

TECHNO-HIVE

Supplier Of Bee Services



IRIS

Technologies

My Yesterday's Dream...



~ Fleet Engineer Manager ~



My **Today's** Dream ...

“

I believe that
saving bees is
crucial to
ecological balance.”

Khaled Bouchoucha

#enpactfellow

A close-up portrait of a young man with dark hair, smiling warmly. He is wearing a green V-neck shirt over a grey t-shirt. The background is a plain, light color.

An iceberg floating in a blue ocean under a blue sky with light clouds. The tip of the iceberg is above the water, while the much larger part is submerged below the surface. A dark semi-transparent box is overlaid on the water, containing text and symbols.

En 2014

⚡ ⚡ Export: 52 454 €

Import: 1 194 272 € ⚡ ⚡

~ National Institute of Statistics ~



“ “ The national average of honey productivity is **8 kg / h /**
year. The European average is **30 kg / h / year** ” ”

~ APQA ~

Beekeeping

A row of colorful beehives (green, yellow, blue, pink, purple) is situated in a rocky, brushy landscape. The hives are arranged in a line, and the background shows a hillside with sparse vegetation and rocks. The lighting suggests a bright, sunny day.

An average loss of 22.3% in winter hives

An export difficulties

Stolen beehives

A Honey conservation problems

diseases

Other ...

Innovation

RED LION SQ.
W.C.1

DRAKE ST.
W.C.1

Vision

**Strategic Partner in
Quality & Productivity**



Investigation



**PROBLEM OF
MANAGEMENT**



**PROBLEM OF HIVES
CONDITIONING**

Architecture of the System

Extract data from the hives

Acquisition & Data Processing

Alerts, Recommendations, forecast ...

Slave boards

one card per hive
Contains all necessary sensors

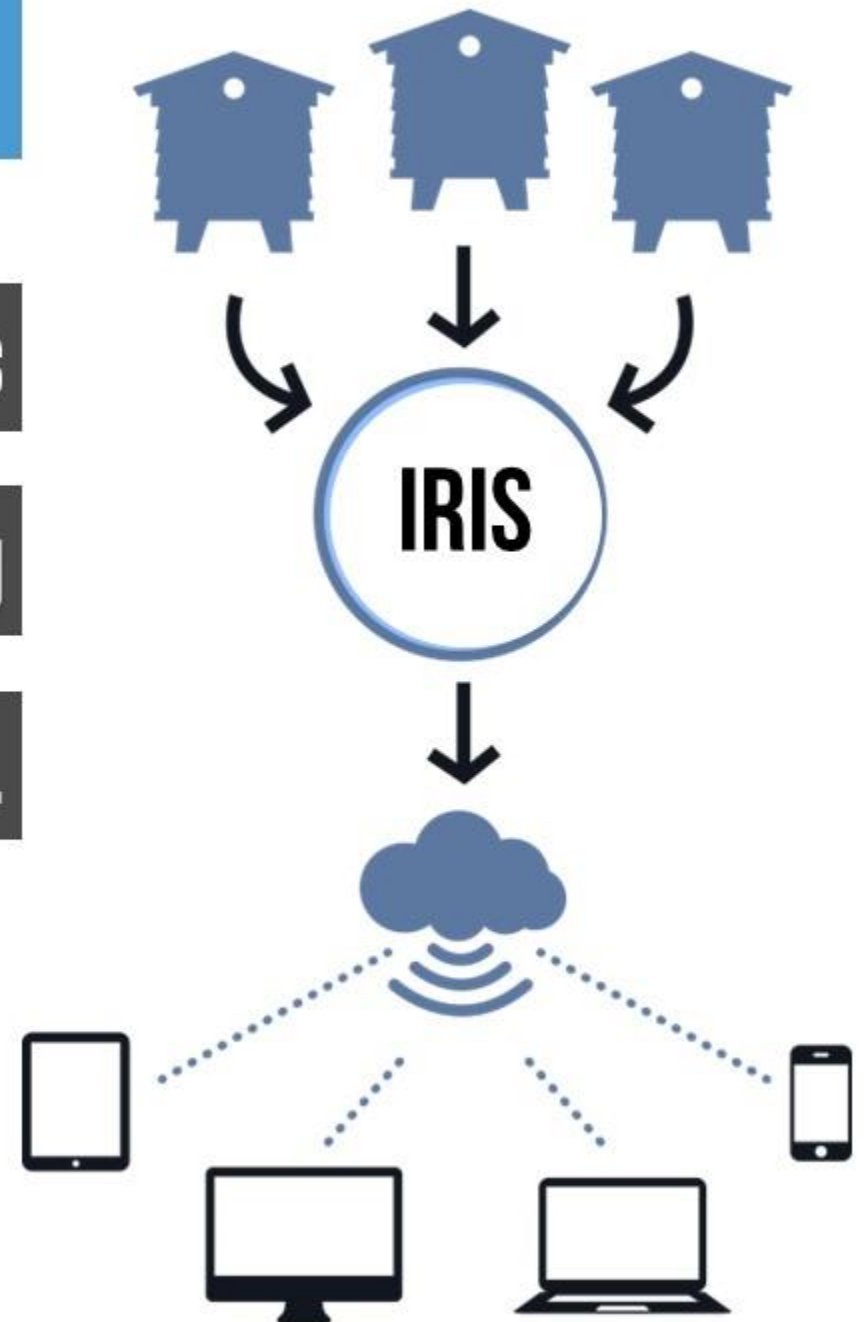
Master board

one card per 30 hives.
Role: Collecting all of the data from slaves and forwarding them to the net

Server & Software

Transmitting the data to beekeepers :

- Warnings
- Expectations
- Recommendations



V + +

- **Security:** receive an SMS if your hive has been moved or stolen.
- **Summer and spring:** Follow the growth of the hive in spring and the nectar flow.
- **Winter:** Check the status of bees and alert the beekeeper if the hive is too humid and requires ventilation.
- **Standardization:** Check if the honey have a better quality.

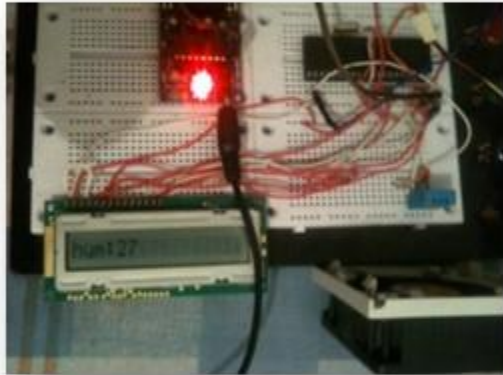


No more Bad hives..

Only **STRONG** hives



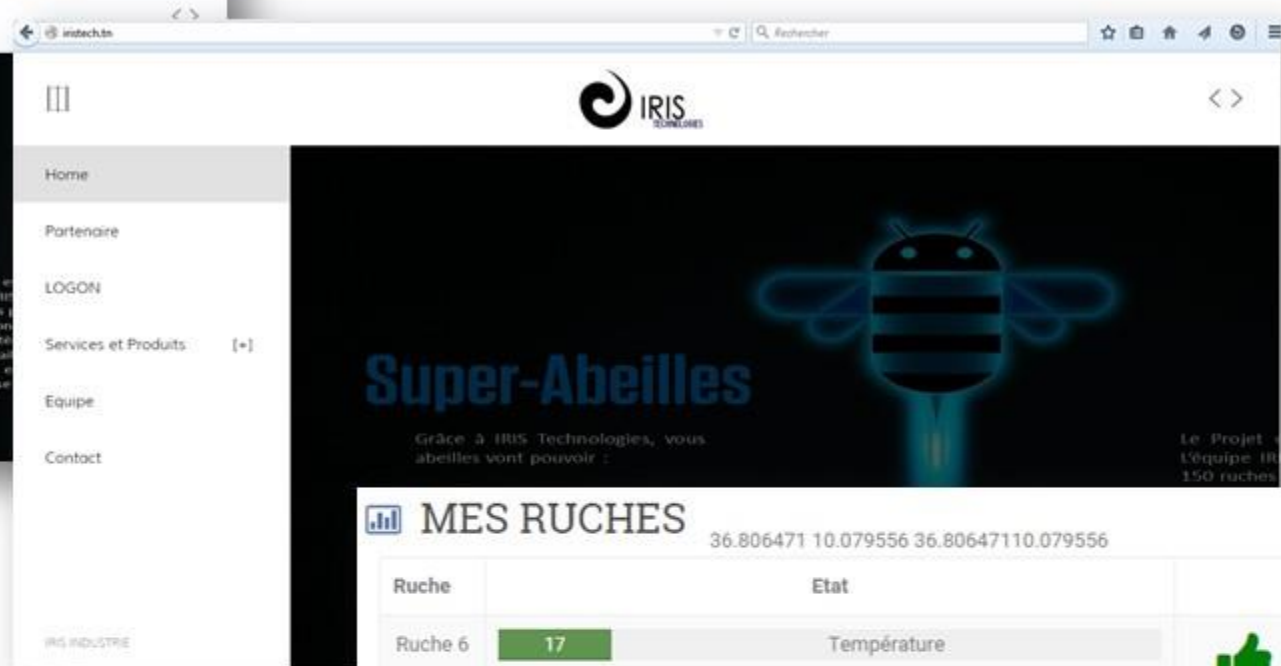
Our Prototype



First Version



Final Version



MES RUCHES 36.806471 10.079556 36.80647110.079556

Ruche	Etat		Recommandation
Ruche 6	17	Température	👍 Condition favorable
	40%	Humidité	
Ruche 5	19	Température	🧳 Contactez IRIS Technologies (reclamation)
		Humidité	
Ruche 4	53%	Température	⚠️ Placer une éponge mouillée dans la ruche
	18%	Humidité	
Ruche 3	12	Température	👍 Condition favorable
	49%	Humidité	
Ruche 2	16	Température	👍 Condition favorable
	51%	Humidité	
Ruche 1	17	Température	👍 Condition favorable
	48%	Humidité	



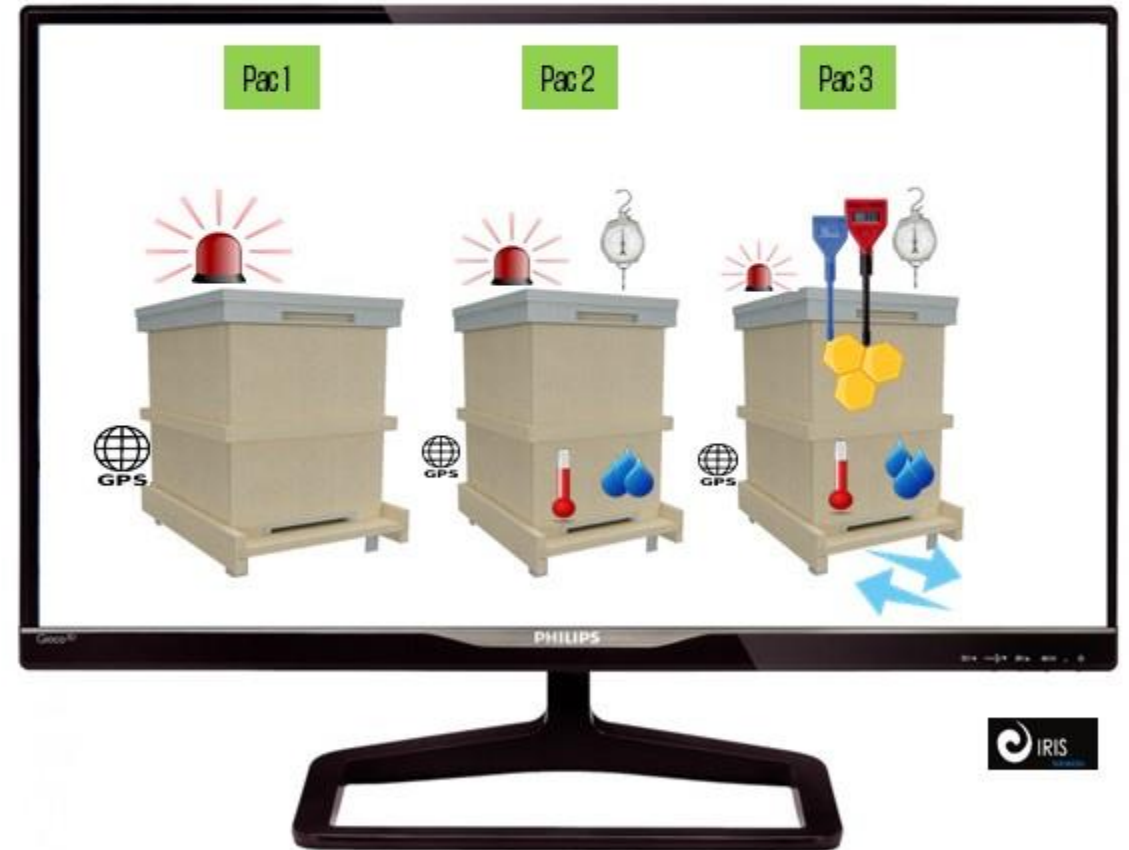
www.iristech.tn

Monitoring Packages

Security kit
For all Beekeepers

Standard Techno-Hive
Beekeepers with 30 hives or more

Professional Techno-Hive
Beekeepers with 200 hives or more



IRIS Business Model

Source of Income

Techno Ruche

Security Kit

Standard Techno-Hive

Professionnel Techno-Hive

Payment

Sales via Subscriptions

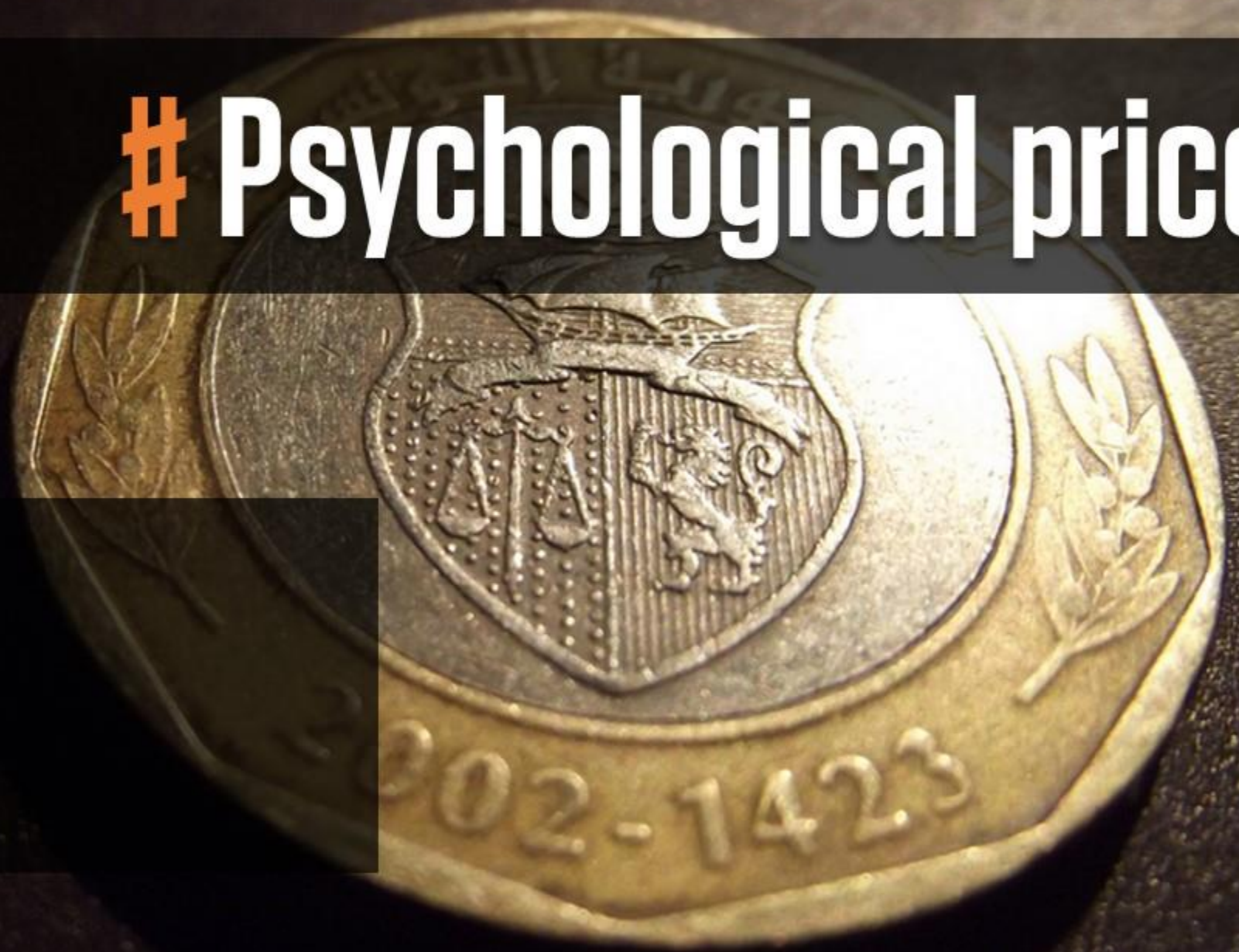
Annual Standard Subscription

Extra sensors

Psychological price

Min : 800 DT

Max : 1900 DT



Milestones

2015: Development Of the Minimum Viable Product

- Development of several prototypes
- Studying risks
- Establishing a strategic partnerships
- Testing
- Final validation of the MVP

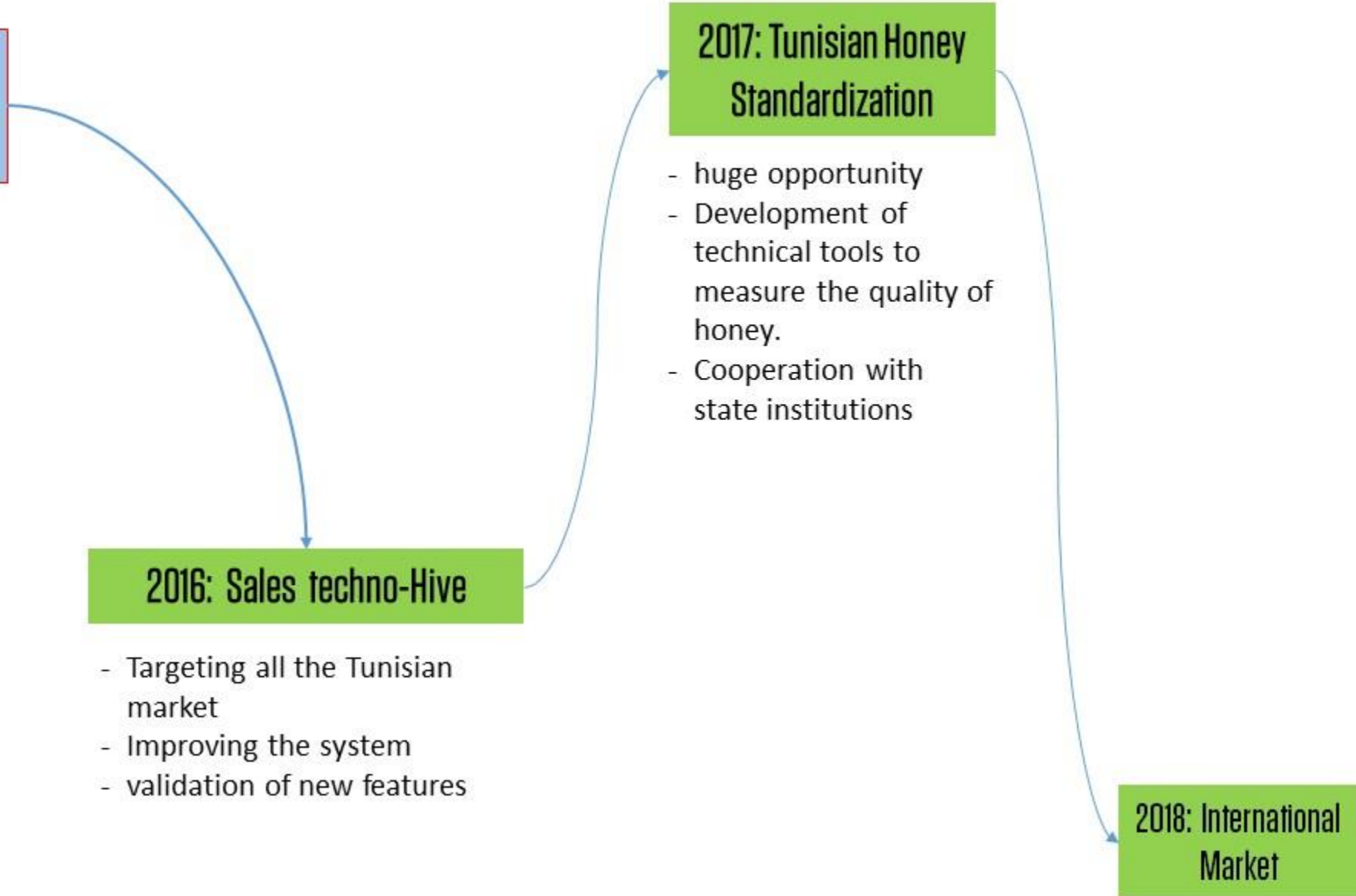
2016: Sales techno-Hive

- Targeting all the Tunisian market
- Improving the system
- validation of new features

2017: Tunisian Honey Standardization

- huge opportunity
- Development of technical tools to measure the quality of honey.
- Cooperation with state institutions

2018: International Market



Risks

The choice of HR (3,3)

IP protection (3,3)

Business Model (2,3)

The Underfunding (1,3)

**(occurrence, Impact)*

epsos.de

Team



Eng. Khaled BOUCHOUCHA
CEO & Founder



Eng. Marwa HASSOUMI
Technical Manager



Eng. Abdelmajid AZOUZI
Beekeeping expert



Eng. Imen BAKHOUCHE
HR Manager

Current Partners





**Save Bees ..
Save Humanity ..**