



IAR SYSTEMS

Insiders showing the way

While Covid-19 does not stop the increased security risks the IoT can present, nor developers' need for the flexible design processes offered by RISC-V, we have cut our 2020–2022e EBIT forecasts by 19%. Still, as its legacy tools are system-critical for its OEM customers, we estimate its fair value at SEK150–230 (230–275) and note that the stock is trading at a P/E 2021e of 16x, a 40% discount to its historical average.

Potential Covid-19 impacts. It is still early days, but we believe sales processes in H1 2020 are likely to be delayed, with procurement departments working from home. For 2020, we expect this to translate into maintained demand for need-to-have development tools (i.e. IAR's legacy Workbench licences) but postponed adoption for its new RISC-V tools and security products, given slower decision-making processes. Still, we like IAR's resilient licence sales business model, which has high customer retention (95%) and ~35% recurring revenues, and highlight that its software tools are system-critical for its OEM customers' product development. In combination with a digital distribution model (the bulk of sales stem from its website), we believe IAR Systems is well-positioned to face a deteriorating macroeconomic backdrop.

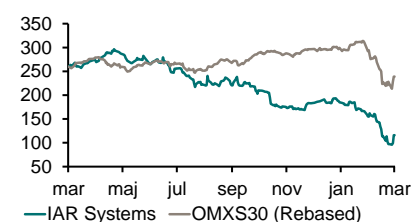
EBIT 2020–2022e down by 19%, to account for potential Covid-19 implications. In our view, the embedded systems market will likely weaken and the ramp-up of new product launches could be back-end-heavy for 2020e, with the turning point delayed into 2021e. We forecast -3% organic sales growth for 2020, with a V-shaped recovery in H2 2020 causing slight margin contraction, and an EBIT margin of 26% (down from 27% in 2019). While investment is likely to remain at elevated levels, we forecast average annual FCF of SEK60m+ over 2020–2022e and highlight that IAR is well-capitalised with net debt/EBITDA of 0.1x, as well as an unutilised SEK200m credit facility. Our base case is that IAR maintains its SEK3 DPS, though we do not rule out it could postpone its DPS decision until later this year when earnings visibility returns.

Fair value lowered to SEK150–230 (230–275), to reflect our updated forecasts, on which IAR is trading at a 2021e P/E of 16x, corresponding to a ~40% discount to its historical average. We see further valuation support from CEO insider buying.

Year-end Dec	2016	2017	2018	2019	2020e	2021e	2022e
Revenue (SEKm)	328	345	385	406	413	481	532
EBITDA adj (SEKm)	113	127	140	146	151	191	223
EBIT adj (SEKm)	101	107	119	108	107	135	162
PTP (SEKm)	100	106	117	107	105	133	160
EPS rep (SEK)	6.18	6.33	6.67	5.96	5.79	7.31	8.79
EPS adj (SEK)	6.18	6.33	6.67	5.96	5.79	7.31	8.79
DPS (SEK)	7.00	5.00	5.00	3.00	3.00	2.90	3.66
Revenue growth (%)	5.4	5.1	11.7	5.3	1.7	16.6	10.6
EBITDA growth adj (%)	15.2	12.4	10.1	4.1	3.3	26.6	16.8
EPS growth adj (%)	23.0	2.6	5.3	-10.6	-2.8	26.3	20.2
EBITDA margin adj (%)	34.5	36.9	36.4	35.9	36.5	39.7	41.9
EV/Sales adj (x)	7.63	6.58	8.32	6.30	3.90	3.30	2.90
EV/EBITDA adj (x)	22.1	17.8	22.9	17.5	10.7	8.3	6.9
EV/EBIT adj (x)	24.9	21.1	27.0	23.6	15.0	11.7	9.5
P/E adj (x)	33.4	29.8	36.4	31.2	20.0	15.9	13.2
P/Book (x)	9.31	8.22	6.02	4.28	2.51	2.29	2.08
ROE (%)	27.3	28.1	21.6	14.2	12.9	15.1	16.5
ROCE (%)	34.9	33.6	26.1	17.7	14.6	16.4	18.3
Dividend yield (%)	3.4	2.6	2.1	1.6	2.6	2.5	3.2

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

IARB versus OMXS30 (12m)



Source: Factset

SUMMARY

Share price (SEK)	116
Tickers	IARB SS, IARB.ST

CAPITAL STRUCTURE

No. of shares (m)	13.6
No. of shares fully dil. (m)	13.7
Market cap. (SEKm)	1,581
NIBD adj end-2020e (SEKm)	27
Enterprise value adj (SEKm)	1,608
Net debt/EBITDA adj (x)	0.18
Free float (%)	100

Source: Company, DNB Markets (estimates)

NEXT EVENT

Q1 2020	29/04/2020
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ESTIMATE CHANGES (SEK)

Year-end Dec	2020e	2021e	2022e
Sales (old)	451.5	539.9	590.4
Sales (new)	412.7	481.0	531.9
Change (%)	-8.6	-10.9	-9.9
EPS (old)	7.19	9.17	10.56
EPS (new)	5.79	7.31	8.79
Change (%)	-19.4	-20.3	-16.7

Source: DNB Markets,

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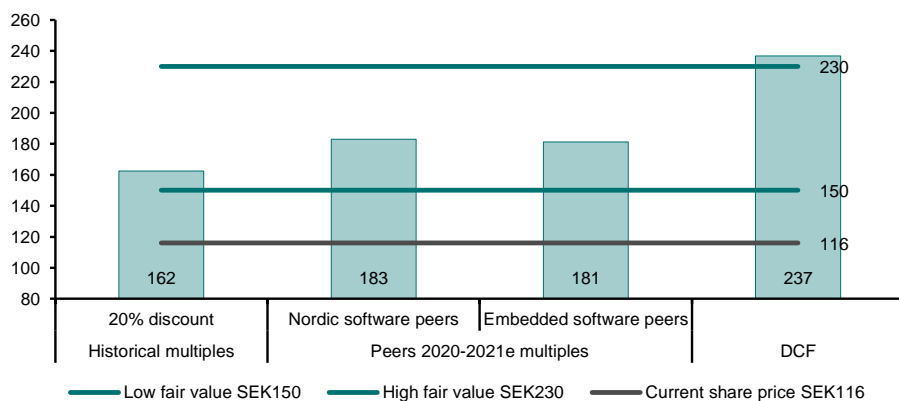
ANALYSTS

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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 a 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 appear in IAR Systems' sales. Thus, it would be negative if the Secure Thingz collaboration were to fall short of management's 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 point 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 and RISC-V.
- We expect the sales growth acceleration in late 2020/early 2021 to cement IAR Systems' central position in the embedded industry's key growth themes.
- We estimate that IAR Systems should generate a 2019–2022 EPS CAGR of 14%, 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 a DCF suggests a fair value of SEK150–230 (230–275) from our 12-month perspective (methodology unchanged).
- Applying IAR's historical valuation (P/E 28x, EV/EBIT 20x) to our 2021 estimates suggests SEK200–230.
- Our estimates correspond to a 2021e P/E of 16x, an EV/EBIT of 18x, and an EV/sales of 5x, comprising a ~40% discount to its five-year average.

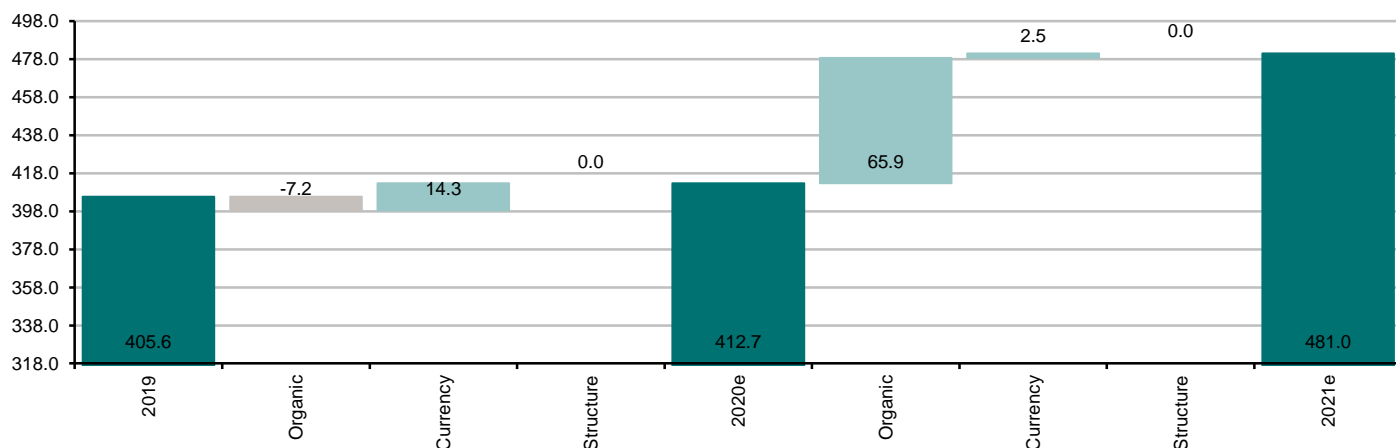
Source: DNB Markets

Upside risks to our fair value

- The company over-delivering on its financial targets (particularly 10–15% organic growth).
- If IAR Systems' new security offering gains faster penetration than we assume by leveraging on its head-start, we believe there is 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 2019–2021e (SEKm)



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

ESG overview

Sustainability assessment

	Positive	Negative
Conclusions	<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ 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.
Actions being taken by company	<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ 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, 95% of which are recurring customers, we believe.

Key ESG drivers

Short-term

- Today, fewer 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 being manufactured; a leading door sensor provider, whose IP was stolen internally, which led to direct revenue loss, 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.

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.
- 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.

26 March 2020

Estimate revisions

Figure 1: Estimate changes

(SEKm, except per share data)	Old			New			Change		
	2020e	2021e	2022e	2020e	2021e	2022e	2020e	2021e	2022e
Sales									
Legacy IAR Systems	426.0	455.4	477.8	398.1	434.0	454.1	-7%	-5%	-5%
Royalty-based revenue	0.0	0.0	0.0	0.0	0.0	0.0			
Secure Thingz	25.4	84.5	112.6	14.6	47.0	77.8	-43%	-44%	-31%
Group Total	451.5	539.9	590.4	412.7	481.0	531.9	-9%	-11%	-10%
EBIT adjusted									
Legacy IAR Systems + Secure Thingz	132.6	169.7	195.3	106.9	135.2	162.4	-19%	-20%	-17%
Royalty-based revenue	0.0	0.0	0.0	0.0	0.0	0.0			
Group Total	132.6	169.7	195.3	106.9	135.2	162.4	-19%	-20%	-17%
EBIT adjusted margin									
Legacy IAR Systems + Secure Thingz	29.4%	31.4%	33.1%	25.9%	28.1%	30.5%	-347bp	-332bp	-254bp
Royalty-based revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0bp	0bp	0bp
Group Total	29.4%	31.4%	33.1%	25.9%	28.1%	30.5%	-347bp	-332bp	-254bp
Organic growth components									
Legacy IAR Systems	5.9%	6.5%	4.2%	-3.4%	8.4%	4.4%	-930bp	184bp	17bp
Royalty-based revenue	-1.5%	0.0%	0.0%	-1.5%	0.0%	0.0%	0bp	0bp	0bp
Secure Thingz	5.8%	13.0%	5.2%	3.1%	7.6%	6.2%	-274bp	-539bp	104bp
Group Total	10.3%	19.5%	9.4%	-1.8%	16.0%	10.6%	-1204bp	-355bp	122bp
Group									
Sales	451.5	539.9	590.4	412.7	481.0	531.9	-9%	-11%	-10%
Sales growth	11.3%	19.6%	9.4%	1.7%	16.6%	10.6%	-956bp	-303bp	122bp
Organic	10.3%	19.5%	9.4%	-1.8%	16.0%	10.6%	-1204bp	-355bp	122bp
Structure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0bp	0bp	0bp
Currency	1.1%	0.1%	0.0%	3.5%	0.6%	0.0%	247bp	52bp	0bp
Gross profit	439.3	525.5	574.6	401.5	468.1	517.5	-9%	-11%	-10%
Margin	97.3%	97.3%	97.3%	97.3%	97.3%	97.3%	-2bp	-2bp	-3bp
EBIT adjusted	132.6	169.7	195.3	106.9	135.2	162.4	-19%	-20%	-17%
Margin	29.4%	31.4%	33.1%	25.9%	28.1%	30.5%	-347bp	-332bp	-254bp
Adjustments	0.0	0.0	0.0	0.0	0.0	0.0			
EBIT	132.6	169.7	195.3	106.9	135.2	162.4	-19%	-20%	-17%
Margin	29.4%	31.4%	33.1%	25.9%	28.1%	30.5%	-347bp	-332bp	-254bp
Net financial items	-2.3	-3.0	-3.4	-1.9	-2.3	-2.6			
Pretax profit	130.3	166.7	191.9	105.0	132.9	159.8	-19%	-20%	-17%
Tax	-32.3	-41.7	-48.0	-26.0	-33.2	-39.9	-19%	-20%	-17%
Tax rate	24.8%	25.0%	25.0%	24.8%	25.0%	25.0%	2bp	0bp	0bp
Net profit	98.0	125.0	143.9	79.0	99.7	119.8	-19%	-20%	-17%
EPS adjusted	7.19	9.17	10.56	5.79	7.31	8.79	-19%	-20%	-17%
EPS	7.19	9.17	10.56	5.79	7.31	8.79	-19%	-20%	-17%
DPS	3.00	3.60	4.59	3.00	2.90	3.66	0%	-19%	-20%

Source: DNB Markets

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Figure 2: Quarterly estimates by division

(SEKm, except per share data)	Q1'18	Q2'18	Q3'18	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	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	105.1	92.2	81.7	105.8	118.5
Royalty-based revenue	1.3	1.3	1.4	1.5	1.4	1.5	1.6	1.4	0.0	0.0	0.0	0.0
Secure Thingz	0.0	0.5	1.0	3.5	0.4	0.7	0.3	0.3	0.3	0.3	2.8	11.1
Group Total	88.9	95.6	97.9	102.8	99.8	99.0	100.0	106.8	92.5	82.0	108.6	129.5
EBIT												
Legacy IAR Systems + Secure Thingz	28.2	22.4	29.9	29.6	28.0	22.3	26.5	25.7	23.0	14.2	30.9	38.8
Royalty-based revenue	1.3	1.3	1.4	1.5	1.4	1.5	1.6	1.4	0.0	0.0	0.0	0.0
Group Total	29.5	23.7	31.3	31.1	29.4	23.8	28.1	27.1	23.0	14.2	30.9	38.8
EBIT adjusted margin												
Legacy IAR Systems + Secure Thingz	32.2%	23.9%	31.3%	30.3%	28.6%	23.0%	27.0%	24.5%	24.9%	17.4%	29.2%	32.7%
Royalty-based revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Group Total	33.2%	24.8%	32.0%	30.3%	29.5%	24.0%	28.1%	25.4%	24.9%	17.3%	28.5%	29.9%
Organic growth												
Legacy IAR Systems	4.9%	7.9%	6.5%	9.6%	3.4%	-2.3%	-2.7%	-1.2%	-9.8%	-19.6%	4.9%	9.8%
Royalty-based revenue	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	-1.4%	-1.5%	-1.6%	-1.3%
Secure Thingz	0.0%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.4%	2.4%	9.8%
Group Total	5.0%	8.1%	6.7%	10.0%	3.5%	-2.3%	-2.8%	-1.3%	-11.3%	-21.5%	5.7%	18.4%
Group												
Sales	88.9	95.6	97.9	102.8	99.8	99.0	100.0	106.8	92.5	82.0	108.6	129.5
Sales growth	2.9%	10.1%	16.3%	17.4%	12.3%	3.6%	2.1%	3.9%	-7.3%	-17.2%	8.6%	21.3%
Organic	5.0%	8.1%	6.7%	10.0%	3.5%	-2.3%	-2.8%	-1.3%	-11.3%	-21.5%	5.7%	18.4%
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%	5.2%	4.0%	4.3%	2.9%	2.9%
Gross profit	86.1	93.7	95.8	100.6	97.7	96.5	97.5	103.1	90.6	79.9	105.9	125.0
Margin	96.9%	98.0%	97.9%	97.9%	97.9%	97.5%	97.5%	96.5%	97.9%	97.5%	97.5%	96.5%
EBIT adjusted	29.5	26.9	31.3	31.1	29.4	23.8	28.1	27.1	23.0	14.2	30.9	38.8
Margin	33.2%	28.1%	32.0%	30.3%	29.5%	24.0%	28.1%	25.4%	24.9%	17.3%	28.5%	29.9%
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	27.1	23.0	14.2	30.9	38.8
Margin	33.2%	24.8%	32.0%	30.3%	29.5%	24.0%	28.1%	25.4%	24.9%	17.3%	28.5%	29.9%
Net financial items	-0.4	-1.7	-0.3	0.6	-0.2	-2.0	0.7	0.1	-0.6	-1.2	-0.1	0.0
Pretax profit	29.1	22.0	31.0	31.7	29.2	21.8	28.8	27.2	22.4	13.0	30.8	38.7
Tax	-6.3	-5.8	-4.2	-9.9	-6.3	-5.1	-7.2	-7.2	-5.4	-3.2	-7.7	-9.7
Tax rate	21.6%	26.4%	13.5%	31.2%	21.6%	23.4%	25.0%	26.5%	24.1%	24.7%	25.0%	25.0%
Net profit	22.8	16.2	26.8	21.8	22.9	16.7	21.6	20.0	17.0	9.8	23.1	29.0
EPS adjusted	1.81	1.43	1.97	1.60	1.64	1.20	1.58	1.46	1.25	0.72	1.69	2.13
EPS	1.81	1.20	1.97	1.60	1.68	1.23	1.58	1.47	1.25	0.72	1.69	2.13
DPS	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	3.00	0.00	0.00

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

Figure 3: IAR Systems valuation versus listed peers

	Mkt. cap. (SEKbn)	P/E (x)			EV/EBIT (x)			EV/Sales (x)			Div. yield (%)		ROE (%)		EBIT margin		CAGR 2019-2021e (%)		
		2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2019e	2020e	2019e	2020e	Sales	EBIT	EPS
IAR Systems (DNBe)	1.6	20.0	15.9	13.2	14.8	11.5	9.2	3.8	3.2	2.8	2.6	2.5	13	14	25.9	28.1	9	12	11
<i>Premium/discount</i>		-40%	-41%	-40%	-45%	-46%	-47%	-49%	-49%	-49%									
IAR Systems (Cons.)	1.6	16.6	13.7	12.3	12.5	10.1	8.8	3.6	3.1	2.9	2.8	3.3	16	18	28.2	29.7	13	19	20
<i>Premium/discount</i>		-50%	-49%	-44%	-54%	-52%	-50%	-53%	-52%	-48%									
Nordic software peers																			
QT Group	4.7		26.2	17.4		19.2		5.6	4.5	3.8	0.6	1.8	32	46	11.7	21.3	29		
Admicom	3.2	37.9	27.9	21.4	28.2	20.6		11.4	8.9	7.1	1.7	2.2	34	36	39.7	41.6	39	40	40
Fortnox	9.4	52.6	40.7	31.0	39.1	29.6	22.1	13.2	10.4	8.3	0.5	0.7	51	44	33.1	33.5	29	32	31
HMS Networks	5.3	30.7	23.8	19.3	24.7	17.8	13.9	3.9	3.4	3.0	1.8	1.9			15.5	17.9	5	7	8
INVISIO Communications	4.2	32.2	24.6	18.9	24.2	18.3	14.0	6.6	5.2	4.4	1.6	2.2	32	34	26.9	27.8	24	39	30
Lime Technologies	2.2	39.0	30.0	25.3	34.1	25.5	21.1	6.5	5.7	4.9	1.2	1.5	61	57	18.9	21.5	17	29	26
SimCorp	30.3	27.0	23.0	20.7	22.7	17.8	16.9	5.8	5.3	4.9	1.4	1.7	36	39	25.0	28.7	8	9	8
Vitec Software	4.7	22.9	20.1	18.0	26.5	22.1	19.2	3.9	3.5	3.2	1.1	1.3	19	19	14.8	16.0	11	21	19
Embedded software peers																			
Cadence Design Systems	174.8	25.2	23.1	21.6	19.9	17.2	15.1	6.6	6.2	5.9			30	24	32.0	32.9	8	10	10
ANSYS	185.1	33.2	29.6	26.9	25.0	21.0	18.2	10.8	9.8	9.0	0.0	0.0	15	15	41.8	43.4	10	9	7
Xilinx	189.4	22.5	20.9	17.4	22.6	19.5	15.8	5.5	5.3	4.8	2.0	2.0	30	29	26.0	27.9	4	-2	-2
Altium	21.2	42.7	34.2	26.5	30.2	24.1	18.4	10.1	8.4	7.0	2.1	2.4	26	30	33.0	34.1	18	19	7
Average	52.9	33.3	27.0	22.0	27.0	21.1	17.5	7.5	6.4	5.5	1.3	1.6	33	34	26.5	28.9	17	19	17
Median	7.4	32.2	25.4	21.0	25.0	20.0	17.5	6.6	5.5	4.9	1.4	1.8	32	34	26.5	28.3	14	19	10

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

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).

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 ~40% 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 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).

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.

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.

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

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

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

Key competitive strengths:

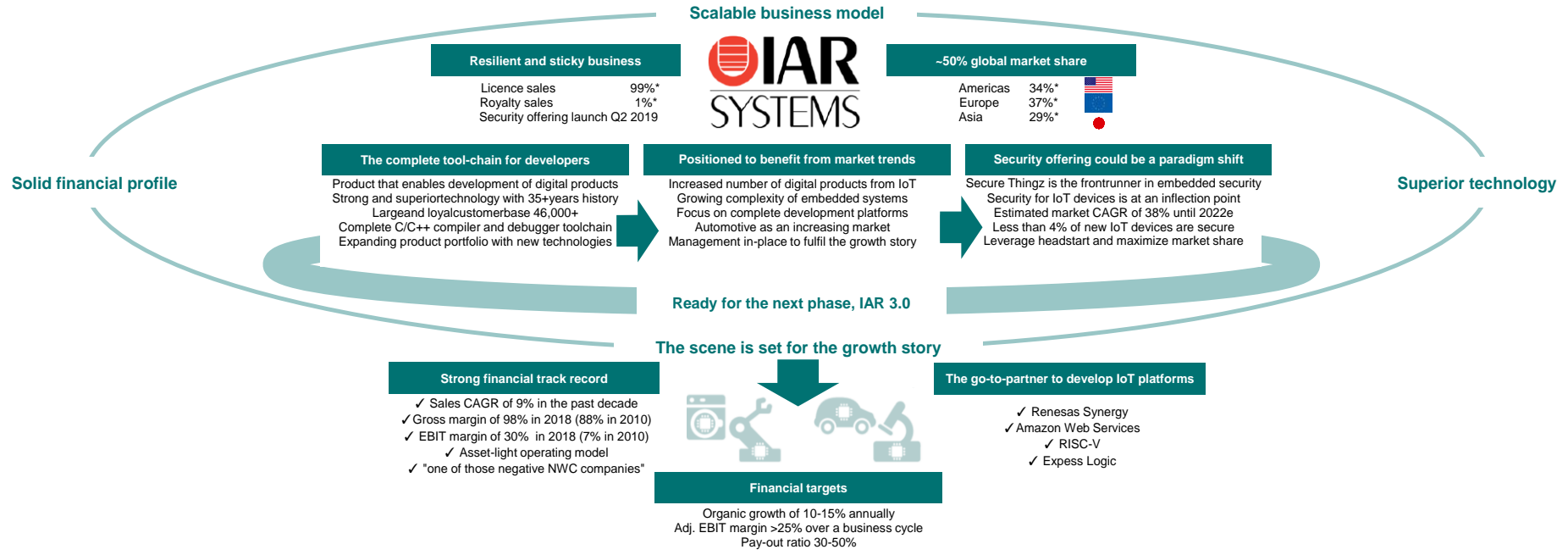
- 1) unique and complete tool-chain
- 2) independence
- 3) high-quality products
- 4) frontrunner in security solutions
- 5) management's ability to achieve its long-term potential

Setting the scene for the growth story

Numerous market drivers indicate a continuation of the solid industry growth

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

Figure 4: IAR Systems at a glance



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

We forecast 2019–2022 sales and EBIT CAGRs of 10% and 14%, respectively

We forecast a 2019–2022 sales CAGR and untapped potential in security solutions for embedded systems of 10% and an EBIT CAGR of 14%, 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; and 4) rapid RISC-V adoption.

This should be driven by a 4% 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 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.

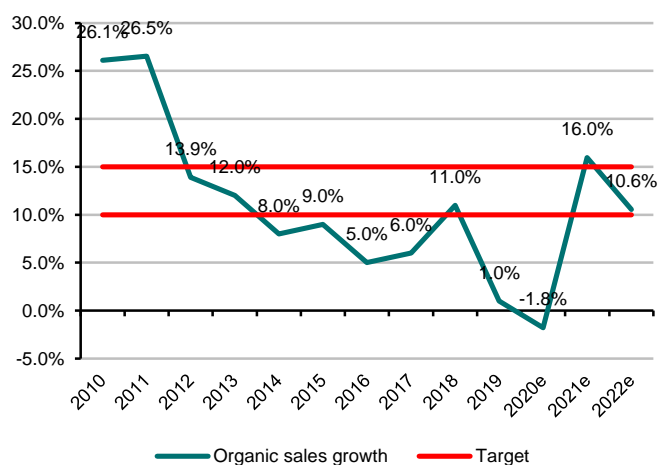
IAR Systems’ security offering lends the greatest growth potential, in our view, as IAR Systems has a solid track record of offering new products to existing customers. In a simplified scenario, we believe its existing customer base could represent a >SEK11bn revenue pool for its security offering. This 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 forecast a 2019–2022 EBIT CAGR of 14%, implying a margin gain from 27% in 2019 to 31% in 2022e, driven by: 1) solid organic volume growth; and 2) ample operational leverage (hurt in 2018–2019 by the integration of Secure Thingz) in 2020–2022e, as we believe IAR Systems should continue to benefit from economies of scale due to its large fixed cost base.

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

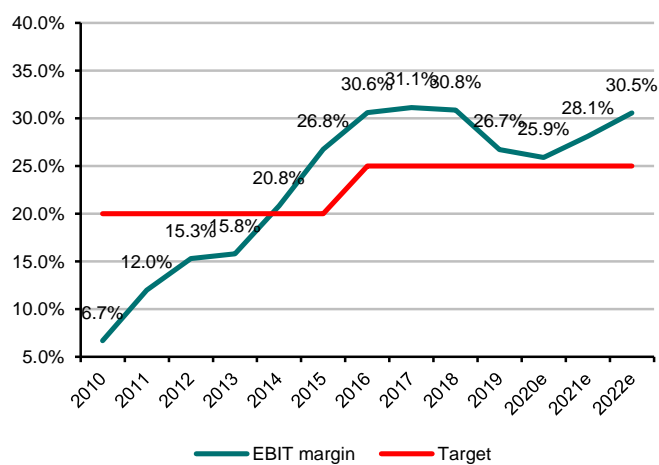
We expect Secure Thingz to contribute to group sales with 6% organic growth CAGR in 2019–2022

Figure 5: Organic sales growth (2010–2022e)



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

Figure 6: Adj. EBIT margin (2010–2022e)



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.

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Figure 7: IAR Systems' financial targets – reported and DNB Markets' estimates

	Reported fiscal years					IAR target	DNB Markets' estimates		
	2015	2016	2017	2018	2019		2020e	2021e	2022e
Organic growth	9.0%	5.0%	6.0%	11.0%	1.0%	10-15%	-1.8%	16.0%	10.6%
EBIT margin	26.8%	30.6%	31.1%	30.8%	26.7%	>25%	25.9%	28.1%	30.5%
Payout ratio	99.7%	113.3%	79.0%	74.9%	83.9%	30-50%	52%	40%	42%

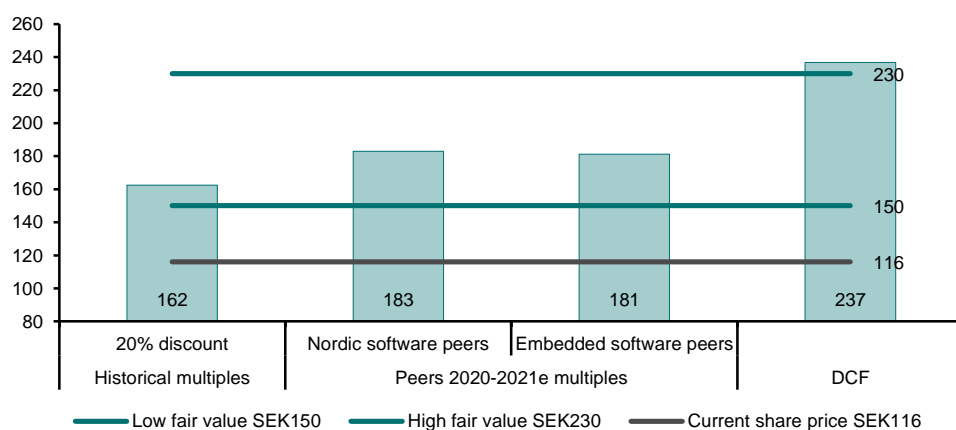
Source: DNB Markets (forecasts), company (historical data and targets)

We calculate a fair value of SEK150–230/share

Based on IAR Systems' historical valuation multiples (P/E 28x, EV/EBIT 20x), our group of Nordic software peers, embedded software peers, and our DCF model, we calculate a fair value of SEK150–230/share (230–275). On the current share price, our estimates suggest a 2021 P/E of 16x, EV/EBIT of 12x, and EV/sales of 3x, while our fair value suggests share price potential upside of 30–100%.

Fair value of SEK150–230/share suggests potential upside of 30–100%

Figure 8: Valuation summary (SEK/share)



Source: DNB Markets

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 >99% of sales from markets outside Sweden but 50% 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 6% in 2016–2019, 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 >99% of sales are from markets outside Sweden, the majority of the fixed cost base is denominated in SEK (we estimate ~50%); 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 2019, we estimate a ~10% FX headwind on sales and a ~30% headwind on 2020 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 into 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-tool 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

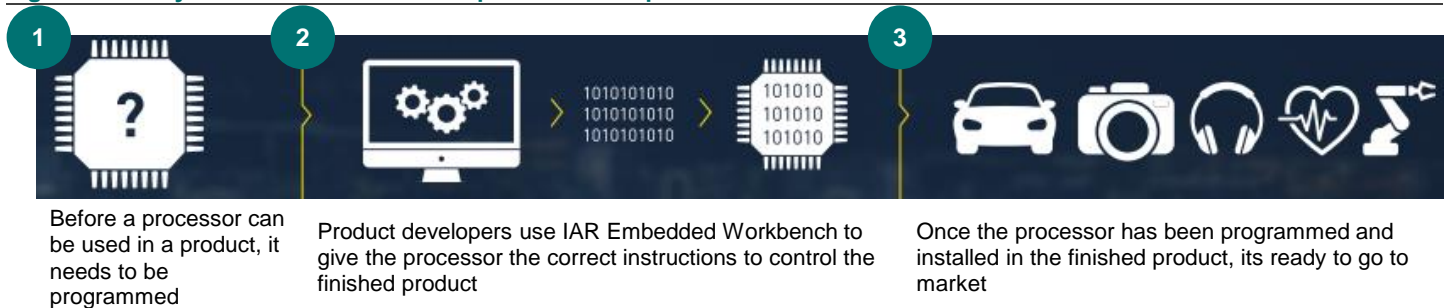
Retaining talented employees is key

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 9: IAR Systems' role in customers' product development



Source: Company

Headquartered in Uppsala (Sweden), the company holds a leading global market share of ~40% with 95%+ of sales stemming from markets outside the Nordics and a headcount of 219. 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 (~35% 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:

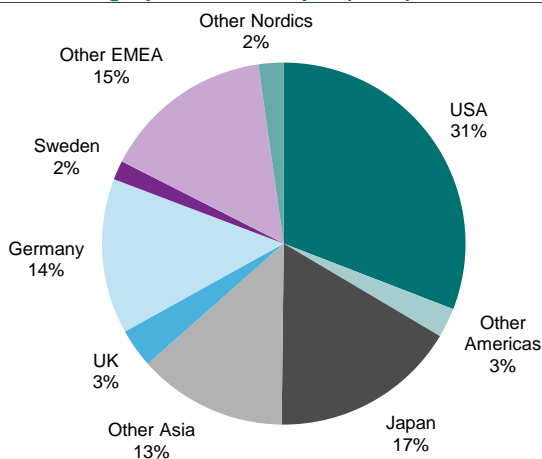
50% global market share with 98% licence-based revenues, which are flexible for customers and leverage the number of programmers using its licence...

- **IAR Embedded Workbench (99% of 2019 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.
- **Secure Thingz (0%)**. 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.

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

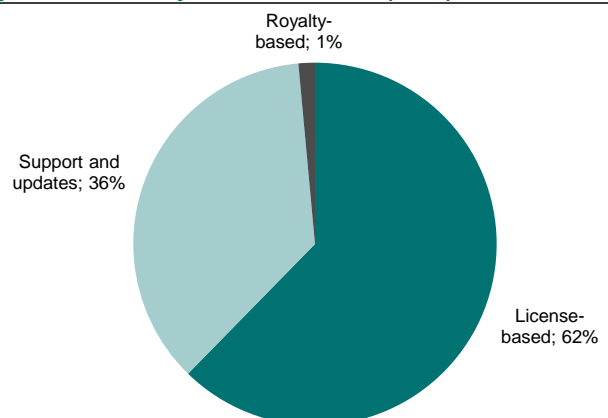
... complemented by royalty-based revenue that leverages the number of chips used in customers' production, which falls straight through to EBIT

Figure 10: Geographical sales split (2018)



Source: Company

Figure 11: Sales by business model (2019)



Source: Company

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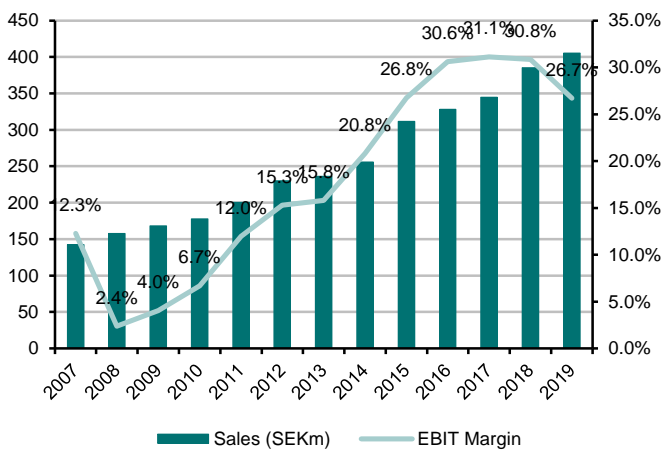
IAR Systems was acquired by IT conglomerate Nocom in 2005. However, by 2010 Nocom (known as Intoi by then) wanted to focus on proprietary software and create a more specialised company, so it kept only IAR Systems and took on that name.

With 2019 net sales of SEK406m, 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 26.7% in 2019, 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 46% of sales).

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

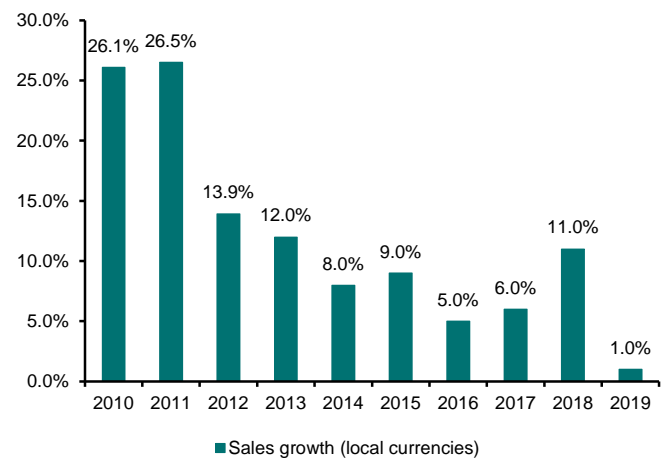
...with profitable growth, sales CAGR of 9% and adj. EBIT CAGR of 32% in the past 10 years

Figure 12: IAR Systems – sales (SEKm) and adj. EBIT margin



Source: Company

Figure 13: 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 into 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 in 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 14: 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		
	2020e	2021e	2022e	2020e	2021e	2022e	2020e	2021e	2022e
Revenues	413	481	532	451	540	590	-39	-59	-59
Cost of sales	-11	-13	-14	-12	-14	-16	1	1	1
Gross profit	401	468	517	439	525	575	-38	-57	-57
Operating expenses	-251	-277	-295	-257	-290	-309	6	13	14
EBITDA	151	191	223	182	235	266	-32	-44	-43
EBITDA adj	151	191	223	182	235	266	-32	-44	-43
EBITDA margin (%)	36.5	39.7	41.9	40.4	43.6	45.0	-3.9	-3.9	-3.1
Depreciation	-3	-4	-5	-4	-5	-5	0	1	0
Amortisation	-40	-51	-55	-46	-61	-65	6	9	10
EBIT	107	135	162	133	170	195	-26	-34	-33
EBIT adj	107	135	162	133	170	195	-26	-34	-33
Net financial items	-2	-2	-3	-2	-3	-3	0	1	1
PBT	105	133	160	130	167	192	-25	-34	-32
Taxes	-26	-33	-40	-32	-42	-48	6	8	8
Minorities	0	0	0	0	0	0	0	0	0
Net profit	79	100	120	98	125	144	-19	-25	-24
Adjustments to net profit	0	0	0	0	0	0	0	0	0
Net profit adj	79	100	120	98	125	144	-19	-25	-24
<i>Per share data (SEK)</i>									
EPS	5.79	7.31	8.79	7.19	9.17	10.56	-1.40	-1.86	-1.77
EPS adj	5.79	7.31	8.79	7.19	9.17	10.56	-1.40	-1.86	-1.77
DPS ordinary	3.00	2.90	3.66	3.00	3.60	4.59	0.00	-0.70	-0.93
DPS	3.00	2.90	3.66	3.00	3.60	4.59	0.00	-0.70	-0.93
<i>Other key metrics (%)</i>									
Revenue growth	1.7	16.6	10.6	11.3	19.6	9.4	-9.6	-3.0	1.2
EBIT adj growth	-1.4	26.5	20.1	22.3	28.0	15.1	-23.7	-1.5	5.1
EPS adj growth	-2.8	26.3	20.2	22.3	27.6	15.1	-25.1	-1.3	5.1
Avg. number of shares (m)	14	14	14	14	14	14	0	0	0
Capex	-87	-89	-77	-95	-106	-91	8	17	13
OpFCF	64	102	146	88	130	175	-24	-28	-29
Working capital	17	43	96	34	70	131	-17	-27	-35
NIBD adj	27	7	-38	11	-19	-73	16	25	35

Source: DNB Markets

Forecast changes – By segment and assumptions

(SEKm)	New			Old			Change		
	2020e	2021e	2022e	2020e	2021e	2022e	2020e	2021e	2022e
Assumptions									
Revenue org. % YOY	-1.79	15.97	10.57	10.25	19.52	9.35	-12.04	-3.55	1.22
Structure impact % YOY	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Currency impact % YOY	3.53	0.59	0.00	1.06	0.07	0.00	2.47	0.52	0.00

Source: DNB Markets

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Quarterly numbers

(SEKm)	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e	Q1 2021e
Revenues	98	103	100	99	100	107	93	82	109	130	114
Cost of sales	-2	-2	-2	-3	-3	-4	-2	-2	-3	-4	-2
Gross profit	96	101	98	97	98	103	91	80	106	125	111
Operating expenses	-58	-63	-59	-64	-60	-66	-58	-57	-63	-72	-65
EBITDA	38	38	38	33	38	37	33	23	42	53	47
Depreciation	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Amortisation	-6	-6	-9	-8	-9	-9	-9	-8	-11	-13	-13
EBIT	31	31	29	24	28	27	23	14	31	39	33
Net financial items	0	1	0	-2	1	0	-1	-1	0	0	-1
PBT	31	32	29	22	29	27	22	13	31	39	32
Taxes	-4	-10	-6	-5	-7	-7	-5	-3	-8	-10	-8
Minorities	0	0	0	0	0	0	0	0	0	0	0
Net profit	27	22	23	17	22	20	17	10	23	29	24
Adjustments to net profit	0	0	0	0	0	0	0	0	0	0	0
Net profit adj	27	22	23	17	22	20	17	10	23	29	24
Dividend paid	0	0	0	-68	0	0	0	-41	0	0	0
Avg. number of shares (m)	14	14	14	14	14	14	14	14	14	14	14
<i>Per share data (SEK)</i>											
EPS	1.97	1.60	1.68	1.23	1.58	1.47	1.25	0.72	1.69	2.13	1.77
EPS adj	1.97	1.60	1.64	1.20	1.58	1.46	1.25	0.72	1.69	2.13	1.77
DPS ordinary	0.00	0.00	0.00	5.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00
DPS	0.00	0.00	0.00	5.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00
<i>Growth and margins (%)</i>											
Revenues, QOQ growth	2.4	5.0	-2.9	-0.8	1.0	6.8	-13.4	-11.4	32.5	19.2	-12.3
Revenues, YOY growth	16.3	17.4	12.3	3.6	2.1	3.9	-7.3	-17.2	8.6	21.3	22.8
EPS adj, YOY growth	22.5	2.6	-9.2	-16.1	-19.8	-8.5	-23.8	-39.8	7.2	45.5	41.9
Gross margin	97.9	97.9	97.9	97.5	97.5	96.5	97.9	97.5	97.5	96.5	97.9
EBITDA adj margin	38.6	36.6	38.5	33.2	37.5	34.6	35.5	27.6	39.1	40.8	41.0
Depreciation/revenues	-0.7	-0.8	-0.5	-1.0	-0.7	-0.8	-0.6	-1.1	-0.8	-0.9	-0.6
EBIT adj margin	32.0	30.3	29.5	24.0	28.1	25.4	24.9	17.3	28.5	29.9	28.9
Net profit margin	27.4	21.2	22.9	16.9	21.6	18.7	18.4	12.0	21.3	22.4	21.3

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

Adjustments to quarterly numbers

(SEKm)	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e	Q1 2021e
EBITDA	38	38	38	33	38	37	33	23	42	53	47
EBITDA adj	38	38	38	33	38	37	33	23	42	53	47
EBIT	31	31	29	24	28	27	23	14	31	39	33
Other EBIT adjustments	0	0	0	0	0	0	0	0	0	0	0
EBIT adj	31	31	29	24	28	27	23	14	31	39	33
Net profit	27	22	23	17	22	20	17	10	23	29	24
Other EBIT adjustments	0	0	0	0	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	27	22	23	17	22	20	17	10	23	29	24

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

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Quarterly numbers by segment and assumptions

(SEKm)	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e	Q1 2021e
Assumptions											
Revenue org. % YOY	6.65	10.05	3.49	-2.30	-2.76	-1.26	-11.32	-21.47	5.71	18.36	20.16
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	9.62	7.31	8.77	5.86	4.90	5.16	4.04	4.31	2.91	2.91	2.65

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

Annual P&L

(SEKm)	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e	
Revenues	236	256	312	328	345	385	406	413	481	532	
Cost of sales	-15	-13	-10	-12	-9	-9	-11	-11	-13	-14	
Gross profit	222	243	301	316	337	376	395	401	468	517	
Operating expenses	-171	-179	-203	-203	-209	-236	-249	-251	-277	-295	
EBITDA	51	64	98	113	127	140	146	151	191	223	
Depreciation	-2	-2	-3	-3	-2	-3	-13	-3	-4	-5	
Amortisation	-7	-8	-12	-14	-17	-22	-25	-40	-51	-55	
EBIT	41	53	83	97	107	116	108	107	135	162	
Net financial items	0	0	0	0	-2	-2	-1	-2	-2	-3	
PBT	37	54	83	100	106	117	107	105	133	160	
Taxes	-12	-11	-20	-22	-26	-26	-26	-26	-33	-40	
Effective tax rate (%)	31	21	24	22	24	22	24	25	25	25	
Minorities	0	0	0	0	0	0	0	0	0	0	
Net profit	26	42	63	78	80	91	81	79	100	120	
Adjustments to net profit	3	0	0	-3	0	-2	0	0	0	0	
Net profit adj	29	42	63	75	80	88	81	79	100	120	
Dividend paid	-23	0	-63	-88	-63	-68	-68	-41	-39	-50	
Avg. number of shares	12	13	13	13	13	14	14	14	14	14	
<i>Per share data (SEK)</i>											
EPS	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79	
EPS adj	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79	
DPS ordinary	1.85	0.00	5.00	7.00	5.00	5.00	3.00	3.00	2.90	3.66	
DPS	1.85	0.00	5.00	7.00	5.00	5.00	3.00	3.00	2.90	3.66	
<i>Growth and margins (%)</i>											
Revenue growth	2.7	8.3	21.9	5.4	5.1	11.7	5.3	1.7	16.6	10.6	
EPS adj growth	83.4	59.2	50.2	23.0	2.6	5.3	-10.6	-2.8	26.3	20.2	
Gross margin	93.9	95.0	96.7	96.3	97.5	97.7	97.3	97.3	97.3	97.3	
EBITDA margin	21.4	24.9	31.5	34.5	36.9	36.4	35.9	36.5	39.7	41.9	
EBITDA adj margin	21.4	24.9	31.5	34.5	36.9	36.4	35.9	36.5	39.7	41.9	
Depreciation/revenues	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-3.2	-0.8	-0.9	-0.9	
EBIT margin	17.5	20.8	26.8	29.4	31.1	30.0	26.7	25.9	28.1	30.5	
EBIT adj margin	15.8	20.8	26.8	30.6	31.1	30.8	26.7	25.9	28.1	30.5	
PBT margin	15.8	21.0	26.7	30.5	30.6	30.4	26.4	25.4	27.6	30.0	
Net profit margin	11.0	16.5	20.3	23.8	23.2	23.6	20.0	19.1	20.7	22.5	

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

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Adjustments to annual P&L

(SEKm)	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e
EBITDA	51	64	98	113	127	140	146	151	191	223
EBITDA adj	51	64	98	113	127	140	146	151	191	223
EBIT	41	53	83	97	107	116	108	107	135	162
Other EBIT adjustments	4	0	0	-4	0	-3	0	0	0	0
EBIT adj	37	53	83	101	107	119	108	107	135	162
Net profit	26	42	63	78	80	91	81	79	100	120
Other EBIT adjustments	4	0	0	-4	0	-3	0	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	29	42	63	75	80	88	81	79	100	120
<i>Per share data (SEK)</i>										
EPS	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79
Recommended adjustment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPS adj	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79

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

Cash flow

(SEKm)	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e
Net profit	26	42	63	78	80	91	81	79	100	120
Depreciation and amortisation	9	10	15	17	20	25	37	44	56	60
Cash flow from operations (CFO)	41	70	99	114	124	93	106	120	149	172
Capital expenditure	-21	-32	-19	-19	-19	-47	-84	-87	-89	-77
Acquisitions/Investments	0	0	0	0	0	-171	-19	0	0	0
Divestments	0	0	1	0	0	0	0	0	0	0
Cash flow from investing (CFI)	-19	-32	-18	-19	-38	-218	-102	-87	-89	-77
Free cash flow (FCF)	22	39	80	95	86	-125	4	33	60	95
Net change in debt	0	0	0	0	0	0	30	0	0	0
Dividends paid	-23	0	-63	-88	-63	-68	-68	-41	-39	-50
Share issue (repurchase)	22	-53	0	0	0	172	0	0	0	0
Other	12	0	0	0	0	4	-14	0	0	0
Cash flow from financing (CFF)	12	-53	-64	-88	-63	108	-52	-41	-39	-50
Total cash flow (CFO+CFI+CFF)	33	-15	17	7	23	-17	-49	-8	20	45
<i>FCFF calculation</i>										
Free cash flow	22	39	80	95	86	-125	4	33	60	95
Less: tax shields/other	0	0	0	0	0	0	0	0	0	0
Less: acquisitions	0	0	0	0	0	171	19	0	0	0
Less: divestments	0	0	-1	0	0	0	0	0	0	0
Growth (%)										
CFO	6.3	72.7	40.4	15.7	8.5	-25.3	14.1	13.2	24.3	15.7
CFI	-5.5	-66.0	42.3	-3.3	-98.9	-478.5	53.0	14.9	-2.5	13.4
FCF	6.9	78.7	108.3	18.5	-9.4	-244.7	102.8	834.4	82.1	59.2
CFF	1866.7	-550.8	-19.5	-39.0	28.5	270.4	-148.3	21.4	3.4	-26.3
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)	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e
Assets	370	375	399	396	410	722	825	867	927	999
Inventories	3	4	5	6	5	7	7	8	9	10
Trade receivables	34	39	44	48	51	63	67	72	78	87
Other receivables	15	11	20	19	12	38	52	52	52	52
Current financial assets	1	0	0	0	0	0	0	0	0	0
Cash and cash equivalents	82	71	89	99	120	106	61	52	72	117
Current assets	135	124	158	172	187	214	186	185	211	267
Property, plant and equipment	6	8	7	6	6	9	64	8	7	5
Other intangible assets	164	186	192	197	194	484	568	667	701	720
Deferred tax assets	59	51	37	16	3	13	5	5	5	5
Non-current financial assets	5	6	5	5	20	2	2	2	2	2
Non-current assets	235	251	241	224	223	508	639	682	716	733
Total assets	370	375	399	396	410	722	825	867	927	999
Equity and liabilities	370	375	399	396	410	722	825	867	927	999
Total equity	295	289	291	280	290	550	592	630	690	760
Trade payables	6	5	5	5	6	7	9	13	13	15
Other payables and accruals	54	65	84	92	31	131	117	32	32	32
Short-term debt	1	1	1	1	1	2	38	38	38	38
Total current liabilities	61	71	90	99	102	140	164	168	168	170
Long-term debt	1	2	1	2	2	1	41	41	41	41
Deferred tax liabilities	13	15	17	15	14	30	27	27	27	27
Other non-current liabilities	0	0	1	1	2	2	1	1	1	1
Total non-current liabilities	14	16	18	18	17	32	69	69	69	69
Total liabilities	75	87	108	116	120	172	233	237	237	239
Total equity and liabilities	370	375	399	396	410	722	825	867	927	999
<i>Key metrics</i>										
Net interest bearing debt	-79	-68	-88	-97	-117	-103	18	27	7	-38

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

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Valuation ratios

(SEKm)	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e
<i>Enterprise value</i>										
Share price (SEK)	39.77	74.75	150.00	206.00	189.00	243.00	186.00	116.00	116.00	116.00
Number of shares (m)	12.34	12.63	12.63	12.63	12.63	13.62	13.63	13.63	13.63	13.63
Market capitalisation	491	944	1,895	2,602	2,387	3,310	2,535	1,581	1,581	1,581
Net interest bearing debt	-79	-68	-88	-97	-117	-103	18	27	7	-38
Adjustments to NIBD	0	0	0	0	0	0	0	0	0	0
Net interest bearing debt adj	-79	-68	-88	-97	-117	-103	18	27	7	-38
EV	411	876	1,807	2,505	2,270	3,206	2,554	1,608	1,588	1,543
EV adj	411	876	1,807	2,505	2,270	3,206	2,554	1,608	1,588	1,543
<i>Valuation</i>										
EPS	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79
EPS adj	2.10	3.34	5.02	6.18	6.33	6.67	5.96	5.79	7.31	8.79
DPS ordinary	1.85	0.00	5.00	7.00	5.00	5.00	3.00	3.00	2.90	3.66
DPS	1.85	0.00	5.00	7.00	5.00	5.00	3.00	3.00	2.90	3.66
P/E	18.9	22.4	29.9	33.4	29.8	36.4	31.2	20.0	15.9	13.2
P/E adj	18.9	22.4	29.9	33.4	29.8	36.4	31.2	20.0	15.9	13.2
P/B	1.66	3.27	6.51	9.31	8.22	6.02	4.28	2.51	2.29	2.08
Average ROE	9.4%	14.5%	21.9%	27.3%	28.1%	21.6%	14.2%	12.9%	15.1%	16.5%
Earnings yield adj	5.3%	4.5%	3.3%	3.0%	3.4%	2.7%	3.2%	5.0%	6.3%	7.6%
Dividend yield	4.6%	0.0%	3.3%	3.4%	2.6%	2.1%	1.6%	2.6%	2.5%	3.2%
Free cash flow yield	4.4%	4.1%	4.2%	3.7%	3.6%	-3.8%	0.1%	2.1%	3.8%	6.0%
EV/SALES	1.74	3.42	5.80	7.63	6.58	8.32	6.30	3.90	3.30	2.90
EV/SALES adj	1.74	3.42	5.80	7.63	6.58	8.32	6.30	3.90	3.30	2.90
EV/EBITDA	8.1	13.8	18.4	22.1	17.8	22.9	17.5	10.7	8.3	6.9
EV/EBITDA adj	8.1	13.8	18.4	22.1	17.8	22.9	17.5	10.7	8.3	6.9
EV/EBIT	10.0	16.5	21.7	26.0	21.1	27.7	23.6	15.0	11.7	9.5
EV/EBIT adj	11.0	16.5	21.7	24.9	21.1	27.0	23.6	15.0	11.7	9.5
EV/capital employed	1.4	3.0	6.2	8.9	6.4	5.8	3.8	2.0	1.9	1.7
EV/NOPLAT	13.5	22.2	29.3	35.1	28.6	37.5	31.8	20.3	15.9	12.8
EV/OpFCF (taxed)	20.8	50.1	31.6	36.6	28.3	51.4	75.1	44.8	23.9	14.9

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

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Key accounting ratios

	2013	2014	2015	2016	2017	2018	2019	2020e	2021e	2022e
<i>Profitability (%)</i>										
ROA	7.5	11.3	16.4	19.6	19.9	16.0	10.5	9.3	11.1	12.4
ROCE	13.4	18.1	28.5	34.9	33.6	26.1	17.7	14.6	16.4	18.3
ROCE after tax	9.9	13.4	21.1	25.8	24.8	19.3	13.1	10.8	12.1	13.5
<i>Return on invested capital (%)</i>										
Net PPE/revenues	2.6	3.1	2.1	1.9	1.8	2.3	15.7	1.8	1.5	1.0
Working capital/revenues	31.2	20.9	22.0	22.4	24.6	19.3	5.4	4.0	9.0	18.1
<i>Cash flow ratios (%)</i>										
FCF/revenues	9.1	15.1	25.8	29.0	25.0	-32.4	0.9	7.9	12.4	17.8
FCF/market capitalisation	4.4	4.1	4.2	3.7	3.6	-3.8	0.1	2.1	3.8	6.0
CFO/revenues	17.2	27.5	31.7	34.8	35.9	24.0	26.1	29.0	30.9	32.4
CFO/market capitalisation	8.3	7.4	5.2	4.4	5.2	2.8	4.2	7.6	9.4	10.9
CFO/capex	192.9	217.6	508.8	614.0	652.1	197.9	126.4	137.6	166.8	222.8
CFO/current liabilities	66.8	99.4	110.2	115.8	121.1	66.2	64.4	71.3	88.5	101.0
Cash conversion ratio	83.4	91.5	126.8	122.2	107.9	-137.6	4.3	41.4	59.7	79.2
Capex/revenues	8.9	12.6	6.2	5.7	5.5	12.1	20.6	21.1	18.5	14.5
Capex/depreciation	959.1	1404.3	776.0	744.0	791.7	1800.0	648.1	2550.8	2102.3	1540.8
OpFCF margin	12.5	12.2	25.3	28.8	31.4	24.2	15.3	15.4	21.1	27.4
Total payout ratio	88.0	0.0	99.6	113.3	78.9	75.0	50.4	51.8	39.6	41.6
<i>Leverage and solvency (x)</i>										
Net debt/EBITDA	-1.57	-1.08	-0.89	-0.85	-0.92	-0.74	0.13	0.18	0.04	-0.17
Total debt/total capital (BV)	0.01	0.01	0.00	0.01	0.01	0.00	0.10	0.09	0.09	0.08
LTD / (LTD + equity (MV))	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.03	0.03
<i>Cash conversion cycle</i>										
Inventory turnover days	83.1	104.7	180.7	167.5	223.3	267.7	223.1	260.3	248.3	251.5
Receivables turnover days	75.3	70.9	74.5	74.7	66.2	96.1	106.8	109.8	98.7	95.7
Credit period	143.5	147.1	170.1	158.6	244.8	296.1	310.9	423.6	370.2	392.8
Cash conversion cycle	14.8	28.5	85.1	83.7	44.8	67.7	18.9	-53.5	-23.3	-45.6

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

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Important Information

Company: IAR Systems
 Coverage by Analyst: Joachim Gunell
 Date: 26/03/2020

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26 March 2020

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