Twitter Thread by Kyle Vogt

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1/ Interesting thing happening in the LIDAR industry right now. 5+ companies will soon or have SPAC'd. Their value is based on *projected* revenue that comes from *entirely overlapping* potential customers, with very little discount applied to future projections. Is this bad?

2/ And how did we end up here? SPACs aren't subject to the same effective restrictions on future revenue projections as traditional IPOs. It's totally possible the numbers will be correct for one of these companies. But it's not possible for all to be correct.

3/ SPACs may be a good thing for pre-revenue companies or companies that have chosen to go public before they meet the more customary milestones for an IPO ($100m in ARR, for example).

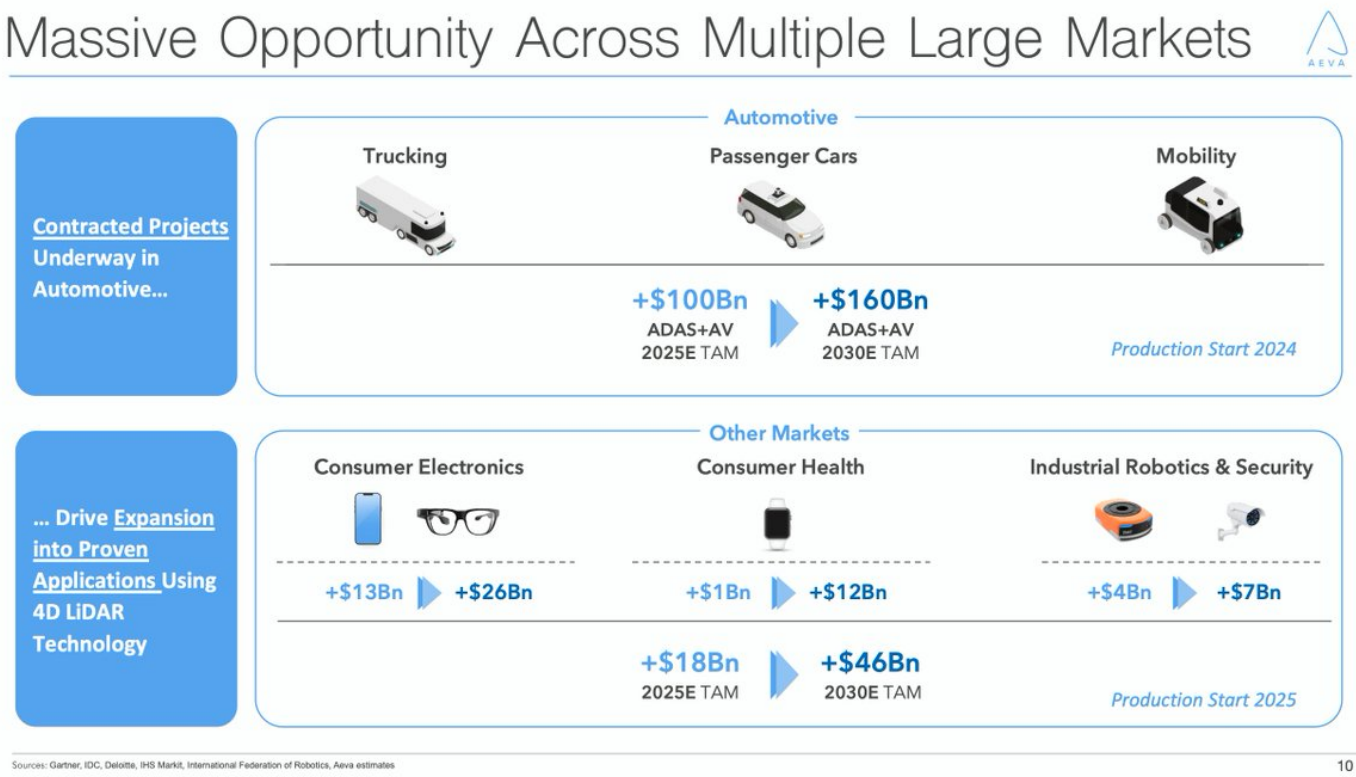
4/ If these companies were to be valued based on earnings today, they would be severely undervalued. But if you look at the market caps for each of these companies, they're each being valued as if they had already realized some of their ambitious future projections.

5/ Of course, it's certainly not unusual for startups to be valued based on future revenue projections, even in a highly competitive space. But I typically see private markets put a much larger discount on these future projections than what we see with these SPACs.

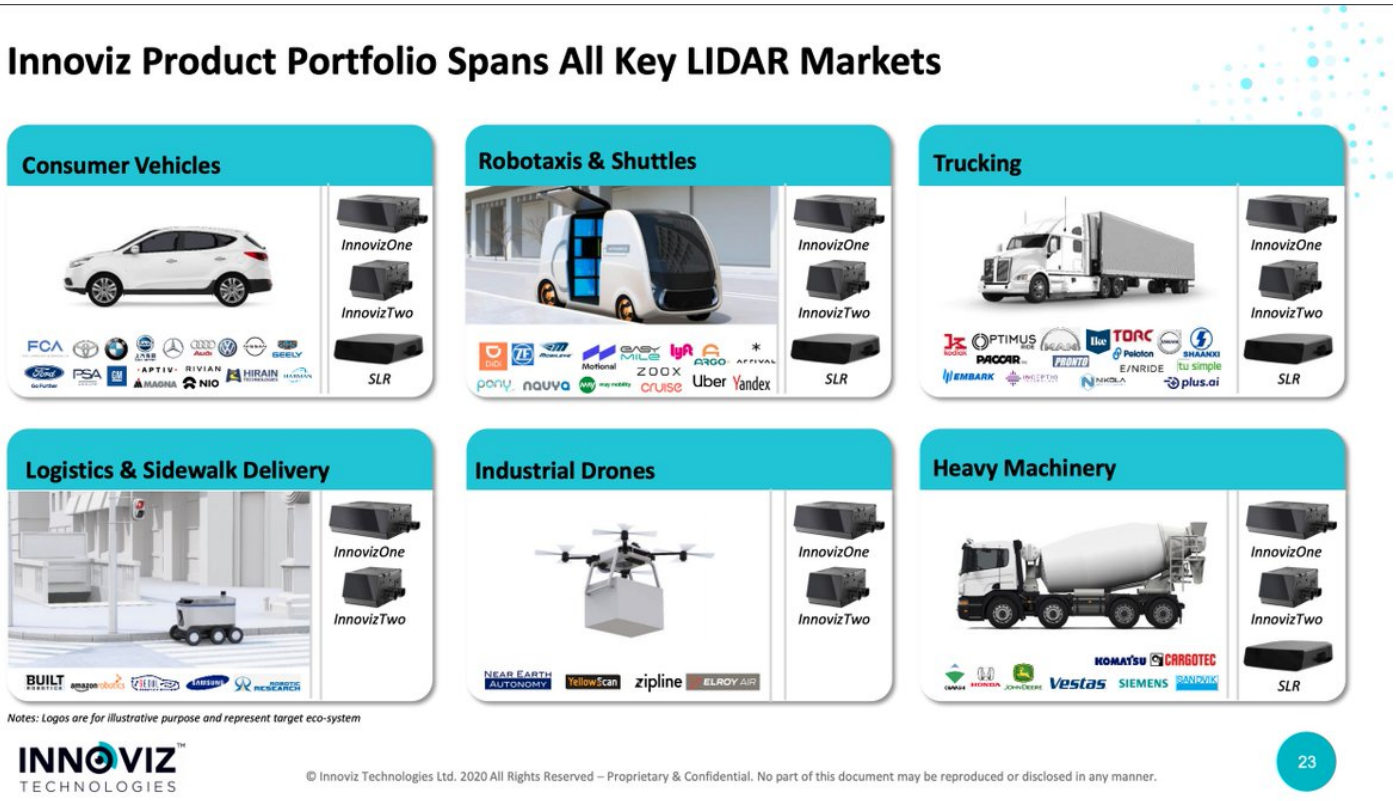
6/ Let's look at the overlap (from public pitches):
* All targeting ADAS or robotaxi market as the top of one of the top revenue sources
* All include value added software for perception
* All counting on today's nascent industry adoption of LIDAR to balloon

In no order:

7/ AEVA



8/ Innoviz



9/ Ouster

Flexible architecture opens applications across industries

Simplified hardware platform

→ Product portfolio built on a single architecture with negligible incremental cost to customize by vertical

Wide-view digital lidar 

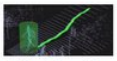
Long-range digital lidar 

True solid-state digital lidar 

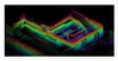
Supported by integrated software

→ Software and developer tools speed time to market for customers and drive stickiness


Object classification


Object tracking


Feature extraction


Localization & mapping

Industrial

HITACHI, SANDVIK, XCMG, CAT, KONECRANES, CNH INDUSTRIAL, JOHN DEERE, KOMATSU, SAMSUNG HEAVY INDUSTRIES, SCANIA

Smart Infrastructure

Microsoft, TRANSCORE, verizon, iteris, TEXTRON, Google, cisco, Sandia National Laboratories, MNCORBIN Highway Information Systems, SIEMENS, Qualcomm

Robotics

Postmates, VECNA robotics, Honeywell, U.S.ARMY, amazon robotics, NASA JPL, nuro, Ford, FedEx, NVIDIA, TOYOTA RESEARCH INSTITUTE, Boston Dynamics

Automotive

BMW, NVIDIA, cruise, may mobility, Motional, VOLVO, WAYMO, DAIMLER, VW

Proprietary & Confidential Note: logos represent the target ecosystem of each market. 18

10/ Velodyne

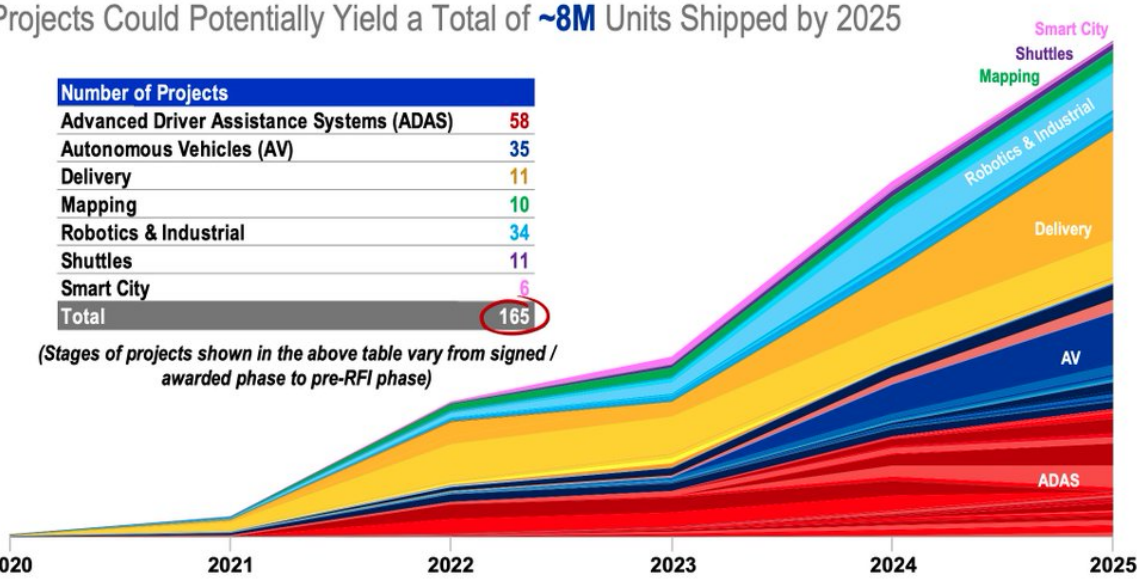
Highly Diversified Projects Across Industries

(Chart represents sensor units)

165 Projects Could Potentially Yield a Total of **~8M** Units Shipped by 2025

Number of Projects	
Advanced Driver Assistance Systems (ADAS)	58
Autonomous Vehicles (AV)	35
Delivery	11
Mapping	10
Robotics & Industrial	34
Shuttles	11
Smart City	6
Total	165

(Stages of projects shown in the above table vary from signed / awarded phase to pre-RFI phase)



Note: The chart above reflects a visual representation of how we believe the market is developing based on multi-year commercial demands that we currently see from customers and is not indicative of projected revenue or unit shipment. Signed and awarded contracts represent agreed terms and conditions of supply, but do not reflect firm orders unless and until purchase orders are received. To date, shipments under and revenue from these signed contracts have not been material. Based on data as of June 1, 2020.

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11/ Luminar

12/ What does this mean? First, I have great respect for all of these companies. They're each innovating in different ways, and competition is great for the industry. Robotaxis will have an enormous positive impact on society, so it's critical to see progress here.

13/ But we saw a consolidation / collapse of the robotaxi space over the last 24 months (down to a handful of players), and LIDAR is next. This probably means lower market caps for most of these co's, which sucks for everyone involved, but may the best product win!