

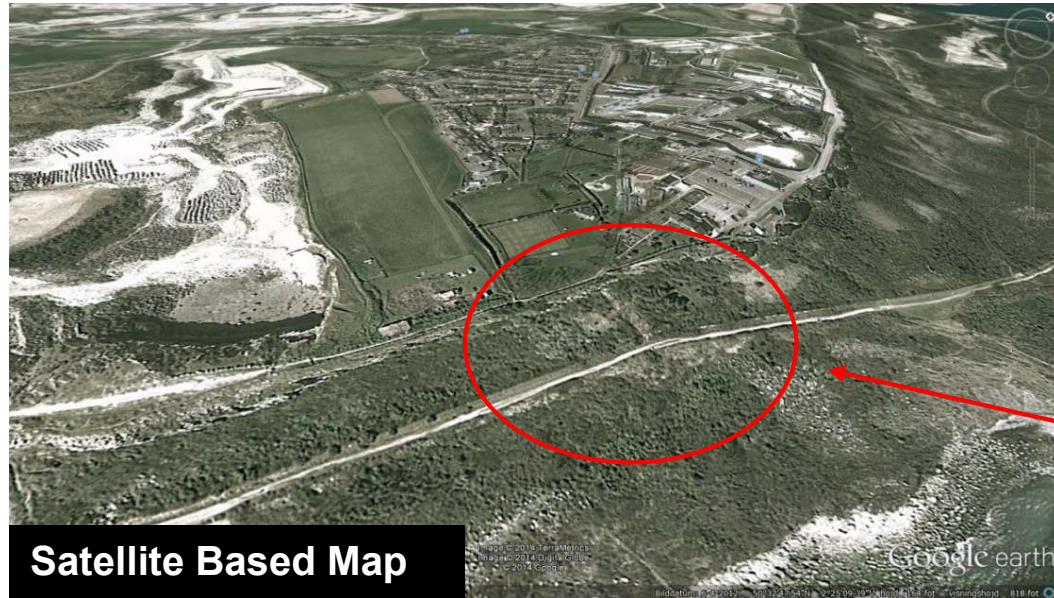


# The Globe In 3D

Leif Haglund, Managing Director  
[www.vricon.com](http://www.vricon.com)  
Sep 2020

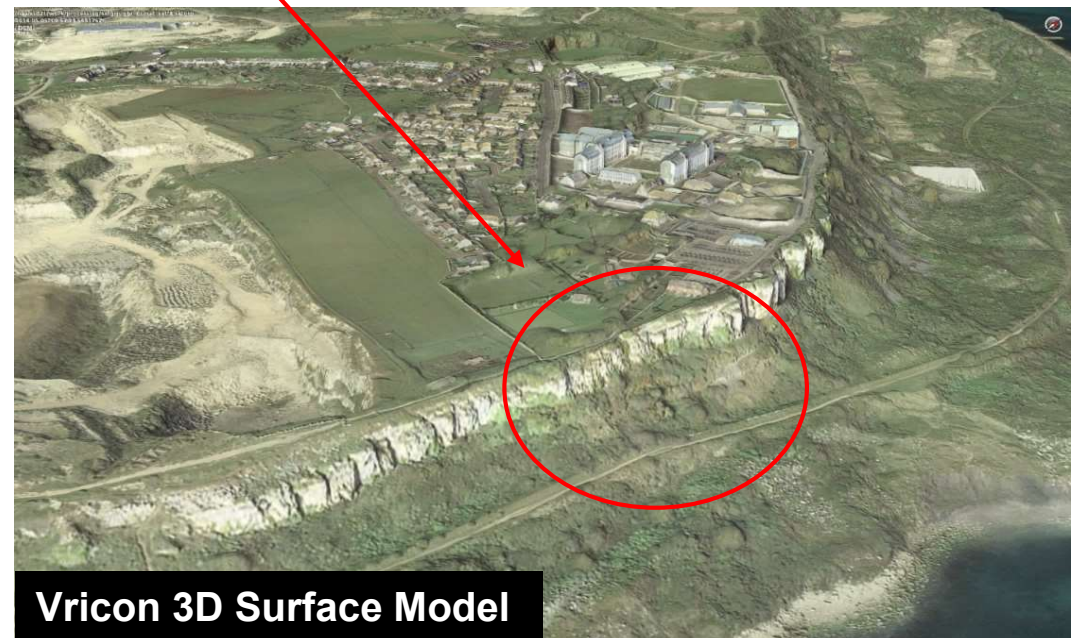


# WHY 3D?

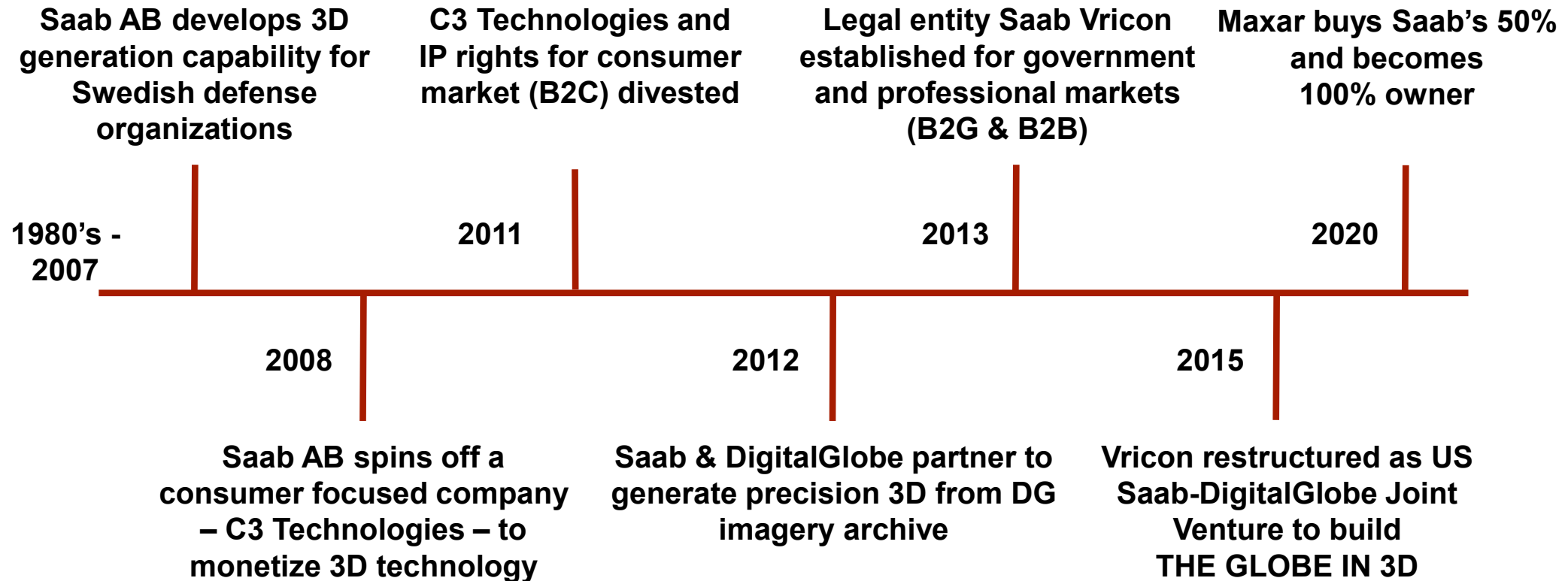


**Comparison showing Weymouth, UK, in Traditional 2D, Google Earth, and Vricon**

**This 35m high wall is not visible in typical lower-resolution datasets.**



# ORIGINS OF VRICON



# COMPANY, FOUNDED MAY 2015



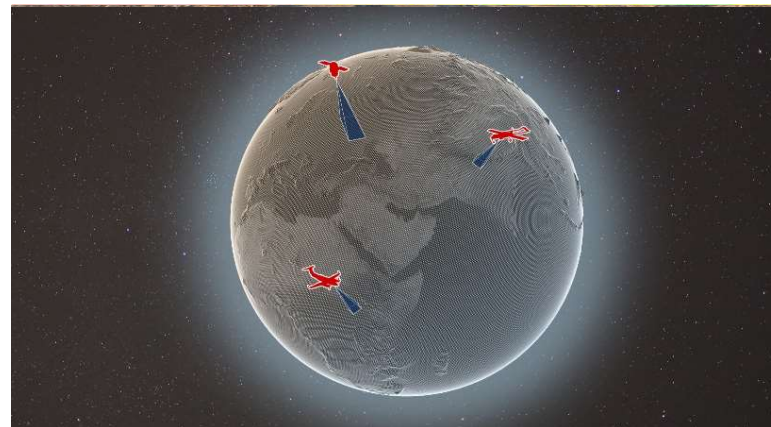
Contribution: Unique and world-leading image analysis software from decades of research



Contribution: The worlds largest and best commercial satellite image archive, >100PByte

## **VRICON** THE GLOBE IN 3D

Saab and DigitalGlobe 50/50 joint venture  
HQ in Washington D.C.-area, USA  
Office in Linköping, Sweden



**~45 personnel in US**  
USG relation  
Data production



**~50 personnel in Sweden**  
International relations  
R&D





# VISION & MISSION

To be the source of the most accurate digital representation of **the globe in 3D**, generating new capabilities.

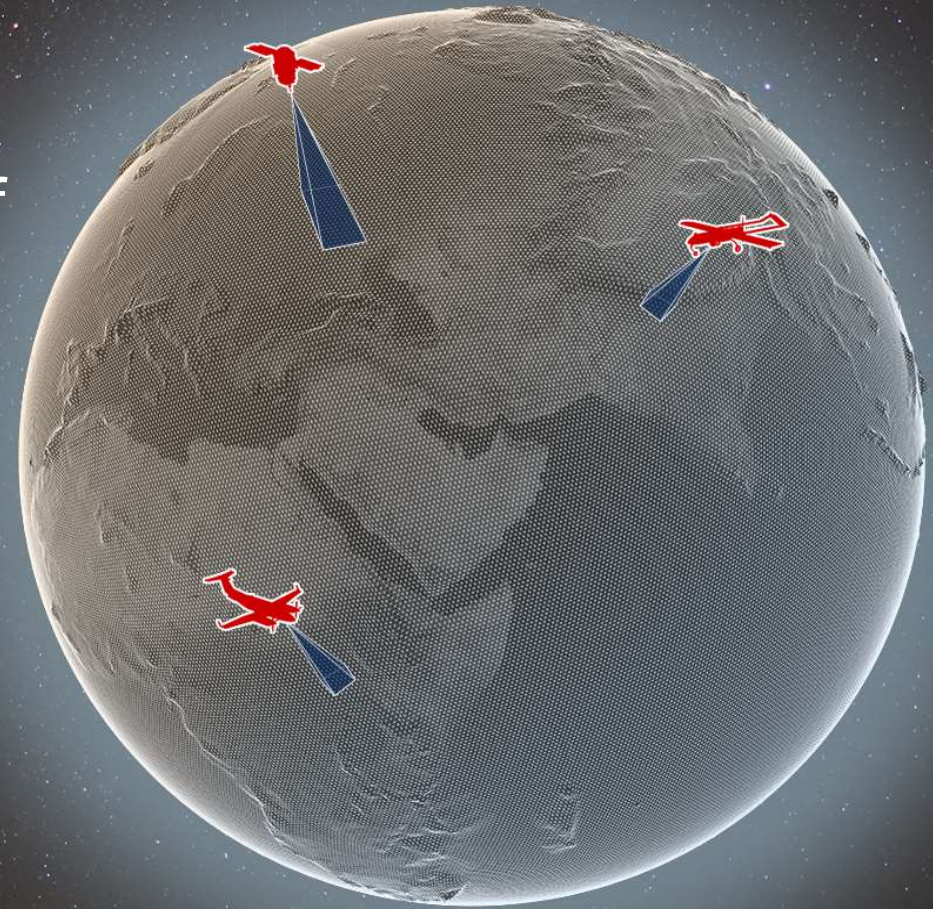
[Satellite background](#)

[Sample](#)

[P3DR](#)

[Layered Data](#)

GLOBAL AND SCALABLE PRECISION IN 3D



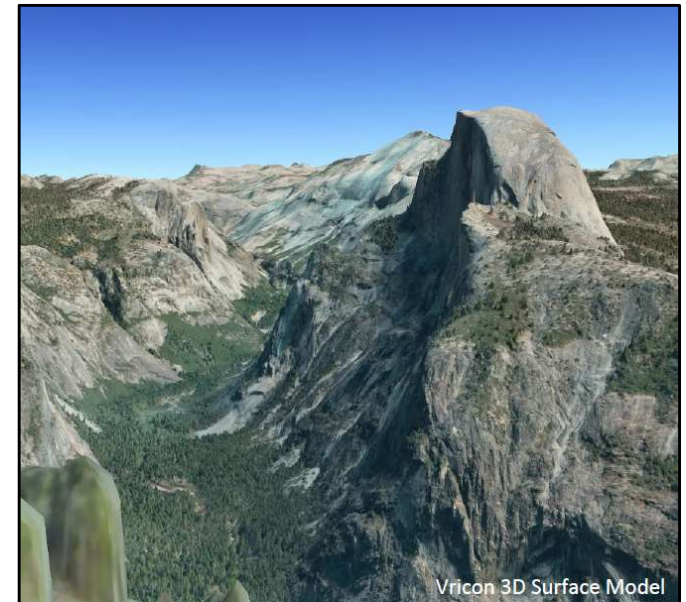


# THE GLOBE IN 3D



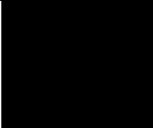
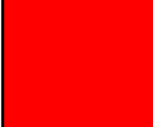


## Advantages

- Consistent global coverage
- Unclassified, Shareable, Interoperable
- Urban/Human level of detail
- Capacity 650 000 km<sup>2</sup>/month



# SEMANTIC SEGMENTATION

## Landcover classes

	Color
Undefined	
Building	
Vegetation	
Water	

	Color
Ground	
Road	
Railway	
Elevated Road	



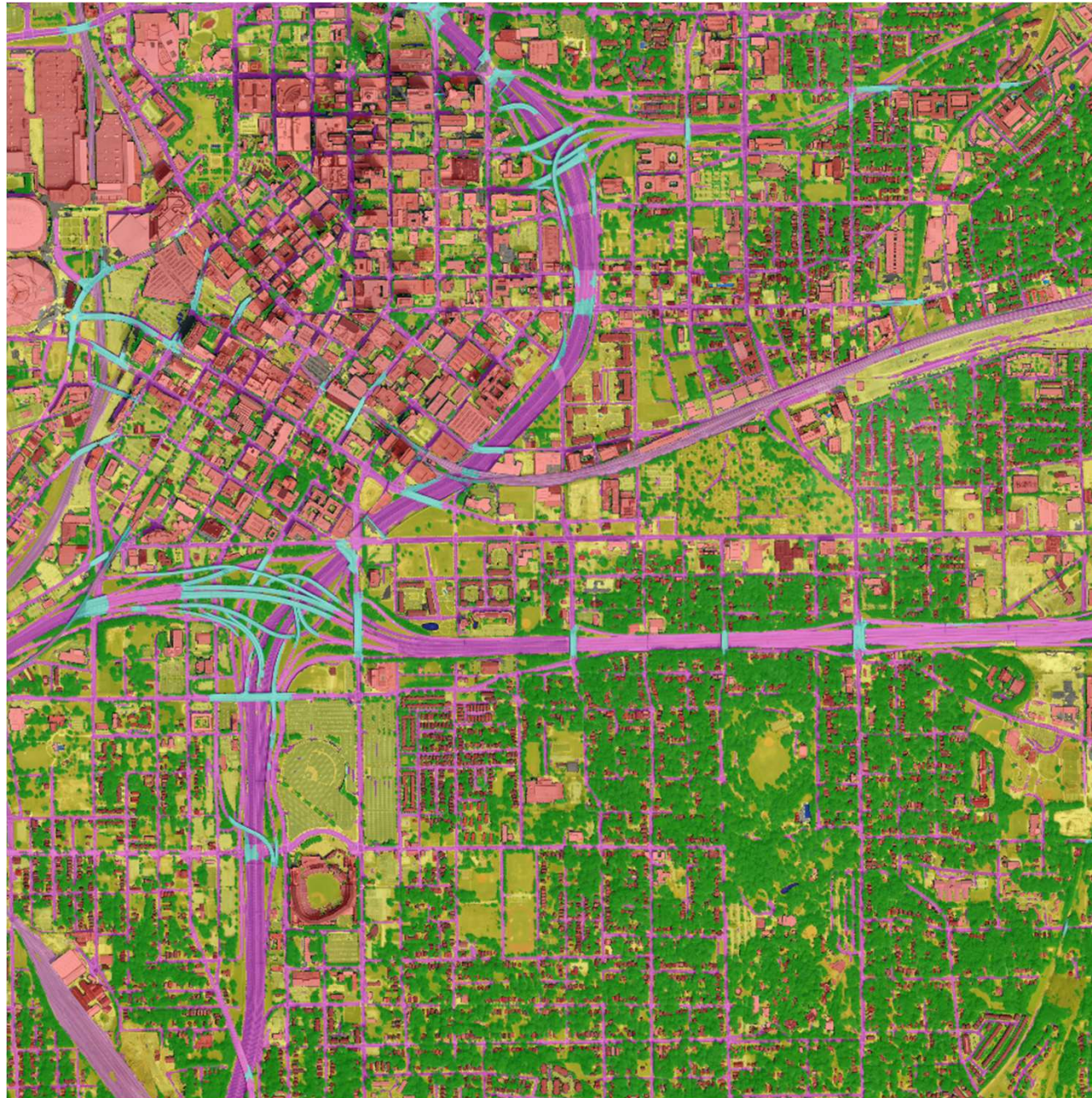
# SEMANTIC SEGMENTATION



Company Confidential and Proprietary



# SEMANTIC SEGMENTATION



Company Confidential and Proprietary



# INNOVATION, PROGRESSION

1. **Unique scalable algorithms** – Patented and proven, sensor agnostic technology resulting from decades of Saab R&D in image processing, navigation and optronics
2. **Massive satellite image archives** – More than 120 petabytes of constantly growing imagery are available now just within the Maxar's archive
3. **High Performance Computing** – Massive computation capacity affordable now
4. **Graphic devices** – Normal computers and handheld devices ready to consume high accuracy 3D data





# DISCUSSION

## ➤ Success Factors

- Good People
- Good Products (requires good/excellent technology)
- Patience and Money
- Customer/Market “feeling”
- Patience
- Seeing is believing

## ➤ Challenges

- Legacy – “this is not the way to do it”
- Logistics – handling of very large data and very large images
- Sensor modeling

## ➤ Eco system

- Commercial satellite companies – mostly Maxar (Ksat, Pleiades, BlackSky, Planet ...)
- Defense
- Tele comm



# **VRICON** – THE GLOBE IN 3D

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