Powered by AI

RENESAS

Tiger Global Case Competition: Regional

South and East Asia

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Executive summary

Situation
- Low revenue growth
- Low operating margins
- Suboptimal customer mix
- Product mix not future-ready
- Geographical firewalling

Questions
- Map to existing opportunities
- Emerging opportunities
- Best fit company
- Resulting revenue and margin synergies

Criteria

3 emerging markets matter most for Renesas over the next 5-10 years

- ADAS - Cement dominance in sector, US & EU play
- AI - Forward integration into a $10 bn open source market, recent Nvidia-Arm deal worth $40 bn
- IoT - Stronger play in an $80 bn dollar market, global play

Impact

Short-term M&A opportunity

SiFive
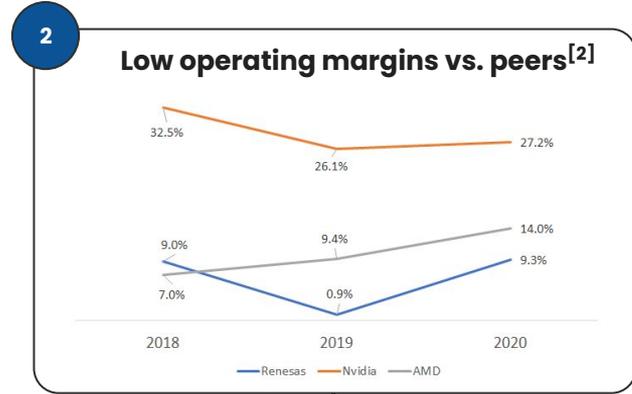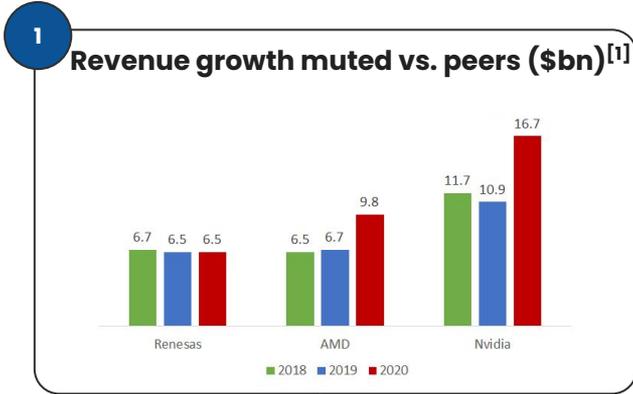
- $14 bn revenue - 2025
- ~$900 mn revenue synergies - 2025
- 25% operating margin - 2025
- ~$400 mn margin synergies - 2025
- $2 bn potential purchase price
- Recent Intel offer of $2 bn

Long-term M&A opportunity

ams

- $22 bn revenue - 2025
- ~$10 bn revenue synergies - 2025
- 26% operating margin - 2025
- ~$3 bn margin synergies - 2025
- $5 bn potential purchase price

Renesas is faced with 5 key concerns in its existing businesses

1 **Revenue growth muted vs. peers ($bn)[1]**

Renesas: 6.7, 6.5, 6.5
AMD: 6.5, 6.7, 9.8
Nvidia: 11.7, 10.9, 16.7

■ 2018 ■ 2019 ■ 2020

2 **Low operating margins vs. peers[2]**

32.5%, 26.1%, 27.2%
9.0%, 9.4%, 14.0%
7.0%, 0.9%, 9.3%

2018 — 2019 — 2020

— Renesas — Nvidia — AMD

3 **Suboptimal end-customer mix (auto)**

4 **Geographic firewalling**

5 **Product mix not future-proof**

Sources: [1 & 2] Yahoo Finance & Renesas Company Data

We believe Renesas needs to address 3 key capability gaps

Automotive

- ✅ $130 bn semiconductor market by 2026[1]
- ✅ Large ADAS opportunity - $83 bn market by 2030 (12% CAGR)
- ✅ Supply constraints = near-term demand
- ✅ Opportunity to enter high-growth global OEMs (Tesla, Uber, Mercedes, VW)

IoT (Internet of Things)
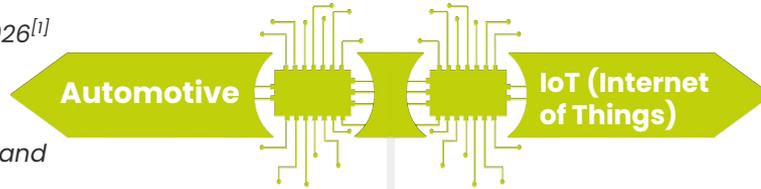
- ✅ 4th industrial revolution = $80 bn market by 2025[2]
- ✅ Growing twice as fast as the whole semiconductor industry
- ✅ Diversified suite of applications

Artificial Intelligence

- ✅ $90 bn market by 2025, 18% CAGR[4]
- ✅ High margins (40%+) in ISA segment[3]
- ✅ Open source RISC-V ISA platform a large emerging opportunity

Servers
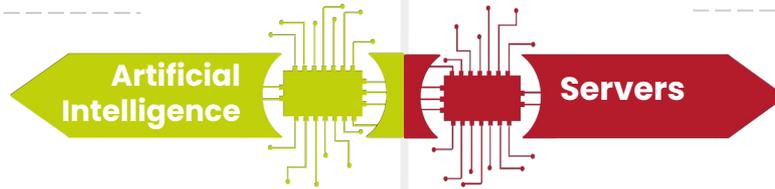
- ✅ Large growing market led by cloud computing (23% CAGR)
- ❌ Many large players like Intel, AMD and Qualcomm
- ❌ Renesas has limited prior experience/capability

Raw Material Suppliers

- ❌ Most suppliers are very large, acquiring them is costly
- ❌ Low value-to-cost ratio

Chip Distributors
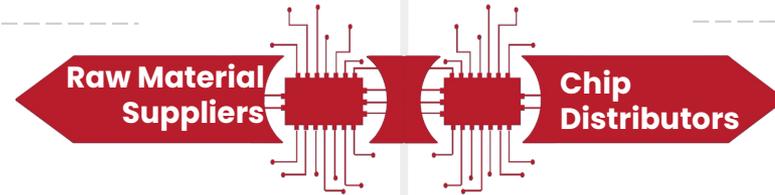
- ❌ Multiple players
- ❌ Low differentiation with respect to customer access
- ❌ Low margin potential due to low value-addition (no IP)

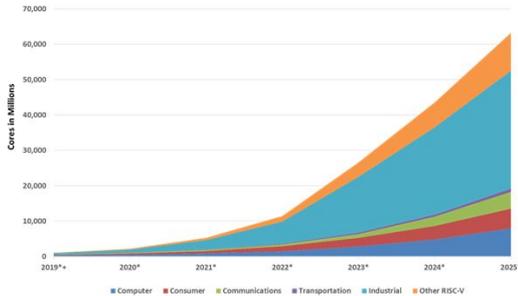Sources: [1] Mordor Intelligence [2] Business Standard [3, 4 & 5] McKinsey

AI: Open source ISA platform a large and growing challenger to Intel and Arm[1]

Semiconductors for AI a $60+ bn opportunity by 2025 (18% CAGR)

AI Semiconductor Market ($bn)

- 2017A: 17
- 2020A: 32
- 2025P: 65
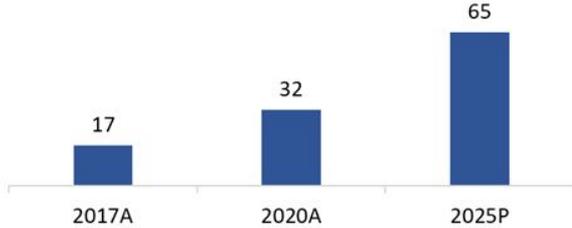
RISC-V open architecture core volumes estimated to grow by 140%+ CAGR till 2025

"AI applications driving up the demand for microprocessors & semi-cons."
Expert Interview

"Companies are scrambling to integrate ML functions into microprocessors."
Expert Interview

"AI applications for semi-cons growing 5 times as fast as non-AI applications."
Expert Interview

"Watch out for <u>niche</u> AI semi-con companies."
Expert Interview

"RISC-V is disrupting semi-cons, supporting flex designs, cost effectively"
Expert, cacm.acm.org

"The two largest ISA platforms are captive - Arm (Nvidia) and Intel. RISC-V is an emerging open source challenger"
Expert interview

Target shortlist based on strategic fit, addressable market and financials

SiFive
Revenue = $ 110 mn
1-Year Revenue CAGR = 40%
Margin = 40% - 50%[6]
Valuation = $ 2 bn[2]

- Leading manufacturer of RISC-V open-source microcontrollers
- End-use: Boosting performance in edge devices (PC's, phones etc.)
- Received a bid from Intel for $2bn in 2021
- Based in the USA

SambaNova SYSTEMS
Revenue = $ 170 mn
1-Year Revenue CAGR= 70%
Margin = 40% - 50%[7]
Valuation = $ 5.1 bn[3]

- Emerging maker of server processing specialized RISC-V AI microcontrollers
- End use: Boosting performance in servers
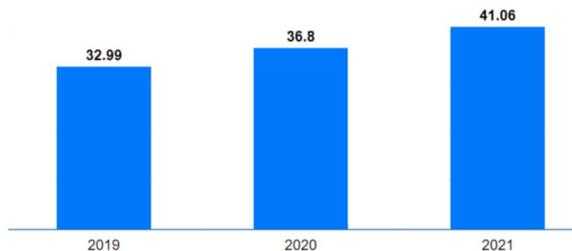- Based in the USA

Sources: [1 & 4] Grand View Research [2] SiFive [3] SambaNova [5] Leewayhertz [6 & 7] Estimates from Arm Report

| Executive Summary | Issue Analysis | Key Markets | Recommendations | Financials | Synthesis |

Automotive: Semiconductor demand estimated to be ~$130 bn by 2026, driven by ADAS[1]

Semicon demand in auto to rapidly grow - ADAS is the bridge [6]

Pie chart labels:
- Other non-electronic components
- Storage (Avg. $100)
- Microcomponents (Avg. $2000)
- Sensors (Avg. $2500)
- Analog components (Avg. $15)
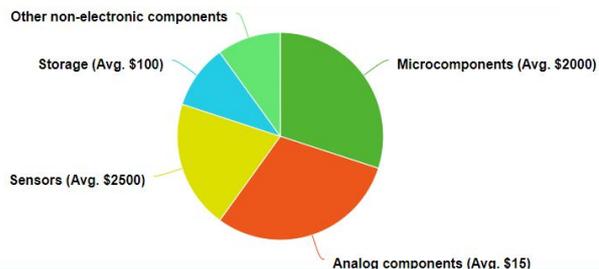
ADAS - one of the fastest growing segments within auto ($bn)[5]

- 2019: 32.99
- 2020: 36.8
- 2021: 41.06

"Semicon companies looking into the future of mobility - into ADAS functionality"
Expert Interview

"ADAS is the perfect short-term segue into fully automated vehicles"
Expert Interview

"ADAS growth driven by demand for technology-powered safety features"
Mordor Intelligence Report

"Semiconductor shortage (3 month delay in supply), in the auto segment, caused by pandemic disruptions and low capacity build."
McKinsey Report

"Cohu is seeing robust demand for its ADAS semiconductor-related products; revenue grew by 70% YOY while keeping expenses under control."
Business Wire

Target shortlist based on strategic fit, addressable market and financials

Cohu
Revenue = $ 636 mn
5-Year Revenue CAGR = 45%
Margin = 11%
Valuation = $ 1.5 bn [2]

- Leader in ADAS based semiconductors
- Extremely diverse product portfolio
- R&D in US, production and sales in Asia

ALLEGRO microsystems
Revenue = $ 650 mn
5-Year Revenue CAGR = 0%
Margin = 47%
Valuation = $ 5.5 bn [3]

- Sensor integrated IC manufacturer
- Leader in ADAS and EV products
- USA-based

ROHM SEMICONDUCTOR
Revenue = $ 3.2 bn
5-Year Revenue CAGR = 18%
Margin = 11%
Valuation = $ 9.5 bn [4]

- Key competitor of Renesas within auto
- ADAS products integrating specialized ICs
- Japan-based

IoT: Semiconductor demand to grow to ~$80 bn by 2025[1]

IoT semiconductor industry at healthy 15% CAGR [6]

Millions of Dollars

Legend: ■ Consumer ■ Automotive ■ Industrial ■ Other

Growth rate of sensor technology in IoT

- $46.2B (2019)
- $61.3B (2021)
- $82.7B (2023)

"Explosive IoT adoption visible across health care, consumer electronics, industrial, automotive, BFSI, retail."
Mordor Intelligence, Expert

"Improve margins through M&A and grow product portfolio to succeed in IoT Semiconductors."
Deloitte

"5G wireless is the new breakthrough in IoT technology."
Expert Interview

"IoT is much more that connection – it is that of detection and realization. The sensor sector in IoT is predicted to be a hot market."
Expert Interview

"Sensors play an important role in creating solutions using IoT."
Omron

Target shortlist based on strategic fit, addressable market and financials

ams
Revenue = $ 4.1 bn
5-Year Revenue CAGR = 47%
Margin = 33%
Valuation = $ 5.0 bn[2]

- Leader in sensor and analog solutions
- Automotive, industrial, wearables
- Austrian company

SEMTECH
Revenue = $ 548 mn
5-Year Revenue CAGR = 2%
Margin = 61%
Valuation = $ 4.2 bn[3]

- Analog semiconductors
- Builds on Renesas' two previous acq.
- USA-based with global sales

Ambarella™
Revenue = 223 mn
5-Year Revenue CAGR = -7%
Margin = 61%
Valuation = $ 3.5 bn[4]

- Leader in Vision/Imaging processors
- Applications in AI, IoT and security
- USA-based

We believe __AMS__ and __SiFive__ to be the most promising acquisition candidates

Margins are high today, but will reduce because of high competition from Google & Apple

Bubble Size = Valuation or Market cap

AI

Automotive

IoT

Margins

High

Low

Relevance to Renesas

Low   High
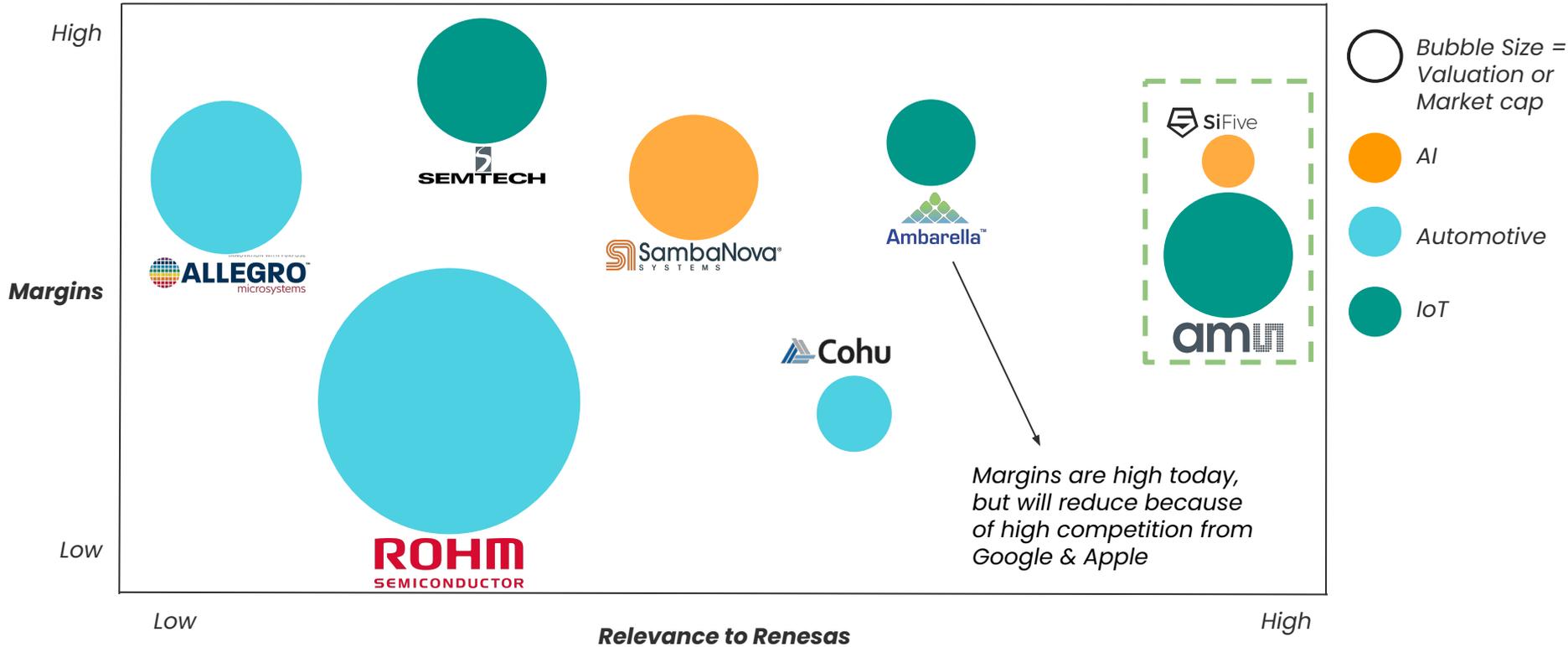
We believe SiFive is the immediate best fit for Renesas, based on strategic fit, synergies, margin enhancement & debt burden

Target	Valuation ($ bn)	Total Revenues ($ mn)			Margin % with synergies			Total consol. debt ($ mn)	Debt / operating profit margin		
ams	5.0	Bear 17,084	Base 22,097	Bull 27,184	Bear 19.5%	Base 25.9%	Bull 38.6%	11,795*	Bear 5.7x	Base 3.7x	Bull 2.5x
SiFive	2.0	Bear 11,481	Base 14,729	Bull 17,276	Bear 17.7%	Base 25.3%	Bull 34.9%	6,203*	Bear 6.9x	Base 3.8x	Bull 2.8x

Reference: Appendix C

*includes debt assumed for the transaction

Deal structuring and post-merger integration

Deal Structure

Total purchase price = $ 2,000 mn
Cash = $ 200 mn => 10% of cash balance
Equity = $ 1,800 mn => 9% of market cap
Debt = $ 0 mn => No additional debt required

Key levers to maximise synergies

Product
Forward integrate into platform architecture
Create end-to-end value proposition

Pricing
Negotiate with common suppliers
Rationalise shared fixed costs

Go to Market
Build teams across US & Japan to cross-sell products

Timelines
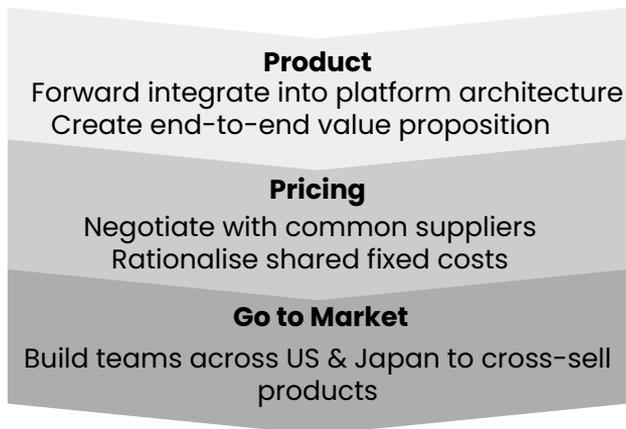
	Nov-Dec 2021	Jan-Jun 2022	Jul-Dec 2022	Jan-Jun 2023	Jul-Dec 2023
Start negotiating with target	�				
Buy target		▩			
Start revenue synergies			▩		
Start cost synergies				▩	
Possibly acquire AMS					▩

Impact in 2025

Revenues
11481   14729   17276

Revenue Synergies
1242   2479   3141

Operating Margins
15.7%   25.3%   34.9%

Margin Synergies
426   1244   2232

Bear   Base   Bull   Bear   Base   Bull

Executive Summary | Issue Analysis | Key Markets | Recommendations | **Financials** | Synthesis
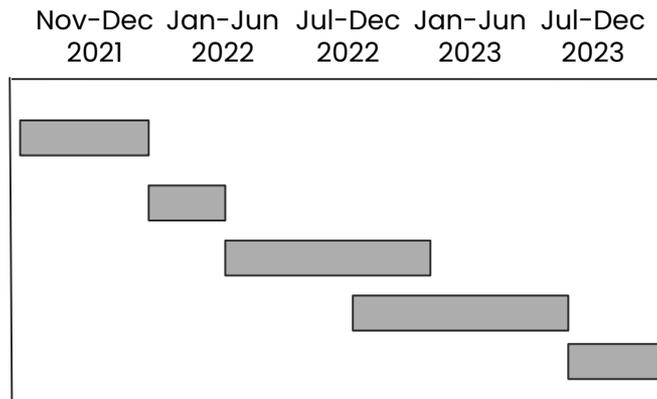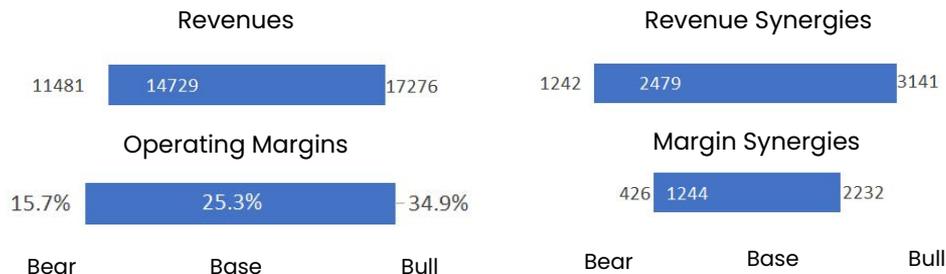
Synthesis for M&A - Our final recommendation

By 2025

$14.7 bn   Total Revenues

$2.5 bn   Revenue Synergies

25%+   Operating Margin

$1.2 bn   Margin Synergies

Additional recommendations

1   Target acquiring AMS based on growing cash balance and market cap, and lower debt, by 2025

2   Monitor players serving the rapidly emerging blockchain applications market

Thank you!
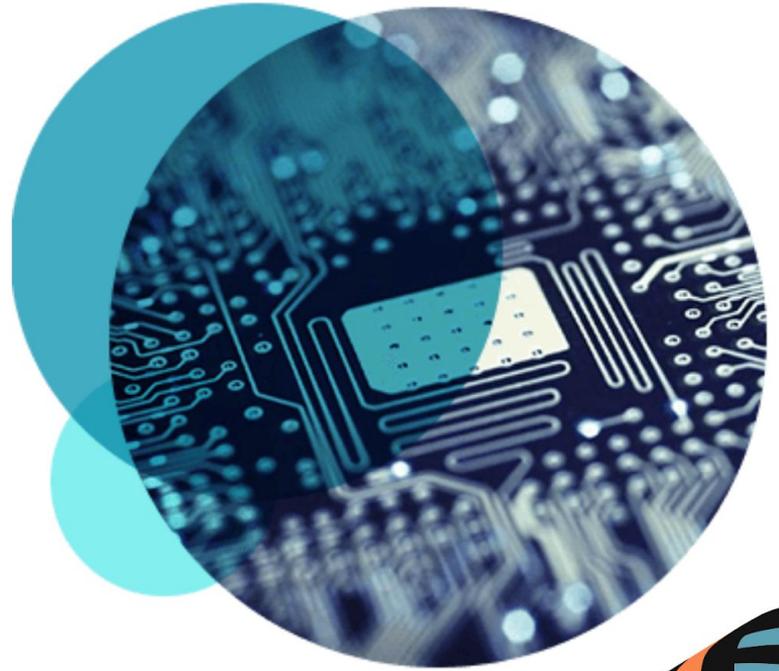
Appendix

1. *Primary Research*
2. *Secondary Research*
3. *Financials*
4. *Miscellaneous*

Expert Name	Employment Role	Job Experience (Companies)	Date of Interaction (Zoom Call)
Binay Singh	Executive Director, Autos & Shared Mobility	Morgan Stanley	Tuesday, 10th August 2021 (2:30 - 3:00 PM IST)
Sanjoy Saha	Senior Thermal-Mechanical Manager	Intel Corporation	Tuesday, 10th August 2021 (9:30 - 10:00 PM IST)
Karthick Gururaj	Principal Architect	Vayavya Labs, NXP Semiconductors	Wednesday, 11th August 2021 (7:00 - 7:30 PM IST)
Vivek Kumar	Sr Software Engineering Manager	Google, VMware, Intel	Wednesday, 11th August 2021 (7:00 - 7:30 AM IST)
Sumata Bose Prof. Anupam	Founder and CEO Advisor	Datakrew (IoT for Industry)	Wednesday, 11th August 2021 (4:30 - 5:00 PM IST)
Bijoy Bhukania	Director	Broadcom Limited	Thursday, 12th August 2021 (4:15 - 4:45 PM IST)
Rohit Singhal	Engineer	Intel, Nvidia	Thursday, 12th August 2021 (7:00 - 7:30 AM IST)
Gourav Ganguly	Senior Auto Analyst	McKinsey	Friday, 13th August 2021 (5:30 - 6:00 PM IST)
Ajay Kumar	Associate Director	Microchip Technology Inc.	Friday, 13th August 2021 (9:30 - 10:00 PM IST)

Appendix B - Secondary Research

Source:

- "Automotive Revolution - perspective towards 2030", McKinsey Report, 2016
- "Automotive Semiconductors for the autonomous age", McKinsey Report, 2021
- "Despite shortage, global semiconductor market to hit $552B in 2021", Business Standard, 2021
- "Semiconductor Industry: Key growth drivers and the changing trends", Financial Express, 2021
- "Coping with the Impact of the Semiconductor Shortage on the Automotive Industry", Draup Report, 2021
- "Report: Intel has offered $2B+ to acquire chip startup Sifive", SiliconAngle Article, 2021
- "Renesas Progress Update", Renesas PPT PDF, 2021
- "Cohu Provides Business Update for the Third Quarter Ending", Business Wire, 2021
- "Automotive semiconductor supply constraints expected to resolve by second half of 2021", IHS Report, 2020
- "The semiconductor shortage in autos: strategies for success", McKinsey Report, 2021
- "Automotive semiconductor market share 2020", Statista, 2020
- "Applying AI at scale in semiconductor manufacturing", McKinsey Report, 2021
- "At 8.5% CAGR, Automotive Semiconductor Market is expected to reach USD 81.4B by 2027", Brandessence Market Research, 2021
- "Top 5 Automotive Semiconductor Companies 2021", Brandessence Market Research, 2021
- "Top Semiconductors and IoT companies", Venture Radar
- "What does Renesas contribute to traditional automakers in accelerating the switch to modern E/E architectures?", Renesas Report, 2021
- "e-AI Solution," Renesas Report, 2021
- "What's next for semiconductor profits?", McKinsey Report, 2019
- "IoT Opportunity in the World of Semiconductor Companies", Deloitte Report PDF, 2018
- "The Chip Wars of the 21st Century", WarOnTheRocks Article, 2020
- "Renesas Electronics; Resuming coverage at Sell - shares set to struggle", CitiBank Research PDF, 2021
- "Acquiring Dialog: Lowering price target, but reiterate OW", Morgan Stanley MUFG PDF, 2021
- "F12/20 4Q Results: In Sight of High OPM", Morgan Stanley MUFG, 2021
- "CY21 1Q Results: 50% Gross Margin a Staging Post", Morgan Stanley MUFG, 2021
- "CY21 2Q Results: Has the Company Reached a More Evolved Stage?", Morgan Stanley MUFG, 2021
- "Top-line Outlook to Improve", MorganS tanley MUFG, 2020
- "AMBA Outlook Stronger Than Expected Despite Supply Constraints, reiterate OW", Morgan Stanley Research, 2021
- "OW: Fine-tuning Forecasts After New Share Issuance Completion", Morgan Stanley MUFG, 2021

Appendix C.1 - Financials

Renesas
All values are in ($, millions USD)

Fiscal Year Ending December 31

	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Revenues ($)	7086	6879	6531	6508	8265	10497	10812	11136	11526
YoY growth %		-2.9%	-5.1%	-0.4%	27.0%	27.0%	3.0%	3.0%	3.5%
Total Operating Costs ($)	6160	6259	6469	5900	6695	8502	8703	8964	9221
YoY growth %		1.6%	3.4%	-8.8%	13.5%	27.0%	2.4%	3.0%	2.9%
Operating Margin ($)	926	620	62	608	1570	1994	2108	2172	2305
YoY growth %		-33.0%	-90.0%	880.6%	158.3%	27.0%	5.7%	3.0%	6.2%
Operating Margin (%)	13.1%	9.0%	0.9%	9.3%	19.0%	19.0%	19.5%	19.5%	20.0%

AMS AG
All values are in ($, millions USD)

Fiscal Year Ending December 31

	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Revenues ($)	1290	1799	2291	4095	6061	6303	6744	7351	8233
YoY growth %		39.5%	27.3%	78.7%	48.0%	4.0%	7.0%	9.0%	12.0%
Total Operating Costs ($)	613	1041	1072.0	2207.0	4424	4538	4856	5219	5763
YoY growth %		69.8%	3.0%	105.9%	100.5%	2.6%	7.0%	9.0%	12.5%
Operating Margin ($)	677	758	1219	1888	1636	1765	1888	2132	2470
YoY growth %		12.0%	60.8%	54.9%	-13.3%	7.9%	7.0%	11.0%	14.0%
Operating Margin (%)	52.5%	42.1%	53.2%	46.1%	27.0%	28.0%	28.0%	29.0%	30.0%

SiFive
All values are in ($, millions USD)

Fiscal Year Ending December 31

	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Revenues ($)				110	176	264	370	517	724
YoY growth %					60.0%	50.0%	40.0%	40.0%	40.0%
Total Operating Costs ($)				66	106	158	222	310	435
YoY growth %					60.0%	50.0%	40.0%	40.0%	40.0%
Operating Margin ($)				44	70	106	148	207	290
YoY growth %					60.0%	50.0%	40.0%	40.0%	40.0%
Operating Margin (%)				40.0%	40.0%	40.0%	40.0%	40.0%	40.0%

Data and estimates for FY 17 - 23 from Morgan Stanley

Appendix C.2 - Financials Contd. (Bull and Bear Case)

Renesas + AMS AG
All values are in ($, millions USD)

Fiscal Year Ending December 31

Assumptions	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Renesas' Analog Revenue's					1952	2538	3481	3880	4293	4911
Renesas' non-analog revenues					4556	5922	7699	8084	8488	9167
% revenue uptick from selling Renesas products to AMS' customers						5.5%	12.0%	18.0%	25.0%
AMS' Revenue's					4095	6552	7604	8879	10758	13106
% revenue uptick from selling AMS' products to Renesas' customers						5.5%	12.0%	18.0%	25.0%
Total Revenues (with synergies)						15012	18784	20843	23539	27184
Improvement in Renesas Operating Margin with Synergies (%)						0.0%	1.0%	2.0%	3.0%	4.0%
Renesas Operating Margin (%) (with synergies)						20.0%	22.0%	24.0%	26.5%	29.0%
Improvement in AMS Operating Margin with Synergies (%)						0.0%	1.0%	2.0%	3.0%	4.0%
AMS Operating Margin (%) (with synergies)						40.0%	41.0%	42.0%	43.0%	49.0%
Operating Profit for Renesas (with synergies)						1692	2460	2871	3387	4083
Operating Profit for AMS (with synergies)						2621	3117	3729	4626	6422
Total operating profit for Renesas + AMS (with synergies)						4313	5577	6601	8013	10505
Operating Profit Margin for Renesas + AMS (%) (with synergies)						28.7%	29.7%	31.7%	34.0%	38.6%
AMS Market Cap						5000
Renesas Cash Balance						2011
Renesas Market Cap						20286
% of cash balance used for acquisition						30.0%
% of market cap used for acquisition						15.0%
Total cash used for acquisiton						603
Total market cap (equity) used for acquisition						3043
Total debt used for acquisiton						1354
Renesas Standalone Debt						6203
AMS Standalone Debt						4238
Total Consolidated Debt						11795
Debt-Operating Profit Ratio						2.7

Renesas + SiFive
All values are in ($, millions USD)

Fiscal Year Ending December 31

Assumptions	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Renesas' Revenues					6508	8460	11878	12934	14309	15977
% revenue uptick from selling Renesas products to SiFive's customers						8.0%	12.0%	18.0%	22.0%
SiFive's Revenues					110	193	339	531	832	1299
% revenue uptick from selling SiFive's products to Renesas' customers						10.0%	15.0%	20.0%	25.0%
Total Revenues (with synergies)						8653	12217	13466	15140	17276
Improvement in Renesas Operating Margin with Synergies						0.0%	1.5%	3.0%	5.0%	8.0%
Renesas Operating Margin (%) (with synergies)						25.0%	26.5%	28.0%	30.0%	33.0%
Improvement in SiFive Operating Margin with Synergies (%)						0.0%	1.5%	3.0%	5.0%	8.0%
SiFive Operating Margin (%) (with synergies)						50.0%	51.5%	53.0%	55.0%	58.0%
Operating Profit for Renesas (with synergies)						2115	3148	3622	4293	5272
Operating Profit for SiFive (with synergies)						96	174	282	457	754
Total operating profit for Renesas + SiFive (with synergies)						2211	3322	3903	4750	6026
Operating Profit Margin for Renesas + SiFive (with synergies) (%)						25.6%	27.2%	29.0%	31.4%	34.9%
SiFive Market Cap						2000
Renesas Cash Balance						2011
Renesas Market Cap						20286
% of cash balance used for acquisition						10.0%
% of market cap used for acquisition						10.0%
Total cash used for acquisiton						201
Total market cap (equity) used for acquisition						2029
Total debt used for acquisiton						0
Renesas Standalone Debt						6203
SiFive Standalone Debt						0
Total Consolidated Debt						6203
Debt-Operating Profit Ratio						2.8
Revenue synergy ($m)						0	911	1455	2321	3141
Margin synergy ($m)						0	419	785	1372	2232

Renesas + AMS AG
All values are in ($, millions USD)

Fiscal Year Ending December 31

Assumptions	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Renesas' Analog Revenue's					1952	2343	2868	2968	3070	3175
Renesas' non-analog revenues					4556	5467	6560	6658	6758	6860
% revenue uptick from selling Renesas products to AMS' customers						2.0%	4.0%	6.0%	8.0%
AMS' Revenue's					4095	5324	5539	5930	6406	7049
% revenue uptick from selling AMS' products to Renesas' customers						2.0%	4.0%	6.0%	8.0%
Total Revenues (with synergies)						13133	14966	15556	16235	17084
Improvement in Renesas Operating Margin with Synergies						0.0%	0.3%	0.6%	1.0%	1.5%
Renesas Operating Margin (%) (with synergies)						13.0%	13.3%	13.6%	14.0%	14.5%
Improvement in AMS Operating Margin with Synergies (%)						0.0%	0.3%	0.6%	1.0%	1.5%
AMS Operating Margin (%) (with synergies)						20.0%	20.3%	20.6%	24.0%	26.5%
Operating Profit for Renesas (with synergies)						1015	1249	1309	1376	1455
Operating Profit for AMS (with synergies)						1065	1122	1221	1537	1868
Total operating profit for Renesas + AMS (with synergies)						2080	2371	2531	2913	3323
Operating Profit Margin for Renesas + AMS (%) (with synergies)						15.8%	15.8%	16.3%	17.9%	19.5%
AMS Market Cap						5000
Renesas Cash Balance						2011
Renesas Market Cap						20286
% of cash balance used for acquisition						30.0%
% of market cap used for acquisition						15.0%
Total cash used for acquisiton						603
Total market cap (equity) used for acquisition						3043
Total debt used for acquisition						1354
Renesas Standalone Debt						6203
AMS Standalone Debt						4238
Total Consolidated Debt						11795
Debt-Operating Profit Ratio						5.7

Renesas + SiFive
All values are in ($, millions USD)

Fiscal Year Ending December 31

| Assumptions	2017A	2018A	2019A	2020A	2021P	2022P	2023P	2024P	2025P
Renesas' Revenues					6508	7810	9559	9893	10427	10976
% revenue uptick from selling Renesas products to SiFive's customers						2.0%	4.0%	8.0%	12.0%
SiFive's Revenues					110	154	208	276	372	506
% revenue uptick from selling SiFive's products to Renesas' customers						4.0%	6.0%	10.0%	15.0%
Total Revenues (with synergies)						7964	9767	10168	10799	11481
Improvement in Renesas Operating Margin with Synergies						0.0%	0.0%	0.5%	1.5%	2.0%
Renesas Operating Margin (%) (with synergies)						11.0%	12.0%	13.5%	15.5%	17.0%
Improvement in SiFive Operating Margin with Synergies (%)						0.0%	0.0%	0.5%	1.5%	2.0%
SiFive Operating Margin (%) (with synergies)						30.0%	20.0%	20.5%	26.5%	32.0%
Operating Profit for Renesas (with synergies)						859	1147	1335	1616	1866
Operating Profit for SiFive (with synergies)						46	42	57	99	162
Total operating profit for Renesas + SiFive (with synergies)						905	1189	1392	1715	2028
Operating Profit Margin for Renesas + SiFive (with synergies) (%)						11.4%	12.2%	13.7%	15.9%	17.7%
SiFive Market Cap						2000
Renesas Cash Balance						2011
Renesas Market Cap						20286
% of cash balance used for acquisition						10.0%
% of market cap used for acquisition						10.0%
Total cash used for acquisiton						201
Total market cap (equity) used for acquisition						2029
Total debt used for acquisiton						0
Renesas Standalone Debt						6203
SiFive Standalone Debt						0
Total Consolidated Debt						6203
Debt-Operating Profit Ratio						6.9
Revenue synergy ($m)						0	195	396	806	1242

Enterprise artificial intelligence market revenue worldwide 2016-2025

Revenues from the artificial intelligence for enterprise applications market worldwide, from 2016 to 2025 (in million U.S. dollars)
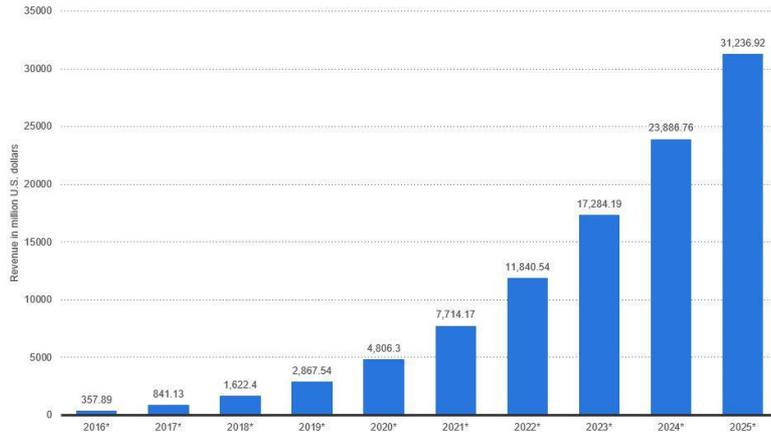
"10 Charts That Will Change Your Perspective On Artificial Intelligence's Growth", Forbes, Jan 2018
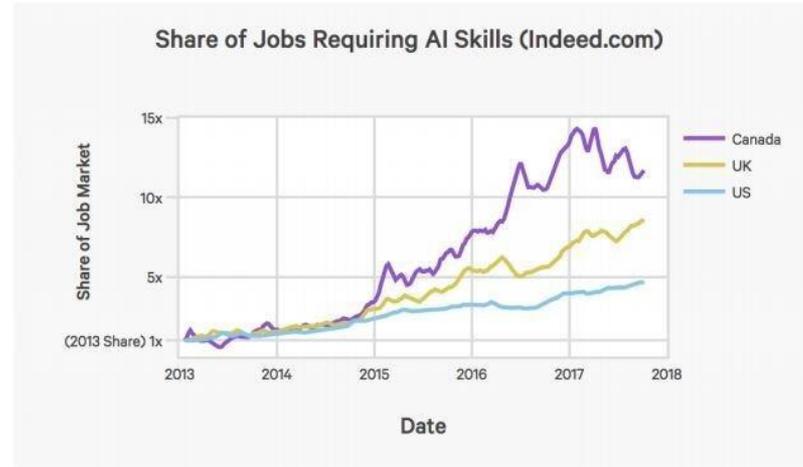
"These charts will change how you see the rise of Artificial Intelligence", World Economic Forum, December 2017

TIGER GLOBAL

CASE COMPETITION

ADKS

Category	Mark		
Issue Diagnostic - Correct identification of the problem that the organization is facing?	9 /10	8 /10	9 /10
Analysis of issues - How does the team view the scope of the issue after it is identified - what are the key bottlenecks or sub-issues that contribute to the overall issue?	9 /10	8 /10	9 /10
Scope of innovation in recommendations - How unique, bold but realistic are the recommendations provided?	9 /10	9 /10	10 /10
Metrics/validation - Data, analytics, and visuals that confirm and support the recommendations	8 /10	8 /10	7 /10
Slide Deck Mark	**35/40**	**33/40**	**35/40**

Category	Mark		
Engaging speaking - Does the team have an overall captivating speaking style? (speech is well-integrated with Powerpoint slides; eye contact with the audience; clarity of verbal articulation)	10 /10	9.5 /10	9 /10
Teamwork - did all members of the team contribute equally throughout their presentation and speech?	10 /10	10 /10	8 /10
Q&A performance – how did the team respond to and address the judges' questions? (supporting responses with data/evidence from their own knowledge and the appendix; focus on relevant facts; honest acknowledgement if the team did not know the answer to a question)	8 /10	7 /10	7 /10
Speaking Mark	**28/30**	**26.5/30**	**24 /30**

TIGER GLOBAL

CASE COMPETITION

Qualitative Feedback
Walking us through how you came to this company was interesting. Though, I would say, you could spend slightly less time on the other companies and focus more time on Si-Fi that would be even better.
Well-designed presentation but spent a bit too much on the other acquisition candidates.
Confident presentation with very clear thought process laid out which demonstrates the huge amount of work clearly put into the case. Slides were clear and supported the verbal presentation well. Your bull and bear cases showed that you had considered risks as well as opportunities.

OVERALL STANDING

Overall Scores					
Team Number	Judge 1	Judge 2	Judge 3	Total Score	Rank
1	48	55.5	49	152.5	10
2	56	51.5	55	162.5	9
3	58	61	52	171	5
4	63	59.5	59	181.5	2
5	60	54	57	171	5
6	64	64	57	185	1
7	62	55	50	167	8
8	60.5	54	53	167.5	7
9	63.5	55.5	55	174	4
10	60	57.5	57	174.5	3

Team Member Names	
Team Number	ID Name
1	DDLers
2	BULL CONSULTANTS
3	JJJ
4	ADKS
5	Dunamis
6	One
7	The Ace Club
8	Team X-Sharks
9	Acumen Business
10	The Four Elephants