



*SWISS HELICOPTER INNOVATION  
BEST IN CLASS*

<i>Where we come from</i>	<i>2</i>
<hr/>	
<i>Vision</i>	<i>3</i>
<hr/>	
<i>Market</i>	<i>5</i>
<hr/>	
<i>Product</i>	<i>11</i>

# WHERE WE COME FROM MARENCO SWISSHELICOPTER



SKYe SH09

The first new designed helicopter in its class since 1976 successfully designed and developed under the lead of Martin Stucki

---

Base for the know how for a new family of helicopters under consideration of all the existing experience

---

The new helicopter, a completely new, improved independent design





# VISION

The new concept is designed to stand out from the competition through an electrical drivetrain and many other features to improve usability and customer experience

First developments are a single and twin engine helicopter pair in the 3.5 ton class



The new design includes all the information from the market gained in several years of work in the industrie and hundreds of discussions with operators

---

Working together with partners worldwide which enable us the financing and participate in the project and commercialization of the helicopter



# MARKET PAIN

In the single engine helicopter market the best selling and newest product was initially developed 1975. The available models are overaged when it comes to design, technology, ergonomics and safety features

---

In the twin market the situation is not over the whole range that obvious from the perspective of overaged models but also in this segment the available models base mostly on old type certificates. In addition customers are forced to heavier and larger models as the lighter helicopter do not perform good enough

---

Compared with other products spare parts are overpriced. In addition the service and delivery times of parts are sometimes bad

---

The few helicopter models available, from mostly one manufacturer only makes the market customer unfriendly



# MARKET FACTS

8

8 western manufacturer

1K

Small series, around 1000 turbine helicopter delivery per year. Mainly from three manufacturer

0

No products available for aerial work in the 2 to class that have a cabin and can operated competitive. No modern helicopter to replace Bell 205/212/412

45

In the single engine market 45% market in USA followed by Europe

LIGHT  
TWIN

Light twin largest market in Europe, HEMS



Large growing markets, market potential in other parts of the world



# MARKET POTENTIAL

*\* numbers for the civilian market*

800

Around 800 helicopters deliveries per year

50

Minimum 50%, 400 helicopters market potential with the two models

60

60% of the light single engine market

100

100% of the light twin engine market

30

With a market share of 30 percent, 120 helicopters per year could be sold



# A GREEN AIRCRAFT

High Efficiency thanks to low disc load

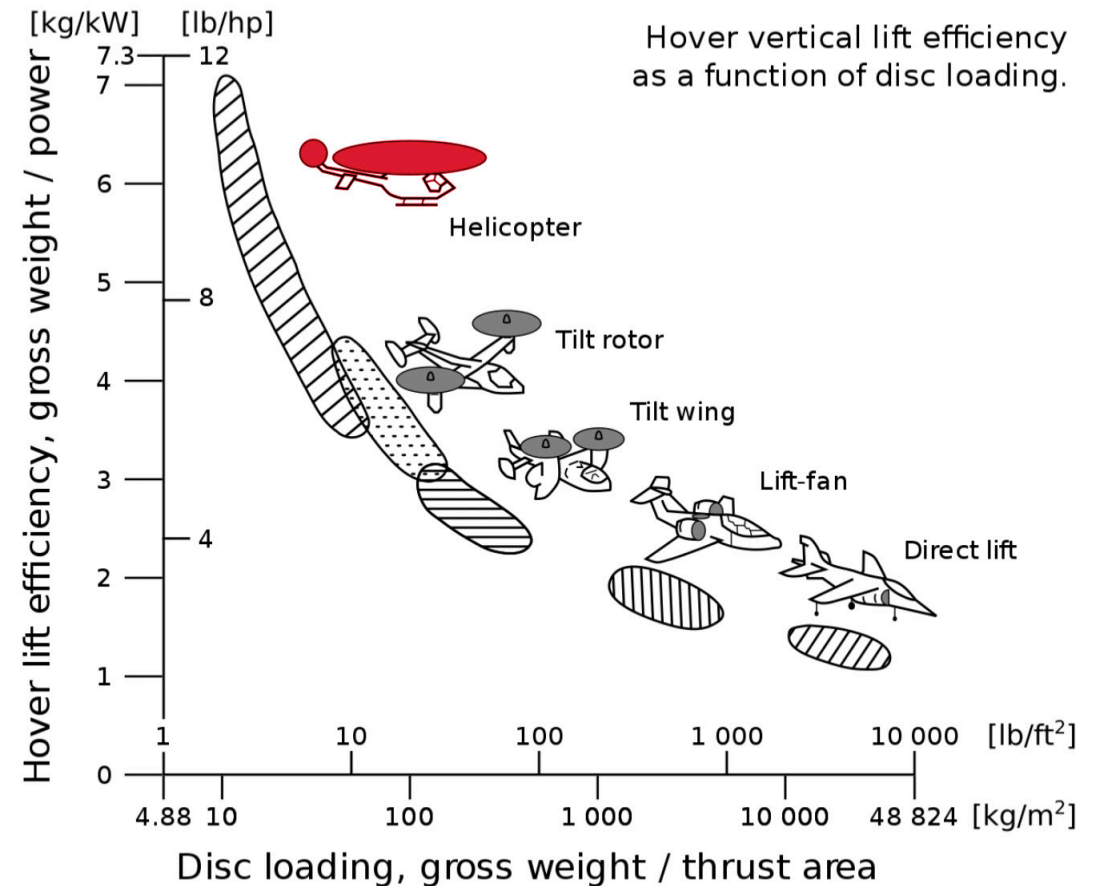
Drivetrain prepared for future technologies, e.g. fuel cells, powerful batteries

Possibility to allow for variable rotor speed or turned off tail rotor in forward flight, better efficiency lower noise level

Operation purely electrical close to noise sensitive areas for certain models

Simple implementation of a twin or a single engine helicopter on the same platform

Modern turbine engine with a low specific fuel consumption



# POTENTIAL FOR 30%+ MARKET SHARE

Structure of the market, one manufacturer, Airbus delivers 70% of the aircrafts in this segment (H125, H145). Our new models outperform the existing models in:

*Performance (excellent hot and high performance of both models, higher payload)*

*Ergonomie, modern aircrafts, designed for serviceability, designed to provide the best possible working environment for the crew*

*Modern engine with low fuel consumption, modern drive train with additional safety advantages for the single and twin helicopter*

***The SH09 has proven that the market does not only accept new models, the market is eager for new models!***



# eVTOL VS. CONVENTIONAL HELICOPTER

## WITH HYBRID DRIVETRAIN

Fancy rotor concepts promise simpler rotorheads and smaller footprints of VTOL aircrafts

---

They come with the disadvantage of unknown but large investments into software and their certification and very high-power demands in hovering flight, due to extremely high disc loads

---

The market for eVTOLs might be existing but needs to be developed first

---

A hybrid drivetrain allows to satisfy possible future demands of city taxi and other new markets but with the backup from the existing proofed market, a hybrid drivetrain allows a simpler development of a helicopter with a pushpropeller to fly at higher speeds

---

A hybrid drivetrain simplifies the drivetrain mechanically, it allows for higher redundancy and more safety in the case of an engine failure

---

The helicopter can be flown by every helicopter pilot without the need of flight control software









# THE HELICOPTER

## WITH HYBRID DRIVETRAIN

A conventional but innovative helicopter with a serial hybrid drivetrain.

---

Largest possible commonality between the single and the twin model

---

Multi purpose layout through a large cabin, flat floor excellent cabin access through two sliding- and clamshell doors

---

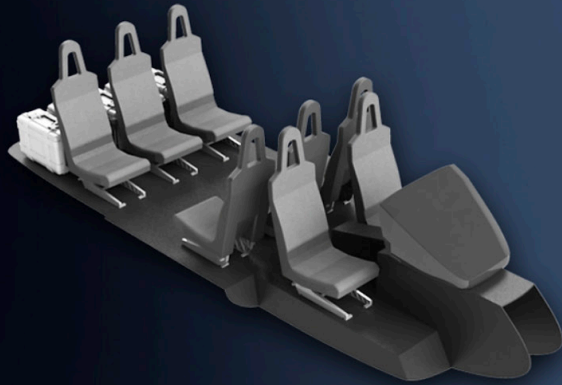
Excellent ergonomics and view for the crew

---

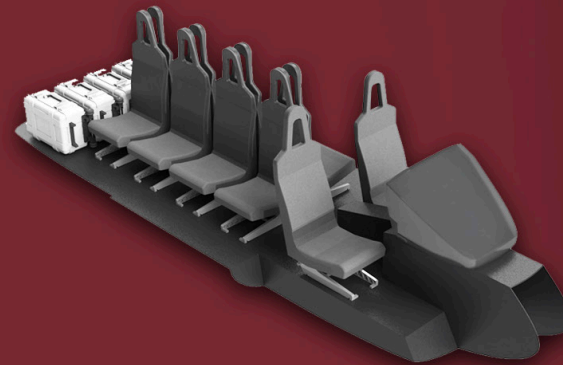
A Helicopter for: Aerial work, HEMS, Fire-fighting, Passenger Transport



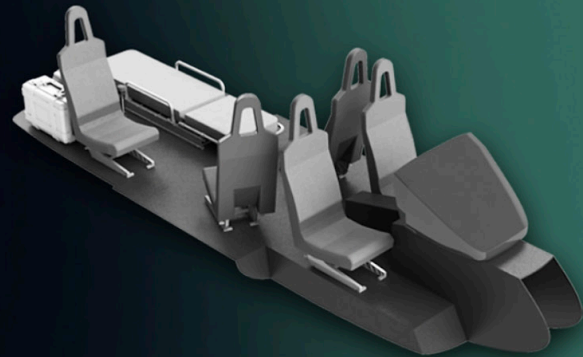
# MULTIPLE LAYOUTS



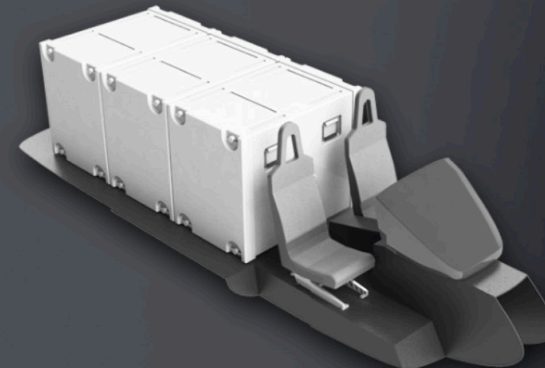
**TAXI**  
7 PAX / 1 PIC  
BAGGAGE



**FIREFIGHTERS**  
9 CREW / 1 PIC  
EQUIPMENT



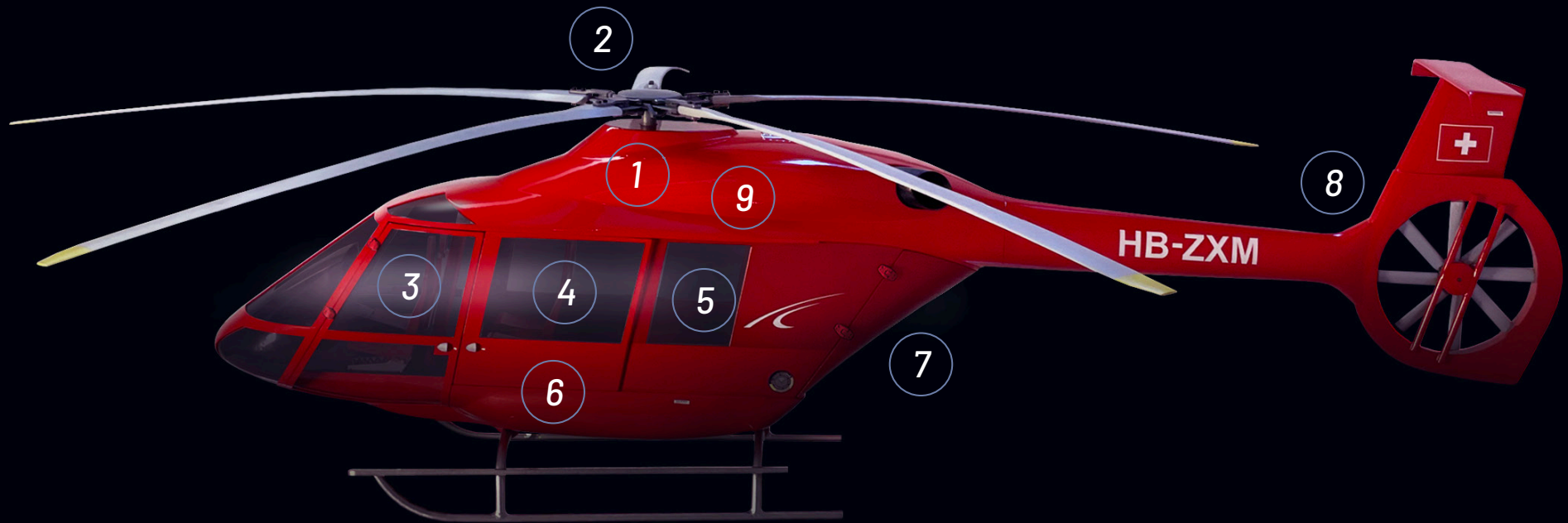
**MEDICAL**  
4 PAX / 1 PIC  
STRETCHER  
EQUIPMENT



**CARGO**  
1 CREW / 1 PIC  
LOAD AREA:  
2.8 x 1.6 x 1.3 METERS

We focus on the individual need of our customers. Our multiple layout options make our helicopter a multi mission aircraft. Ready for passenger transports (Taxi), authorities (Firefighters, Police, Military, etc.), rescue missions (Medical) and transport flights (Cargo).





- 1 Serial Hybrid Drivetrain | Electrically driven Main and Tailrotor | Simplified Gearboxes | No Tailrotor Driveshaft | Higher Safety through Battery Backup
- 2 Modern, Lightweight 5 | Blade Mainrotor | Low Vibration
- 3 Modern Cockpit | Fully adjustable seats | Excellent view for the pilot | Special Provision for Sling Load
- 4 Spacious Cabin Wide Sliding Door Flat Floor, Rail
- 5 Up to 8 Passenger and Luggage | Stretcher, 4 Crew Seats, Equipment | Fast and Simple Changes between Configurations
- 6 Large Fuel Capacity 3h Autonomy | Crash Resistant Fuel Tank
- 7 Large Clamshell Doors
- 8 Shrouded Tailrotor | Lower Noise | Higher Safety
- 9 Modern Engine | Low Specific Fuel | Consumption



**M12 / M22**

4'478 m / 14'692 feet / payload 1'200 kg



**SH09**  
4'478 m / 14'692 feet / payload 600 kg

**Lama**  
4'000 m / 13'123 feet / payload 600 kg

**H125**  
3'500 m / 11'482 feet / payload 600 kg

**Bell 407 H130**  
3'000 m / 9'482 feet / payload 600 kg

*Payload: + Pilot 80 kg / 176 lbs / + Fuel 120 kg / 264 lbs / @ ISA +20 °C / + 68 °F*

Best in class hot and high performance

---

Outstanding payload capability in high altitudes and hot weather conditions

---

1'200 kg at 4'500 m asl instead of 600 kg as the closest competitor

In combination with a spacious and highly flexible cabin and a modern drivetrain

---

Capable to compete in the H125 and Bell 205 class for aerial work and in the H135/H145 for HEMS operation



MARENCO SWISS HELICOPTER: SAFE – ECOLOGICAL – ECONOMICAL



*Thank you for your attention!*

*[marenco-swisshelicopter.com](http://marenco-swisshelicopter.com)*