

The logo for emi Summit TLV 2022. The word "emi" is in white, with a stylized graphic to its left consisting of a blue square and a purple square. The word "Summit" is in a larger white font. Below it, "TLV 2022" is in a smaller white font.

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# Semiconductor Decade – Growth Under Challenges

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# 2021 - Record Year for Semi

COVID-19 accelerated the digital transformation + data explosion → increased demand for semiconductors.

Vast majority of the demand came from consumer electronics, data centers and automotive.

New domains drove new needs (Metaverse, Blockchain).

As more devices were connected to the cloud, the need for powerful and efficient chips grew significantly.

Worldwide semiconductor revenue increased 25% in 2021 to total >\$580 billion, crossing the \$0.5T threshold for the first time.

Geopolitical tensions, Covid-19 demand shocks, and extreme weather events in Taiwan have exposed the fragility of global semiconductor value chains during the past two years.

# Chipmakers Beat the Market – SOX Outpacing the VGT Index - Growing Twice as Fast



**SOX**  
**(Semiconductor)**

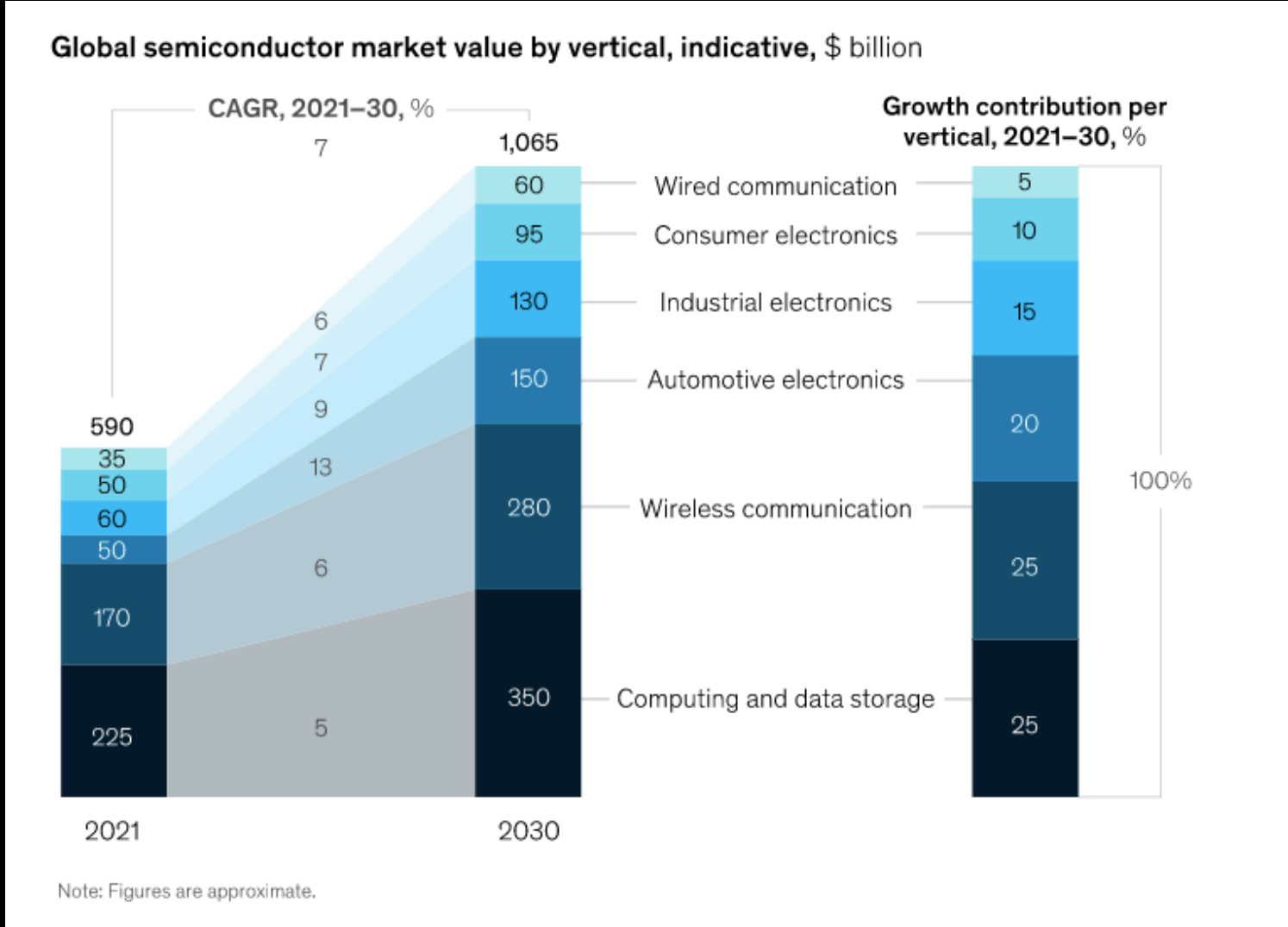
S&P 500

**VGT (Information  
Technology)**

\*updated to June 2022

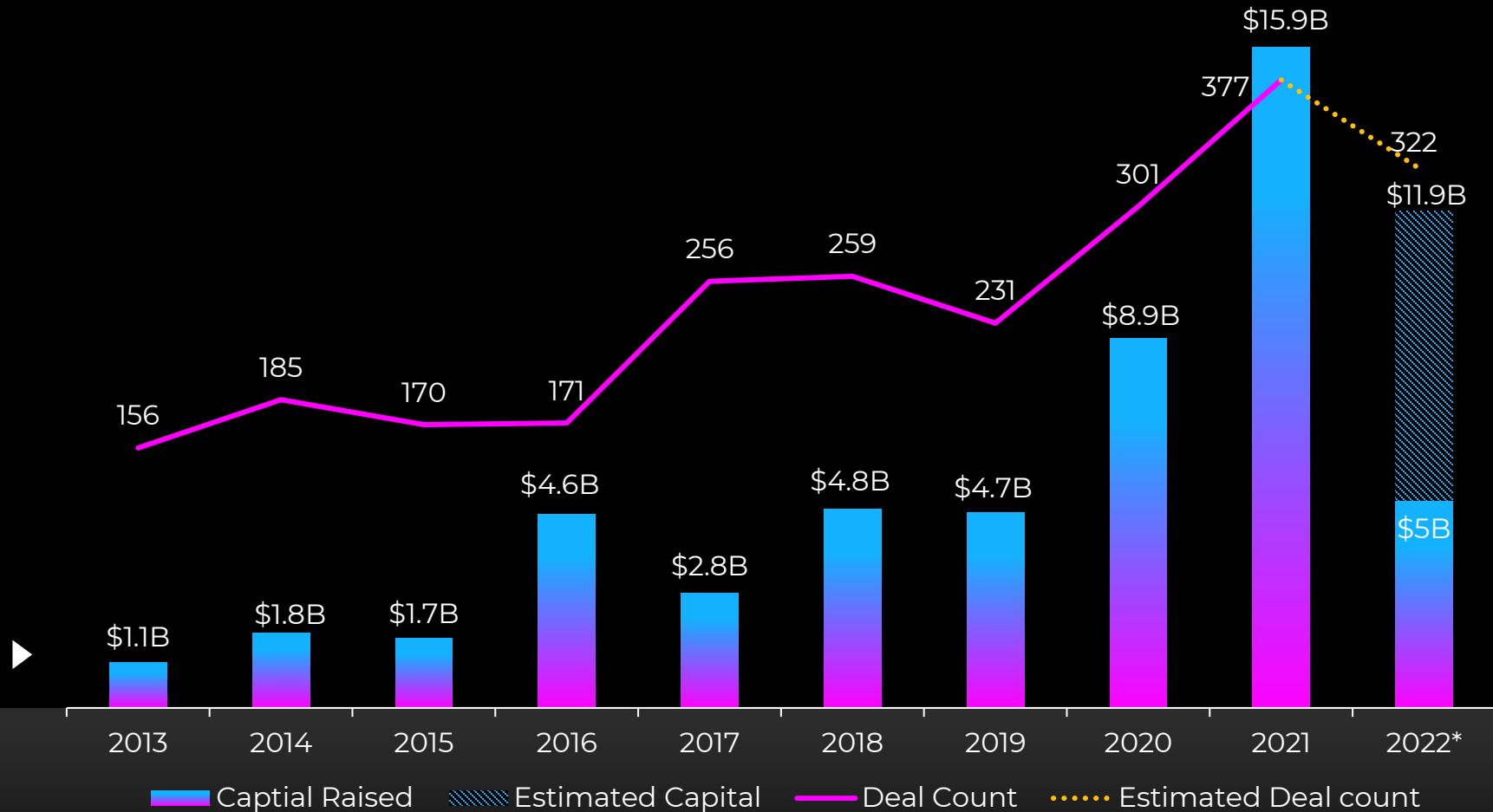
Source: Barchart

# 70% of Growth is Predicted to be Driven by Three Industries: Automotive, Datacenter, and Wireless



# Shortage of Chips; No Shortage of Capital -

Global funding of semiconductors startups reached a record of \$16B! in 2021



Global Funding Activity in the Semiconductor Industry, by Year

\*Data updated to 01.06.2022 Source: Viola Data, Pitchbook

# Average Deal Size – Higher Than Ever

Average Deal Size in the Past 3 Years

## Early

**\$19.9M Semiconductors**

\$15.2M Security

\$13.5M IT / DevOps

\$12.1M FinTech

## Growth

\$47.8M FinTech

\$48.7M Security

**\$46.1M Semiconductors**

\$44.5M IT / DevOps

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# Industry Trends that May Affect Future Innovation in the Semi Space

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# Chip Giants Expanding their Offerings by Acquiring Complementary Solutions

 **BROADCOM**<sup>®</sup>

**\$61B**

acquisition of

**vmware**<sup>®</sup>

**AMD** 

**\$49B**

acquisition of

 **XILINX**<sup>®</sup>

**intel**<sup>®</sup>

**\$5.4B**

acquisition of

**Tower**  
Semiconductor

## The takeaway for startups:

Giants focus on PMI and less on innovation – coming out with innovative architecture can shine with significant performance boost.

# Acquisitions of Startups to Ensure Supremacy in the Datacenter Offering

Notable exits from recent years:

**Qualcomm**

\$1.4B acquisition of

**NUVIA**

2-years old  
startup

**intel**

\$2B acquisition of

**habana**

3-years old  
startup

**MARVELL**

\$1.1B acquisition of

**Innovium**

6-years old  
startup

**AMD**

\$1.9B acquisition of

**PENSANDO**

5-years old  
startup

## The takeaway for startups:

Right from the ideation phase its critical to understand the gaps of semiconductor giants and to shape the product accordingly.

# Tech Giants are Designing their Own Chips

## Consumer Electronics



## Automotive



## Cloud



## Networking



## The takeaway for startups:

- Consolidated system on a Chip – Tech giants will be looking to cut down on the amount of chips needed, easing the bottlenecks in the supply chain.
- Solutions that are in the core technology or require heavy SW integration will be competing with internal teams.
- Vertically integrated companies until now demonstrated lower sizable exits.



# Technological Polarization



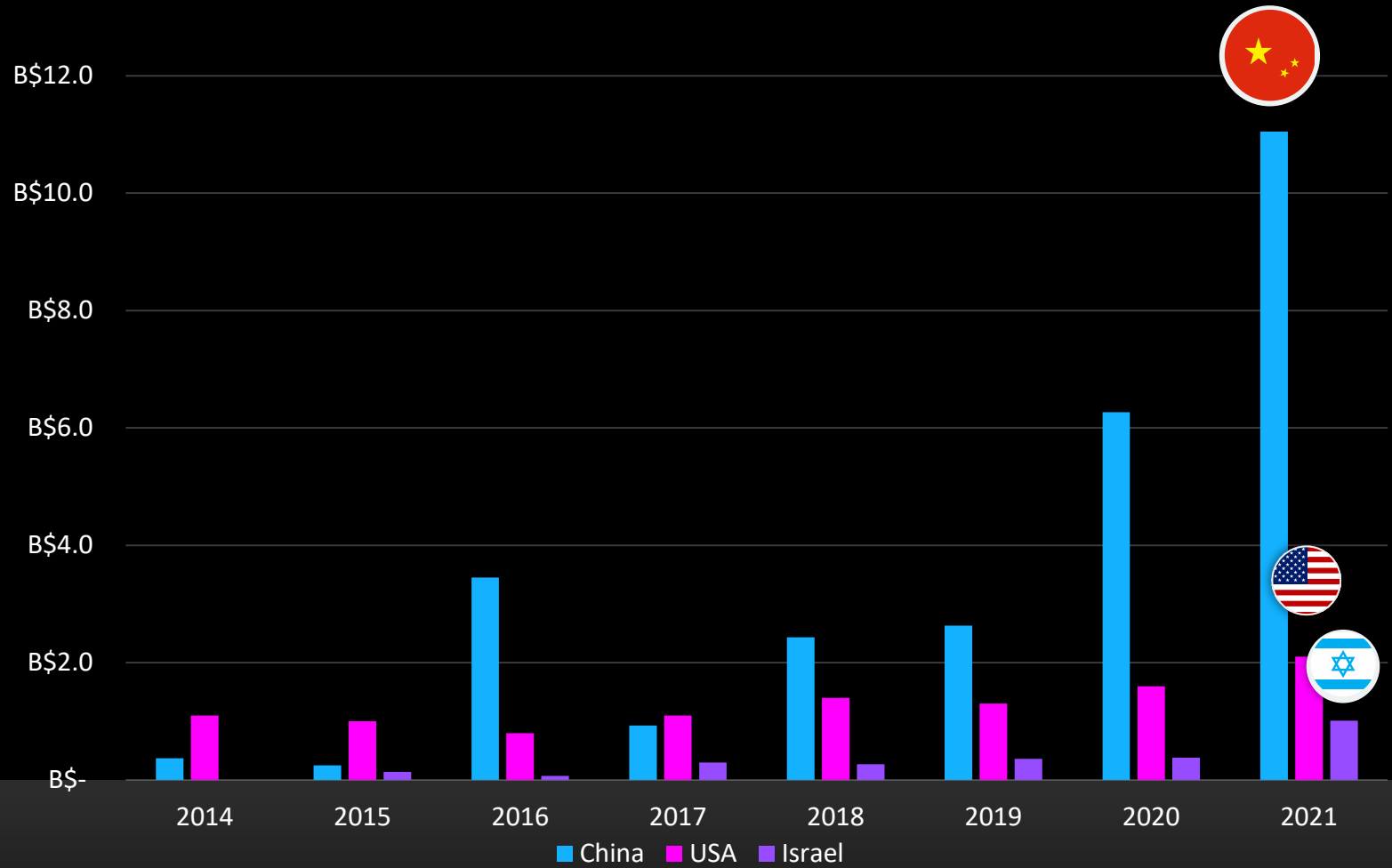
Deglobalization and the shortage has forced governments and manufacturers to realize their dependency on outsourcing →

This has led to **Supply Chain Resiliency Programs**, such as

1. US government \$52 billion subsidies to help U.S. chipmakers.
2. Intel building a “Megfab” site with two new chip fabrication plants in Ohio.
3. China - 28 additional fab construction projects totaling \$26 billion announced in 2021

# China's Semi-Investments Leapfrogged in 2021

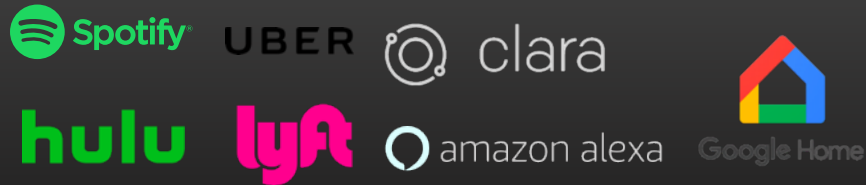
Global funding for semi companies





# Race For Technology Continues

## The Alternative Innovation Stack



AI Enabled Services



AI Enabled Products



AI Software Platforms

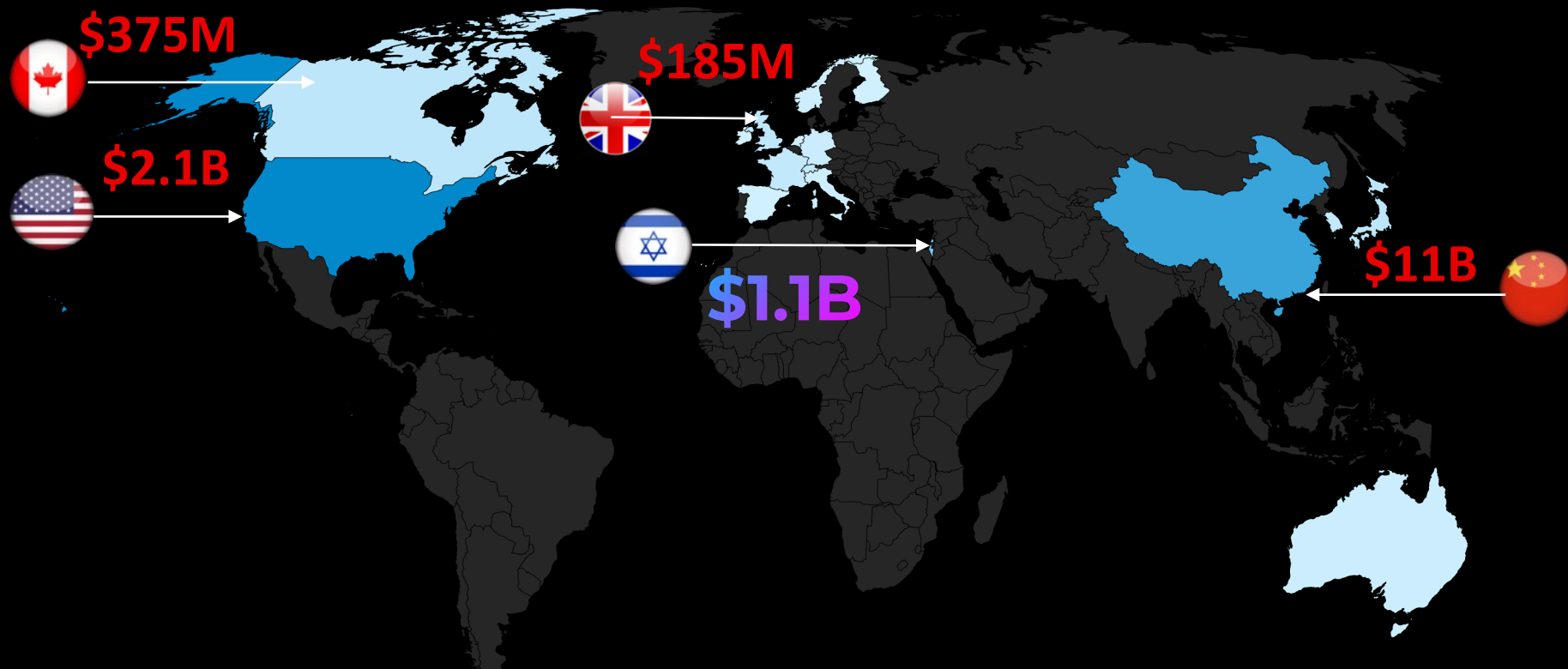


NG Compute



# Israel Kept it's Rank at 3rd Place, while Closing the Gap with the US

Global funding activity in the semiconductor industry for 2021



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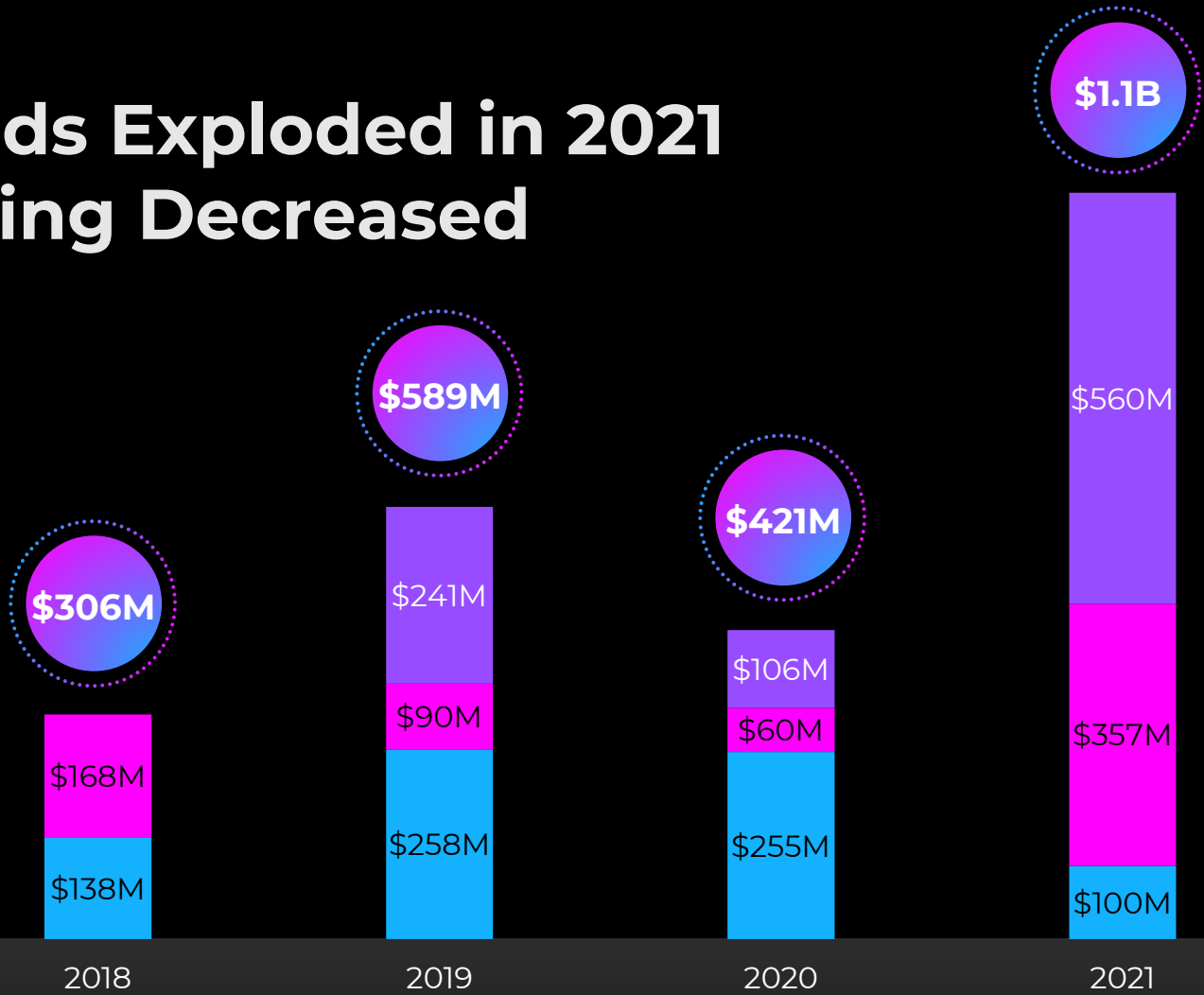


# Growth and Mega Rounds Exploded in 2021 While Early-Stage Funding Decreased

## Recent Largest deals

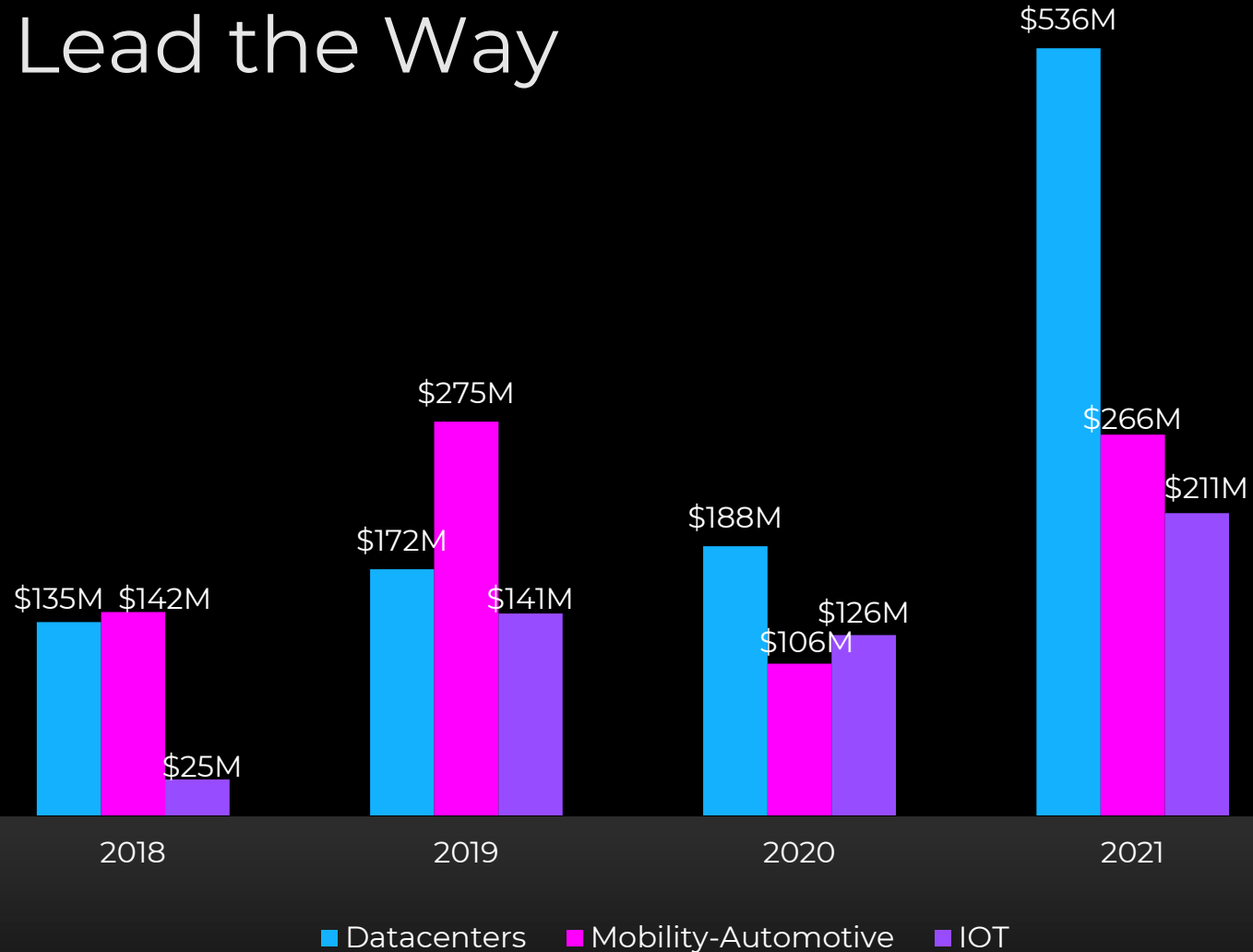
	\$200M
	\$136M
	\$120M
	\$108M
	\$95M

Capital raised by Israeli companies, by stages



■ Early&Seed ■ Growth ■ Mega Round

# Datacenters Lead the Way



Source: Viola Data, IVC

# Attractive Time to Build a Semiconductor Company

1. Semiconductor giants' consolidation and strategic shifts.
2. End customers are coming up with new and demanding requirements.
3. Market will continue to grow and to expand into new verticals.
4. Next gen semi companies require hybrid SW & HW skills. New type of founding teams will emerge.
5. Israel is well equipped to lead in this new era of semi innovation.

Thank You

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