



# **#CreateTheUnthinkable – The Power of Quantum Sensing**

Dr. Katrin Kobe, CEO Bosch Quantum Sensing

In about 20 years we will be able to measure brain signals and transfer it into mechanical actions

Thus, we will control e.g. artificial limbs only with our thoughts.



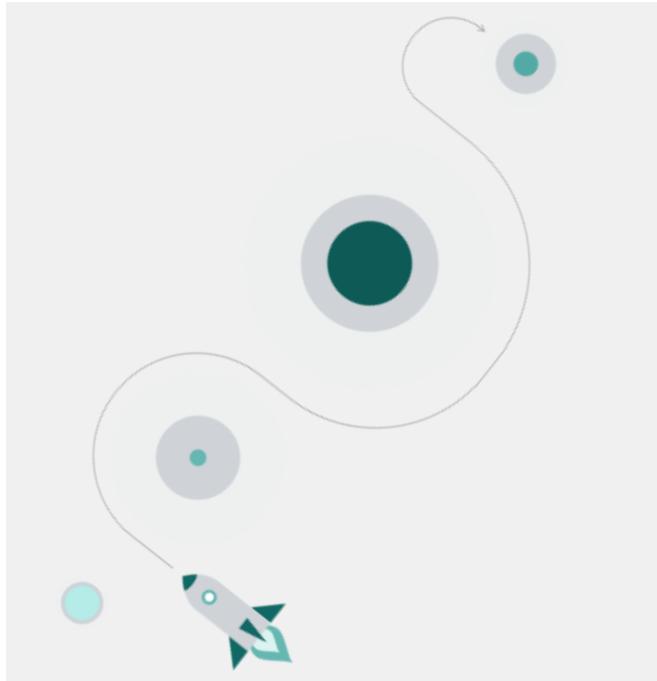
# @Bosch innovation is no coincidence!

## Three factors are essential:

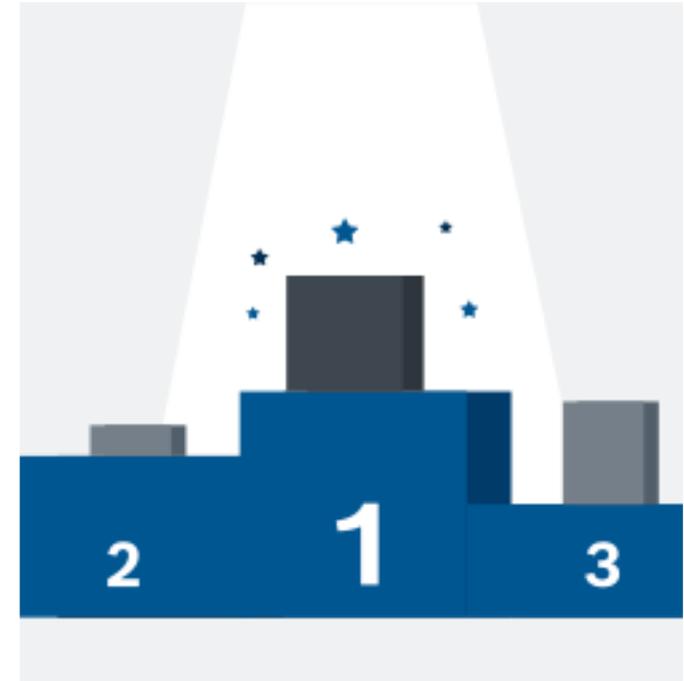
### Visionary thinking



### Agile & persistent acting



### Excellence in market and technology



# MEMS sensors can measure the noise of a helicopter...



...however, a quantum sensor can even measure the noise of a single falling snowflake



# GenN magnetic field quantum sensors offer various USPs



**EXTREME SENSITIVE**

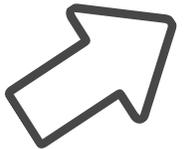


HAVE AN **EXTREMELY WIDE MEASURING RANGE**

ARE IN PRINCIPLE **MUCH SMALLER**



CAN PROVIDE **ADDITIONAL INFORMATION**



HAVE A **HIGHER SPATIAL RESOLUTION**



**ROBUST**

**CALIBRATION FREE**



# Bosch Quantum Sensing: An agile internal start-up was founded

- Launched as **new organizational unit in September 2021**
  - CEO (Dr. Katrin Kobe)
  - 7 dedicated associates
  - Own location in Renningen
- Since **January 2022 Internal start-up**
  - Located @ **grow platform**, a Bosch internal incubation platform for start-ups and intrapreneurs **in Ludwigsburg**
  - CTO (Dr. Frederik Schaal)
  - Currently 17 associates, 20 associates in perspective



# Variety of application fields identified

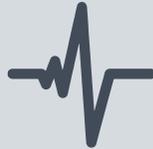
## The range of quantum sensors is huge

### Medical applications



**Mobile  
magneto-  
cardiogram**

### Consumer goods



**Heart monitoring  
of drivers**

### Exploration/ navigation



**Exploration of  
mineral  
resources**

### Process improvements



**Non-destructive  
material test**



**Control of  
prostheses**



**BCI - Game  
Controller**



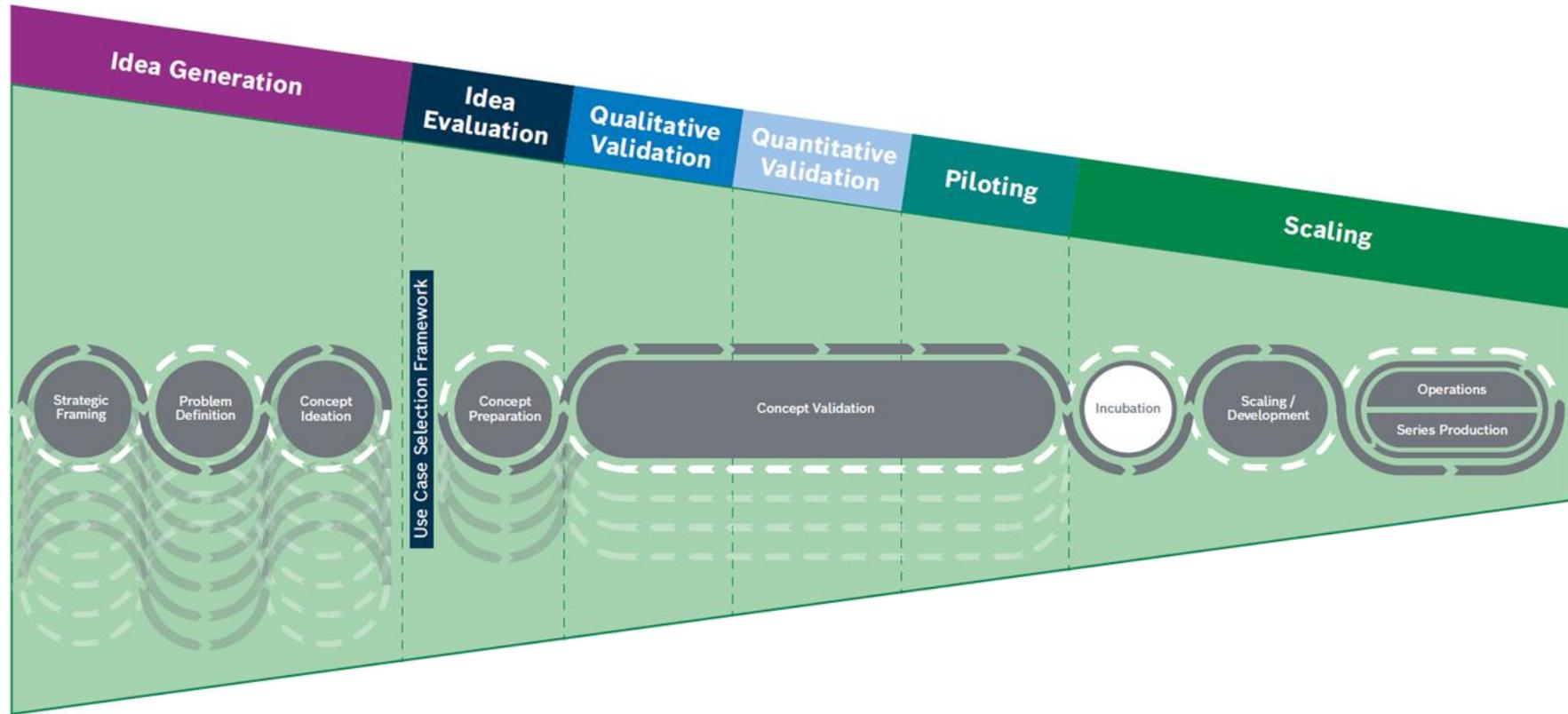
**Airplane  
navigation**



**Battery control**

# Understanding of market trends & customer needs is necessary

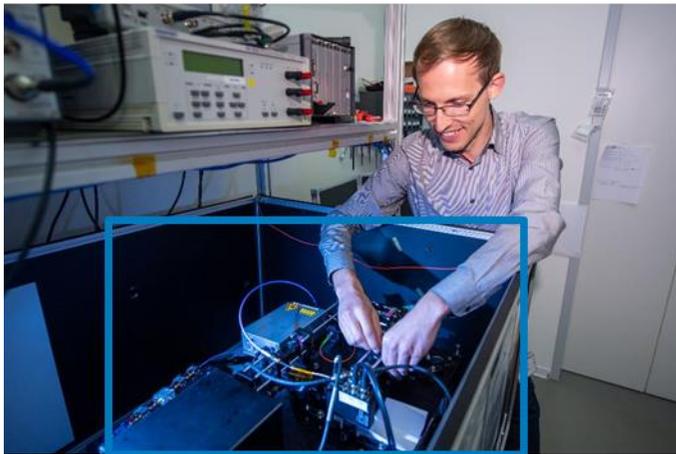
## The systematic funnel management ensures business success



# Magnetometer lab set-up becomes first compact prototypes

## We were able to reduce the size of the lab set up to half a milk box

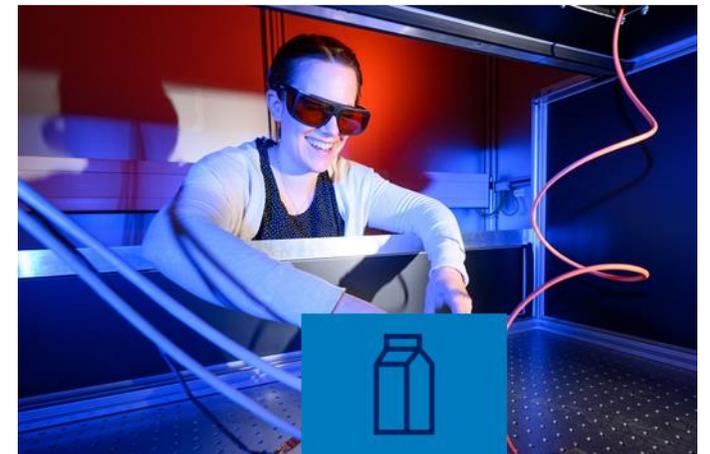
**2021**  
LABORATORY SET-UP



**2022**  
SHOE-BOX SIZE



**TODAY**  
HALF MILK BOX SIZE



The day you can control things only by thoughts comes closer  
With our excellent & highly motivated team, we work hard & persistent on  
market & technology to realize the vision of the jumping child.



# Join Us Into A New World!

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