

ESG insight



IAR SYSTEMS

Far from its full potential

The shares have struggled in the face of poor organic growth in the legacy business and slight delays in the ramp-up of the security business. Positive comments on customer traction in RISC-V and legislative tailwinds in Secure Thingz with the Q3 results imply solid prospects of accelerating growth in sales over the next 3–5 years, but we believe evidence of this is needed in 2020 for the stock to re-rate. We have lowered our fair value to SEK250–300 (260–310) on our updated forecasts.

Q3 EBIT beat of 8%. Organic growth was -2% YOY (we expected -1%), with an EBIT margin of 28% (down 4%-points YOY), setting up EBIT of SEK28m (8% above our forecast). However, the beat mainly related to the capitalisation of development costs, and soft organic growth in the legacy business from fewer strategic customer wins YOY in combination with a slower ramp-up of new products were the main topics in the Q3 report. We have lowered our 2019–2021e EBIT by c5% (2% related to FX) and now forecast a 2018–2021 EPS CAGR of 15% as IAR Systems remains solidly positioned for the emerging markets of embedded security and RISC-V.

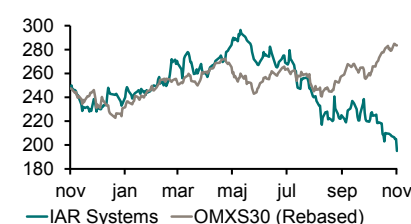
Key highlights: 1) IAR Systems' extended security offering for mainstream chips should provide a faster ramp-up for OEMs to meet IoT security legislation requirements, but quarterly visibility remains low; 2) Secure Thingz was named company of the year by a leading UK organisation for deep tech, TechWorks, validating the technology; 3) in the next two years, OEMs will have to adhere to IoT security legislation, which should boost demand; 4) device-to-cloud integration with Amazon Web Services means IAR Systems' is poised to tap into a new vertical; and 5) its new office in Taiwan suggests it is strengthening its footprint in one of the fastest-growing RISC-V markets.

At a 2020e P/E of 25x, little is priced in for its security offering and RISC-V. IAR Systems is building a new market from scratch for its security offering, meaning the timing of new product launches is not linear. The investment case is still strong in our opinion, and we see a fair value of SEK250–300 (260–310) as we expect sales growth acceleration in 2020 to cement its central position towards the embedded industry's key growth themes.

Year-end Dec	2015	2016	2017	2018	2019e	2020e	2021e
Revenue (SEKm)	312	328	345	385	409	487	595
EBITDA adj (SEKm)	98	113	127	140	149	198	262
EBIT adj (SEKm)	83	101	107	119	112	146	189
PTP (SEKm)	83	100	106	117	110	143	185
EPS rep (SEK)	5.02	6.18	6.33	6.67	6.16	7.87	10.19
EPS adj (SEK)	5.02	6.18	6.33	6.67	6.08	7.87	10.19
DPS (SEK)	5.00	7.00	5.00	4.99	5.00	5.50	5.50
Revenue growth (%)	21.9	5.4	5.1	11.7	6.2	18.9	22.3
EBITDA growth adj (%)	54.6	15.2	12.4	10.1	6.1	33.4	32.2
EPS growth adj (%)	50.2	23.0	2.6	5.3	-8.8	29.4	29.5
EBITDA margin adj (%)	31.5	34.5	36.9	36.4	36.3	40.8	44.1
EV/Sales adj (x)	5.80	7.63	6.58	8.32	6.47	5.47	4.42
EV/EBITDA adj (x)	18.4	22.1	17.8	22.9	17.8	13.4	10.0
EV/EBIT adj (x)	21.7	24.9	21.1	27.0	23.7	18.3	14.0
P/E adj (x)	29.9	33.4	29.8	36.4	32.1	24.8	19.1
P/Book (x)	6.51	9.31	8.22	6.02	4.45	4.23	3.84
ROE (%)	21.9	27.3	28.1	21.6	14.6	17.5	21.0
ROCE (%)	28.5	34.9	33.6	26.1	17.3	19.4	23.6
Dividend yield (%)	3.3	3.4	2.6	2.1	2.6	2.8	2.8

Source: Company (historical figures), DNB Markets (estimates)

IARB versus OMXS30 (12m)



Source: Factset

SUMMARY

Share price (SEK)	195
Tickers	IARB SS, IARB.ST

CAPITAL STRUCTURE

No. of shares (m)	13.6
No. of shares fully dil. (m)	13.7
Market cap. (SEKm)	2,658
NIBD adj end-2019e (SEKm)	-12
Enterprise value adj (SEKm)	2,646
Net debt/EBITDA adj (x)	-0.08
Free float (%)	100

Source: Company, DNB Markets (estimates)

NEXT EVENT

Q4 2019	11/02/2020
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ESTIMATE CHANGES (SEK)

Year-end Dec	2019e	2020e	2021e
Sales (old)	423.8	517.6	622.9
Sales (new)	409.2	486.6	595.2
Change (%)	-3.4	-6.0	-4.4
EPS (old)	6.21	8.30	10.73
EPS (new)	6.08	7.87	10.19
Change (%)	-2.1	-5.1	-5.0

Source: DNB Markets,

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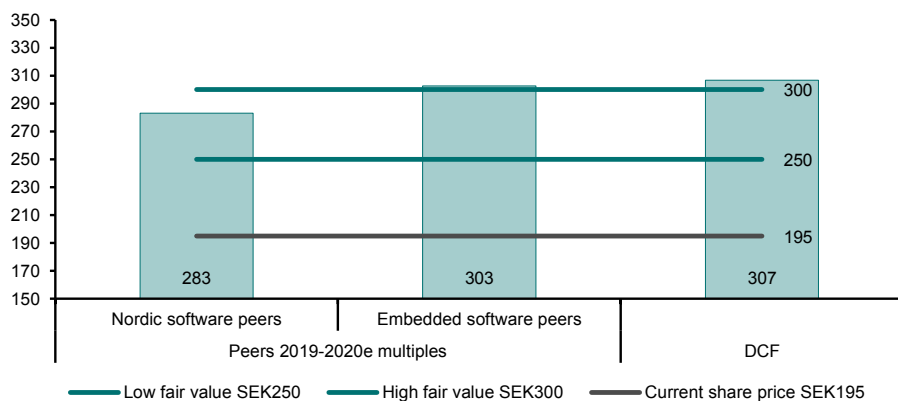
ANALYSTS

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Overview

Valuation (SEK)



Source: DNB Markets

Downside risks to our fair value

- Failure to resurrect the growth story. If investors lose trust in IAR Systems' ability to resume growth, it could trigger share devaluation, as in 2017.
- Disappointing disclosures regarding key strategic partnerships in terms of when they will materialise and the fee structure. For instance, the Renesas Synergy agreement has yet to show itself in IAR Systems' sales. Thus, it would be negative if the Secure Thingz collaboration falls short of management expectations.
- IAR Systems is highly sensitive to a strengthening of the SEK (particularly against the USD, EUR, and JPY).

Source: DNB Markets

DNB Markets estimates

- We believe IAR 3.0 will mark the shift when the market starts to view it as the go-to tools partner for global names as they position their embedded systems ahead of the IoT. We would highlight the market opportunity within secure embedded systems.
- A broad consensus has yet to emerge on IAR Systems' investment case; however, we particularly like the group's market opportunity, operating profile, financial outlook, and valuation.
- We estimate that IAR Systems should generate a 2018–2021 EBIT CAGR of 17%, with the true potential expected beyond our forecast period.

Source: DNB Markets

Valuation methodology

- Blending our total peer group of Nordic software and embedded software peers with DCF suggests a fair value of SEK250–300 (260–310) in our 12-month perspective (methodology unchanged).
- Our estimates correspond to a 2020e P/E of 25x, an EV/EBIT of 18x, and an EV/sales of 6x.

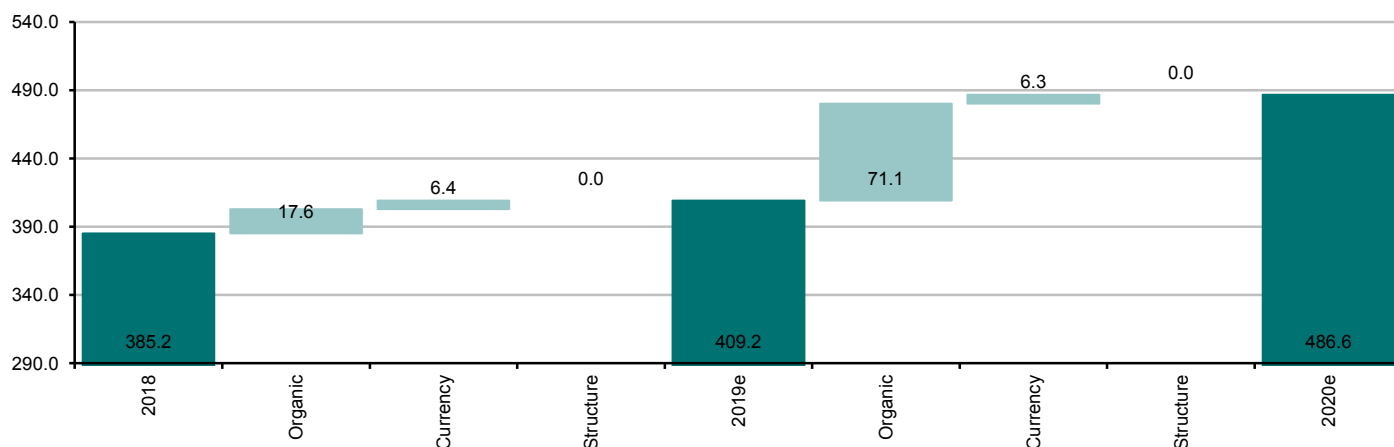
Source: DNB Markets

Upside risks to our fair value

- The company over-delivering on its financial targets (particularly for 10–15% in organic growth).
- If IAR Systems' new security offering gains faster penetration than we assume by leveraging on its head-start, we believe there is a potential for shareholder value creation beyond our fair value.
- Value-enhancing acquisitions to be integrated in its product offering or new strategic partnerships.
- Better cost control (as it has a reputation for tight cost control), implying higher margins

Source: DNB Markets

Sales bridge 2018–2020e (SEKm)



Source: DNB Markets (forecasts), company (historical data)

ESG overview

Sustainability assessment

Positive

Conclusions ■ IAR Systems’ software development tools are market-leading in terms of code quality, analysis, functional safety and security. Its software ensures that the code is in line with industry standards, thereby guaranteeing its reliability when applied.

- Increased IoT security legislation drives demand for its products as its OEM customers must comply with new security design requirements.

Actions being taken by company ■ Embedded programmers clearly need to protect their code from IP theft and illegal copying, as IoT security issues are becoming increasingly prevalent. Following the acquisition of Secure Thingz, IAR Systems’ tools are increasingly linked to sustainability as they help developers take control of security from inception in the IP throughout the lifecycle of a digital product.

Negative

■ Data loss or security bugs in the software code could trigger regulatory scrutiny as well as legal costs and reputational damage, hampering its growth prospects.

■ IAR Systems’ competitiveness relies greatly on its ability to continuously innovate. For this, its highly skilled workforce is a key resource. Failure to attract and retain such professionals could lead to delays in innovation and a loss of market share.

■ IAR Systems’ development tools are the most used in the embedded industry owing to its leading optimisation technology, comprehensive debugger quality and renowned technical support. This is confirmed by its loyal customer base. It has 46,000 OEM customers and 150,000 technology users of which 95% are recurring customers, we believe.

Key ESG drivers

Short-term ■ Today, less than 4% of new IoT devices have embedded security. ABI research forecasts that penetration will increase to 20% by 2022.

■ IAR Systems’ security offering (C-Trust and Embedded Trust) ensures that its customers’ intellectual property is protected against IP theft, overproduction, piracy, and that software updates can be managed in a secure fashion. In other words, it creates a secure infrastructure and protects its customers’ digital products from sabotage programmes and data intrusion. Examples of customer use cases have included:

- A leading vending machine provider whose IP was stolen (stolen credit card and transaction details), a global white goods company whose stolen IP led to twice as many products manufactured, a leading door sensor provider whose IP was stolen internally, which led to direct revenue loss etc.

Long-term ■ Regulators will also play an active role in the long-term uptake of secure development tools. This is having an increasing impact on programmers’ designs as applications need to remain secure across the entire lifecycle to comply with new legislation. We note legislation initiatives in Europe (UK government, ETSI, ENISA), the US (California IoT Security law, NIST evolving cyber security act), and government initiatives across Singapore, Japan, South Korea, and China etc.

■ To stay ahead of the competition, IAR Systems’ relies heavily on its employees in the development and innovation of new technologies.

■ Following the integration of Secure Thingz, IAR Systems’ addressable market has expanded from application development into manufacturing and update management (the entire lifecycle of embedded systems). To keep pace with competition in a larger market, it needs to retain highly skilled software engineers, which could come at a higher cost than its traditional business.

■ As an increasingly larger part of IAR Systems should revolve around Cambridge-based Secure Thingz, this could create some corporate cultural challenges versus the Uppsala-based legacy business.

■ Considering its offering of software development tools to over 46,000 clients, as well as the sensitive nature of the data it handles, IAR Systems’ is exposed to possible hacking attempts and misappropriation of technological data.

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Q3 results

Sales were SEK100m (2% below our SEK102m estimate) with adj. EBIT of SEK28m (8% above our SEK26m FORECAST), while EPS was SEK1.58 (12% above our SEK1.41). Organic sales growth in Q3 was -2% YOY (we expected -1%), as IAR Systems' focus on larger strategic customer wins has not been as successful in 2019 as 2018 in the legacy business, while security sales and RISC-V have sales have yet to materialise.

Geographically, progress in Europe and the Americas has been slower than expected, with license sales in local currency falling by 21% and 12%, respectively, while customer interest in China and south-east Asia is increasing from RISC-V implementation. The adj. EBIT margin was 28.1% (down 3.9%-points YOY), but adj. EBIT beat our forecast by 8%, primarily as a result of high capitalisation of development costs (which boosted earnings by SEK20m).

FCF continues to be hampered by elevated development costs related to IAR Systems' most comprehensive product launches in its history earlier this year (Secure Thingz and RISC-V). This is not a concern to us, however, as: 1) we expect this to drive double-digit sales growth in the next 3–5 years; and 2) we estimate the underlying EBIT margin in legacy IAR Systems remains an impressive ~35%.

Figure 1: Q3 results versus expectations

Key highlights (SEKm, except per share data)	Q3 2019		Deviation (%)		Q3 2018		DNB
	Actual	DNB	DNB	DNB	Actual	2019e	
Sales	100.0	102.5	-2%	-2.5	97.9	409.2	
EBIT adjusted	28.1	26.0	8%	2.1	31.3	111.8	
Margin	28.1%	25.4%		270bp	32.0%	27.3%	
One-offs	0.0	0.0		0.0	0.0	0.0	
EBIT	28.1	26.0	8%	2.1	31.3	111.8	
Margin	28.1%	25.4%		270bp	32.0%	27.3%	
EPS	1.58	1.41	12%	0.2	1.97	6.08	
Growth YOY							
Sales growth	2.1%	4.7%		-252bp	16.3%	6.2%	
-of which organic	-2.3%	-0.6%		-166bp	6.7%	4.6%	
-of which FX	4.9%	5.3%		-41bp	9.6%	1.7%	
Divisions (SEKm)							
	Q3 2019				Q3 2018	2019e	
	Actual				Actual	DNB	
Sales							
Legacy IAR Systems	98.1	99.1	-1%	-1.0	95.5	398.9	
Royalty-based revenue	1.6	1.5	5%	0.1	1.4	6.1	
Secure Thingz	0.3	1.8	-84%	-1.5	1.0	4.2	
Group	100.0	102.5	-2%	-2.5	97.9	409.2	
EBIT adjusted							
Legacy IAR Systems + Secure Thingz	26.5	24.5	8%	2.0	29.9	105.7	
Royalty-based revenue	1.6	1.5	5%	0.1	1.4	6.1	
Group	28.1	26.0	8%	2.1	31.3	111.8	
FX impact							
Sales	4.9%	5.3%		-41bp	9.6%	1.7%	
EBIT	9.3%	13.6%		-436bp	19.9%	17.1%	

Source: Company (historical figures), DNB Markets (estimates)

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Estimate revisions

We have lowered our 2019–2021e EPS by ~5% to reflect slower organic growth prospects in its legacy business, which seems to be suffering more from the protracted consolidation of processor vendors and the semiconductor industry’s trade war than we had expected. Of our estimate changes, 2% relate to adverse FX. We now forecast a 2018–2021 EPS CAGR of 15%.

Figure 2: Estimate changes

(SEKm, except per share data)	Old			New			Change		
	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e
Sales									
Legacy IAR Systems	406.2	441.5	468.6	398.9	426.8	454.5	-2%	-3%	-3%
Royalty-based revenue	6.5	9.8	20.1	6.1	8.3	13.3	-6%	-16%	-34%
Secure Thingz	11.1	66.3	134.2	4.2	51.5	127.4	-62%	-22%	-5%
Group Total	423.8	517.6	622.9	409.2	486.6	595.2	-3%	-6%	-4%
EBIT adjusted									
Legacy IAR Systems + Secure Thingz	108.8	144.7	179.9	105.7	137.6	175.6	-3%	-5%	-2%
Royalty-based revenue	6.4	9.4	19.4	6.1	8.1	13.1	-5%	-14%	-33%
Group Total	115.2	154.0	199.2	111.8	145.6	188.6	-3%	-5%	-5%
EBIT adjusted margin									
Legacy IAR Systems + Secure Thingz	26.1%	28.5%	29.8%	26.2%	28.8%	30.2%	15bp	27bp	33bp
Royalty-based revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0bp	0bp	0bp
Group Total	27.2%	29.8%	32.0%	27.3%	29.9%	31.7%	14bp	17bp	-29bp
Organic growth components									
Legacy IAR Systems	5.0%	6.5%	5.7%	4.7%	5.6%	6.0%	-35bp	-87bp	28bp
Royalty-based revenue	0.2%	0.7%	1.9%	0.1%	0.5%	1.0%	-8bp	-22bp	-90bp
Secure Thingz	1.5%	12.4%	12.7%	-0.2%	11.2%	15.3%	-172bp	-117bp	260bp
Group Total	6.7%	19.6%	20.4%	4.6%	17.4%	22.3%	-215bp	-226bp	198bp
Group									
Sales	423.8	517.6	622.9	409.2	486.6	595.2	-3%	-6%	-4%
Sales growth	10.0%	22.1%	20.4%	6.2%	18.9%	22.3%	-379bp	-322bp	198bp
Organic	6.7%	19.6%	20.4%	4.6%	17.4%	22.3%	-215bp	-226bp	198bp
Structure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0bp	0bp	0bp
Currency	3.3%	2.5%	0.0%	1.7%	1.5%	0.0%	-164bp	-96bp	0bp
Gross profit	414.4	506.1	609.0	399.7	475.3	581.4	-4%	-6%	-5%
Margin	97.8%	97.8%	97.8%	97.7%	97.7%	97.7%	-9bp	-9bp	-9bp
EBIT adjusted	115.2	154.0	199.2	111.8	145.6	188.6	-3%	-5%	-5%
Margin	27.2%	29.8%	32.0%	27.3%	29.9%	31.7%	14bp	17bp	-29bp
Adjustments	0.0	0.0	0.0	0.0	0.0	0.0			
EBIT	115.2	154.0	199.2	111.8	145.6	188.6			
Margin	27.2%	29.8%	32.0%	27.3%	29.9%	31.7%	14bp	17bp	-29bp
Net financial items	-2.8	-3.3	-4.2	-1.7	-2.6	-3.4			
Pretax profit	112.4	150.8	195.0	110.1	143.0	185.2			
Tax	-26.7	-37.7	-48.8	-26.2	-35.8	-46.3			
Tax rate	23.8%	25.0%	25.0%	23.8%	25.0%	25.0%	-3bp	0bp	0bp
Net profit	85.6	113.1	146.3	83.9	107.3	138.9			
EPS adjusted	6.21	8.30	10.73	6.08	7.87	10.19			
EPS	6.29	8.30	10.73	6.16	7.87	10.19			
DPS	5.00	5.50	5.50	5.00	5.50	5.50			

Source: DNB Markets

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Figure 3: Quarterly estimates by division

(SEKm, except per share data)	Q1'18	Q2'18	Q3'18	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19e	Q1'20e	Q2'20e	Q3'20e	Q4'20e
Sales												
Legacy IAR Systems	87.6	93.8	95.5	97.8	98.0	96.8	98.1	105.9	107.4	104.3	104.6	110.4
Royalty-based revenue	1.3	1.3	1.4	1.5	1.4	1.5	1.6	1.6	2.0	2.0	2.1	2.1
Secure Thingz	0.0	0.5	1.0	3.5	0.4	0.7	0.3	2.9	3.4	5.9	12.9	29.5
Group Total	88.9	95.6	97.9	102.8	99.8	99.0	100.0	110.4	112.7	112.3	119.6	142.0
EBIT												
Legacy IAR Systems + Secure Thingz	28.2	22.4	29.9	29.6	28.0	22.3	26.5	28.8	31.7	27.4	34.7	43.5
Royalty-based revenue	1.3	1.3	1.4	1.5	1.4	1.5	1.6	1.6	2.0	2.0	2.1	2.1
Group Total	29.5	23.7	31.3	31.1	29.4	23.8	28.1	30.5	33.7	29.4	36.9	45.7
EBIT adjusted margin												
Legacy IAR Systems + Secure Thingz	32.2%	23.9%	31.3%	30.3%	28.6%	23.0%	27.0%	27.2%	29.5%	26.3%	33.2%	39.4%
Royalty-based revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Group Total	33.2%	24.8%	32.0%	30.3%	29.5%	24.0%	28.1%	27.6%	29.9%	26.2%	30.8%	32.2%
Organic growth												
Legacy IAR Systems	4.9%	7.9%	6.5%	9.6%	3.4%	-2.3%	-2.7%	1.9%	5.4%	5.9%	5.9%	5.4%
Royalty-based revenue	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.5%	0.5%
Secure Thingz	0.0%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	-0.8%	2.8%	5.2%	12.5%	23.1%
Group Total	5.0%	8.1%	6.7%	10.0%	3.5%	-2.3%	-2.8%	1.2%	8.7%	11.6%	18.9%	29.0%
Group												
Sales	88.9	95.6	97.9	102.8	99.8	99.0	100.0	110.4	112.7	112.3	119.6	142.0
Sales growth	2.9%	10.1%	16.3%	17.4%	12.3%	3.6%	2.1%	7.4%	12.9%	13.4%	19.6%	28.7%
Organic	5.0%	8.1%	6.7%	10.0%	3.5%	-2.3%	-2.8%	1.2%	8.7%	11.6%	18.9%	29.0%
Structure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency	-2.1%	2.1%	9.6%	7.3%	8.8%	5.9%	4.9%	6.2%	4.2%	1.8%	0.7%	-0.3%
Gross profit	86.1	93.7	95.8	100.6	97.7	96.5	97.5	108.0	110.3	109.4	116.6	139.0
Margin	96.9%	98.0%	97.9%	97.9%	97.9%	97.5%	97.5%	97.9%	97.9%	97.5%	97.5%	97.9%
EBIT adjusted	29.5	26.9	31.3	31.1	29.4	23.8	28.1	30.5	33.7	29.4	36.9	45.7
Margin	33.2%	28.1%	32.0%	30.3%	29.5%	24.0%	28.1%	27.6%	29.9%	26.2%	30.8%	32.2%
Adjustments	0.0	-3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	29.5	23.7	31.3	31.1	29.4	23.8	28.1	30.5	33.7	29.4	36.9	45.7
Margin	33.2%	24.8%	32.0%	30.3%	29.5%	24.0%	28.1%	27.6%	29.9%	26.2%	30.8%	32.2%
Net financial items	-0.4	-1.7	-0.3	0.6	-0.2	-2.0	0.7	-0.2	-0.7	-1.6	-0.2	-0.2
Pretax profit	29.1	22.0	31.0	31.7	29.2	21.8	28.8	30.3	33.0	27.9	36.7	45.5
Tax	-6.3	-5.8	-4.2	-9.9	-6.3	-5.1	-7.2	-7.6	-8.2	-7.0	-9.2	-11.4
Tax rate	21.6%	26.4%	13.5%	31.2%	21.6%	23.4%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Net profit	22.8	16.2	26.8	21.8	22.9	16.7	21.6	22.7	24.7	20.9	27.5	34.1
EPS adjusted	1.81	1.43	1.97	1.60	1.64	1.20	1.58	1.67	1.81	1.53	2.02	2.50
EPS	1.81	1.20	1.97	1.60	1.68	1.23	1.58	1.67	1.81	1.53	2.02	2.50
DPS	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	5.50	0.00	0.00

Source: DNB Markets (forecasts), company (historical data)

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Figure 4: IAR Systems valuation versus listed peers

	Mkt. cap.	P/E (x)			EV/EBIT (x)			EV/Sales (x)			Div. yield (%)		ROE (%)		EBIT margin		CAGR 2019-2021e (%)		
	(SEKbn)	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2019e	2020e	2019e	2020e	Sales	EBIT	EPS
IAR Systems (DNBe)	2.7	31.7	24.8	19.1	23.4	18.0	13.7	6.4	5.4	4.3	2.6	2.8	14	17	27.3	29.9	16	17	15
<i>Premium/discount</i>		-25%	-29%	-34%	-33%	-37%	-41%	-37%	-37%	-41%									
IAR Systems (Cons.)	2.7	32.3	24.2	20.2	23.1	17.8	14.6	6.3	5.4	4.7	2.7	2.9	15	19	26.9	29.5	17	25	27
<i>Premium/discount</i>		-23%	-31%	-30%	-34%	-38%	-37%	-37%	-37%	-37%									
Nordic software peers																			
Admicom	2.7	48.8	38.3	28.6				15.6	11.9	9.5	1.4	1.8	41	43	41.4	40.8	28	31	31
Fortnox	10.2	76.8	59.5	44.5	59.0	44.3	32.5	18.8	14.8	11.7	0.3	0.4	60	50	31.7	32.6	27	32	31
HMS Networks	6.5	33.6	29.0	24.3	25.5	21.5	17.7	4.5	4.2	3.8	1.4	1.6			17.3	18.9	9	17	18
INVISIO Communications	4.2	59.1	36.6	27.9	44.7	27.7	20.8	9.4	7.1	5.9	0.8	1.2	23	30	20.9	25.2	26	45	45
Lime Technologies	1.8	39.7	31.0	24.1	37.0	28.2	21.4	6.6	5.5	4.8	1.2	1.5	77	63	17.6	19.2	17	29	28
SimCorp	37.5	36.1	33.2	28.6	28.1	25.9	22.4	7.8	7.3	6.6	1.2	1.4	51	43	27.9	27.6	9	11	12
Vitec Software	4.5	20.9	20.0	18.7	29.4	25.7	23.7	4.1	4.0	3.8	0.9	1.0	16	16	14.0	15.4	4	10	6
Embedded software peers																			
Cadence Design Systems	182.4	30.9	28.9	27.1	24.9	22.4	19.9	8.0	7.5	7.0			43	30	31.9	32.0	7	7	7
ANSYS	183.5	36.3	33.4	30.6	27.2	24.0	21.1	12.3	11.1	10.2	0.0	0.0	17	15	44.9	44.9	10	10	9
Xilinx	235.6	25.8	28.2	25.2	25.1	28.3	23.7	7.6	7.2	6.6	1.5	1.5	34	30	31.8	26.5	8	1	1
Altium	28.1	54.7	48.2	39.3	49.1	37.8	29.7	16.4	13.5	11.0	1.3	1.5	32	32	33.5	35.4	22	27	18
Average	63.4	42.1	35.1	29.0	35.0	28.6	23.3	10.1	8.5	7.4	1.0	1.2	39	35	28.5	29.0	15	20	19
Median	10.2	36.3	33.2	27.9	28.8	26.8	21.9	8.0	7.3	6.6	1.2	1.4	38	31	31.7	27.6	10	17	18

Source: Bloomberg (underlying data), DNB Markets (further calculations)

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Summary of positives

World-leading provider of software development tools and services

Sweden-based IAR Systems is a world-leading provider of software tools and services for embedded systems (a chip containing embedded software) that enable the development of digital products for 46,000+ customers with 150,000+ users in end-markets, underpinned by growing demand for digital technology. We believe IAR Systems has a resilient business model selling flexible right-to-use licences to access its wholly owned software tool-chain (the IAR Embedded Workbench), which enables close customer relationships, high customer retention, and consistent revenue streams complemented by a royalty-based agreement with world-leading processor vendor Renesas Electronics. The March 2018 acquisition of Secure Thingz (the leading provider of advanced security solutions that help customers to take control of digital products from inception) has made IAR Systems the frontrunner ahead of the paradigm shift associated with security solutions for embedded systems in the Internet of Things (IoT).

Its software tools and services enable the development of digital products...

...in end-markets underpinned by growing demand for digital technology

Embedded resilience in a sticky business

We consider IAR Systems' key competitive advantage to be its proprietary technology platform, the IAR Embedded Workbench, which holds a ~50% global market share, as: 1) it is a unique line-up of a complete tool-chain for product developers; 2) being independent, IAR Systems supports a wide range of design architecture, meaning customers can choose the programming environment and tools according to their own needs, regardless of processor or project, which avoids locking customers in to one technical platform; 3) superior quality as its commercial customers cannot compromise on tools' code performance, reliability, user-friendliness, or time-to-market using inferior technologies such as open-source alternatives; 4) it is now a leading participant in embedded systems security, and should be able to leverage its head-start and unique technology to maximise the market potential; and 5) a scaled-up management team with the ability to execute the growth potential in the business, in our view.

IAR Systems owns the market for software development tools with c50% global market share

Key competitive strengths:

- 1) unique and complete tool-chain
- 2) independence
- 3) high-quality products
- 4) frontrunner in security solutions
- 5) management's ability to achieve its long-term potential

IAR 3.0

IAR Systems has gone through various phases since 2010, having: 1) streamlined the business towards proprietary software, creating a more specialised company; and 2) shifted its project-based business model to scalable licence sales, which has substantially improved margins. In our view, it is now heading into its third phase: the growth story. We believe that IAR 3.0 (our interpretation of IAR Systems' next phase) marks the shift from being a supplier of a compiler to becoming the go-to software tool partner for global names such as Amazon and Renesas Electronics as they position their embedded systems ahead of the Internet of Things (IoT).

Setting the scene for the growth story

Growing addressable market with the spread of digital technology

The spread of digital technology is driving the market for embedded systems. Thus, the market has numerous underlying drivers that all indicate a continuation of the solid industry growth of the past decade. Global Market Insights estimates a 7% market CAGR until 2023e, and we believe the factors that should affect growth for IAR Systems are likely to be: 1) continued increase in the number (and complexity) of embedded systems driven by IoT; 2) demand for reliable and advanced software tools that offer faster time-to-market and a complete development platform; 3) the automotive opportunity as cars become mobile computing platforms; 4) RISC-V adoption; 5) market consolidation and participants becoming too dominant; and 6) untapped potential in security solutions for embedded systems.

Numerous market drivers indicate a continuation of the solid industry growth

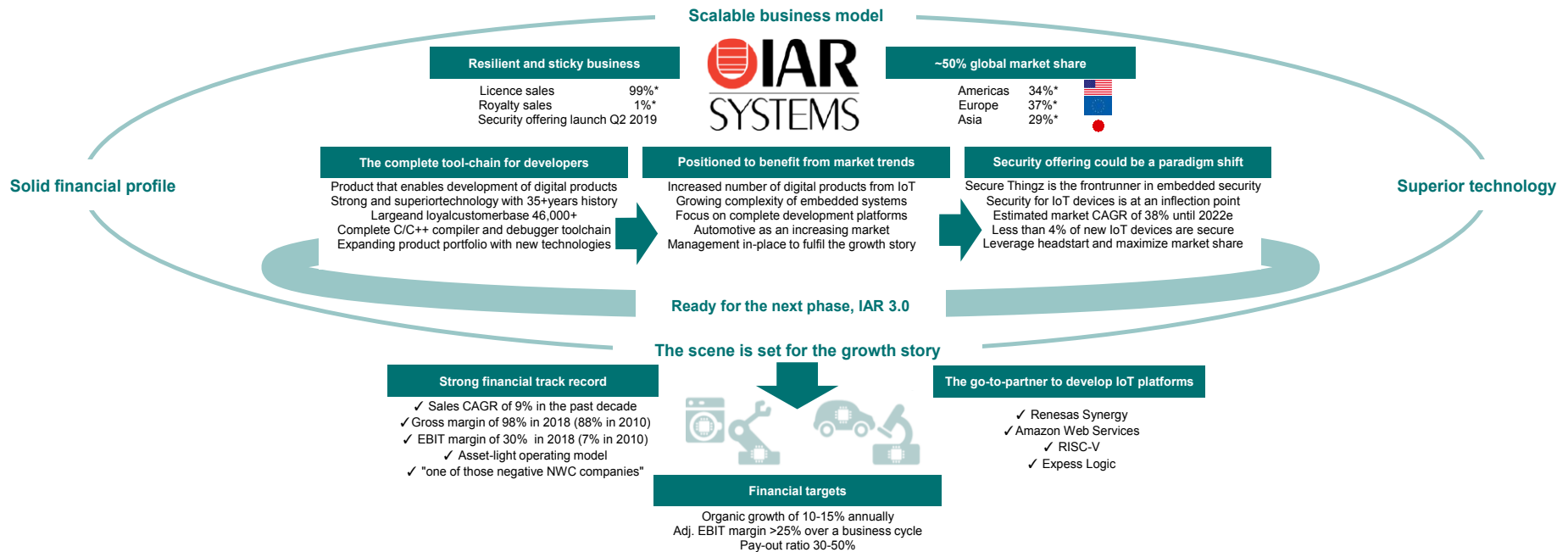
Security for embedded systems could mark a paradigm shift for IAR Systems

Having acquired Secure Thingz in Q2 2018, we believe IAR Systems is now the frontrunner in offering secure embedded systems. Theft of IP (code), cloning, counterfeiting etc. has made security issues the number one barrier for IoT adoption. The security market for embedded systems is in its inception phase but we expect it to grow rapidly through 2022 driven by 1) securing IP is a business imperative and 2) increasingly stringent security legislation. Thus, the share of secure new embedded products is set to grow from 4% today to almost 20% by 2022e, according to ABI Research. In Q2 2019, IAR Systems launched its security offering (C-Trust and Embedded Trust), which ensures that its customers' intellectual property is protected against IP theft, overproduction, piracy, and that software updates can be managed in a secure fashion.

Untapped potential in security offering with an addressable market opportunity of USD3bn, highlights that if IAR Systems is able to grab just a small market share, it could have a swing factor on its valuation

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Figure 5: IAR Systems' at a glance



Source: Company (underlying data), DNB Markets (compilation)

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We forecast 2018–2021 sales and EBIT CAGRs of 16% and 17%, respectively

We forecast a 2018–2021 sales CAGR of 16% and EBIT CAGR of 17% based on a strong market outlook underpinned by: 1) an increase in the number (and complexity) of embedded systems; 2) growing demand for reliable and advanced software tools that offer faster time-to-market and complete development platforms; 3) the automotive opportunity, as cars become mobile computing platforms; 4) rapid RISC-V adoption; and 5) minor uptake in royalties from Renesas Electronics. Moreover, we see additional prospects and untapped potential in security solutions for embedded systems.

Market drivers should create more processors and lines of code, driving demand for software development tools, and a user-friendly total solution enabling customers to re-use code

This should be driven by a 6% organic sales CAGR for its legacy licensing business (98% of 2018 sales) as the aforementioned market drivers should translate into more processors and lines of code, driving demand for software development tools and possibly programmers (user keys) for IAR Systems, as well as a full user-friendly total solution enabling customers to re-use large amounts of code. The large growth opportunities for its legacy business are:

- 1 Growing RISC-V adoption as its tools launched in May 2019 have been well received by customers (especially in China, which today accounts for 1% of group sales), setting the stage for accelerating organic growth.
- 2 Strategic customer sales now represent c10–15% of sales, highlighting that larger OEMs (in some cases 100+ developers) are increasingly standardising on IAR Systems' tools.
- 3 In addition, increased penetration from existing and new technologies in the IAR Embedded Workbench should drive add-on sales.

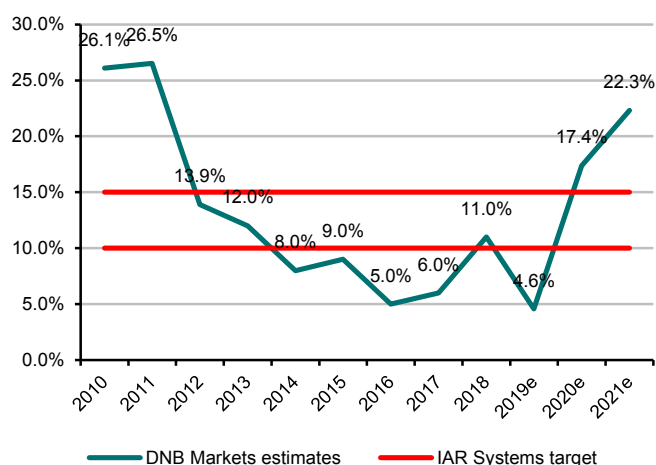
We estimate that revenues stemming from the royalty-based agreement with Renesas Electronics (1%) should contribute 1% organic sales CAGR for IAR Systems until 2021. We take a conservative approach when estimating the revenue impact.

IAR Systems' security offering lends the greatest growth potential, in our view, as IAR Systems has a solid track record of offering new products to existing customers. In a simplified scenario, we believe its existing customer base could represent a >SEK11bn revenue pool for its security offering. This should provide a long runway for future growth, but in the short-term we expect: 1) security legislation to play an active role in the update of secure development tools; and 2) the company to focus on larger customer accounts. Furthermore discussions with its customers and partners at Embedded World 2019 cemented our view of IAR Systems' value proposition.

We expect Secure Thingz to contribute to group sales with 9% organic growth CAGR in 2018–2021

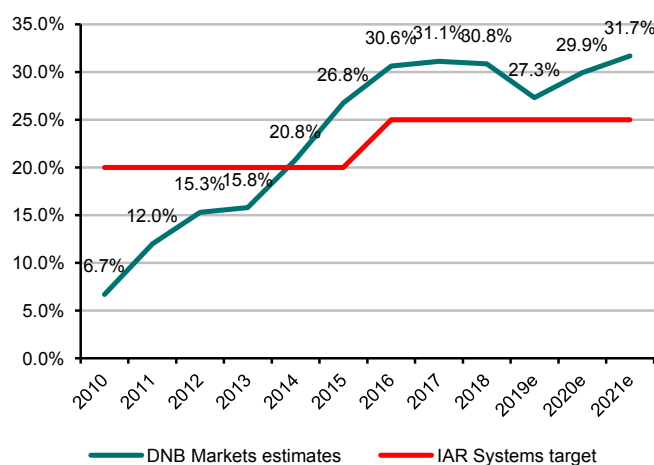
We forecast a 2018–2021 EBIT CAGR of 17%, implying a margin gain from 30% in 2018 to 32% in 2021e, driven by: 1) solid organic volume growth; and 2) ample operational leverage (hurt in 2018 by the integration of Secure Thingz) in 2019–2021e as we believe IAR Systems should continue to benefit from economies of scale due to its large fixed cost base.

Figure 6: Organic sales growth (2010–2021e)



Source: DNB Markets (forecasts), company (historical data)

Figure 7: Adj. EBIT margin



Source: DNB Markets (forecasts), company (historical data)

Financial targets

IAR Systems has three financial targets: 1) average organic growth of 10–15% annually; 2) an adj. EBIT margin in excess of 25% over a business cycle; and 3) a dividend payout of 30–50% of annual net income. Our estimates are above IAR Systems’ throughout our forecast period.

Figure 8: IAR Systems’ financial targets – reported and DNB Markets’ estimates

	Reported fiscal years					IAR target	DNB Markets’ estimates		
	2014	2015	2016	2017	2018		2019e	2020e	2021e
Organic growth	8.0%	9.0%	5.0%	6.0%	11.0%	10-15%	4.6%	17.4%	22.3%
EBIT margin	20.8%	26.8%	30.6%	31.1%	30.8%	>25%	27.3%	29.9%	31.7%
Payout ratio	149.3%	99.7%	113.3%	79.0%	74.9%	30–50%	81%	70%	54%

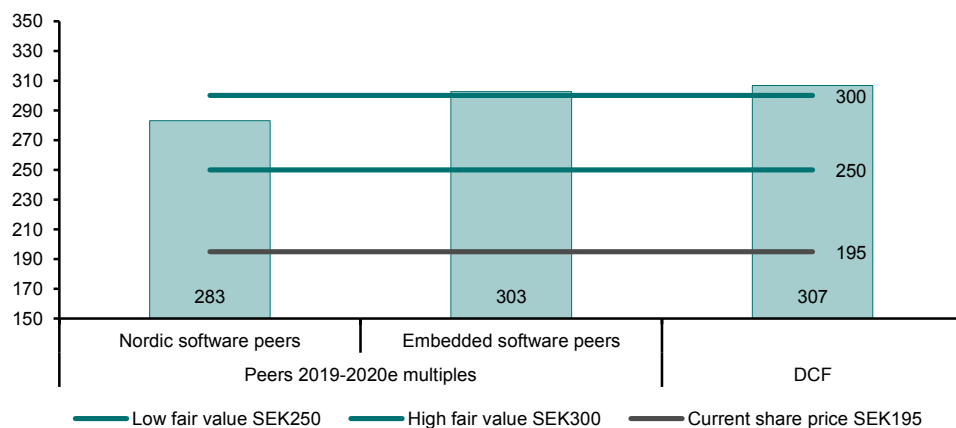
Source: DNB Markets (forecasts), company (historical data and targets)

We calculate a fair value of SEK250–300/share

Based on our group of Nordic software peers, embedded software peers, and our DCF model, we calculate a fair value of SEK250–300/share (previously 260–310). We believe the market has been valuing IAR Systems relative to Nordic software peers, whereas in our view embedded software peers better reflect its operating environment, business model, and growth prospects. On the current share price, our estimates suggest a 2020e P/E of 25x, EV/EBIT of 19x, and EV/sales of 6x, while our fair value suggests share price potential upside of 30–55%.

Fair value of SEK250–300/share suggests potential upside of 30–55%

Figure 9: Valuation summary (SEK/share)



Source: DNB Markets

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Summary of negatives

The key risks that could affect our fair value are: 1) IAR Systems' inability to resurrect the growth story, e.g. if it failed to capture the underlying market growth, or if there was prolonged market consolidation (causing market uncertainty) or delays in key strategic initiatives; 2) market entry by large and well-resourced participants that, until now, have overlooked the potential in software tools for embedded systems; and 3) FX headwinds, as the company is fairly sensitive to fluctuations in the SEK as it does not hedge its currency flows (with >98% of sales from markets outside Sweden but 57% of its cost base in SEK).

- **Failure to resurrect the growth story.** Having reported average local currency growth of 20% in 2010–2013, 9% in 2014–2015, and 7% in 2016–2018, we believe the key risk to the valuation is a failure to resurrect the organic growth story. While we have identified numerous market drivers that should fuel organic growth in our forecast period, an inability to capture these trends, delays in when the factors materialise, or disappointing disclosures regarding the new strategic alliances in royalty fees, licensing structures, etc. could raise questions about the operations and thus the valuation.
- **FX headwinds.** Although >98% of sales are from markets outside Sweden, the vast majority of the fixed cost base is denominated in SEK (we estimate ~58%); hence the company is fairly sensitive to fluctuations in this currency. If the SEK were to strengthen by 10% against its most important currencies (USD, EUR, JPY) as well as the GBP and KRW in 2018, we estimate a ~10% FX headwind on sales and a ~30% headwind on 2019 EBIT.
- **Intensified competitive landscape.** While the company holds leading positions across most processor types, it still faces a highly competitive environment, particularly from the independent supplier Green Hills Software and Arm's development tool, Kiel. If the competitiveness were to intensify or market growth rates were to abate, there could be pressure on the pricing of software licences (from those not giving it away free) in efforts to recapture growth or gain market share. While we believe the commercial viability of open source names is a limited risk for IAR Systems' offering today, any success for these alternatives could result in reduced licensing revenues for IAR Systems.
- **Continued market consolidation.** The ongoing consolidation trend among processor vendors could last longer than IAR Systems expects. If this continues to create market uncertainty and disrupt IAR Systems' partner network, it could hamper its growth prospects. Moreover, if the acquisitions of embedded software companies continue, it could cap IAR Systems' ability to integrate new technologies to its product offering. If it fails to acquire new technologies or create strategic alliances to integrate into IAR Systems' offering, this could impede its ability to address new market trends that should contribute to growth.
- **Large company entering the market.** While we believe barriers to entry are considerable, we also believe the attractiveness of this market has been somewhat overlooked by industry giants as they have often acquired development tools companies and given away the products 'free' to reduce costs. As many competitors in the semiconductor industry (particularly processor vendors) but especially global giants such as Google and Amazon are well resourced, it could pose a threat if they were to consider increasing their presence in software development tools.
- **Limited supply of qualified personnel.** In an industry characterised by rapid technological development, it is vital for IAR Systems to continually improve its product offering through innovation. A need for its technology and products to be market-leading means it has to retain well qualified employees, particularly in the technological aspects of product development. Failure to respond quickly to technological developments through qualified personnel could hurt its operations.
- **Worsening economic conditions.** A deteriorating global economy would probably cause a downturn in the cyclical semiconductor industry and customers' end-markets, which could affect the number of new microprocessors, and consequently demand for software development tools that programme the chips.

Until now large well-resourced competitors have overlooked the potential in software tools for embedded systems

IAR Systems is sensitive to fluctuations in the SEK

Growth prospects could be hampered by further consolidation

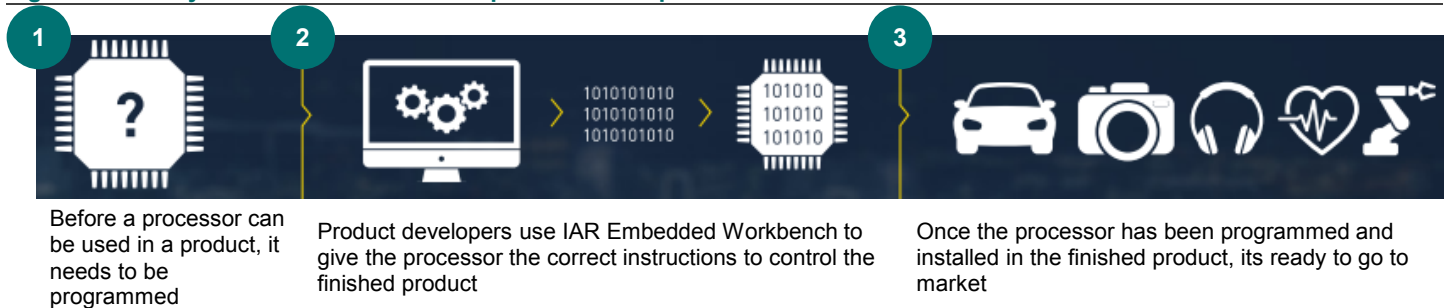
Retaining talented employees is key

Business overview

Dating back to 1983, IAR Systems is an independent provider of software for the programming of microprocessors in embedded systems (the control function in digital products). Its leading software – the IAR Embedded Workbench – facilitates, quality-assures, and improves the time-to-market of programming instructions in processors. The customer base of 46,000+ OEM customers and 150,000+ technology users is found mainly in end-markets underpinned by growing demand for digital technology and embedded systems, such as industrial automation, medical technology, telecommunications, consumer electronics, and the automotive industry.

World-leading provider of software for programming processors in embedded systems, which enable the development of digital products

Figure 10: IAR Systems' role in customers' product development



Source: Company

Headquartered in Uppsala (Sweden), the company holds a leading global market share of ~50% with 95%+ of sales stemming from markets outside the Nordics and a headcount of 215. IAR Systems' business model is primarily licence-based, where customers pay for a flexible right-to-use licence to access the IAR Embedded Workbench®, giving it attractive and steady revenue streams (~30% recurring revenues). In addition to this, IAR Systems has undergone two of the most comprehensive product launches in its history in 2019. With the launch of its security offering (C-Trust and Embedded Trust) as well as for RISC-V tools introducing a subscription-based model, we believe the building blocks are in place take the case to the next level:

50% global market share with 98% licence-based revenues, which are flexible for customers and leverage the number of programmers using its licence...

- **IAR Embedded Workbench (98% of 2018 sales)** based on the number of licence users (perpetual software keys) of the IAR Embedded Workbench sold when a developer programmes a product. The traditional licence costs cSEK30,000 (upfront) while the customer can add support and updates for an annual cost of 20% of the licence price.

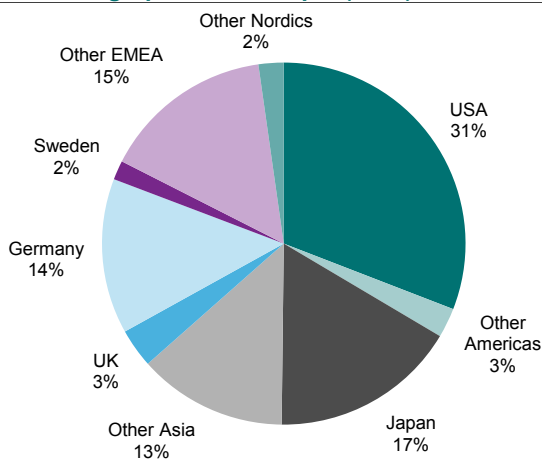
...In 2019, IAR Systems via its RISC-V tools and Embedded Trust also introduced a subscription model...

- **Secure Thingz (1%)**. C-Trust at ~SEK30,000/seat as a perpetual licence targeting IAR's 150,000 users, Embedded Trust at ~SEK150,000/seat as an annual subscription licence targeting the security experts at IAR Systems' 46,000 OEM customers.

... complemented by royalty-based revenue that leverages the number of chips used in customers' production, which falls straight through to EBIT

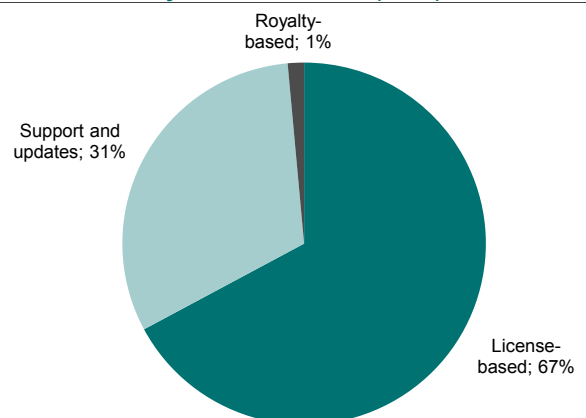
- **Royalty-based sales (1%)** based on the number of chips produced in Renesas Synergy.

Figure 11: Geographical sales split (2018)



Source: Company

Figure 12: Sales by business model (2018)



Source: Company

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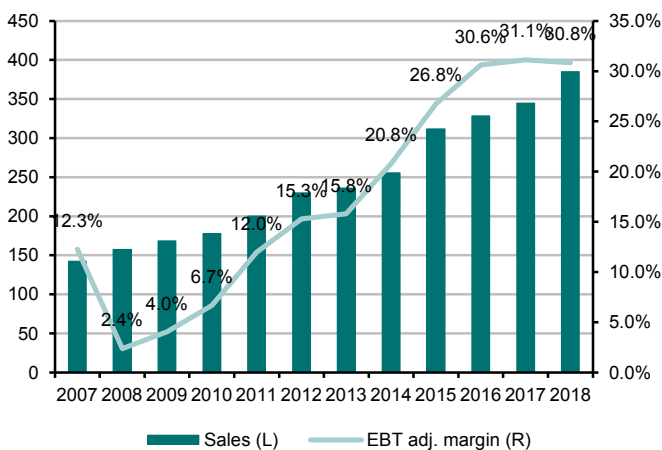
IAR Systems was acquired by IT conglomerate Nocom in 2005. However, by 2010 Nocom (known as Intoi by then) wanted to focus on proprietary software and create a more specialised company, so it kept only IAR Systems and took on that name.

With 2018 net sales of SEK385m, IAR Systems is 3x larger than the company acquired in 2005. While generating a sales CAGR of 9% over the past 10 years, it was able to significantly boost underlying profitability from an adj. EBIT margin of 12.3% in 2007 to 30.8% in 2018, which we attribute to: 1) the scalability of its high gross-margin standardised software; 2) more focus on proprietary products; and 3) increased cost efficiency (given the large fixed cost base where personnel costs represent 44% of sales).

From an IT conglomerate to a streamlined proprietary software provider...

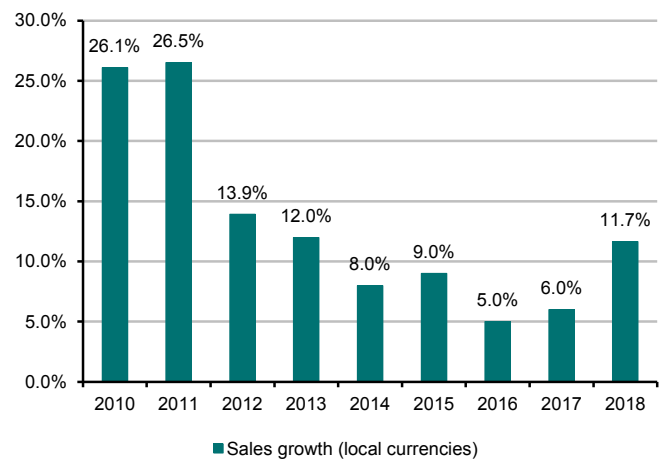
...with profitable growth, sales CAGR of 9% and adj. EBIT CAGR of 40% in the past 10 years

Figure 13: IAR Systems – sales (SEKm) and adj. EBIT margin



Source: Company

Figure 14: IAR Systems – sales growth local currencies



Source: Company

IAR Systems' key competitive advantage in our view is its flagship product, the IAR Embedded Workbench, which is a complete tool-chain for customers. Being independent, the software supports 14,000+ processors for embedded systems from the major process vendors with 8-, 16-, and 32-bit architecture, meaning customers can choose the programming environment and tools according to their own needs regardless of processor or project, which avoids locking customers in to one technical platform. Moreover, it can re-use 70–80% of previously developed code instead of rewriting it (saving time and resources).

Key competitive advantage: cutting-edge wholly owned technology that maximises customer benefits offering a complete solution...

Over the past few years, IAR Systems has expanded its product portfolio and now offers several adjacent products integrated in the IAR Embedded Workbench to optimise the code programming, for instance C-STAT and C-RUN (static and dynamic analysis that quality-assures and strengthens the reliability of the programming), Embedded Trust (security development environment for IoT solutions) and C-Trust (delivering secure, encrypted code) through its acquisition of Secure Thingz, as well as support for RISC-V, positioning IAR Systems to two of the embedded industry's hottest themes. In addition to driving add-on sales, this has – combined with a comprehensive support organisation – translated into impressive customer retention (95% recurring customers) and strengthened IAR Systems' competitiveness.

...which, combined with complementary integrated products and comprehensive support means a loyal customer base (95% recurring customers)

Figure 15: IAR Embedded Workbench® sold to >46,000 customer organisations

IDE Tools	Build Tools	C-SPY Debugger	C-Trust	Embedded Trust
<ul style="list-style-type: none"> - Editor - Project manager - Library Tools 	<ul style="list-style-type: none"> - IAR C/C++ Compiler - Assembler - Linker - RISC-V support 	<ul style="list-style-type: none"> - Simulator driver - Hardware debugging - Power debugging - RTOS plugins 	<ul style="list-style-type: none"> - Adds security to IAR Embedded Workbench - Delivery of secure and encrypted code - Inhibits unauthorized manufacturing 	<ul style="list-style-type: none"> - Security development environment - Identity and certificate management - Secure Boot Manager - Secure deployment and manufacturing mastering



Source: Company (information), DNB Markets (graph structuring)

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Forecast changes – P&L

(SEKm)	New			Old			Change		
	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e
Revenues	409	487	595	424	518	623	-15	-31	-28
Cost of sales	-9	-11	-14	-9	-12	-14	0	0	0
Gross profit	400	475	581	414	506	609	-15	-31	-28
Operating expenses	-251	-277	-319	-262	-299	-337	11	22	18
EBITDA	149	198	262	152	207	272	-3	-9	-9
EBITDA adj	149	198	262	152	207	272	-3	-9	-9
EBITDA margin (%)	36.3	40.8	44.1	35.9	40.0	43.6	0.5	0.7	0.5
Depreciation	-3	-4	-6	-3	-5	-7	0	1	1
Amortisation	-34	-48	-68	-33	-48	-66	0	0	-2
EBIT	112	146	189	115	154	199	-3	-8	-11
EBIT adj	112	146	189	115	154	199	-3	-8	-11
Net financial items	-2	-3	-3	-3	-3	-4	1	1	1
PBT	110	143	185	112	151	195	-2	-8	-10
Taxes	-26	-36	-46	-27	-38	-49	1	2	2
Minorities	0	0	0	0	0	0	0	0	0
Net profit	84	107	139	86	113	146	-2	-6	-7
Adjustments to net profit	0	0	0	0	0	0	0	0	0
Net profit adj	84	107	139	86	113	146	-2	-6	-7
<i>Per share data (SEK)</i>									
EPS	6.16	7.87	10.19	6.29	8.30	10.73	-0.13	-0.43	-0.54
EPS adj	6.08	7.87	10.19	6.21	8.30	10.73	-0.13	-0.43	-0.54
DPS ordinary	5.00	5.50	5.50	5.00	5.50	5.50	0.00	0.00	0.00
DPS	5.00	5.50	5.50	5.00	5.50	5.50	0.00	0.00	0.00
<i>Other key metrics (%)</i>									
Revenue growth	6.2	18.9	22.3	10.0	22.1	20.4	-3.8	-3.2	2.0
EBIT adj growth	-5.9	30.3	29.5	-3.1	33.8	29.4	-2.9	-3.5	0.2
EPS adj growth	-8.8	29.4	29.5	-6.8	33.6	29.4	-2.0	-4.1	0.1
Avg. number of shares (m)	14	14	14	14	14	14	0	0	0
Capex	-81	-89	-100	-78	-82	-87	-3	-7	-13
OpFCF	68	109	162	74	125	184	-6	-16	-23
Working capital	33	29	66	42	52	108	-10	-23	-42
NIBD adj	-12	4	-25	-50	-49	-91	38	54	67

Source: DNB Markets

Forecast changes – By segment and assumptions

(SEKm)	New			Old			Change		
	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e
Assumptions									
Revenue org. % YOY	4.57	17.38	22.33	6.72	19.63	20.35	-2.15	-2.26	1.98
Structure impact % YOY	0.00	0.00	0.00			0.00			0.00
Currency impact % YOY	6.38	1.54	0.00	6.78	2.50	0.00	-0.40	-0.96	0.00

Source: DNB Markets

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Quarterly numbers

(SEKm)	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e	Q1 2020e
Revenues	84	88	89	96	98	103	100	99	100	110	113
Cost of sales	-2	-3	-3	-2	-2	-2	-2	-3	-3	-2	-2
Gross profit	82	85	86	94	96	101	98	97	98	108	110
Operating expenses	-49	-53	-51	-64	-58	-63	-59	-64	-60	-68	-63
EBITDA	34	32	35	30	38	38	38	33	38	40	47
Depreciation	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Amortisation	-5	-5	-5	-6	-6	-6	-9	-8	-9	-9	-13
EBIT	29	27	30	24	31	31	29	24	28	30	34
Net financial items	0	0	0	-2	0	1	0	-2	1	0	-1
PBT	28	26	29	22	31	32	29	22	29	30	33
Taxes	-8	-7	-6	-6	-4	-10	-6	-5	-7	-8	-8
Minorities	0	0	0	0	0	0	0	0	0	0	0
Net profit	20	20	23	16	27	22	23	17	22	23	25
Adjustments to net profit	0	0	0	-2	0	0	0	0	0	0	0
Net profit adj	20	20	23	14	27	22	23	17	22	23	25
Dividend paid	0	0	0	-68	0	0	0	-68	0	0	0
Avg. number of shares (m)	13	13	13	14	14	14	14	14	14	14	14
<i>Per share data (SEK)</i>											
EPS	1.61	1.56	1.81	1.20	1.97	1.60	1.68	1.23	1.58	1.67	1.81
EPS adj	1.61	1.56	1.81	1.43	1.97	1.60	1.64	1.20	1.58	1.67	1.81
DPS ordinary	0.00	0.00	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
DPS	0.00	0.00	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
<i>Growth and margins (%)</i>											
Revenues, QOQ growth	-3.0	4.0	1.5	7.5	2.4	5.0	-2.9	-0.8	1.0	10.4	2.1
Revenues, YOY growth	3.8	3.1	2.9	10.1	16.3	17.4	12.3	3.6	2.1	7.4	12.9
EPS adj, YOY growth	-6.9	-2.0	21.3	-15.1	22.5	2.6	-9.2	-16.1	-19.8	4.1	10.6
Gross margin	97.7	97.0	96.9	98.0	97.9	97.9	97.9	97.5	97.5	97.9	97.9
EBITDA adj margin	40.1	36.4	39.0	31.4	38.6	36.6	38.5	33.2	37.5	36.2	41.7
Depreciation/revenues	-0.7	-0.7	-0.6	-0.6	-0.7	-0.8	-0.5	-1.0	-0.7	-0.9	-0.7
EBIT adj margin	34.0	30.6	33.2	28.1	32.0	30.3	29.5	24.0	28.1	27.6	29.9
Net profit margin	24.1	22.5	25.6	16.9	27.4	21.2	22.9	16.9	21.6	20.6	21.9

Source: Company (historical figures), DNB Markets (estimates)

Adjustments to quarterly numbers

(SEKm)	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e	Q1 2020e
EBITDA	34	32	35	30	38	38	38	33	38	40	47
EBITDA adj	34	32	35	30	38	38	38	33	38	40	47
EBIT	29	27	30	24	31	31	29	24	28	30	34
Other EBIT adjustments	0	0	0	-3	0	0	0	0	0	0	0
EBIT adj	29	27	30	27	31	31	29	24	28	30	34
Net profit	20	20	23	16	27	22	23	17	22	23	25
Other EBIT adjustments	0	0	0	-3	0	0	0	0	0	0	0
Tax adjustments	0	0	0	0	0	0	0	0	0	0	0
Other adjustments	0	0	0	0	0	0	0	0	0	0	0
Net profit adj	20	20	23	14	27	22	23	17	22	23	25

Source: Company (historical figures), DNB Markets (estimates)

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Quarterly numbers by segment and assumptions

(SEKm)	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e	Q1 2020e
Assumptions											
Revenue org. % YOY	8.38	8.47	4.98	8.06	6.65	10.05	3.49	-2.30	-2.76	1.17	8.75
Structure impact % YOY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Currency impact % YOY	-4.56	-5.41	-2.08	2.07	9.62	7.31	8.77	5.86	4.90	6.19	4.19

Source: Company (historical figures), DNB Markets (estimates)

Annual P&L

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
Revenues	230	236	256	312	328	345	385	409	487	595
Cost of sales	-23	-15	-13	-10	-12	-9	-9	-9	-11	-14
Gross profit	207	222	243	301	316	337	376	400	475	581
Operating expenses	-165	-171	-179	-203	-203	-209	-236	-251	-277	-319
EBITDA	42	51	64	98	113	127	140	149	198	262
Depreciation	-2	-2	-2	-3	-3	-2	-3	-3	-4	-6
Amortisation	-4	-7	-8	-12	-14	-17	-22	-34	-48	-68
EBIT	35	41	53	83	97	107	116	112	146	189
Net financial items	0	0	0	0	0	-2	-2	-2	-3	-3
PBT	35	37	54	83	100	106	117	110	143	185
Taxes	-22	-12	-11	-20	-22	-26	-26	-26	-36	-46
Effective tax rate (%)	63	31	21	24	22	24	22	24	25	25
Minorities	0	0	0	0	0	0	0	0	0	0
Net profit	13	26	42	63	78	80	91	84	107	139
Adjustments to net profit	0	3	0	0	-3	0	-2	0	0	0
Net profit adj	13	29	42	63	75	80	88	84	107	139
Dividend paid	-11	-23	0	-63	-88	-63	-68	-68	-75	-75
Avg. number of shares	11	12	13	13	13	13	14	14	14	14
<i>Per share data (SEK)</i>										
EPS	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.16	7.87	10.19
EPS adj	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.08	7.87	10.19
DPS ordinary	0.98	1.85	0.00	5.00	7.00	5.00	4.99	5.00	5.50	5.50
DPS	0.98	1.85	0.00	5.00	7.00	5.00	4.99	5.00	5.50	5.50
<i>Growth and margins (%)</i>										
Revenue growth	14.8	2.7	8.3	21.9	5.4	5.1	11.7	6.2	18.9	22.3
EPS adj growth	-53.2	83.4	59.2	50.2	23.0	2.6	5.3	-8.8	29.4	29.5
Gross margin	89.9	93.9	95.0	96.7	96.3	97.5	97.7	97.7	97.7	97.7
EBITDA margin	18.2	21.4	24.9	31.5	34.5	36.9	36.4	36.3	40.8	44.1
EBITDA adj margin	18.2	21.4	24.9	31.5	34.5	36.9	36.4	36.3	40.8	44.1
Depreciation/revenues	-1.0	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.8	-0.9	-1.0
EBIT margin	15.3	17.5	20.8	26.8	29.4	31.1	30.0	27.3	29.9	31.7
EBIT adj margin	15.3	15.8	20.8	26.8	30.6	31.1	30.8	27.3	29.9	31.7
PBT margin	15.3	15.8	21.0	26.7	30.5	30.6	30.4	26.9	29.4	31.1
Net profit margin	5.6	11.0	16.5	20.3	23.8	23.2	23.6	20.5	22.0	23.3

Source: Company (historical figures), DNB Markets (estimates)

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Adjustments to annual P&L

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
EBITDA	42	51	64	98	113	127	140	149	198	262
EBITDA adj	42	51	64	98	113	127	140	149	198	262
EBIT	35	41	53	83	97	107	116	112	146	189
Other EBIT adjustments	0	4	0	0	-4	0	-3	0	0	0
EBIT adj	35	37	53	83	101	107	119	112	146	189
Net profit	13	26	42	63	78	80	91	84	107	139
Other EBIT adjustments	0	4	0	0	-4	0	-3	0	0	0
Tax adjustments	0	0	0	0	0	0	0	0	0	0
Other adjustments	0	0	0	0	0	0	0	0	0	0
Net profit adj	13	29	42	63	75	80	88	84	107	139
<i>Per share data (SEK)</i>										
EPS	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.16	7.87	10.19
Recommended adjustment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	0.00	0.00
EPS adj	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.08	7.87	10.19

Source: Company (historical figures), DNB Markets (estimates)

Cash flow

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
Net profit	13	26	42	63	78	80	91	84	107	139
Depreciation and amortisation	7	9	10	15	17	20	25	37	53	74
Cash flow from operations (CFO)	38	41	70	99	114	124	93	107	148	204
Capital expenditure	-22	-21	-32	-19	-19	-19	-47	-81	-89	-100
Acquisitions/Investments	0	0	0	0	0	0	-171	0	0	0
Divestments	0	0	0	1	0	0	0	0	0	0
Cash flow from investing (CFI)	-18	-19	-32	-18	-19	-38	-218	-99	-89	-100
Free cash flow (FCF)	20	22	39	80	95	86	-125	8	59	104
Net change in debt	0	0	0	0	0	0	0	30	0	0
Dividends paid	-11	-23	0	-63	-88	-63	-68	-68	-75	-75
Share issue (repurchase)	0	22	-53	0	0	0	172	0	0	0
Other	12	12	0	0	0	0	4	-12	0	0
Cash flow from financing (CFF)	1	12	-53	-64	-88	-63	108	-50	-75	-75
Total cash flow (CFO+CFI+CFF)	21	33	-15	17	7	23	-17	-41	-16	29
<i>FCFF calculation</i>										
Free cash flow	20	22	39	80	95	86	-125	8	59	104
Less: tax shields/other	0	0	0	0	0	0	0	0	0	0
Less: acquisitions	0	0	0	0	0	0	171	0	0	0
Less: divestments	0	0	0	-1	0	0	0	0	0	0
Growth (%)										
CFO	10.1	6.3	72.7	40.4	15.7	8.5	-25.3	16.0	37.5	38.3
CFI	30.1	-5.5	-66.0	42.3	-3.3	-98.9	-478.5	54.3	10.5	-12.9
FCF	127.0	6.9	78.7	108.3	18.5	-9.4	-244.7	106.4	631.2	76.8
CFF	-92.2	1866.7	-550.8	-19.5	-39.0	28.5	270.4	-146.0	-51.4	0.0
FCFF	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm

Source: Company (historical figures), DNB Markets (estimates)

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Balance sheet

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
Assets	324	370	375	399	396	410	722	823	858	923
Inventories	4	3	4	5	6	5	7	7	9	10
Trade receivables	29	34	39	44	48	51	63	64	78	85
Other receivables	14	15	11	20	19	12	38	47	47	47
Current financial assets	3	1	0	0	0	0	0	0	0	0
Cash and cash equivalents	49	82	71	89	99	120	106	69	53	82
Current assets	98	135	124	158	172	187	214	187	186	224
Property, plant and equipment	6	6	8	7	6	6	9	7	5	2
Other intangible assets	152	164	186	192	197	194	484	604	642	672
Deferred tax assets	62	59	51	37	16	3	13	22	22	22
Non-current financial assets	5	5	6	5	5	20	2	3	3	3
Non-current assets	226	235	251	241	224	223	508	636	672	699
Total assets	324	370	375	399	396	410	722	823	858	923
Equity and liabilities	324	370	375	399	396	410	722	823	858	923
Total equity	254	295	289	291	280	290	550	597	629	693
Trade payables	6	6	5	5	5	6	7	7	9	10
Other payables and accruals	53	54	65	84	92	31	131	41	41	41
Short-term debt	1	1	1	1	1	1	2	25	25	25
Total current liabilities	61	61	71	90	99	102	140	155	158	158
Long-term debt	1	1	2	1	2	2	1	32	32	32
Deferred tax liabilities	9	13	15	17	15	14	30	38	38	38
Other non-current liabilities	0	0	0	1	1	2	2	1	1	1
Total non-current liabilities	10	14	16	18	18	17	32	72	72	72
Total liabilities	70	75	87	108	116	120	172	226	229	230
Total equity and liabilities	324	370	375	399	396	410	722	823	858	923
<i>Key metrics</i>										
Net interest bearing debt	-47	-79	-68	-88	-97	-117	-103	-12	4	-25

Source: Company (historical figures), DNB Markets (estimates)

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Valuation ratios

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<i>Enterprise value</i>										
Share price (SEK)		39.77	74.75	150.00	206.00	189.00	243.00	195.00	195.00	195.00
Number of shares (m)	11.36	12.34	12.63	12.63	12.63	12.63	13.62	13.63	13.63	13.63
Market capitalisation		491	944	1,895	2,602	2,387	3,310	2,658	2,658	2,658
Net interest bearing debt	-47	-79	-68	-88	-97	-117	-103	-12	4	-25
Adjustments to NIBD	0	0	0	0	0	0	0	0	0	0
Net interest bearing debt adj	-47	-79	-68	-88	-97	-117	-103	-12	4	-25
EV		411	876	1,807	2,505	2,270	3,206	2,646	2,662	2,633
EV adj		411	876	1,807	2,505	2,270	3,206	2,646	2,662	2,633
<i>Valuation</i>										
EPS	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.16	7.87	10.19
EPS adj	1.14	2.10	3.34	5.02	6.18	6.33	6.67	6.08	7.87	10.19
DPS ordinary	0.98	1.85	0.00	5.00	7.00	5.00	4.99	5.00	5.50	5.50
DPS	0.98	1.85	0.00	5.00	7.00	5.00	4.99	5.00	5.50	5.50
P/E		18.9	22.4	29.9	33.4	29.8	36.4	31.7	24.8	19.1
P/E adj		18.9	22.4	29.9	33.4	29.8	36.4	32.1	24.8	19.1
P/B		1.66	3.27	6.51	9.31	8.22	6.02	4.45	4.23	3.84
Average ROE	5.3%	9.4%	14.5%	21.9%	27.3%	28.1%	21.6%	14.6%	17.5%	21.0%
Earnings yield adj		5.3%	4.5%	3.3%	3.0%	3.4%	2.7%	3.1%	4.0%	5.2%
Dividend yield		4.6%	0.0%	3.3%	3.4%	2.6%	2.1%	2.6%	2.8%	2.8%
Free cash flow yield		4.4%	4.1%	4.2%	3.7%	3.6%	-3.8%	0.3%	2.2%	3.9%
EV/SALES		1.74	3.42	5.80	7.63	6.58	8.32	6.47	5.47	4.42
EV/SALES adj		1.74	3.42	5.80	7.63	6.58	8.32	6.47	5.47	4.42
EV/EBITDA		8.1	13.8	18.4	22.1	17.8	22.9	17.8	13.4	10.0
EV/EBITDA adj		8.1	13.8	18.4	22.1	17.8	22.9	17.8	13.4	10.0
EV/EBIT		10.0	16.5	21.7	26.0	21.1	27.7	23.7	18.3	14.0
EV/EBIT adj		11.0	16.5	21.7	24.9	21.1	27.0	23.7	18.3	14.0
EV/capital employed		1.4	3.0	6.2	8.9	6.4	5.8	3.6	3.5	3.2
EV/NOPLAT		13.5	22.2	29.3	35.1	28.6	37.5	32.0	24.7	18.9
EV/OpFCF (taxed)		20.8	50.1	31.6	36.6	28.3	51.4	68.1	37.2	23.3

Source: Company (historical figures), DNB Markets (estimates)

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Key accounting ratios

	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<i>Profitability (%)</i>										
ROA	4.1	7.5	11.3	16.4	19.6	19.9	16.0	10.9	12.8	15.6
ROCE	14.0	13.4	18.1	28.5	34.9	33.6	26.1	17.3	19.4	23.6
ROCE after tax	10.4	9.9	13.4	21.1	25.8	24.8	19.3	12.8	14.3	17.4
<i>Return on invested capital (%)</i>										
Net PPE/revenues	2.7	2.6	3.1	2.1	1.9	1.8	2.3	1.7	1.0	0.4
Working capital/revenues	16.4	31.2	20.9	22.0	22.4	24.6	19.3	8.0	5.9	11.1
<i>Cash flow ratios (%)</i>										
FCF/revenues	8.8	9.1	15.1	25.8	29.0	25.0	-32.4	2.0	12.1	17.4
FCF/market capitalisation		4.4	4.1	4.2	3.7	3.6	-3.8	0.3	2.2	3.9
CFO/revenues	16.6	17.2	27.5	31.7	34.8	35.9	24.0	26.3	30.4	34.3
CFO/market capitalisation		8.3	7.4	5.2	4.4	5.2	2.8	4.0	5.6	7.7
CFO/capex	171.0	192.9	217.6	508.8	614.0	652.1	197.9	133.0	166.0	203.4
CFO/current liabilities	63.3	66.8	99.4	110.2	115.8	121.1	66.2	69.4	93.7	129.2
Cash conversion ratio	155.4	83.4	91.5	126.8	122.2	107.9	-137.6	9.6	54.7	74.7
Capex/revenues	9.7	8.9	12.6	6.2	5.7	5.5	12.1	19.7	18.3	16.9
Capex/depreciation	973.9	959.1	1404.3	776.0	744.0	791.7	1800.0	2567.0	2047.2	1773.3
OpFCF margin	8.4	12.5	12.2	25.3	28.8	31.4	24.2	16.6	22.5	27.2
Total payout ratio	85.4	88.0	0.0	99.7	113.3	79.0	74.9	81.2	69.9	54.0
<i>Leverage and solvency (x)</i>										
Net debt/EBITDA	-1.12	-1.57	-1.08	-0.89	-0.85	-0.92	-0.74	-0.08	0.02	-0.09
Total debt/total capital (BV)	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.07	0.07	0.06
LTD / (LTD + equity (MV))		0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
<i>Cash conversion cycle</i>										
Inventory turnover days	61.1	83.1	104.7	180.7	167.5	223.3	267.7	268.9	287.2	264.2
Receivables turnover days	67.7	75.3	70.9	74.5	74.7	66.2	96.1	99.4	93.5	81.2
Credit period	95.6	143.5	147.1	170.1	158.6	244.8	296.1	251.0	299.8	259.1
Cash conversion cycle	33.3	14.8	28.5	85.1	83.7	44.8	67.7	117.2	80.8	86.3

Source: Company (historical figures), DNB Markets (estimates)

7 November 2019

Important Information

Company: IAR Systems
 Coverage by Analyst: Joachim Gunell
 Date: 07-11-2019

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Share positions in the company:	Analyst*	Employees**	DNB***	Update
Number of shares	0	660	0	07/11/2019

*The analyst or any close associates. **Share positions include people involved in the production of credit and equity research, including people that could reasonably be expected to have access to it before distribution.

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Recommendation distribution and corporate clients for the last 12 months

	Buy	Hold	Sell	No rec	Total
Number	144	64	32	11	251
% of total	57%	25%	13%	4%	
DNB Markets client	28%	10%	2%	2%	105

7 November 2019

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