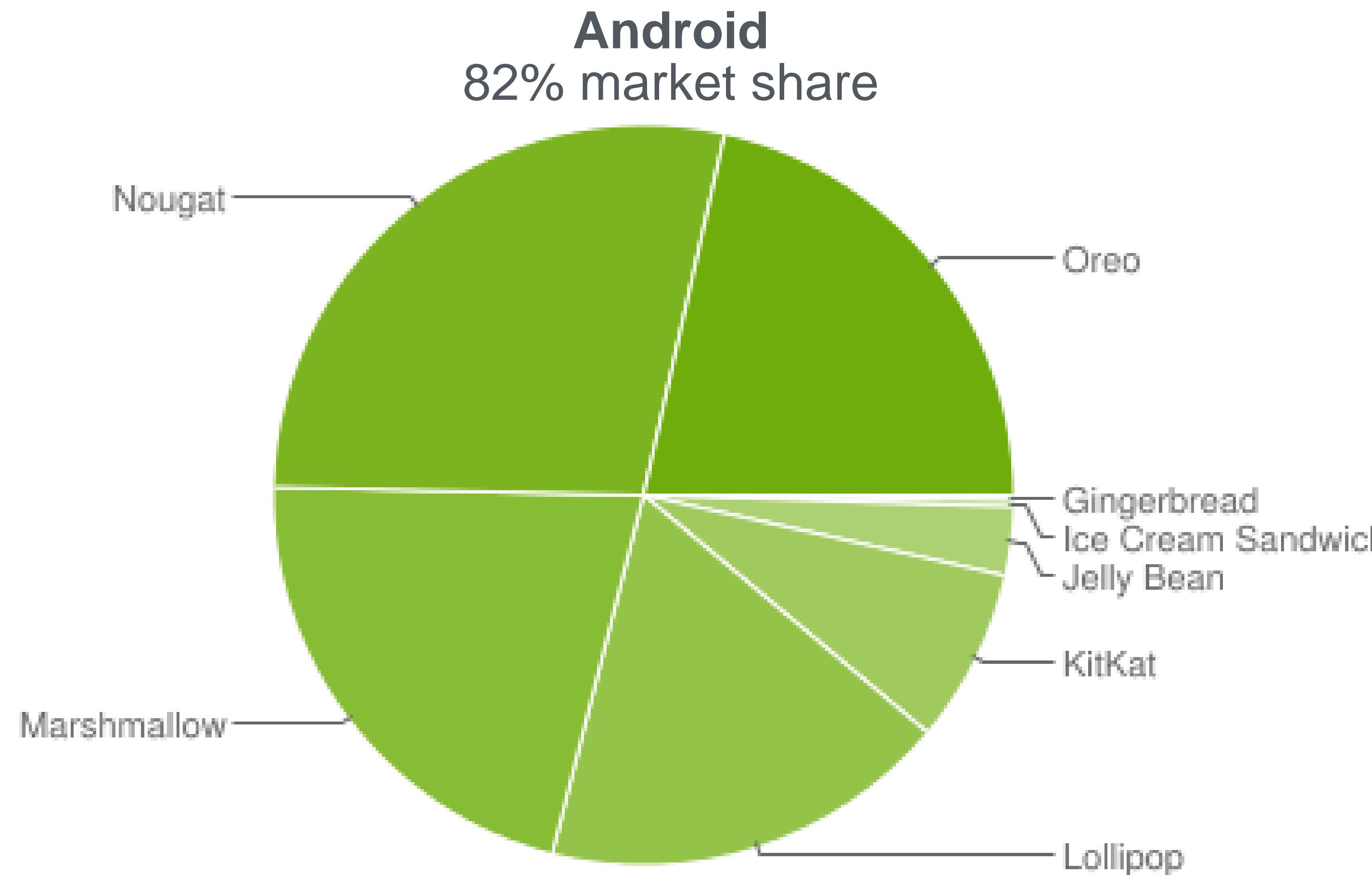
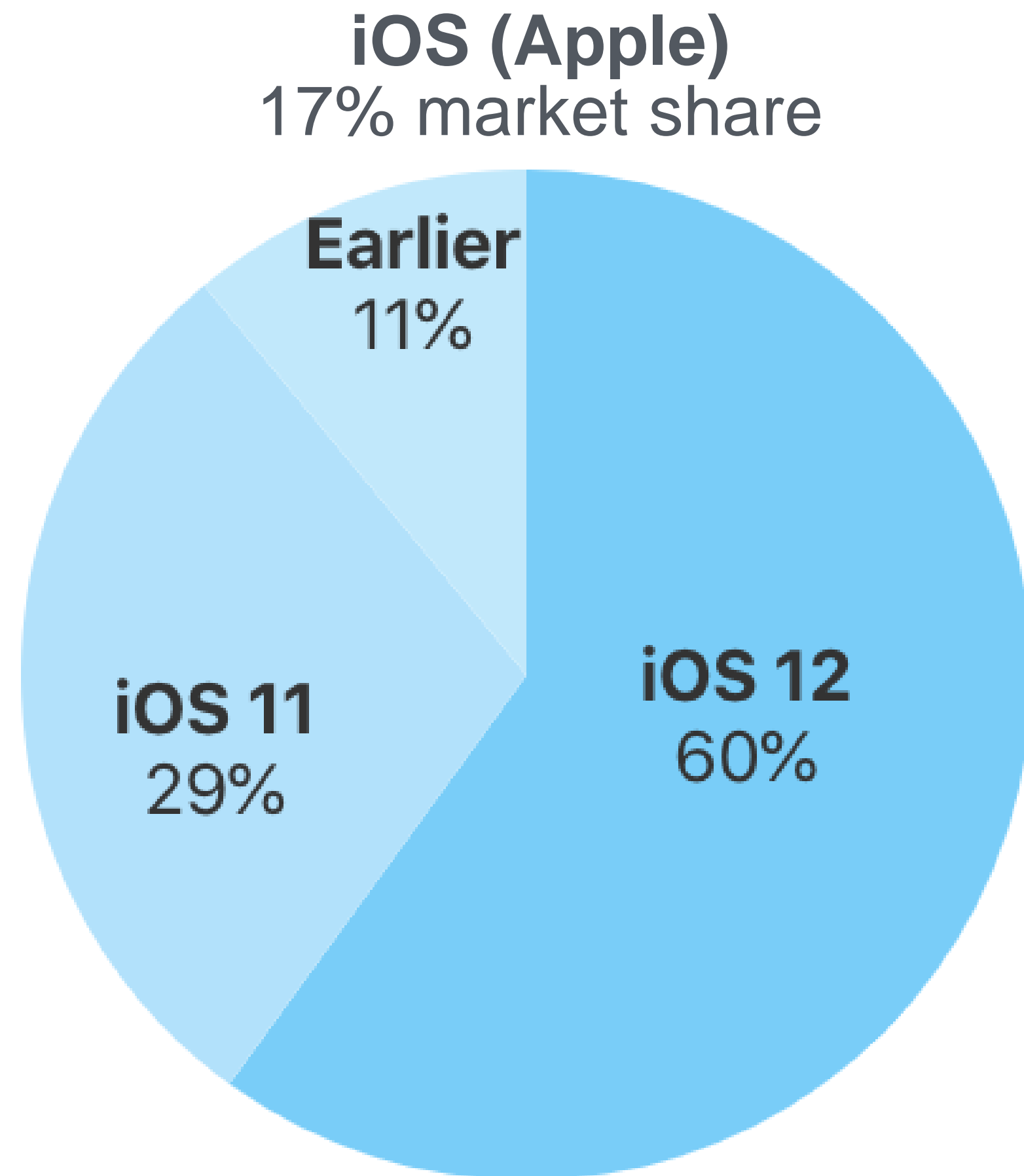


CHOOSING SUPPORTED PLATFORM



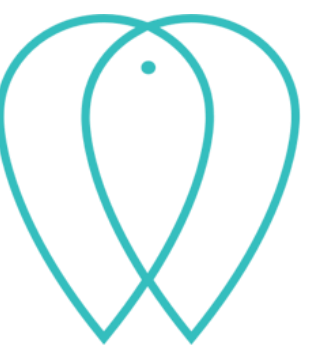
Supporting older devices and operating systems is more expensive ...

But is important to not exclude users



Source : official numbers from Apple and Android developer dashboards

HOW IS DATA AGGREGATED ?



Adding new features can take more time than development



Where does the data comes from?

- Countries specific regulations
- Institutional partners
- Open-source

Regulations
Species list
Maps areas

...

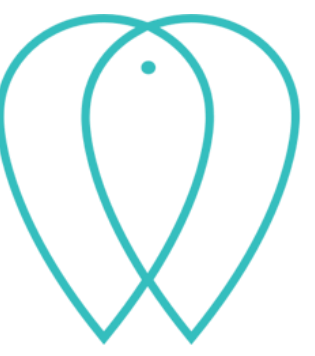


Adding a new source of regulation / data can take time:

The data must be aggregated, converted into the same format the app's server uses, and then added as a specific layer

Depending on the level of difference and the frequency of data updates needed, this can take up to **several weeks**

SOME OTHER ISSUES WE ENCOUNTERED



Cases to anticipate in the App technical conception



WORKING OFFLINE

Users are at sea when logging data, and often don't have any phone service

Created Data (catches, historical positions) should be saved locally and sent later

Needed Data (regulations, species, fishing areas) must be downloaded on the phone

WORKING OFFLINE ADDS COMPLEXITY ON THE ENTIRE APP AND FUTURE IMPROVEMENTS



LANGUAGES & MULTICULTURAL

The App and instructions must be translated in all required languages

Different regulations depending each area must be translated and comprehensible

Species must be correctly listed in every language / Official FAO name displayed

APP MUST BE DESIGNED TO BE MULTI-LINGUAL SO THAT ADDING LANGUAGE IS JUST A MATTER OF TRANSLATION



TECHNICAL DEVELOPMENT

— Problem to solve and technical solutions

- **DECLARATIONS** : Time and area are recorded by the system. Species, sizes, weight are filled by users
- **USER IDENTIFICATION** : User's profile can display license number, contact, boat, ...
- **ALLOWANCE** : Correspondence between the professional's identification number and his fishing rights (quotas, zones, etc.) must be filled in a database
- **TRACKING** : Regulation must allow to track sessions and intermediate waypoints
- **AREAS** : Fishing areas and reserve must be defined and updated by administrator
- **CONTROL** : Administration must have access to fishermen previous declarations in database
- **INFORMATION** : Species regulation (zones, times, authorized sizes, quotas) must be filled in database
- **SIGNAL PROBLEMS** : Sending notification when fishing rights are violated (zone, time or quotas)
- **COMPILATION**: Harmonisation of collected Data format
- **STIMULATE DECLARATION** : Linking fishermen with potential buyers on a digital market system with auctions and product orders on the platform (short circuit, no intermediate, fair trade and maximum traceability, economic impact measure)
- **COMMUNICATION** : FAQ / live chat assistance on the platform between fishermen and administration