



Q-Free ASA Valuation report

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Mandate and Executive summary

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Mandate and Executive summary | Mandate

Documentation of fair value of carved out business in a demerger of Q-Free ASA

Background and purpose

- Q-Free ASA ("The Company" or "Q-Free") are preparing to carve-out the company's Norwegian based operations to a new company (subsidiary) through a drop-down demerger.
- According to the Norwegian Tax Act ("Skatteloven"), the share capital in the remaining company (Q-Free ASA) shall be reduced in accordance with the share of fair value in the demerger. Hence, a valuation of both the carved-out and remaining assets and liabilities is required.
- As agreed with management of Q-Free, the fair value of Q-Free ASA equity before demerger is assumed to be reflected in the shares' total Market Cap at Oslo Stock Exchange. The Market Cap is considered to reflect the market pricing of the shares in Q-Free as a listed company, assuming sufficient trading volume.
- Our valuation comprises the carved-out Norwegian based operations.

Mandate and scope

- Deloitte AS ("Deloitte") will, as requested by Q-Free, conduct an independent valuation of the Norwegian based operations in Q-Free ASA (the carved-out business).
- The valuations will be performed based on the valuation methods that Deloitte finds most appropriate
- Valuation date: 30 June 2018
- The valuation will be performed mainly based on information provided by the Company. We will not perform a thorough verification of the information received by the Company.
- We will not do a on-site inspection of the Company
- We will present our conclusions in a written report where the main assumptions for the valuation will be documented. In addition, we offer a oral presentation of our conclusions for the Company.

Confidentiality

- The content of this report is confidential and solely for the information and internal use of the addressees at Q-Free and not to be relied upon by any other person or entity.
- We take no responsibility or liability towards third parties for any loss, damage, cost or expense caused by use of or reliance on information disclosed in this report.
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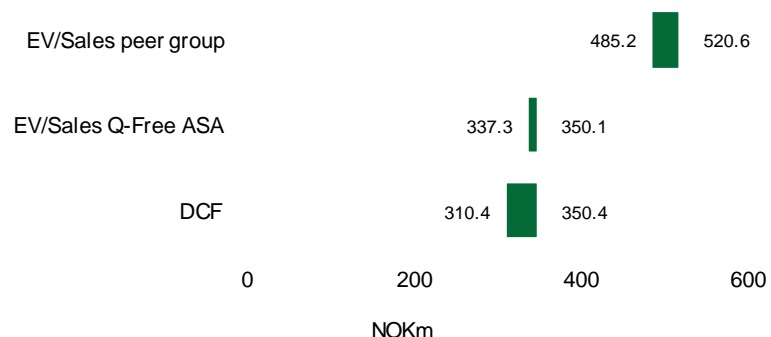
- In the course of our analysis, we have relied on financial and operational data provided by management of Q-Free, together with information from public sources. Without independent verification, we have relied upon these data as accurately reflecting the results of the operations and financial position of Q-Free and matters and items of relevance for the valuation.
- We assume that management of Q-Free have not omitted or misstated any factors of relevance. Any such omissions or misstatements may materially affect our conclusions.
- We, as valuation consultants, have not audited these data and express no opinion or other form of assurance regarding their accuracy or fairness of presentation. We take no financial or legal responsibility for the completeness or accuracy of the information that this report is based on.
- We understand that any prospective financial information provided by management of Q-Free is based on best estimates and expectations of future economic and market development.
- Our analysis was completed 28.06.2018 and we have not updated our since that date.



Mandate and Executive summary | Valuation findings

We estimate an equity value of NOKm 330 for the carved-out business, which implies a remaining value in Q-Free ASA at NOKm 383 based on current Market Cap

Summary Equity



Summary equity value, carved-out business (Q-Free Norge AS)

- Our valuation is mainly based on discounted cash flow value (DCF) derived from management forecast, supported by multiple analyses (EV/Sales).
- Enterprise value 30.06.18 based on DCF is estimated at NOK 328. Adjusting for net interest bearing debt and share of value of tax loss carry forward, we estimate an equity value of NOKm 330, with an indicative value range from NOKm 310 to NOKm 350.
- The nature of the business is relatively volatile, with large public tenders and contracts, possibly with significant effects on revenues and earnings. Although the forecast is based on management's best estimates, it should be noted that the valuation is sensitive to changes in forecast assumptions.

Summary equity value split

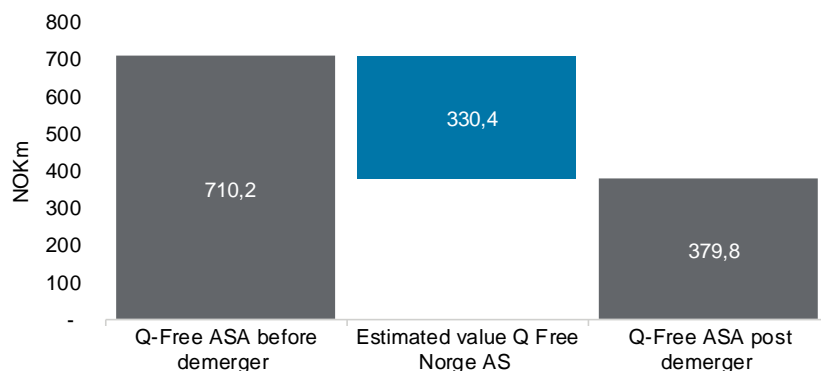
- Valuation of Q-Free ASA before demerger has not been a part of our scope. Under the assumption that the Market Cap of Q-Free ASA at Oslo Stock Exchange (28.06.18) represents fair value of equity, our valuation suggest a value split of 53.5% (remaining Q-Free ASA) and 46.5% (Q-Free Norge AS). In our opinion it is fair to assume that changes in market cap between 28.06 and valuation date 30.06 will affect both the carved-out and remaining business, thus not significantly affect the value ratio.
- The valuation indicates excess values for both companies:

Implicit excess values

NOKm	Q-Free ASA	Q-Free Norge AS	Total
Fair value equity	379,8	330,4	710,2
Book value equity	333,0	123,5	456,5
Implicit excess values	46,8	206,9	253,7

- Please note that the equity of Q-Free ASA will be re-established after the full drop down demerger process, hence the total equity in the table above will reflect Q-Free ASA's equity after the reorganization.

Estimated values for the two separate entities



Source: Management information

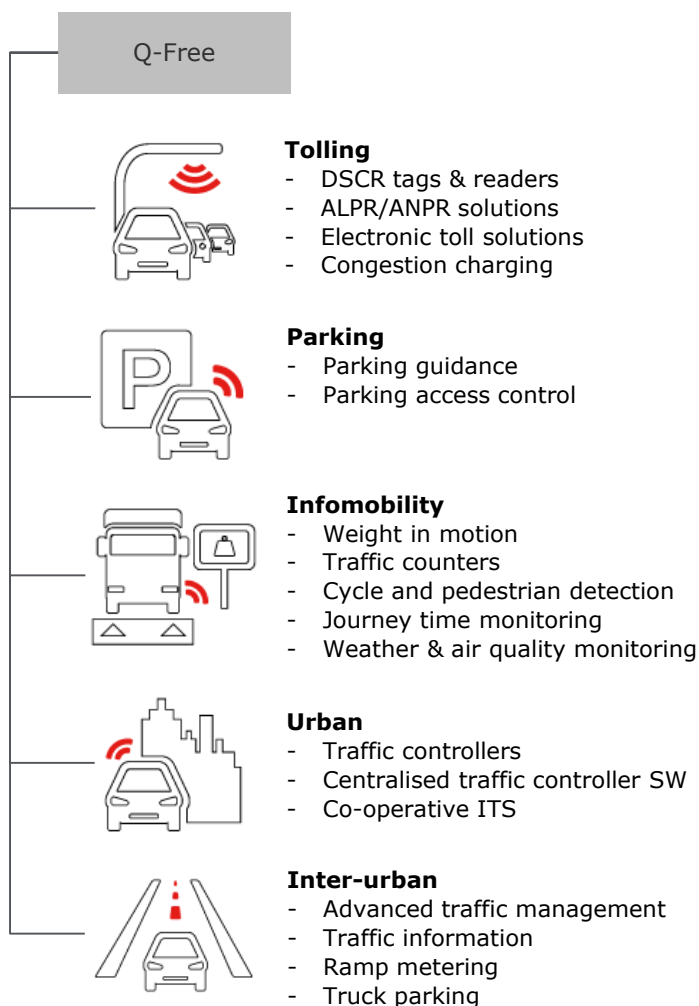


Business overview

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Business overview | Q-Free business

Q-Free develops and supplies various complete Intelligent Transportation Systems

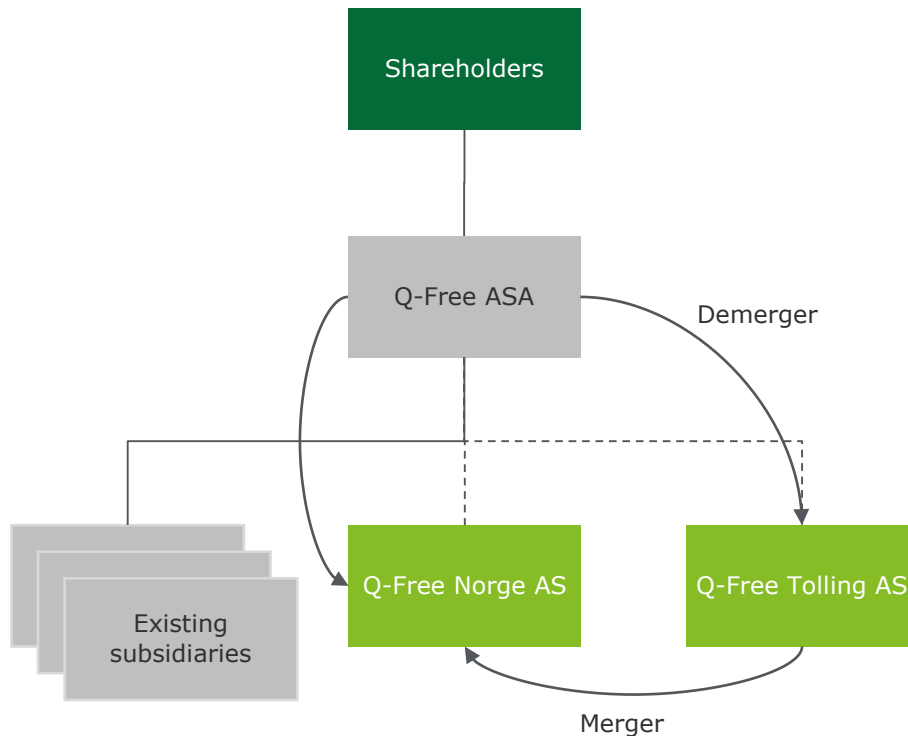


Q-Free

- Founded in 1984, originally focusing on the development and supply of electronic toll collection systems. Today, the Company has grown to become one of the world's leading suppliers of complete Intelligent Transportation Systems (ITS).
- Q-Free is headquartered in Trondheim, Norway, but has offices in 17 additional countries. The offices comprise approximately 415 employees.
 - Largest region is Europe and Latin America (43% of revenue), followed by North America (28%), Nordic region (17%) and Asia Pacific, Middle East and Africa (9%)
- The solutions provided are illustrated on the left. Tolling is the most important area, contributing 62% of 2017 revenue.
 - In Norway, Tolling and parking are the two main solutions. Tolling is mainly associated with electronic toll solutions that enables pre or post payments. The solutions are customizable to include price differentiation and improve traffic flow and environmental impact.
 - Parking solutions use real time monitoring of the availability of parking spaces and their location.

Business overview | Group structure

Q-Free will carve-out the Norwegian based operations from Q-Free ASA by a “drop-down”-demerger to a new subsidiary, Q-Free Norge AS



Changes to group structure

1. In the demerger, all assets and liabilities related to the Norwegian based operations from Q-Free ASA are transferred to an interim newco (“Q-Free Tolling AS”).
2. Q-Free Norge AS is established as a newco owned by Q-Free ASA.
3. The interim newco is merged with Q-Free Norge AS.

According to the Norwegian Tax Act, the share capital of Q-Free ASA has to be reduced according to relative share of fair value in the demerger.



Valuation

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Valuation | Historical financials

Q-Free delivered a large project in Slovenia in FY17, leading to a significant increase in revenues and margins compared to previous years

Q-Free Norge AS - Historical income statement

NOKm	FY15	FY16	FY17	1H18
Revenues	352.7	420.0	496.1	170.0
Cost of goods sold	(141.4)	(128.6)	(139.2)	(42.2)
Contractors	(23.7)	(64.5)	(61.8)	(25.4)
Gross profit	187.6	226.9	295.1	102.5
Salaries, wages etc	(97.8)	(95.3)	(104.8)	(47.2)
External services	(21.9)	(14.7)	(14.4)	(6.6)
Travel expenses	(13.4)	(11.5)	(11.0)	(3.8)
Offices supplies	(21.8)	(21.1)	(21.9)	(10.9)
Insurance	(3.0)	(4.6)	(3.3)	(1.5)
Freight	(0.3)	(0.2)	(0.3)	(0.1)
Rent machinery & tools	(3.3)	(2.1)	(1.2)	(0.6)
Marketing / promotions	(6.6)	(7.8)	(6.0)	(2.1)
Service & Maintenance	(0.1)	(0.2)	(0.1)	(0.0)
Operating materials	(5.3)	(4.7)	(4.8)	(2.2)
Bad debt losses	(0.3)	2.8	(0.4)	-
Other OPEX	(10.9)	(10.1)	(17.8)	(13.5)
Total fixed costs	(184.9)	(169.5)	(186.3)	(88.6)
EBITDA	2.7	57.4	108.9	13.9
Depreciation and amortisation	(36.1)	(17.4)	(20.2)	(8.7)
EBIT	(33.3)	40.1	88.7	5.2
Grow th in Revenues	<i>n/a</i>	19.1%	18.1%	<i>n/a</i>
Gross-margin	53.2%	54.0%	59.5%	60.3%
EBITDA-margin	0.8%	13.7%	21.9%	8.2%
EBIT-margin	(9.5%)	9.5%	17.9%	3.0%

Source: Management information

Historical P&L

Pro forma historical P&L has been provided by Management to illustrate the operations transferred to Q-Free Norge AS on a standalone basis. Note that 1H18 contains actual numbers for January – May and forecast for June.

- Revenues for Q-Free Norge AS consist of income from the Norwegian market, which is mostly from tolling stations, in addition to projects and services delivered to other countries by the main office in Norway.
 - Tolling revenue in Norway decreased last year, however global revenue was up 11% from FY16 to FY17, driven by more revenues from tolling, infomobility, urban and inter-urban, partly offset by decreasing in parking.
 - In FY17, and partly in the end of FY16 and beginning of FY18, there have been extraordinarily large revenues from delivery of a large nationwide truck-tolling system in Slovenia (largest project for Q-Free to this date).
- Cost of goods sold (COGS) consists mainly of material and parts for products while contractors are the use of external consultants or personnel from other subsidiaries.
- Opex have remained fairly stable from FY15 to FY17, implying high growth in EBIT and EBITDA-margins. Management comments that the business is scalable as a high share of these costs are relatively fixed regardless of income.
- The reduction in 1H18 run-rate revenues is mainly due to reduced income from the Slovenia project.



Valuation | Balance sheet

Assets and liabilities related to the Norwegian based operations will be transferred to Q-Free Norge AS (1/2)

Q Free - Balance sheet and mapping

Demerger

NOKm	Note	Q-Free ASA		Demerger		Q-Free Norge AS BS Mapping 30.06.18E			
		31.12.17	30.06.18E	Q-Free ASA 30.06.18E	Q-Free Norge AS 30.06.18E	NWC	NIBD	Non-op.	Other
Deferred tax asset	1	-	-	-	-	-	-	-	-
Product development costs		55.3	62.2	-	62.2	-	-	-	62.2
Machinery, fixture & fittings	2	11.1	11.9	-	11.9	-	-	-	11.9
Investment in subsidiaries	3	299.3	299.3	299.3	-	-	-	-	-
Loans to group companies	4	211.4	244.2	244.2	-	-	-	-	-
Investments in other companies		0.4	0.4	0.4	-	-	-	-	-
Non-current assets		577.5	618.0	543.8	74.2	-	-	-	74.2
Inventories		12.4	13.2	-	13.2	13.2	-	-	-
Work in progress		200.7	34.1	-	34.1	34.1	-	-	-
Account receivables		22.8	36.1	-	36.1	36.1	-	-	-
Receivables group companies	5	108.9	89.7	1.7	88.0	88.0	-	-	-
Other current assets		4.6	4.4	-	4.4	4.4	-	-	-
Cash		-	-	-	-	-	-	-	-
Current assets		349.4	177.5	1.7	175.8	175.8	-	-	-
Total assets		926.9	795.5	545.5	249.9	175.8	-	-	74.2
Share capital		33.9	33.9	-	-	-	-	-	-
Share premium		578.3	578.3	-	-	-	-	-	-
Other paid in capital		20.7	20.7	-	-	-	-	-	-
Uncovered loss / retained earnings		(167.1)	(176.4)	-	-	-	-	-	-
Total equity		465.8	456.5	333.0	123.5	63.9	(14.6)	-	74.2
Debt to financial institutions		125.0	100.0	100.0	-	-	-	-	-
Other non-current liabilities	6	15.3	14.6	-	14.6	-	14.6	-	-
Loans from group companies		32.1	35.9	35.9	-	-	-	-	-
Long-term interest-bearing debt		172.4	150.4	135.9	14.6	-	14.6	-	-
Debt to financial institutions		127.1	45.1	45.1	-	-	-	-	-
Accounts payable		50.2	35.3	-	35.3	35.3	-	-	-
Debt to group companies	7	38.2	45.6	21.4	24.2	24.2	-	-	-
Tax payables		-	(1.3)	(1.3)	-	-	-	-	-
Public duties payable		8.3	4.8	4.8	-	-	-	-	-
Other short term debt	8	64.9	59.1	6.8	52.3	52.3	-	-	-
Short-term debt/ Current debt		288.7	188.5	76.7	111.8	111.8	-	-	-
Equity and liabilities		926.9	795.5	545.5	249.9	175.8	-	-	74.2

Balance sheet split

The split of assets and liabilities between Q-Free ASA and newco Q-Free Norge AS has been provided by the Management of Q-Free.

- Q-Free ASA has not capitalised deferred tax asset (including value of tax loss carried forward, NOKm 97.6 at year end FY17) as it is uncertain if and when it will be utilised. See appendix 6 for more information.
- Consists mainly of production lines, IT infrastructure and furnishing which are assumed to follow Q-Free Norge AS
- Investments in subsidiaries are assumed to be owned by the holding company, Q-Free ASA.
- Consists of loans to subsidiaries, where the largest one is NOKm 155.6 to Q-Free America related to acquisition of other companies.
- The receivables related to operations are to follow Q-Free Norge AS, while the part related to interest on loans to group companies (NOKm 1.7) are to stay in Q-Free ASA.
- Relates to future cost of changing from defined benefit to defined contribution pension scheme and is assumed to follow the employees.



Valuation | Balance sheet

Assets and liabilities related to the Norwegian based operations will be transferred to Q-Free Norge AS (2/2)

Q Free - Balance sheet and mapping

Demerger

NOKm	Note	Q-Free ASA		Demerger		Q-Free Norge AS BS Mapping 30.06.18E			
		31.12.17	30.06.18E	Q-Free ASA 30.06.18E	Q-Free Norge AS 30.06.18E	NWC	NIBD	Non-op.	Other
Deferred tax asset	1	-	-	-	-	-	-	-	-
Product development costs		55.3	62.2	-	62.2	-	-	-	62.2
Machinery, fixture & fittings	2	11.1	11.9	-	11.9	-	-	-	11.9
Investment in subsidiaries	3	299.3	299.3	299.3	-	-	-	-	-
Loans to group companies	4	211.4	244.2	244.2	-	-	-	-	-
Investments in other companies		0.4	0.4	0.4	-	-	-	-	-
Non-current assets		577.5	618.0	543.8	74.2	-	-	-	74.2
Inventories		12.4	13.2	-	13.2	13.2	-	-	-
Work in progress		200.7	34.1	-	34.1	34.1	-	-	-
Account receivables		22.8	36.1	-	36.1	36.1	-	-	-
Receivables group companies	5	108.9	89.7	1.7	88.0	88.0	-	-	-
Other current assets		4.6	4.4	-	4.4	4.4	-	-	-
Cash		-	-	-	-	-	-	-	-
Current assets		349.4	177.5	1.7	175.8	175.8	-	-	-
Total assets		926.9	795.5	545.5	249.9	175.8	-	-	74.2
Share capital		33.9	33.9	-	-	-	-	-	-
Share premium		578.3	578.3	-	-	-	-	-	-
Other paid in capital		20.7	20.7	-	-	-	-	-	-
Uncovered loss / retained earnings		(167.1)	(176.4)	-	-	-	-	-	-
Total equity		465.8	456.5	333.0	123.5	63.9	(14.6)	-	74.2
Debt to financial institutions		125.0	100.0	100.0	-	-	-	-	-
Other non-current liabilities	6	15.3	14.6	-	14.6	-	14.6	-	-
Loans from group companies		32.1	35.9	35.9	-	-	-	-	-
Long-term interest-bearing debt		172.4	150.4	135.9	14.6	-	14.6	-	-
Debt to financial institutions		127.1	45.1	45.1	-	-	-	-	-
Accounts payable		50.2	35.3	-	35.3	35.3	-	-	-
Debt to group companies	7	38.2	45.6	21.4	24.2	24.2	-	-	-
Tax payables		-	(1.3)	(1.3)	-	-	-	-	-
Public duties payable		8.3	4.8	4.8	-	-	-	-	-
Other short term debt	8	64.9	59.1	6.8	52.3	52.3	-	-	-
Short-term debt/ Current debt		288.7	188.5	76.7	111.8	111.8	-	-	-
Equity and liabilities		926.9	795.5	545.5	249.9	175.8	-	-	74.2

Balance sheet split

- NOKm 21.4 is debt to Q-Free Netherlands and Q-Free Brazil and owed interest will remain in Q-Free ASA. NOKm 24.2 relates to accounts payable to group companies, and is considered as NWC.
- Mainly consists of accrued expenses for salary, holiday pay and others. The part related to holiday pay, interest on a bank loan and board remuneration (NOKm 6.8) will remain in Q-Free ASA, while the other items is assumed to be transferred to Q-Free Norge AS.

Balance sheet mapping

- As basis for our valuation, the estimated balance sheet of the carved-out Q-Free Norge AS is split into Net Working Capital, Net Debt and other items.



Valuation | Prognosis

Forecasted income statement is based on management's assumptions

Q-Free Norge AS - Forecasted income statement

NOKm	2H18	FY18	FY19	FY20	FY21	FY22
Revenues	159.7	329.7	366.0	406.2	450.9	500.5
Cost of goods sold	(50.9)	(93.0)	(103.2)	(114.6)	(127.2)	(141.2)
Contractors	(22.7)	(48.1)	(53.4)	(59.3)	(65.8)	(73.1)
Gross profit	86.1	188.5	209.3	232.3	257.8	286.2
Salaries, wages etc	(62.4)	(109.7)	(116.9)	(124.6)	(132.9)	(141.6)
External services	(3.6)	(10.3)	(10.5)	(10.8)	(11.1)	(11.3)
Travel expenses	(5.6)	(9.4)	(9.6)	(9.9)	(10.1)	(10.4)
Offices supplies	(11.3)	(22.1)	(22.7)	(23.2)	(23.8)	(24.4)
Insurance	(1.4)	(2.9)	(3.0)	(3.1)	(3.1)	(3.2)
Freight	(0.1)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)
Rent machinery & tools	(1.1)	(1.7)	(1.8)	(1.9)	(2.0)	(2.1)
Marketing / promotions	(4.4)	(6.6)	(6.9)	(7.2)	(7.6)	(8.0)
Service & Maintenance	(2.8)	(2.8)	(3.0)	(3.1)	(3.3)	(3.4)
Operating materials	(3.3)	(5.5)	(5.8)	(6.1)	(6.4)	(6.7)
Bad debt losses	-	-	-	-	-	-
Other OPEX	(5.2)	(18.7)	(19.2)	(19.6)	(20.1)	(20.6)
Total fixed costs	(101.3)	(189.9)	(199.6)	(209.8)	(220.6)	(232.1)
EBITDA	(15.2)	(1.4)	9.7	22.5	37.2	54.1
Depreciation and amortisation	(13.0)	(21.7)	(22.2)	(22.8)	(23.3)	(23.9)
EBIT	(28.2)	(23.1)	(12.5)	(0.3)	13.9	30.2
Grow th in Revenues	n/a	(33.5%)	11.0%	11.0%	11.0%	11.0%
Gross-margin	53.9%	57.2%	57.2%	57.2%	57.2%	57.2%
EBITDA-margin	(9.6%)	(0.4%)	2.6%	5.5%	8.3%	10.8%
EBIT-margin	(17.7%)	(7.0%)	(3.4%)	(0.1%)	3.1%	6.0%

Source: Management information

Assumptions for the forecast period

Forecasts are based on FY18 budget and annual growth rates for revenues and costs FY19 – FY22. Please refer to appendix 2 for more details.

- FY18 budget:
 - Management has provided budget for FY18 in which they assume a significant reduction of 34% in revenues compared to FY17. The reduction is due to less revenue from the Slovenia project which had a large impact on FY17 revenue. COGS is expected to decrease almost as much as revenue, however total fixed costs have remained stable.
- FY19-FY22 forecast:
 - Revenue is assumed to increase by 11% each year. This is in line with the expected growth in the ITS-market according to market analyses by Grand View Research and Radiant Insights.
 - COGS and costs for contractors are expected to increase similarly, implying a constant gross margin.
 - Salaries are expected to increase with inflation, but due to annual increase of staff by 4%, salaries are expected to increase by almost 7%.
 - External services, travel expenses, offices supplies, insurance, freight and other opex are assumed to increase by inflation (2.5%).
 - Rent of machinery & tools, marketing / promotions, service and maintenance and operating materials are expected to increase by 5% as it is more dependent on revenues.
 - There are not expected any losses on bad debt.
 - Average NWC in percentage of LTM revenue from 1Q17 to 2Q18 (excluding effect of the Slovenia project) , was 12.6%, which we have assumed is the normalised level going forward.
 - Capex is assumed to grow by inflation (2.5% from FY18 to FY22).

The prognosis assumes that 80% of estimated overhead costs in Q-Free ASA post demerger, approx. NOKm 8, will be charged to Q-Free Norge AS. This adjustment is also reflected in the pro forma historical P&L figures provided by management.



Valuation | DCF

EV of NOKm 328 based on DCF approach

Q-Free Norge AS - DCF

NOKm	FY16	FY17	YTD18	YTG18	FY19	FY20	FY21	FY22	TV (23)
EBIT	40.1	88.7	5.2	(28.2)	(12.5)	(0.3)	13.9	30.2	31.0
Tax	(9.2)	(20.4)	(1.2)	6.5	2.9	0.1	(3.2)	(7.0)	(7.1)
NOPLAT	30.8	68.3	4.0	(21.7)	(9.6)	(0.2)	10.7	23.3	23.9
Depreciation	17.4	20.2	8.7	13.0	22.2	22.8	23.3	23.9	24.5
Capex	(22.0)	(18.6)	(15.7)	(3.3)	(19.5)	(20.0)	(20.5)	(21.0)	(24.5)
Δ NWC	-	57.2	5.4	(11.2)	(4.6)	(5.1)	(5.6)	(6.2)	(1.6)
Free cash flow (FCF)	26.2	127.1	2.3	(23.3)	(11.5)	(2.5)	7.9	19.9	22.3
Period				0.3	1.0	2.0	3.0	4.0	
Discount rate				1.0	0.9	0.9	0.8	0.8	
Present value FCF				(22.9)	(10.7)	(2.2)	6.4	15.0	
Sum CF									
Present value FCF	(14.4)								(4.4%)
Terminal value	341.9								104.4%
Enterprise value (EV)	327.5								

DCF assumptions

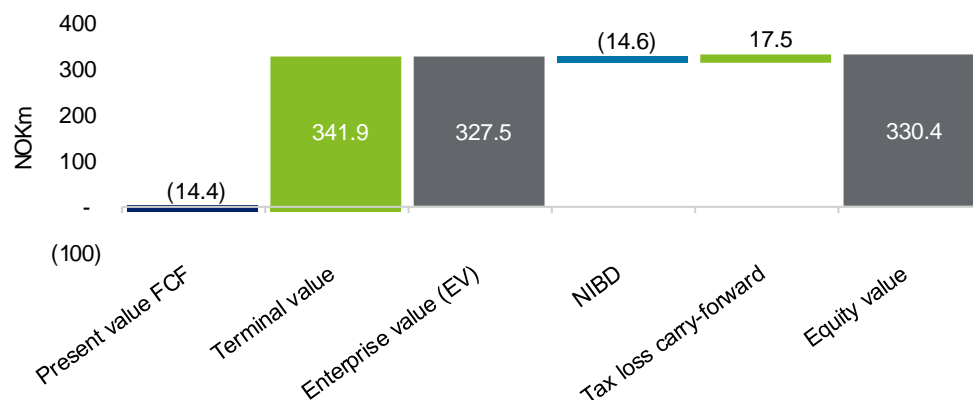
- Projected cash flows are based on management's assumptions for the prognosis period.
- NWC is assumed to equal 12.6% of LTM revenue, which is the quarterly average for 1QFY17 to 2QFY18. Please refer to appendix 5 for more details.
- Capex is assumed to equal Capex level in FY17 and increase with inflation of 2.5% subsequently.
- The future cash flows are discounted by the estimated Weighted Average Cost of Capital (WACC) of 7.4%.
- Growth in cash flows after FY22 is assumed to stabilise at 2.5% (long term inflation rate).
- Terminal value is calculated as net present value of future cash flows using the Gordon's growth formula.



Valuation | DCF

Equity value is estimated to NOKm 330 with a value range of NOKm 310 – NOKm 350 based on the DCF-approach

EV to Equity bridge



Source: Management information

Equity sensitivity

	% Δ EBITDA-margin					
	(2.0%)	(1.0%)	-	1.0%	2.0%	
Δ WACC	(1.0%)	261.6	322.4	344.0	423.2	502.3
	(0.5%)	256.0	315.8	337.1	414.9	492.7
	-	250.6	309.3	330.4	406.9	483.4
	0.5%	245.2	303.0	323.9	399.1	474.3
	1.0%	240.0	296.9	317.4	391.4	465.3

Equity value based on DCF

- Due to the negative estimated cash flows in the beginning of the prognosis period, the present value of cash flows in the explicit prognosis period is negative. However, the strong recovery towards the end of the prognosis period is what drives the enterprise value through the terminal value.
- To derive the equity value, we adjust for NIBD, tax loss carry forward and potentially a demerger receivable.
 - NIBD of NOKm 14.6 which is a liability related to changing from defined benefit to defined contribution pension scheme. Please refer to the balance sheet mapping for more details.
 - Tax loss carryforward is related to the Norwegian entity and 46,5% is assumed to follow Q-Free Norge AS based on the valuation ratio. We have adjusted for the present value of future estimated tax savings. Please refer to appendix 6 for more details.
- A part of the Q-Free business is volatile in nature, depending on public tenders and large public and private contracts. Thus, the future forecasts have some inherent risks/uncertainties (both upside and downside). The lower table illustrates the equity value's sensitivity for changes in the EBITDA-margin after FY22 and changes to the WACC.



Valuation | Relative valuation

Relative valuation yields an equity value in the range of NOKm 337 and NOKm 521

Q-Free Norge AS - Multiple valuation

NOKm	FY17	FY18	FY19
<i>Trading multiples: peer group</i>			
EBITDA	108.9	(1.4)	9.7
Observed EV/EBITDA	10.4x	8.9x	8.5x
Estimated EV	1,131.3	(12.4)	82.5
EV to equity adjustments	2.9	2.9	2.9
Equity value	1,134.3	-	85.4

Trading multiples: peer group

EBIT	88.7	(23.1)	(12.5)
Observed EV/EBIT	13.8x	12.7x	11.9x
Estimated EV	1,224.8	(293.5)	(149.3)
EV to equity adjustments	2.9	2.9	2.9
Equity value	1,227.7	-	-

Trading multiples: peer group

Sales	496.1	329.7	366.0
Observed EV/Sales	1.5x	1.5x	1.4x
Estimated EV	722.4	482.3	517.7
EV to equity adjustments	2.9	2.9	2.9
Equity value	725.4	485.2	520.6

Source: Management information

Trading multiples: Q-Free ASA

Sales	496.1	329.7	366.0
Observed EV/Sales	1.0x	1.1x	0.9x
Estimated EV	499.5	347.2	334.3
EV to equity adjustments	2.9	2.9	2.9
Equity value	502.4	350.1	337.3

Source: Management information

Trading multiples

- We have established a peer group of comparable companies for Q-Free. The peer group consists of companies within infrastructure and ITS technology industries. Please refer to appendix 3 for more information.
- We have considered EV/EBITDA, EV/EBIT and EV/Sales multiples for FY17, FY18 and FY19. Revenues and earnings in FY17 are considered extraordinary high. The FY17 multiples all indicate a higher value for Q-Free Norge AS than the Market Cap for Q-Free ASA, which is not reasonable. In addition, as the results are negative or very low in FY18 and FY19, the EV/EBIT and EV/EBITDA multiples are not suited. Hence, we mainly base our multiple valuation on the FY18 and FY19 EV/Sales multiples.
- We note that peers are expected to achieve higher margins than Q-Free ASA going forward, which explains a higher valuation when employing an EV/Sales multiple for the peer group. We consider Q-Free ASA's EV/Sales multiples to be more relevant than the peer group. Please refer to appendix 3 for more details.



Appendices

Mandate and Executive summary	3
Business overview	6
Valuation	9
Appendices	17



Appendices | A1: Valuation methodology

Methodology

	Description	Advantages	Disadvantages	Valuation principles																																
Discounted cash flow (DCF)	<ul style="list-style-type: none"> Indicative valuation based on company prognosis Future cash flow is used to calculate the present value of the assets, adjusted for risk and time value of money. 	<ul style="list-style-type: none"> Assessment of important value driving factors, such as growth, margins and investments. Calculating the value of operations with the ability of scenario analyzes 	<ul style="list-style-type: none"> The need for refined input Sensitive to small changes in assumptions Substantial part of the value in the terminal period 	<p>FCFF</p> <p>Illustrative</p>																																
Comparable listed companies (Peer-group)	<ul style="list-style-type: none"> Indicative value based on trading multiples (like i.e. EV / EBITDA and EV / EBIT) of comparable companies Focus on expected profit in current year and the next year 	<ul style="list-style-type: none"> What is the stock market willing to pay for a minority interest in companies with similar characteristics? Simple basis for discussion in a transaction 	<ul style="list-style-type: none"> Sensitive to individual events and accounting principles The need for a correct market price No fundamental analysis 	<p>EBITDA</p> <p>Illustrative</p>																																
Comparable transactions	<ul style="list-style-type: none"> Indicative value based on multiples (like i.e. EV / EBITDA and EV / EBIT) of comparable transactions Focus on expected profit in current year and the next year 	<ul style="list-style-type: none"> What would buyers in other transactions pay for a majority stake in a similar company or industry? Includes premium to obtain control of the company 	<ul style="list-style-type: none"> Typically based on historical accounting numbers, while transactions probably is valued based on future performance 																																	
Adjusted balance sheet	<ul style="list-style-type: none"> Book values of all assets and liabilities as at the valuation date are replaced by their estimated market values Any positive or negative excess values are adjusted for relevant taxes and reflected in an adjusted equity value 	<ul style="list-style-type: none"> The method is relevant for companies whose assets are subject to regular trading and where observable market prices exist, as well as in cases of liquidation 	<ul style="list-style-type: none"> Does not reflect value inherent in workforce, market position, customer relationships etc. 	<p>Illustrative</p> <table border="1"> <thead> <tr> <th></th> <th>BV</th> <th>Adj.</th> <th>FV</th> </tr> </thead> <tbody> <tr> <td>Fixed assets</td> <td>100</td> <td>10</td> <td>110</td> </tr> <tr> <td>Current assets</td> <td>50</td> <td>(5)</td> <td>45</td> </tr> <tr> <td>Total assets</td> <td>150</td> <td>5</td> <td>155</td> </tr> <tr> <td>Equity</td> <td>75</td> <td>4</td> <td>79</td> </tr> <tr> <td>LT liabilities</td> <td>60</td> <td></td> <td>60</td> </tr> <tr> <td>ST liabilities</td> <td>15</td> <td>1</td> <td>16</td> </tr> <tr> <td>Total equity & liab.</td> <td>150</td> <td>5</td> <td>155</td> </tr> </tbody> </table>		BV	Adj.	FV	Fixed assets	100	10	110	Current assets	50	(5)	45	Total assets	150	5	155	Equity	75	4	79	LT liabilities	60		60	ST liabilities	15	1	16	Total equity & liab.	150	5	155
	BV	Adj.	FV																																	
Fixed assets	100	10	110																																	
Current assets	50	(5)	45																																	
Total assets	150	5	155																																	
Equity	75	4	79																																	
LT liabilities	60		60																																	
ST liabilities	15	1	16																																	
Total equity & liab.	150	5	155																																	



Appendices | A2: Prognosis assumptions

Growth rates for the separate items in the financial statement, according to Management's assumptions

Management's assumptions

NOKm	FY18B	FY19	FY20	FY21	FY22
Growth revenues	(33.5%)	11.0%	11.0%	11.0%	11.0%
<u>COGS assumptions:</u>					
Cost of Goods Sold	(33.2%)	11.0%	11.0%	11.0%	11.0%
Contractors	(22.1%)	11.0%	11.0%	11.0%	11.0%
<u>Total fixed costs</u>					
Growth FTEs		4.0%	4.0%	4.0%	4.0%
Salary increases		2.5%	2.5%	2.5%	2.5%
Total growth salaries and wages	4.7%	6.6 %	6.6 %	6.6 %	6.6 %
External services	(28.9%)	2.5%	2.5%	2.5%	2.5%
Travel expenses	(15.0%)	2.5%	2.5%	2.5%	2.5%
Offices supplies	0.7%	2.5%	2.5%	2.5%	2.5%
Insurance	(12.7%)	2.5%	2.5%	2.5%	2.5%
Freight	(19.6%)	2.5%	2.5%	2.5%	2.5%
Rent machinery & tools	42.0%	5.0%	5.0%	5.0%	5.0%
Marketing / promotions	8.8%	5.0%	5.0%	5.0%	5.0%
Service & Maintenance	3,619%	5.0%	5.0%	5.0%	5.0%
Operating materials	14.4%	5.0%	5.0%	5.0%	5.0%
Bad debt losses	(100.0%)	11.0%	11.0%	11.0%	11.0%
Other OPEX	-	-	-	-	-
NWC in % of LTM revenue	12.6%	12.6%	12.6%	12.6%	12.6%
Capex growth	2.5%	2.5%	2.5%	2.5%	2.5%



Appendices | A3: Relative valuation

Comparable listed companies are trading at EV/Sales multiples of 1.4x to 1.5x, however Q-Free ASA is trading from 0.9x to 1.1x due to lower expected margins compared to peers

Name	Market Cap (NOKm)	Enterprise Value (NOKm)	EV/Sales				EV/EBITDA				EV/EBIT				EBITDA - Margin			
	30.06.2018	30.06.2018	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Kapsch TrafficCom AG	4,478	4,221	0.7x	0.6x	0.6x	0.6x	6.6x	6.7x	6.3x	6.1x	8.5x	9.1x	8.0x	7.6x	11 %	9 %	10 %	10 %
Indra Sistemas, S.A.	18,662	24,514	0.8x	0.9x	0.8x	0.8x	11.0x	8.7x	8.0x	7.4x	12.7x	12.2x	10.6x	9.8x	7 %	10 %	10 %	11 %
Thales S.A.	219,272	193,620	1.2x	1.3x	1.1x	1.0x	10.4x	10.1x	8.5x	7.6x	13.8x	12.7x	10.6x	9.5x	12 %	13 %	13 %	14 %
Ingenico Group - GCS	45,406	59,646	2.4x	2.3x	2.2x	2.0x	12.0x	11.8x	10.7x	9.7x	15.2x	13.6x	12.5x	11.3x	20 %	20 %	20 %	21 %
Safran SA	422,478	408,144	2.4x	2.1x	2.0x	1.9x	11.3x	12.1x	10.5x	9.3x	14.4x	16.1x	13.7x	11.7x	22 %	18 %	19 %	20 %
Abertis Infraestructuras, S.A.	158,170	301,831	6.0x	5.9x	5.7x	5.9x	8.8x	8.8x	8.4x	8.7x	14.8x	14.5x	13.7x	14.2x	68 %	67 %	68 %	68 %
Sensys Gatso Group AB (publ)	1,007	1,033	3.5x	3.3x	2.6x	2.1x	-39.9x	69.5x	15.4x	10.1x	-18.9x	-45.4x	21.4x	14.6x	-9 %	5 %	17 %	21 %
VINCI SA	442,116	587,957	1.5x	1.5x	1.4x	1.4x	8.9x	8.9x	8.5x	8.2x	13.1x	12.6x	11.9x	11.4x	16 %	16 %	17 %	17 %
Atlantia S.p.A.	188,197	312,029	5.1x	5.4x	5.2x	4.9x	8.9x	8.7x	7.6x	7.1x	12.8x	12.3x	11.0x	10.2x	57 %	62 %	68 %	69 %
init innovation in traffic systems SE	1,635	1,845	1.4x	1.4x	1.3x	1.2x	14.5x	11.8x	9.6x	7.8x	21.5x	15.8x	12.4x	9.8x	10 %	12 %	13 %	15 %
Median - Overall			1.5x	1.5x	1.4x	1.4x	10.4x	8.9x	8.5x	7.8x	13.8x	12.7x	11.9x	10.2x	16.3 %	16.4 %	17.0 %	20.3 %
Q-Free ASA	703	964	1.0x	1.1x	0.9x	0.9x	14.2x	10.9x	7.2x	6.7x	18.2x	27.6x	11.2x	10.3x	7 %	10 %	13 %	13 %

Source: CapitalIQ

Note: Sensys Gatso Group AB (publ) is excluded from the peer group in the relative valuation due to extreme EV/EBITDA and EV/EBIT multiples in FY17 and FY18.



Appendices | A4: WACC

An after-tax WACC of 7.4% is applied in the valuation

WACC calculation

Assumptions		
Risk free interest rate	1.90 %	Norwegian 10Y government bond
Market risk premium	5.13 %	Damodaran
Marginal tax rate	23 %	Marginal tax rate
Cost of debt estimate	5.26 %	10Y Swap rate and premium of 0.03
Cost of debt after tax	4.05 %	
Peer group median capital structure (D/E)	0.37	Q-Free ASA D/E
Applied unlevered beta	0.69	Q-Free ASA Beta
Levered equity beta	0.89	
Market risk premium	5.13 %	
Beta of equity	0.89	
+/- Size / company-specific adjustment	2.2%	Deloitte/Erasmus University
Cost of equity	8.7 %	
<i>Equity to total capital</i>	<i>73 %</i>	
Cost of debt after taxes	4.05 %	
<i>Debt to total capital</i>	<i>27 %</i>	
WACC	7.41 %	
WACC (rounded)	7.40 %	

Comments to WACC calculation

- As Q-Free ASA is listed, and is the most comparable company for the new company Q-Free Norge AS, we use Q-Free ASA's debt to equity-ratio and unlevered beta in the WACC-calculation.
- Note that we require a R-squared of at least 0.10 for a peer to be included in the WACC calculation. The companies marked in grey in the peer group section do not meet this criterion and are therefore not included in the calculation.
- We set the risk free interest rate to 1.90%, based on the Norwegian 10 year government bond.
- Cost of debt is the sum of the 10 year Norwegian swap rate as per 13.06.2018 at 2.26%, upon which we apply a cost of debt premium of 3%.
- The market risk premium is set to 5.13%, based on Damodaran per July 2017.
- The Size/company-specific adjustment is 2.2% in line with the Erasmus University study from April 2015 (Please refer to the end of appendix 4).
- **This suggests a WACC of 7.4% for Q-Free.**



Appendices | A4: WACC

We apply a size premium equal to 2.2% in line with a Erasmus University study from April 2015

Companies Ranked by Book Equity

Historical Equity Risk Premium: Average Since 1990
Data for Year Ending December 31, 2013

Portfolio Rank by Size	Avg. Book Equity (in € millions)	Log of Avg. Book Equity	Sum Beta		Indicated CAPM Premium	Premium over CAPM	t-Value Premium over CAPM	Smoothed Premium over CAPM
			Beta (Sum Beta) Since '90	Arithmetic Avg. Risk Premium				
1 (big)	18,082.10	9.80	0.95	5.68%	4.59%	1.09%	-	0.93%
2	2,276.50	7.73	1.04	6.18%	5.03%	1.15%	-0.005	1.53%
3	1,129.40	7.03	1.04	6.17%	5.03%	1.14%	-0.016	1.48%
4	640.30	6.46	1.05	6.60%	5.08%	1.53%	0.165	1.42%
5	375.80	5.93	1.06	7.51%	5.12%	2.39%	0.638	1.39%
6	241.30	5.49	1.08	5.86%	5.22%	0.64%	-0.275	1.40%
7	164.00	5.10	1.05	6.71%	5.08%	1.64%	0.188	1.46%
8	114.50	4.74	1.01	6.06%	4.88%	1.18%	0.019	1.56%
9	83.40	4.42	1.00	6.52%	4.83%	1.69%	0.248	1.70%
10	59.60	4.09	0.99	6.31%	4.79%	1.53%	0.190	1.90%
11	41.10	3.72	0.99	7.72%	4.79%	2.94%	0.829	2.20%
12	28.50	3.35	0.98	9.43%	4.74%	4.69%	1.633	2.59%
13	19.60	2.98	0.98	7.76%	4.74%	3.02%	1.011	3.08%
14	13.90	2.63	1.05	6.91%	5.08%	1.84%	0.276	3.64%
15	7.50	2.01	1.05	9.14%	5.08%	4.07%	1.300	4.91%
16 (small)	2.60	0.97	1.38	15.27%	6.67%	8.60%	1.440	7.92%

Premia over CAPM (Size Premia, RP_s)

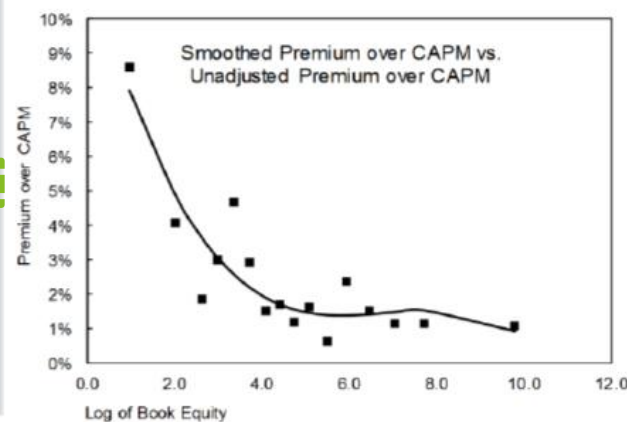
Exhibit B-2

Equity Risk Premium Study: Data through December 31, 2013
Data Smoothing with Regression Analysis
Dependent Variable: Premium over CAPM
Independent Variable: Log of Average Book Equity

Regression Output:

Intercept	11.925%
Log(Size)	-4.780%
Log(Size) ²	0.710%
Log(Size) ³	-0.034%
Adj. R ²	76%

$$\text{Smoothed Premium} = 11.925\% - 4.780\% * \text{Log}(\text{Book Equity}) + 0.710\% * \text{Log}(\text{Book Equity})^2 - 0.034\% * \text{Log}(\text{Book Equity})^3$$



Source: A Study of Differences in Returns between Large and Small Companies in Europe, Erasmus University (April 2015)



Appendices | A5: NWC

We estimate a normalised net working capital of 12.6% of LTM revenue (quarterly average for the last 6 quarters)

Q-Free Norge AS - NWC

NOKm	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q4 18	Q4 19	Q4 20	Q4 21	Q4 22
LTM revenues				352.7	365.3	399.6	399.8	420.0	436.5	447.3	478.7	496.1	480.6	452.2	329.7	366.0	406.2	450.9	500.5
NWC	51.2	19.1	83.0	44.8	48.1	68.4	79.0	92.8	82.6	81.7	54.2	35.6	(10.6)	30.2	41.4	46.0	51.0	56.6	62.9
NWC in % of LTM revenue	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	12.7%	13.2%	17.1%	19.8%	22.1%	18.9%	18.3%	11.3%	7.2%	-2.2%	6.7%	12.6%	12.6%	12.6%	12.6%	12.6%
Change in NWC	<i>n/a</i>	(32.1)	64.0	(38.2)	3.3	20.3	10.6	13.8	(10.2)	(0.9)	(27.5)	(18.6)	(46.2)	40.8	11.2	4.6	5.1	5.6	6.2

Comments to the calculation

- Note that both NWC and revenue is adjusted to exclude effects from the Slovenia project which increased NWC and revenues significantly from 4Q16 to 2Q18.



Appendices | A6: Tax loss carry forward

Present value of tax loss carry forward is estimated to NOKm 17,5

Q-Free Norge AS - Tax assessment

NOKm	FY16	FY17	1H18	2H18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
EBIT				(23,1)	(12,5)	(0,3)	13,9	30,2	30,8	31,5	32,1	32,7	33,4	34,1	34,7	35,4
Tax deficit IB				134,4	157,4	169,9	170,2	156,3	126,1	95,2	63,8	31,7	(1,0)	(34,4)	(68,5)	(68,5)
Utilized tax deficit				23,1	12,5	0,3	(13,9)	(30,2)	(30,8)	(31,5)	(32,1)	(32,7)	-	-	-	-
Deficit carried forward			134,4	157,4	169,9	170,2	156,3	126,1	95,2	63,8	31,7	(1,0)	(1,0)	(34,4)	(68,5)	(68,5)
Utilised tax loss carryforward (23% tax rate)				(5,3)	(2,9)	(0,1)	3,2	7,0	7,1	7,2	7,4	7,5	-	-	-	-
Period				0,3	1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0	11,0	12,0
Discount rate				1,0	0,9	0,9	0,8	0,7	0,7	0,6	0,6	0,5	0,5	0,5	0,4	0,4
Present value utilised tax loss carryforwards				(5,2)	(2,7)	(0,1)	2,5	5,1	4,8	4,6	4,3	4,1	-	-	-	-
NPV tax loss carry forward																17,5

Percentage of TLC to Q-Free AS	47%
Total deficit	288,8

Comments to the calculation

- The tax loss carry forward in Q-Free ASA at 31.12.17 is NOKm 288.8
- We assume that the tax loss carry forward will be split between Q-Free Norge AS and Q-Free ASA in the same ratio that the equity value is distributed.
- Based on the EBIT prognosis, the tax loss carried forward will be fully utilized in FY29.
- Net present value of future tax savings is calculated applying WACC of 7.4% (same as in DCF), reducing value of tax loss carried forward from 23% (nominal tax rate) to 12,3% (effective tax rate).



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