



## **The Story of Spirohome**

Merthan Öztürk / Cofounder & CEO  
July 17, 2019

Who is Spirohome?

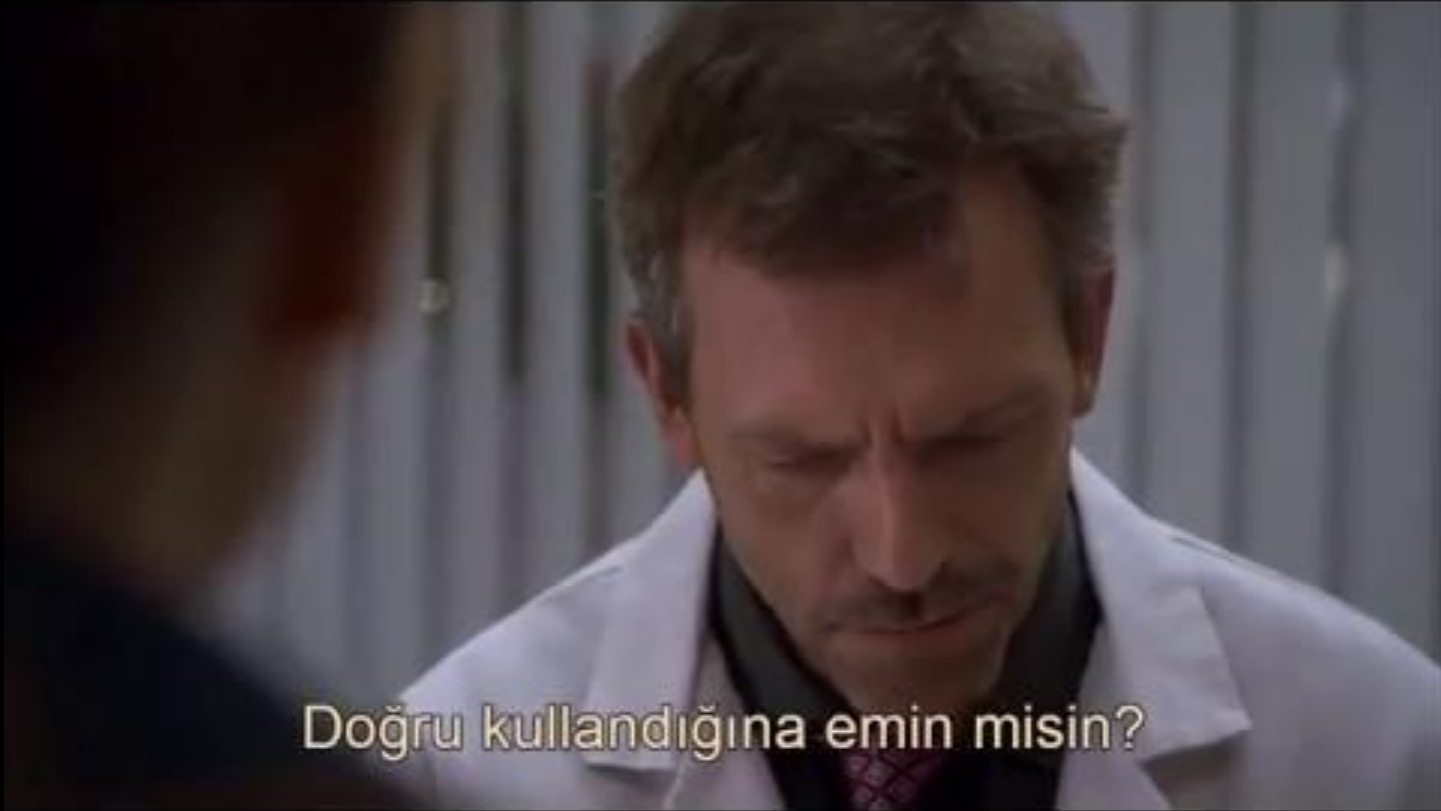
The Real Story behind Spirohome

Takeaways

A person in a striped shirt stands on a rocky, grassy shore, looking out at a vast, calm lake. In the distance, a range of mountains is visible under a clear sky. The scene is framed by the dark, silhouetted branches of pine trees in the foreground.

# spirohome<sup>®</sup>

Revolutionizing respiratory care, with you

A close-up shot of a man with short, wavy brown hair, wearing a white lab coat over a dark shirt and a patterned tie. He is looking down with a serious, slightly furrowed brow. In the foreground on the left, the back of another person's head is visible, out of focus. The background is a blurred clinical setting with vertical lines.

Doğru kullandığına emin misin?

## **The Challenges of Disease Control**



**Non-Adherence of  
Drug Usage**

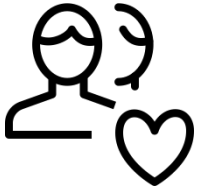


**Difficult to Monitor  
Lung Values**



**Lack of  
Communication**

## The Effects of Uncontrolled Disease



### Patients



Poor quality of  
life due to  
delayed  
intervention



### Insurance System



Increasing costs  
per patient  
Uncontrolled: + € 2300  
Controlled: € 509



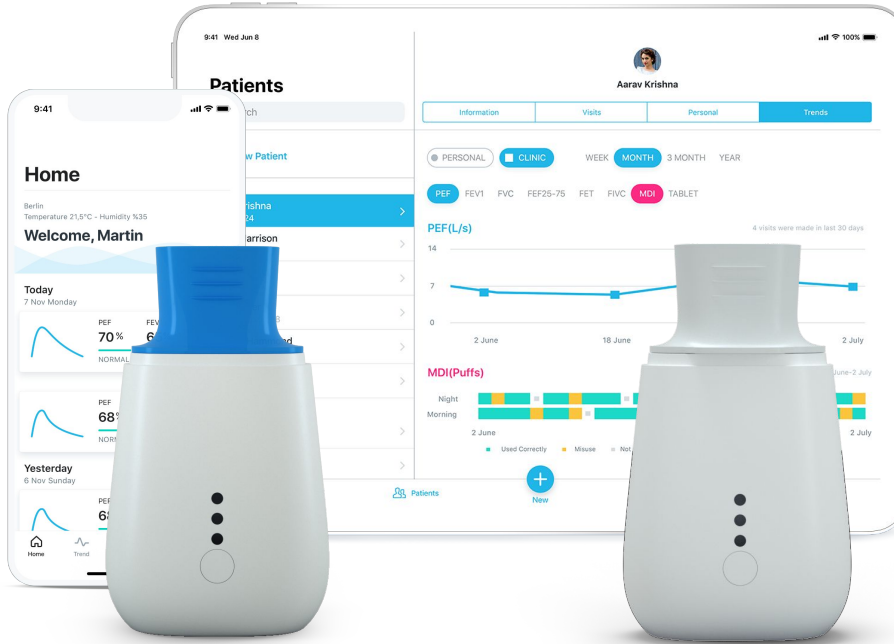
### Pharma Industry



Difficult data  
management with  
paper-based clinical  
records

# The Spirohome Platform

A cutting-edge, connected respiratory care system



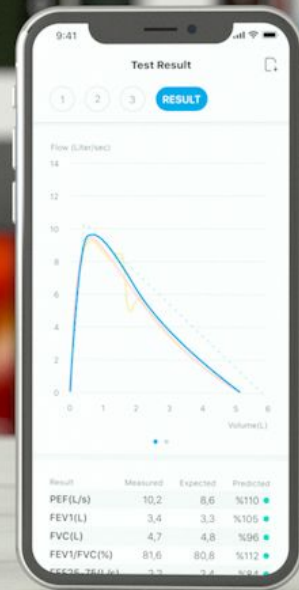
**Personal  
Spirometer**

**Clinic  
Spirometer**



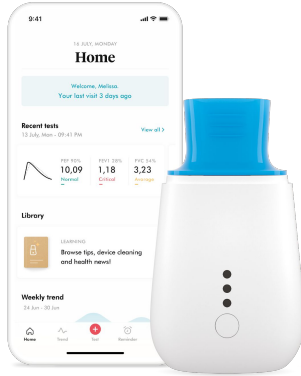
**Spirohaler®  
Smart Inhaler  
Add-on Sensors**

spirohome | Personal



# Spirohome Personal

World's first personal ultrasonic spirometer that unlocks data and perfects patient experience.



Flexibility in integration

Reusable Mouthpiece

Calibration Free

User-centered design

Clinical accuracy



**Aiocare**



**Gospiro**

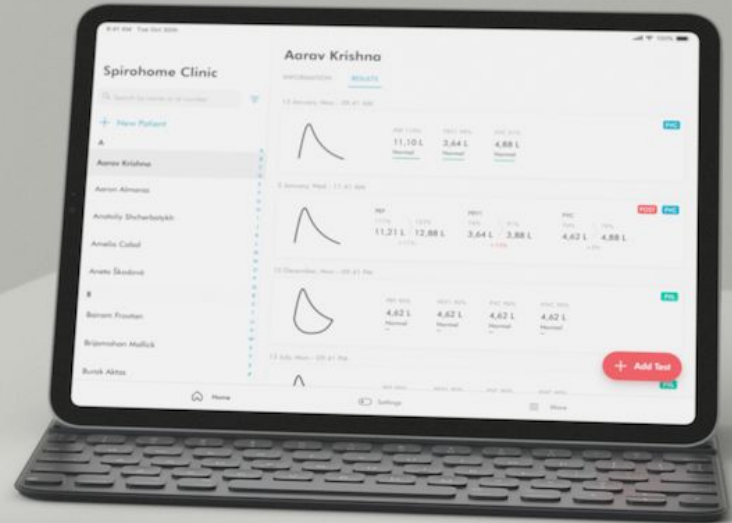


**Nuvoair**



**MIR SmartOne**

# spirohome | Clinic



# Spirohome Clinic

Clinical ultrasonic spirometer with seamless data access, high accuracy and patient-focused design.



Cloud Technology

Competitive Price

User-Centered Design

Flexible Data Access



**NDD**



**USCOM**



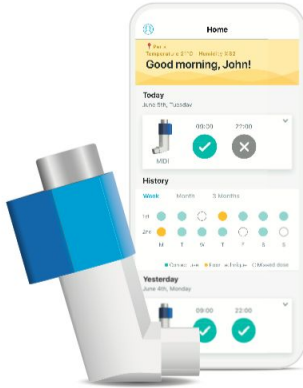
**MIR**



**Ganshorn**

# Spirohaler® MDI

**Metered dose inhaler device with accurate misuse detection.**



**Propeller**



**Cohero**

## **User Information:**

Demographic Data

Spirometry Integration

Data Analysis

## **Misuse detection:**

Orientation

Shake Detection

Puff timing

Inhalation Speed

Inhalation Time



**Adherium**

# Spirohaler® DPI




## Dry powder inhaler add-on sensor with flow classification



### Inhalation classifications:

-  Pill spilled
-  No pill
-  Pill is stuck
-  Exhaled into inhaler

### Pill status classifications:

-  Pill pierced
-  Pill not pierced
-  Pill pierced multiple times



**Propeller**

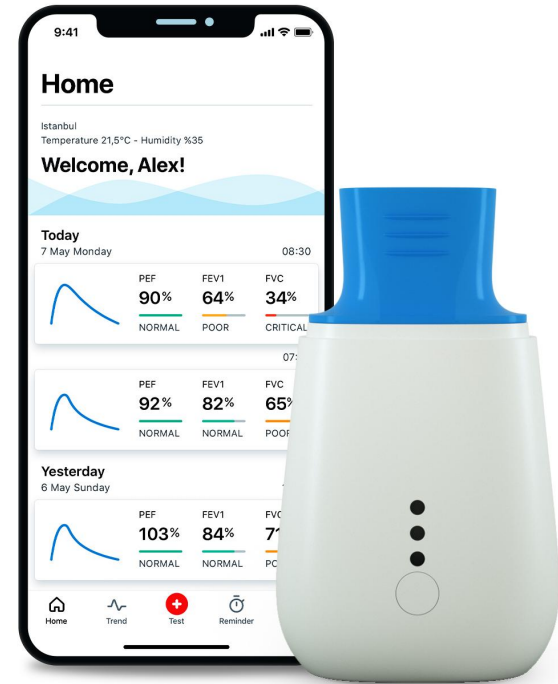
Flow measurement & duration

Pill status (pierced, not pierced etc.)

Flow classification (Pill rotated, chamber empty etc.)

Orientation

# The Real Story behind Spirohome



**2014 - 2017:**     **Struggles without money**  
Start-up Inofab  
Seeking Advisors  
Spirohome Conceptual Design  
Product - Market fit  
Seeking Investors

**2017 - 2019:**     **Struggles with money**  
Two-Round Investment / 1.5M USD  
Focus on Spirohome  
CE & ISO Certifications  
Manufacturing

**2019 - .....:**     **Starting Real Business**  
Product Launch  
Sales & Growth  
Series A investment  
FDA clearance

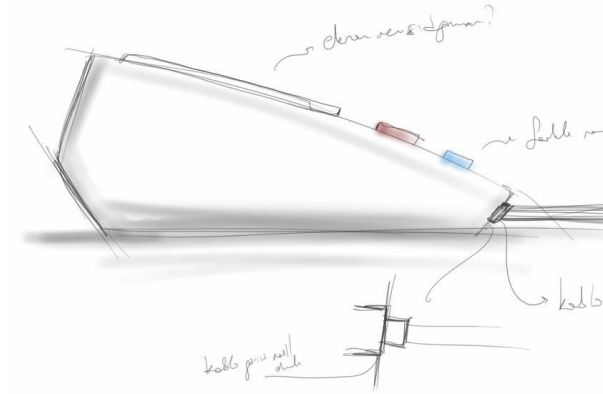
2014 April - 2017 April

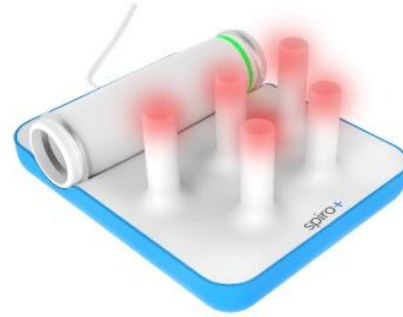
**Struggling *without* money**



## Design Services for third parties

You need to **do it**,  
to achieve **your real aim!**





## Conceptual Design & Prototyping

### **Initial steps for spirometer**





Iteration of the Designs

## **Collecting User Feedback, Empathy with Patients**



Product & Market Fit

## Attending Fairs & Conferences



## Investment

2017: **220K €** / ACT & 500

2018: **1.1M €** / ACT & GCV

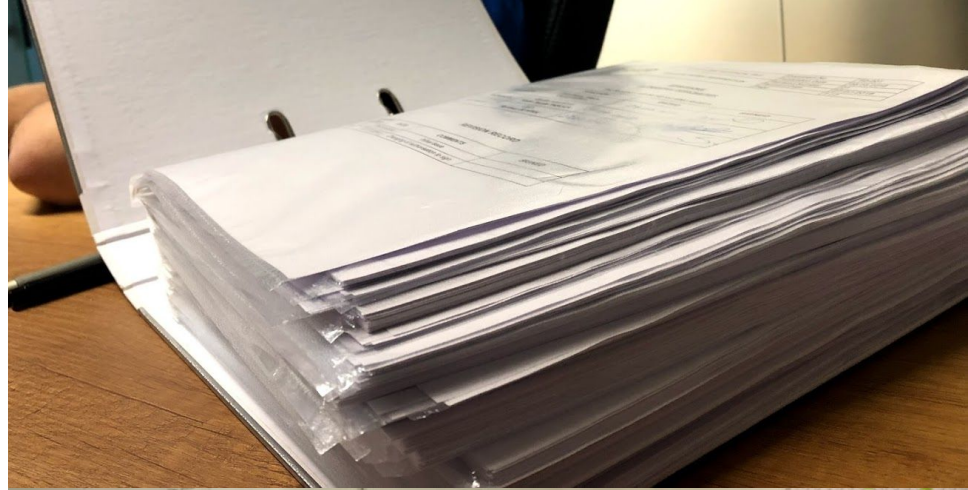


## Focus on Spirohome Products **Struggling with money**



Certification

**Making real product!**  
**Working on CE Mark**



Manufacturing

## **Empathy with suppliers**



Get Ready for Shipping

**R&D is not finished!**



First Sales!

**20 pieces shipped to  
Germany!**



Product Launch

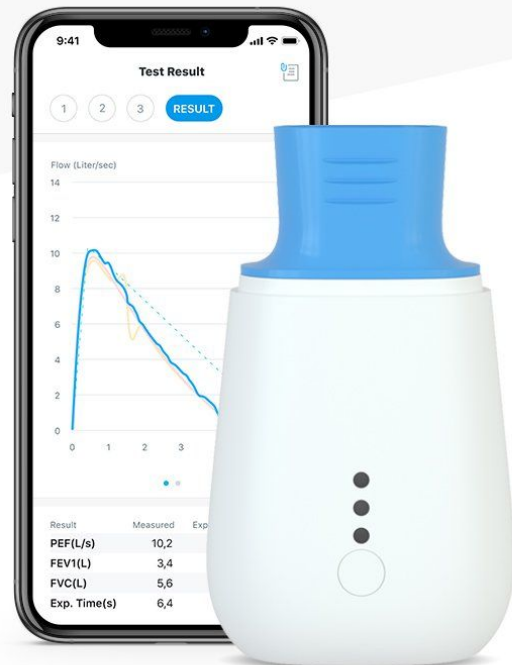
**Where the story *really* begins!**

# OUR PRODUCTS ARE AVAILABLE

Order our brand new personal ultrasonic spirometer now!

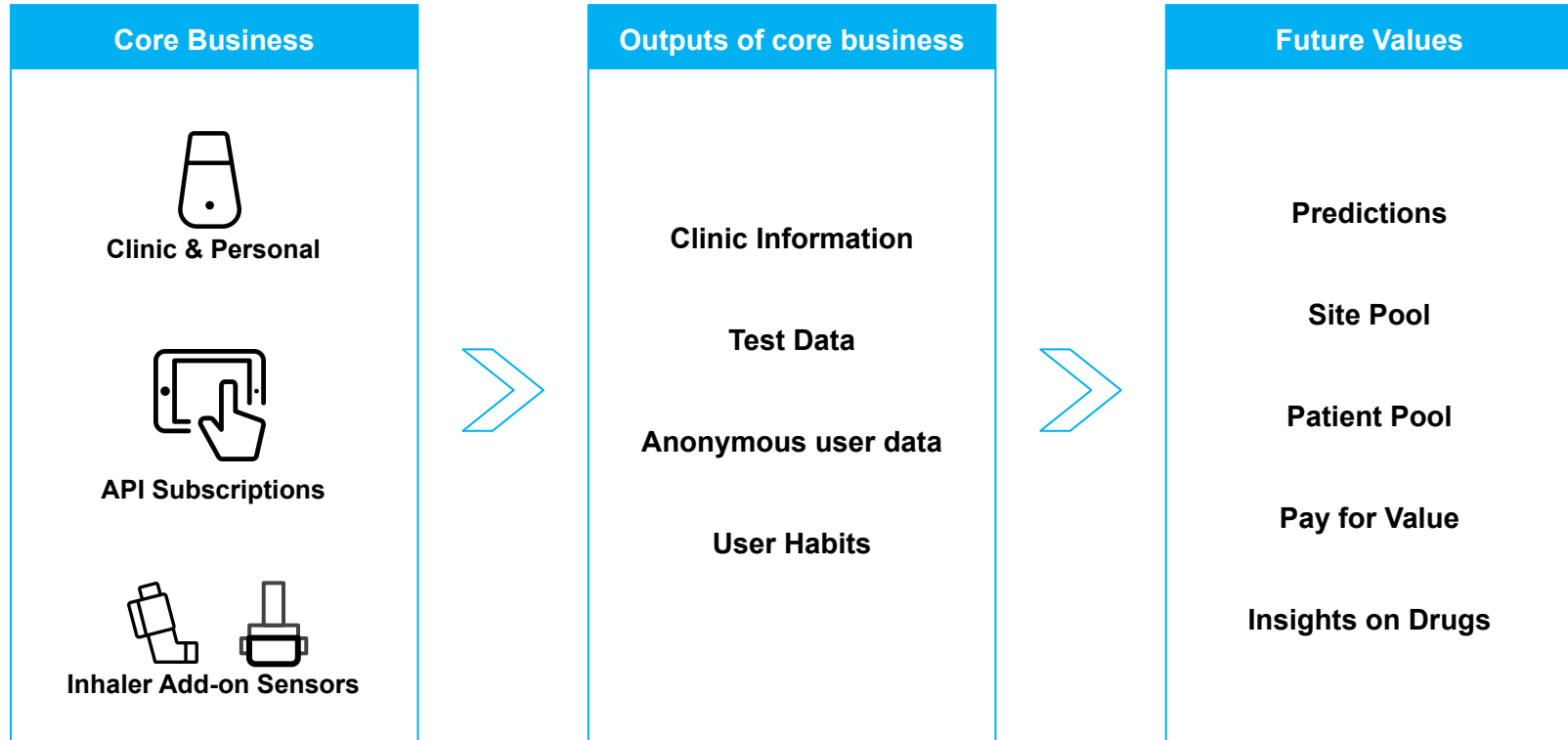
[www.spirohome.io](http://www.spirohome.io)

spirohome®



# Business Model Evolution

Our data collection is at the core of our vision.



## Being Part of Digitalization in Health Industry



**\$225M**  
'2018



**\$100M**  
'2017



**\$30M**  
'2014



**spirohome**

## Core Team

### FOUNDERS & COMPANY CREW

---



**Merthan Öztürk**  
**CoFounder / CEO**  
BSc & MSc  
Industrial Design



**Kerem Yaşar**  
**CoFounder / CTO**  
BSc & MSc  
Electronics Engineering



### 18 High-Skilled Staff

- R&D engineers, designers,
- regulatory & quality specialists,
- business & marketing team

### ADVISORY BOARD

---



**Ahmet ULUER, DO, MPH**  
Assistant Professor in  
Pediatrics  
**Harvard Medical  
School, MA**



**Banu Onaral, PhD**  
H.H Sun Prof Biomedical  
Engineering  
**Drexel University, PA**



**Kivılcım Oğuzülgen, MD**  
Professor at Dept  
Pulmonology  
**Turkish Thoracic Society  
Board Member**

### INVESTORS

---



## **TAKEAWAYS for gaining investment**



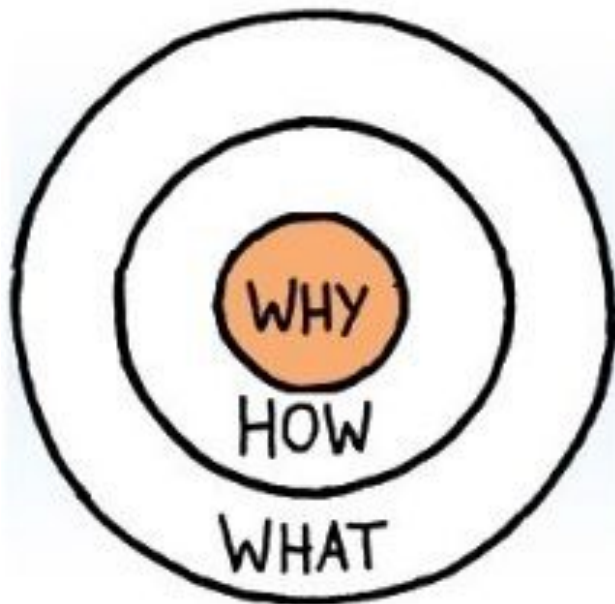
Ask yourself!

**WHY**

before

**how & what!**

Act, Think & Communicate from the **INSIDE** out!



**WHY** - Your Purpose

Your motivation? What do you believe?

**HOW** - Your Process

Specific actions taken to realize your Why

**WHAT** - Your Result

What do you do? The result of Why. Proof

Define your goals and tools!

**Raise an investment.**

**or**

**Create a value.**



Golden Lemon squeezer

Define your goals and tools!

**Raise an investment.**

**or**

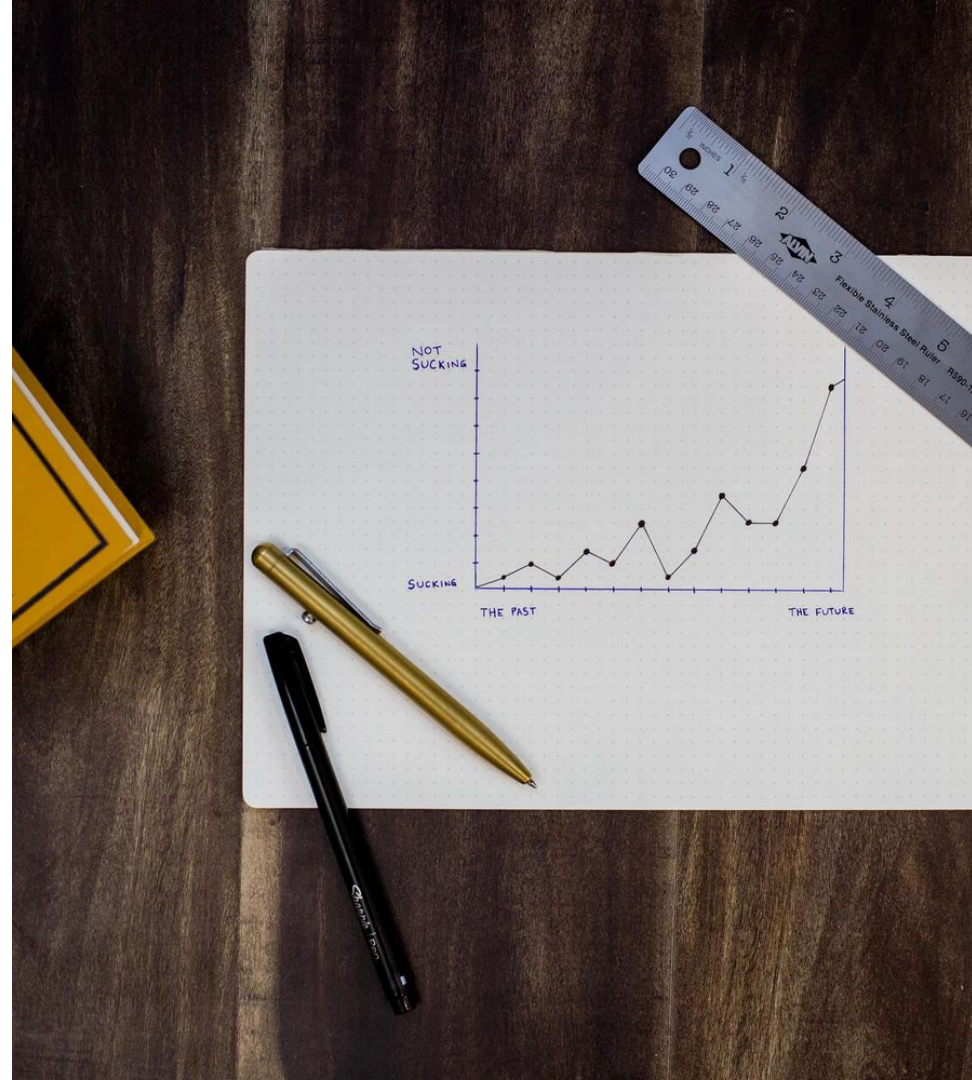
**Create a value.**



There are three kinds of lies:

**lies,**  
**damned lies,**  
**and statistics.**

Benjamin Disraeli, Former Great Britain



Define your goals and tools!

**Raise an investment.**

**or**

**Create a value.**

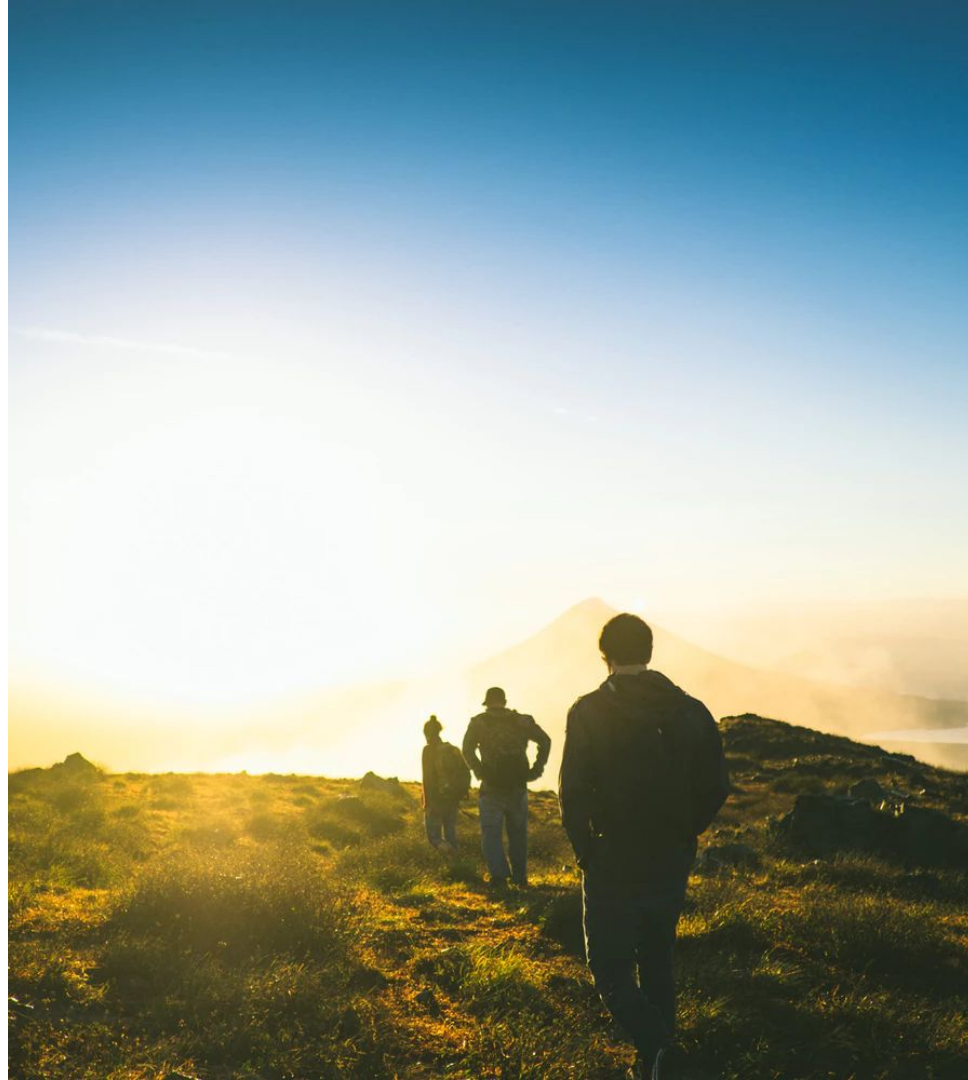


Emphasize yourself!

**Team**

**Product**

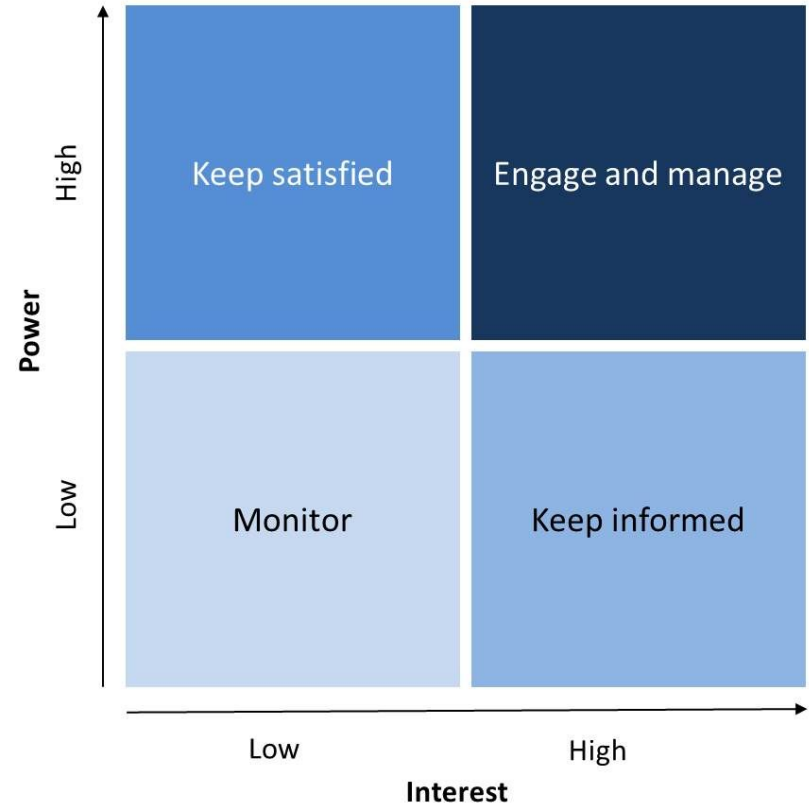
**Market**



Learn your Stakeholders!

**to understand**

**Product & Market Fit**



Love your Regulations :)

**A prototype is not a product!**



CERTIFICATE



**EC Certificate**

**Production Quality Assurance System according to  
Medical Devices Directive 93/42/EEC Annex-V**

**Certificate Number: 1984-MDD-19-571**

We hereby declare that an examination has been carried out following the requirements of the national legislation to which the undersigned is subject, transposing Annex-V of the Directive 93/42/EEC on medical devices. We certify that the production quality system conforms with the relevant provisions of the aforementioned legislation.

**Organization:**

**İNOFAB SAĞLIK TEKNOLOJİLERİ ANONİM ŞİRKETİ**

Üniversiteler Mahallesi İhsan Doğramacı Blv. No:19 Çankaya, Ankara, Turkey

**Product:** Ultrasonic Spirometer

**Types:** Personal, Clinic

The certificate is valid till expiration date, subject to successful completion of periodical surveillance audits. Please contact Kiwa for details.

**Report Number:** M.5063.01

**Expiry Date:** 10 February 2024

Kiwa Certification Services Inc. is Notified Body under Council Directive 93/42/EEC concerning medical devices with identification number: 1984

11 February 2019, Istanbul, Turkey

Head of Notified Body

Kiwa Certification Services Inc.  
İTOSS 9. Cad. No:15 Tapedelen, Tuzla, İstanbul, Turkey  
Tel.: +90 216 583 25 75, Fax: +90 216 583 25 74  
Web: www.kiwa.com.tr, e-mail: posta@kiwa.com.tr

Don't underestimate  
your estimates

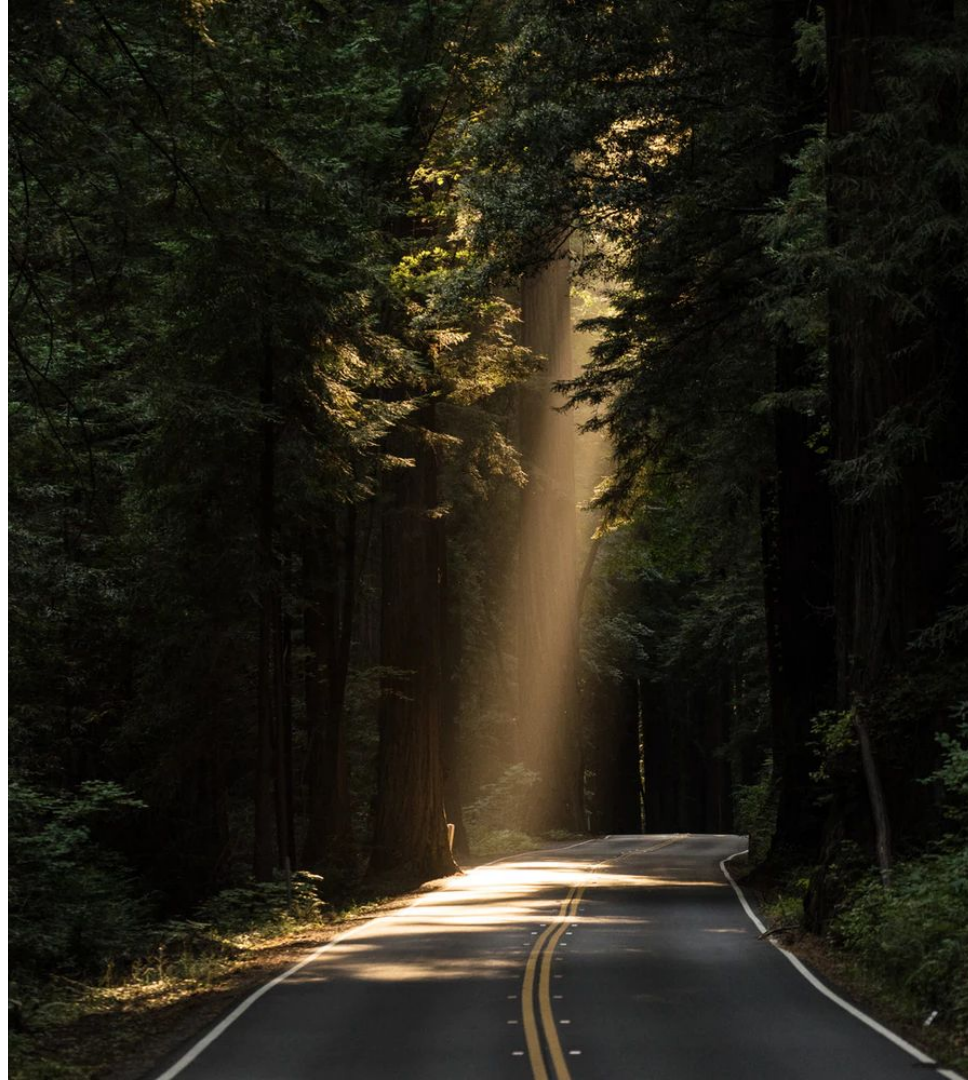
## Planning your steps for proper strategy

### SÜREÇ PLANLAMASI



Be Realistic Optimistic

**Planning your hopes  
with reality.**



“I have nothing to offer but  
**blood,**  
**tears**  
and  
**sweat.**”

Winston Churchill



A man in a white lab coat, likely a doctor, is leaning over a baby in a hospital bed. He is holding a red apple to his nose, and a thermometer is visible in the background. The scene is warmly lit, suggesting a comforting or playful interaction.

**KEEP CALM  
CREATE VALUE  
with hope!**

**even if you cannot  
raise investment!**

# spirohome

ORDER NOW!  
[www.spirohome.com.tr](http://www.spirohome.com.tr)

