

## Pareto Securities Healthcare Conference 2 - 3 September 2020

Presented by:

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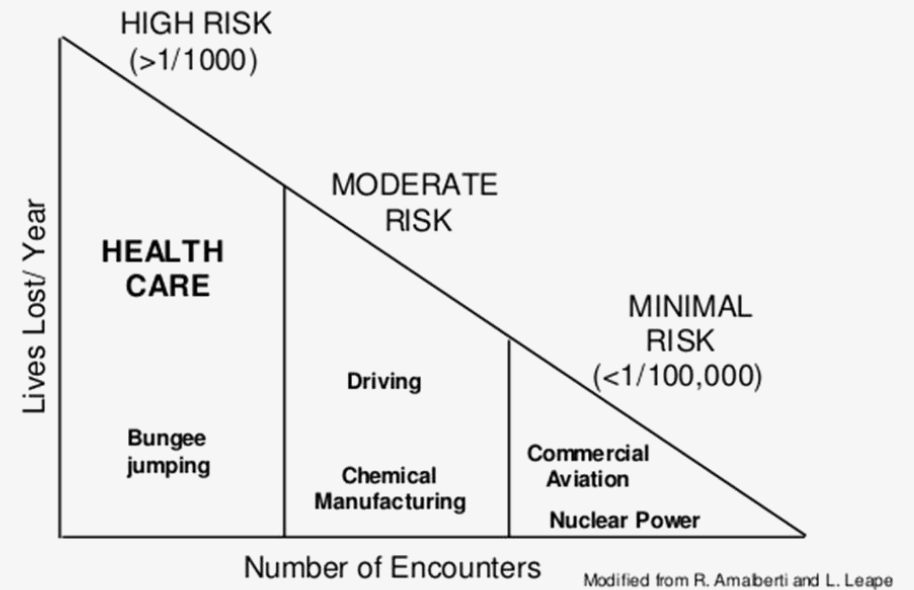
# Flight Simulation

- “In a flight simulator, a variety of failures in human and machine behavior can be reproduced without compromising aviation safety. Thus, it is possible to investigate the impact of new features, new equipment, or new procedures on the avionics system. Regarding training, the flight crew can gain the necessary operational skills required without affecting other aircraft.”*

(The Art of Flight Simulation by Jonathan Gabbai on February 24, 2001)

***In healthcare the 100-year-old apprentice model is still the standard operating procedure. With today's environment and complexity, this is no longer relevant, viable and should not be accepted.***

## Comparison of Risk in Health Care With Other Industries



...Aviation today is < 1/10 000 000

# We are not really a simulation company!

...we are not even a medical training company

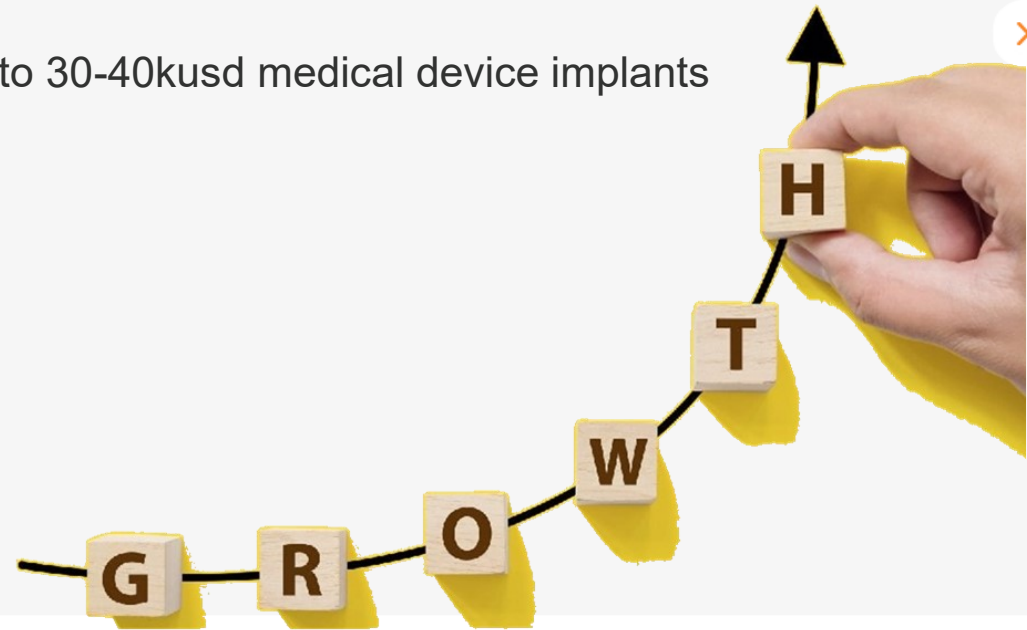


**..we are a provider of performance solutions for  
endovascular therapies!**

...and of course simulation is a core part of our technology😊

# Why is this important?

- Academic training is non-commercial and still at large unstructured
- Medical simulation is a broad definition and typically very different to our solutions
- Very large opportunity to move the frontier of proficiency for practicing interventional physicians (endovascular)
- Our technology has the unique ability to allow rehearsal on actual patient data which is unique for our field!
- Endovascular procedures are unique in the sense of deployment of up to 30-40k USD medical device implants per patient which make this market highly attractive





*Can this be further substantiated?*

- About 50% of the cases performed in the world are performed by physicians that have not yet reached their proficiency level
- This leads to longer procedure times, patient dissatisfaction and complications
- Another problem is access to care (example Stroke) where a large amount of patient are not able to receive the appropriate treatment
- This is further accelerated for Endovascular therapies due to
  - i. rapid roll out of new procedures, techniques and devices
  - ii. consequences of a mistake is often very serious and may lead to death

# What is our business?

- Academics and skills centers are just a small part of our business
- 60% or more of our business is based on commercial use of Mentice solutions for the Medical Device Industry
- Medical Device Industry need simulation (and in many cases required to use) to safely bring products to the market so linked to true value
- We have a large majority of the worlds market for Medical Device

- *In addition our **imaging industry partners** are providing a direct distribution to the hospital market were an attachment rate of just 10% would double our annual volume however a 30-50% attachment rate or higher is possible.*
- *Unique agreements in place with No1 and No2 in the imaging market and No 3-5 are lining up*



# Siemens Artis Icono, Philips Azurion and Mentice VIST™



- *The ultimate realism using actual equipment*
- *Mentice providing the virtual patient hence the only alternative to a real patient*

*We will move from our Strategic Alliances being about 7% of our business in 2019 with a significant increasing share in 2020 despite the negative effects of the pandemic.*

# Summary of key positions?



## Key topics:

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Structured and continuous improvement of skills using objective assessment for all levels of expertise

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Proximity to clinical practice and cathlabs (stand-alone and integrated)

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Patient specific solutions to provide physician expert guidance and planning opportunities for advanced cases

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Robotic assisted interventions and remotely controlled procedures

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*Scalable solutions to fit every client's need...  
from 3D concept animations to  
immersive training inside the  
angio-suite.*



*Concept animations &  
Ultra-portable tablet solutions*



*Portable single  
device simulation  
solutions*



*Portable  
single & multiple  
device simulation  
solutions*



*Immersive  
simulation  
solutions*

# The expanding product portfolio:

Acquire core  
procedural skills

*Primary*

Reach  
proficiency  
using objective  
benchmarks

*Proficiency*

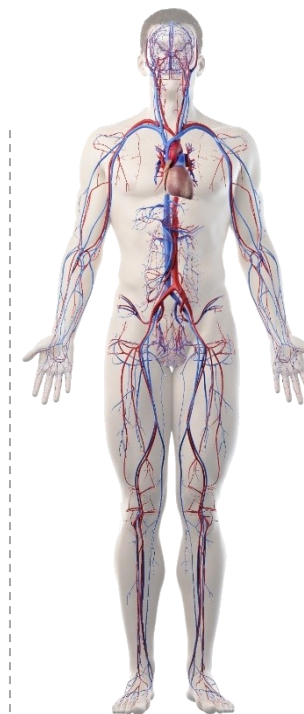
Collaborate with  
teams & refine  
process

*Process*

Plan & rehearse  
patient specific  
procedures

*Precision*

Provide decision  
support during  
procedure

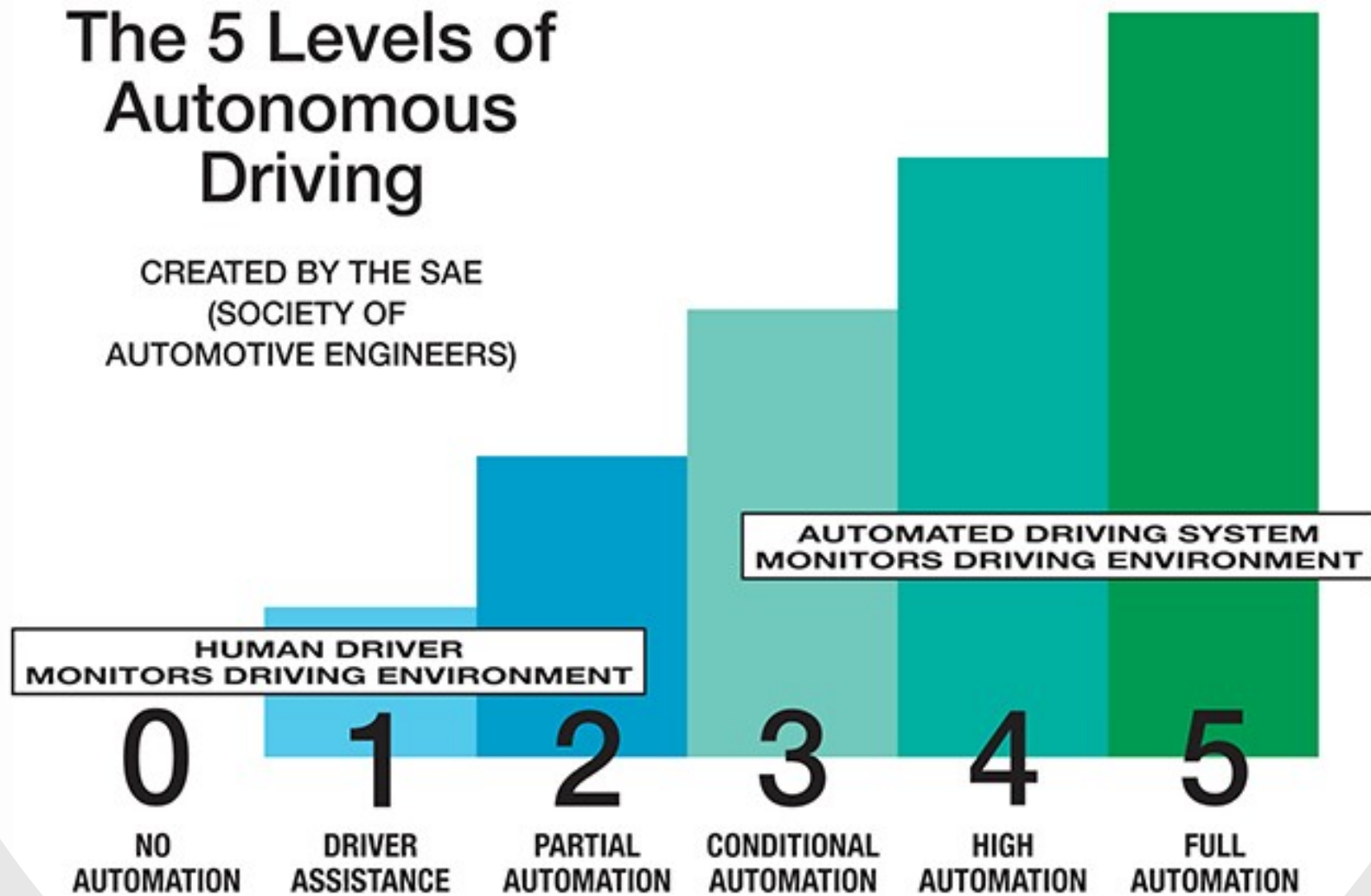


*Predictive*

# SELF-DRIVING CARS

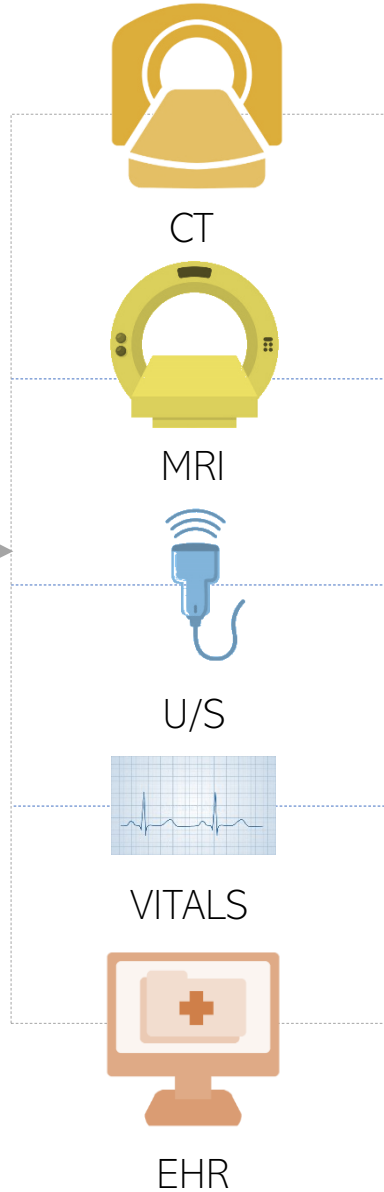
## The 5 Levels of Autonomous Driving

CREATED BY THE SAE  
(SOCIETY OF  
AUTOMOTIVE ENGINEERS)



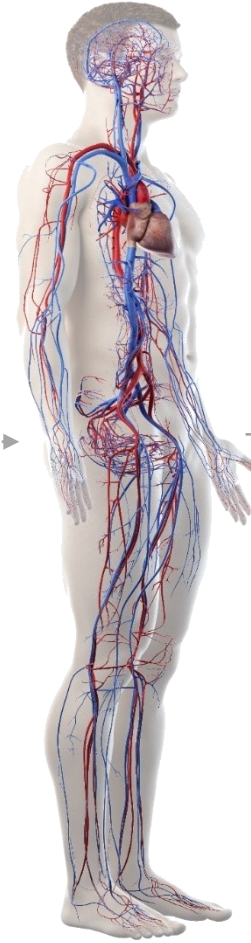
# Defining The Vascular Twin™ of the future

Meet Bob



HIGH SPEED  
AI-DRIVEN  
CONSOLIDATION

Bob's Vascular Twin  
Model



ULTRA-REALISTIC  
IMAGING

VALIDATED  
HAPTICS

HIGH ACCURACY  
FLOW &  
ANALYTICS

Bob's Vascular Twin  
in Clinical Practice



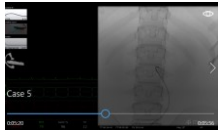
REHEARSAL &  
PROCEDURAL  
DECISION SUPPORT  
BEFORE, DURING &  
AFTER INTERVENTION

DATA ABOUT "ROADS"

DATA ABOUT "DRIVERS"

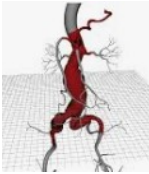
# Conceptual product evolution

## Stage 0 Fixed cases



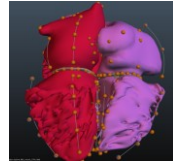
Training modules with a number of predefined fixed patient anatomies and scenarios.

## Stage 1 Case-It



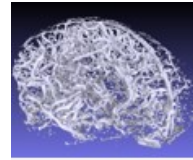
Ability to import a segmented partial vessel structure in STL format and stitch to a template anatomy, to create a custom simulation with basic case functionality.

## Stage 2 Template Case Creation



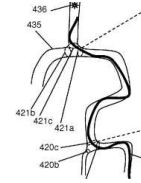
Ability to import an annotated CT scan into a tool and adapt to a specific template anatomy (typically the heart) to create a custom simulation. Some manual work involved.

## Stage 3 Automatic Anatomy Generation



Fast and easy custom anatomies created using auto or semiautomatic tools for extracting patient anatomies directly from CT, 3DRA, etc. May be both vessels and heart anatomies.

## Stage 4 Decision Support



Physics engine with new abilities, capable of analyzing the custom anatomy providing some level of guidance or decision support to the user, also able to handle a generic anatomy import. Provides tools for preproc planning.

## Stage 5 Assisted Procedures



Ability to automatically and quickly import a specific case anatomy, and analyze it to be able to provide significant assistance to the physician or robot responsible for the procedure.

## Stage 6 Automated Procedures



Fully automated anatomy import, analysis and AI controlled execution of a procedure, supervised by a physician, i.e. A "selfdriving" intervention.

2021

202X

>202X



Becoming a  
significant  
component in the  
migration to robotics  
and remote services

Becoming a significant component in the migration to robotics and remote services

- **Use Case Marketing:** Using a Mentice simulation system to easily demonstrate the capabilities of a robot system without the need of a patient. Can be done with the full HW systems, but also in a lightweight SW only setting.
- **Use Case R&D:** Simplifying robot technology development by eliminating need for HW or patients, for example by using the Mentice SW/Physics Engine paired with a new Control Panel for the robot, to evaluate new input methods.
- **Use Case Remote control:** Using Mentice system as input device to control the actual patient case performed remotely
- **Use Case Autonomous Interventions :** Using the Mentice Simulation SW/Physics Engine to train an AI system controlling the endovascular robots.

*We are in no way limiting the view of our solution “just” being a training solution, our ambition is to be a critical part of the clinical process*

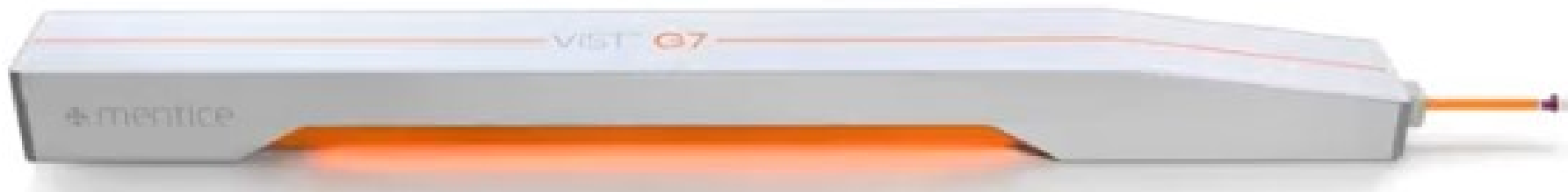
# What's significant for Mentice product advancements for the last 12 months?

## New products launched to the market:

- **VIST™ G7/G7+ :** New generation of device with technology shift in haptics technology, along with patent protected bifurcation support.
- **Coronary suite:** Targeted training for specific groups including groundbreaking solutions for Bifurcation.
- **Mentice Cloud:** A significant step towards integrated and structured learning, benchmarking and certification/accreditation and remote services
- **Mentice Apps:** Launch of the first commercial application for handheld devices, Right Heart Cath(RHC) to be offered at the Apple Appstore.
- **Transradial Approach:** A separate module for radial access training including content on the Mentice Live Learning Center.

## Technology development offered to the medical and imaging industry marketplace:

- **Imaging modalities:** Significant advancement for the ultrasound platform for TEE and ICE providing the markets leading solution for interventional 2D/3D ultrasound.
- **Precision Medicine:** Significant advancement within the Cardiac Sculpture Platform targeting patient specific simulation and precision medicine integrating both ultrasound and fluoroscopy allowing for very fast creation of patient specific anatomy for advanced cases.
- **Automated segmentation:** Significant investments in the area of automated segmentation with a well-defined plan to integrate with the updated Precision Medicine product allowing for a more complete and easier to use solution.



# Second Quarter of 2020

## Encouraging performance for second quarter and positive signs for the medium to long-term outlook

### Order intake status

- Overall on par with last year despite extremely difficult market conditions due to the pandemic
- Significant drop in sales to the hospital/healthcare system segment due to the lockdowns during the pandemic. Currently only at about 1/3<sup>rd</sup> of orders compared to 2019 ytd
- Medical Device Industry sales order intake currently up over 60% end of July compared to same period last year and at 80% of full year 2019 orders received
- Strategic Alliances already at full years 2019 order intake despite imaging market being negatively impacted by the pandemic
- US order intake for end of July over 90% compared to 2019 full year orders received.

### Net sales, orderbook and overall cost levels

- **Order intake:** At 60.9msek for the first six months compared to 60.0msek for the same period last year
- **Net sales:** Despite some delays in deliveries due to the pandemic, net sales at 58.1msek first six months compared to 59.8 for the same period last year.
- **Order book:** Order book at 50 msek based on strong order intake for the month of July and 60% of this scheduled for 2020
- **Cost levels:** Operating expenses for the first 6 months of the year at 62msek (10.3msek/month) compared to 70.3msek(11.7msek/month) for the same period last year
- **Cash flow from operations:** 16.7msek in positive cashflow for the first 6 months compared to -4.5 for the same period last year
- **Operating Income before depreciations (EBITDA):** The operating income for the first 6 months at -12.5msek compared to -18.0msek for the same period last year

Very pleased with our ability to be on par with last year for the first 6 months

# Outlook – Third and Fourth quarter of 2020 and beyond

- Continued corrective actions to counteract the effects of Covid-19 however expectation to slowly getting back to hiring and increase use of consultants coming into September and later part of the year.
- Difficult to assess the impact of Covid-19 for Q3 and Q4 especially due to recent outbreaks in many regions of the world
- We generally we see elective cases getting back normal also carrying a large backlog of elective cases
- Slightly improved outlook for Healthsystems for second half of the year and continued strong demand from the Medical Device industry and Strategic Alliances marketplace
- Significant opportunities connected to Mentice structural heart related technologies for the next couple of years
- **Strategic Alliances:** Promising dialogues with our strategic partners on how to further integrate both business models and technology to drive mutual benefits
- **Technology:** Continued strong focus on core development combined with several new significant industry development projects
- **Medical Device Industry:** Valve related procedures (aortic, mitral and tricuspid) are the most obvious growth market however Mentice see business opportunities across specialties and procedures, typically novel techniques, high risk, complicated and high cost procedures



