

04 : 00



03:59



03:58



Tracer

harness AI to fly unmanned area vehicles
to deliver defibrillators in
four minutes



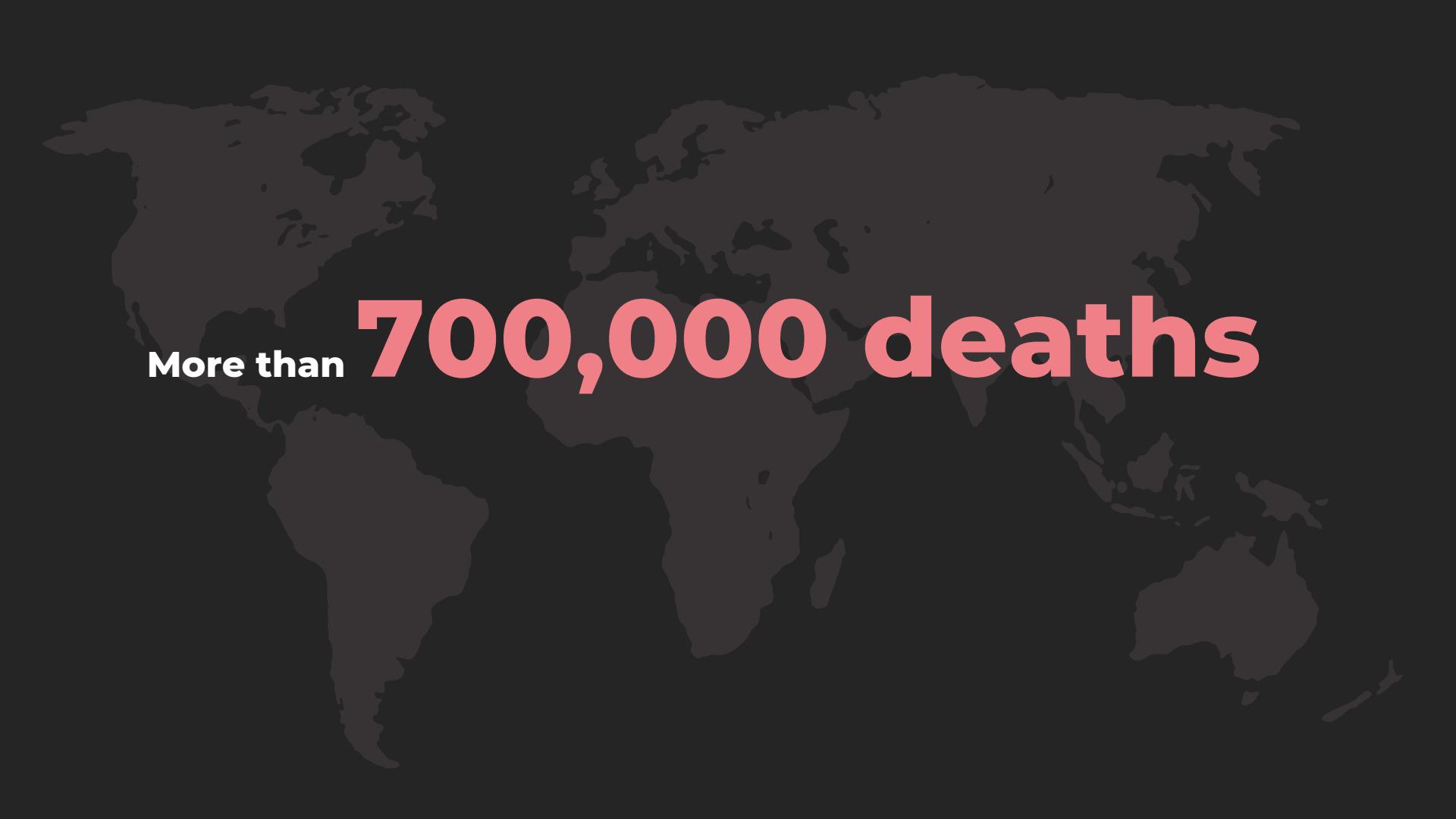
Tracer





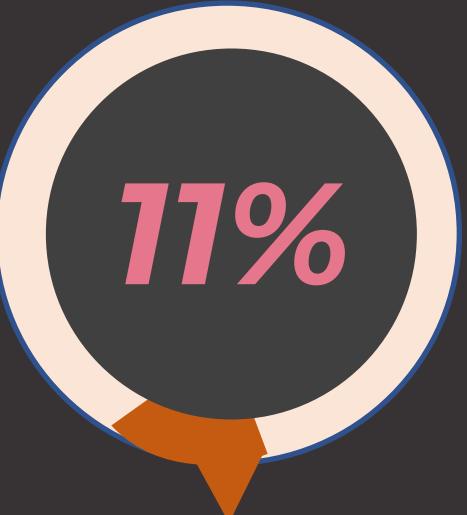
Tracer





More than 700,000 deaths

75,000 Germans



71%



01 **Accurate** payload delivery

02 **Strategic** area coverage

03 **Higher** chance of survival

Local governments



**A fight together
against cardiac arrest**



Drone companies



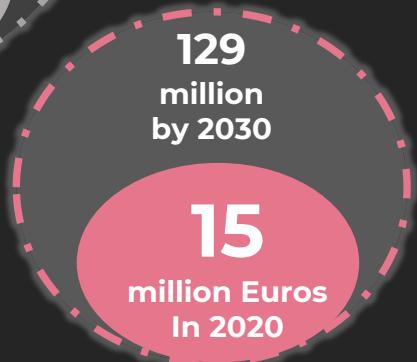
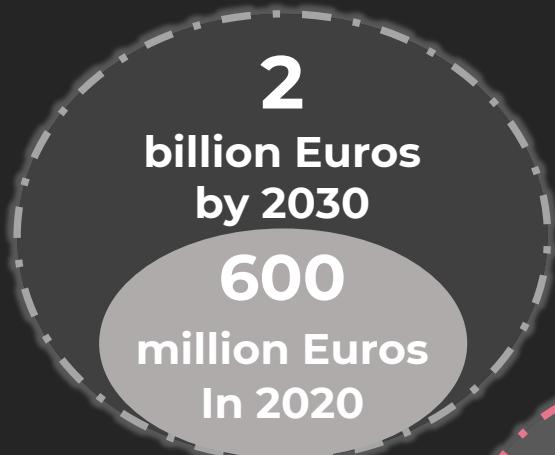
**Software approved to fly
over populated areas**

- Pay-per-drone
- Drone rental / purchase

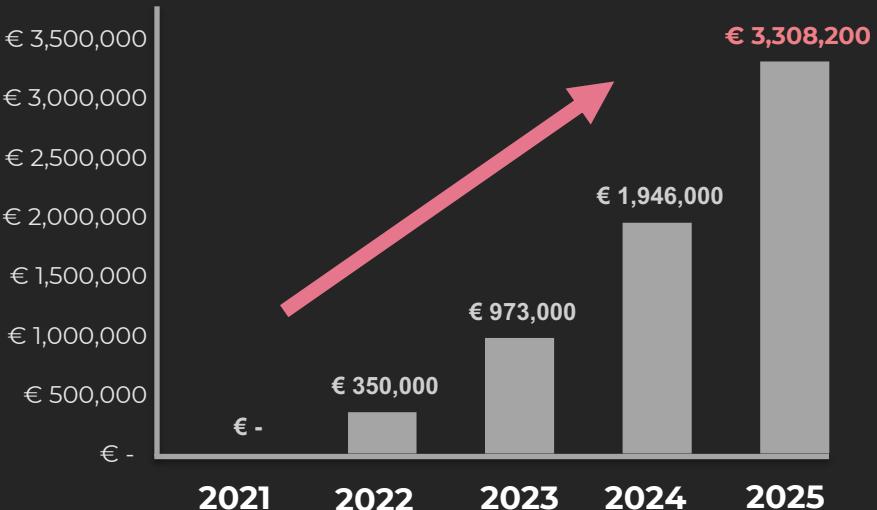


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Market Analysis



Project Revenue Growth





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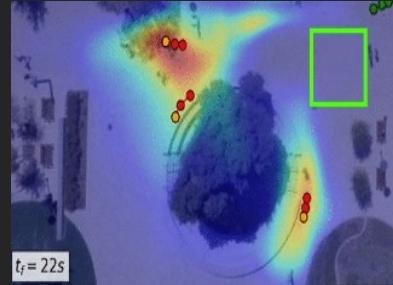
Our Key Success Factors



**Our partnerships
with mobile
rescuers**



Our drone ports



**Our AI-powered
drone**



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Problem

- Remote pilot manually evaluates
 - is ground free next 15-30 sec.
- Manual decision takes life-critical time
- Impossible to handle multiple drones this way





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Solution

AI-powered, automated control dashboard *Tracer*

- TRACE object trajectory 30 sec. into future
 - Based on SOTA (2021) model PECNet
- Suggest, when and where it's safe to drop the defibrillator





Tracer

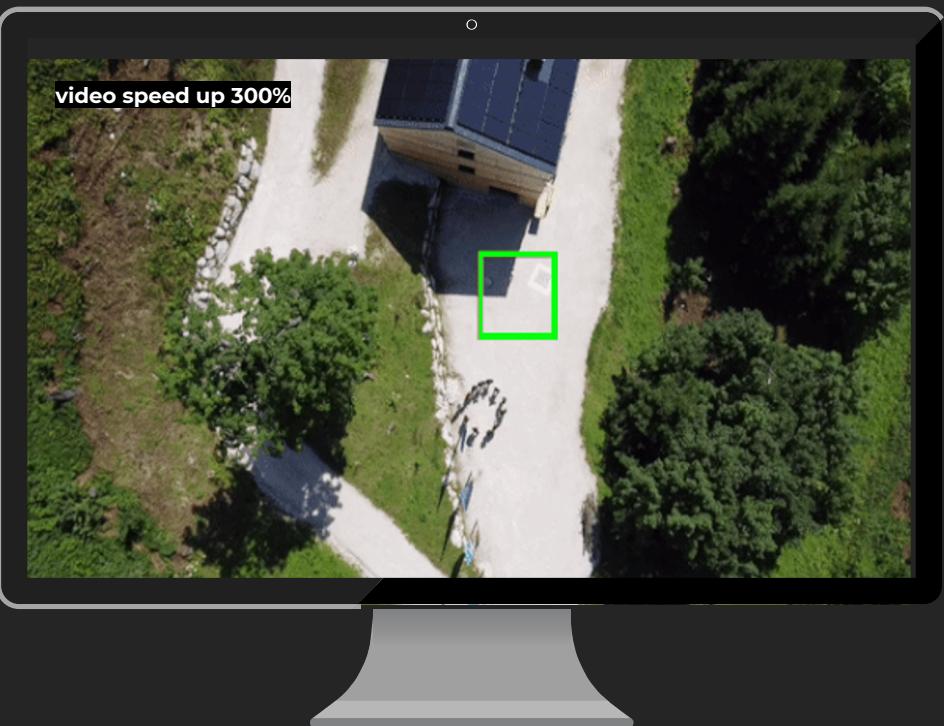
We can track and estimate probability of multiple safe drop locations





Tracer

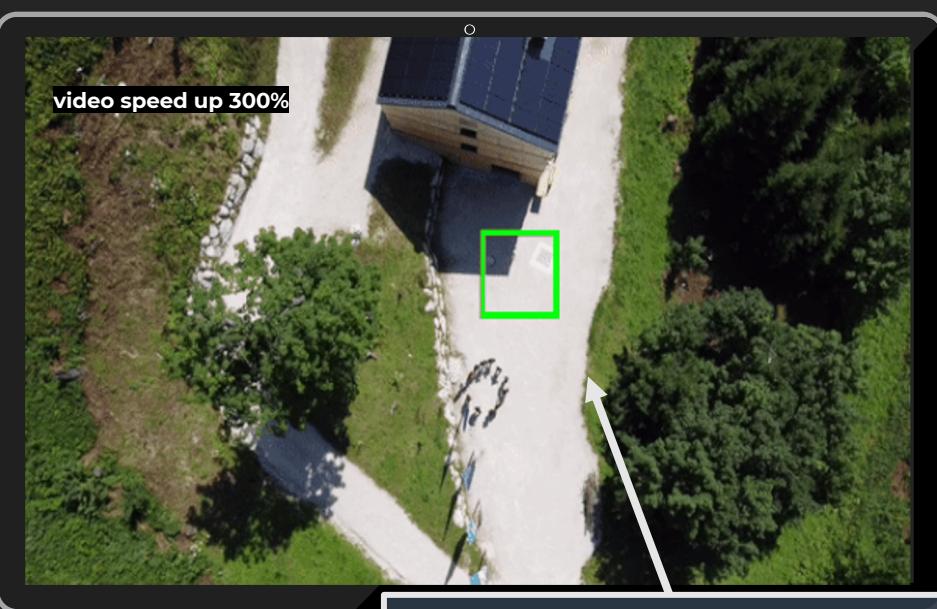
**System was also tested on real footage
provided by HORYZN**





Tracer

System was also tested on real footage provided by *HORYZN*



Fraction of sec. or just 1.5 human steps is sufficient for a model to Trace drop-safety

“

No time to die

- 007TM





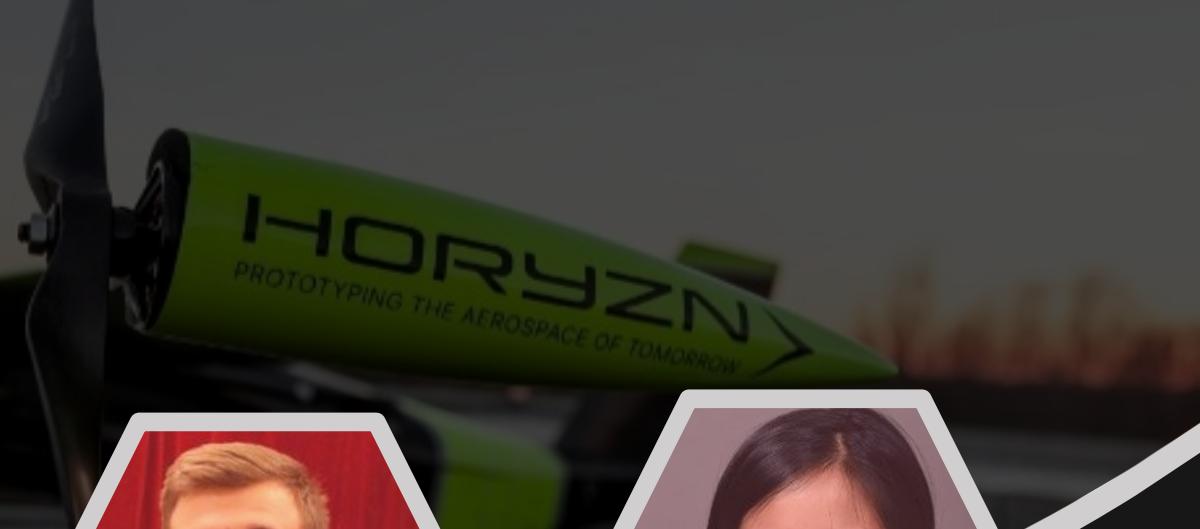
00 : 02



00 : 01



Team Tracer



**Shruti
Pistolwala**

Rapid Prototyping | Innovator
| Telemedicine



**Arslan
Gabdulkhakov**

Psychology | Neuroinformatics
| Cognitive Science



**Clarissa
Anjani**

Cloud hybrid | IT Strategy
| Logistics



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Appendix

Problem	Solution	Unique value proposition	Unfair advantage	Customer segments
<p>Ambulances take 9 minutes to arrive to victim surviving from cardiac arrest</p> <p>Manual evaluation by pilots in life-threatening situations to handle multiple drones is almost impossible</p>	<p>Drone powered by AI that can predict location of moving object in 30 second time frame</p> <p>Strategic placement of drone ports within 6 km radius to cover more than one village</p>	<p>01 Accurate Payload delivery</p> <p>Strategic area coverage</p> <p>Higher chance of survival</p>	<p>Our team with background in niche fields such as neuroinformatics, telemedicine, cloud hybrid, and computer vision.</p>	<p>Existing drone companies who need certified software to have their drones fly over populated areas</p> <p>Government agencies who want to fight cardiac arrest</p>
Existing alternatives	<p>First responders network such as Mobile-retter, Bavarian Red Cross, and Lebensretter who run to the scene of cardiac arrest but will take longer than 4 minutes in rural areas</p> <p>Ambulance that arrives 9 minutes on average</p> <p>Defibrillators are far away from homes which is where 60% of cardiac arrest occur</p>	<p>Key metrics</p> <p>65 percent of cardiac arrest occur at home</p> <p>75000 Germans suffer from cardiac arrest with 11% survival rate</p> <p>700.000 die annually in US and Europe from cardiac arrest</p>	<p>High level concept</p> <p>Ambulances are slow, letting people die, drones are fast</p> <p>harness AI to fly unmanned aerial vehicles to deliver defibrillators in four minutes</p> <p>Drone HW + software</p>	<p>Channels</p> <p>Unternehmer TUM Network</p> <p>Large presence of drone startups in Bavaria</p> <p>Connections with partner companies and government agencies in Bavaria</p>
Cost structure				<p>Early adopters</p> <p>Existing drone companies who are struggling to get their feet off the ground</p> <p>Government agencies in rural Bavarian villages</p>
		<p>Drone structure (variable)</p> <p>Drone drive system (variable)</p> <p>Flight tests (variable)</p> <p>Hardware costs (variable)</p> <p>Marketing (fixed)</p> <p>Work permits (fixed)</p>	<p>Revenue streams</p> <p>Pay per drone</p> <p>Drone rental / purchase</p>	

Board link:

https://miro.com/app/board/o9J_lpjBNEo=/?invite_link_id=567625382981

2021- 2022
Drone rollout in
Bavaria

2023
SaaS rollout to
drone companies

2024 ++
Other medical products
Other industries





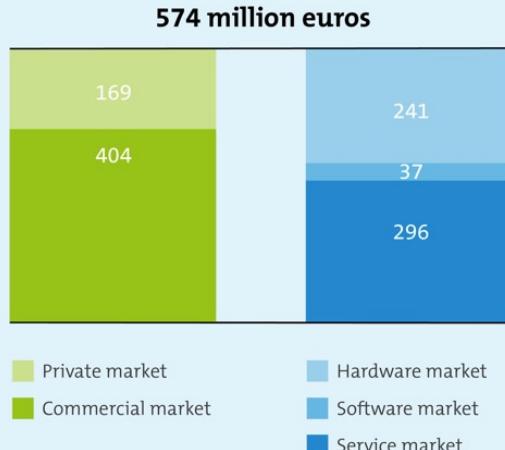
Tracer

Competitive Analysis

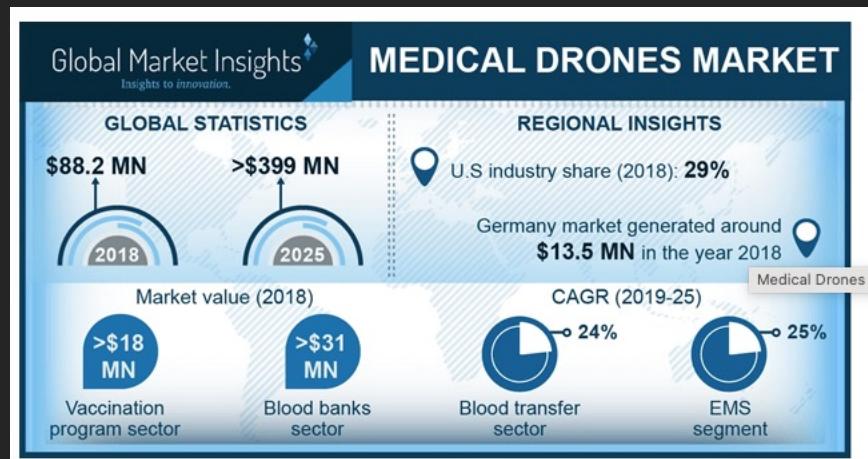
	Tracer	HEIGHT TECH	WingCopter	Everdrone AB	Canada Drone Delivery
AI-powered platform	● ● ●	● ● ● ●	● ● ●	● ● ● ●	● ● ●
eVTOL Drone	● ● ● ●	● ● ● ●	● ● ●	● ● ● ●	● ● ● ●
Focus on Cardiac Arrest	● ● ●	● ● ●	● ● ●	● ● ● ●	● ● ●
Focus on Germany	● ● ●	● ● ● ●	● ● ●	● ● ●	● ● ●

Market Analysis

How high is the market demand in Germany? (In million euros*)



https://www.verband-unbemannte-luftfahrt.de/wp-content/uploads/2019/08/VUL-Market-study_english.pdf



https://www.gminsights.com/industry-analysis/medical-drones-market?gclid=CjwKCAjw8KmLhB8EiwAQbqNoPA4fcybbBoQU-XKc2BRkKPR3CHWfx0QdTncPTw5V5F2Ne5cZphShoCmt8QAvD_BwE

Financials

	2021	2022	2023	2024	2025
Projected Revenue	€ -	€ 350,000.00	€ 973,000.00	€ 1,946,000.00	€ 3,308,200.00
Projected Cost	€ 129,115.00	€ 193,672.50	€ 387,345.00	€ 871,526.25	€ 2,178,815.63
Projected Profit/Loss	€ (129,115.00)	€ 156,327.50	€ 585,655.00	€ 1,074,473.75	€ 1,129,384.38
				Estimated Profit	€ 2,816,726

Budget planning for two years

Struktur		
Formmaterial	€	10,000
Tooling + Lightweight prepreg	€	15,000
Former Fräsen	€	30,000
Additiv gefertigte Bauteile	€	5,000
Bau- und Hilfsmaterialien	€	10,000
	€	70,000
Antriebssysteme		
Motoren	€	15,000
Propeller	€	20,000
ESCS	€	15,000
Batterien	€	10,000
	€	60,000
Elektronik		
Flugregler	€	5,000
On-board Rechnersysteme	€	5,000
Sensorik	€	5,000
Kommunikation und Daten	€	3,000
Flugverkehrsintegrationsmodul	€	3,000
Fallschirmsystem	€	10,000
Seilwinde	€	2,000
Attention and warningsystem	€	2,000
	€	35,000
Flugtests		
Ground control station Ausstattung	€	5,000
Entwicklungsprotoyp für elektronische Systeme	€	7,000
Entwicklungsprotoyp für operativer Systeme	€	10,000
	€	22,000

Offentlichkeitsarbeit		
Videoproduktion	€	6,000
Eventkosten	€	4,000
Werbermaterial & Teamwear	€	5,000
	€	15,000
Betriebsgenehmigungsantrag		
Gutachterengeld	€	15,000
Gesamt(Netto)	€	217,000
Mehrwertsteuer (Sponsoring)	€	41,230
	€	258,230

Key Statistics



<https://www.reanimationsregister.de/downloads/oeffentliche-jahresberichte/rettungsdienst/180-ausserklinischer-jahresbericht-2020/file.html>

Rural population (% of total population) in Germany was reported at 22.55 % in 2020, according to the World Bank collection of development indicators, compiled from officially recognized sources. Germany - Rural population - actual values, historical data, forecasts and projections were sourced from the [World Bank](#) on October of 2021.

<https://tradingeconomics.com/germany/rural-population-percent-of-total-population-wb-data.html>