



# Introduction to Q-Free

September 2016



LEADING THE WAY

# Introduction



**Håkon Volldal**  
*President & CEO*



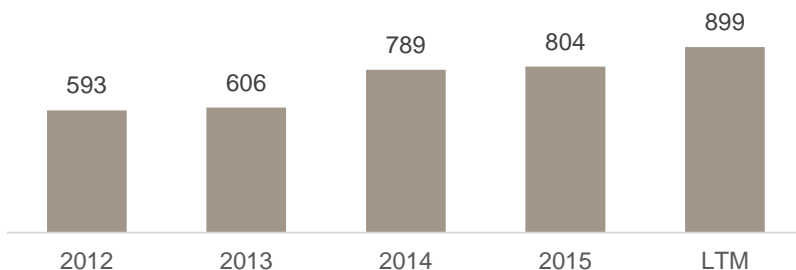
**Roar Østbø**  
*CFO*

# This is Q-Free

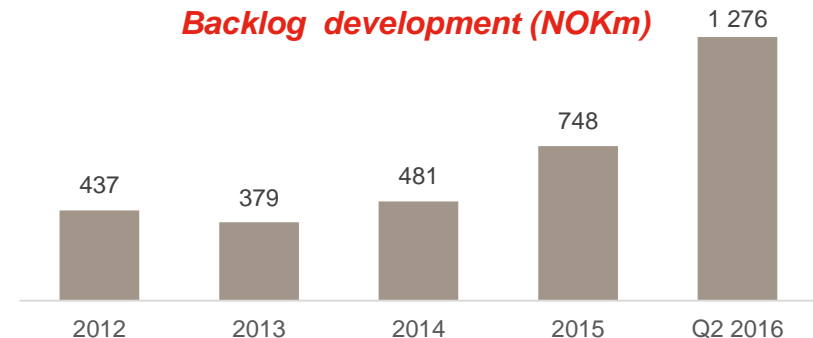


- Leading supplier of *Intelligent Transportation Systems (ITS)* technologies and solutions
- *30+ years of experience in electronic toll collection and advanced traffic management services*
- *Global player* with ~470 employees, references from 50+ markets and presence on all continents

**Revenue development (NOKm)**

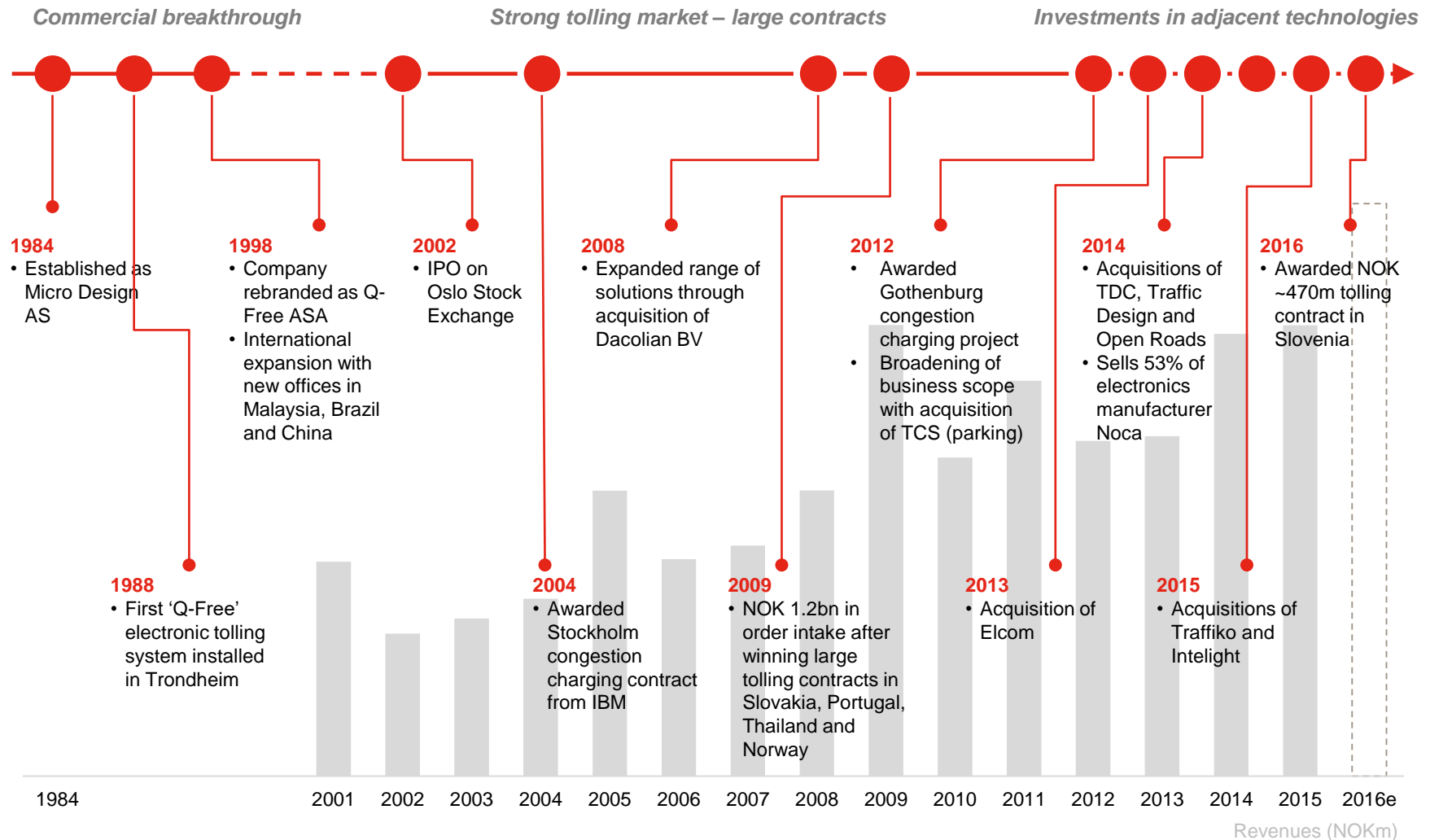


**Backlog development (NOKm)**



# The historical context

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# The ITS market is growing rapidly, supported by several mega-trends

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*USD ~22bn market with annual growth of ~12%*

## Urbanisation



1.5m

*People added to the urban population every week*

- The urban population has grown by 1.6 billion people to 3.9 billion from 1990 to 2014
- >40 megacities with 10 million people or more in 2025

*Need for increased urban infrastructure investments and actions to reduce congestions and optimize traffic loads*

## Climate and pollution



>80%

*People in urban areas exposed to pollution levels exceeding WHO guidelines*

- 6 billion litres of fuel wasted from vehicles idling in traffic in advanced economies every year
- 53 000 deaths in the US alone caused by vehicle emissions annually

*Need to reduce traffic/congestion, impose costs on high-emitters and measure the impact of policies*

## Connectivity and internet of things



20x

*The computing power of a modern car versus a modern PC*

- >150 million vehicles will be connected to the internet by 2020
- From means of transportation to digital ecosystem – heavy investments in next generation vehicles

*Need for more intelligent road infrastructure as well as increased traffic monitoring*

# ITS comprises multiple segments categorised by application areas

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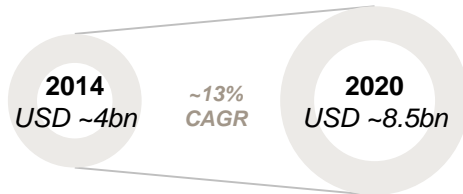
Segments	Electronic tolling	Parking	Infomobility	Traffic management
Key sub-segments	<ul style="list-style-type: none"> <li>• Electronic plaza tolling</li> <li>• All Electronic tolling</li> <li>• Multi-Lane Free Flow tolling</li> <li>• Open road tolling</li> </ul>	<ul style="list-style-type: none"> <li>• On-street parking</li> <li>• Off-street parking (garages, airports, surface lots etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic analytics and data distribution</li> <li>• Vehicle-2-Vehicle, Vehicle-2-Infrastructure, Vehicle-2-Everything (X)</li> </ul>	<ul style="list-style-type: none"> <li>• Urban traffic management</li> <li>• Inter-urban traffic management</li> </ul>
Typical solutions/ offerings	<ul style="list-style-type: none"> <li>• Operational and commercial back-office systems</li> <li>• Access-based tolling systems</li> <li>• Distance-based tolling systems</li> <li>• Time-based tolling systems</li> <li>• Congestion charging systems</li> <li>• Managed lanes (express lanes, high occupancy tolling)</li> </ul>	<ul style="list-style-type: none"> <li>• Central Parking Management Systems                             <ul style="list-style-type: none"> <li>– Access control</li> <li>– Payment</li> <li>– Customer Management</li> <li>– Business intelligence</li> <li>– Claims enforcement</li> </ul> </li> <li>• Parking Guidance Systems</li> <li>• Misc. hardware (signs, kiosks, CCTV etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Back-office systems</li> <li>• Journey time analyses</li> <li>• Weigh-in-motion systems</li> <li>• Pedestrian and cycle counting</li> <li>• Vehicle classification</li> <li>• Air quality monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic Management Systems for highways, tunnels, bridges etc.</li> <li>• Signal/Traffic controllers</li> <li>• Misc. hardware (signs, lighting etc.)</li> </ul>

# Strong market growth is expected in each segment, with slightly different drivers

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## Electronic tolling equipment and solutions

Est. market size

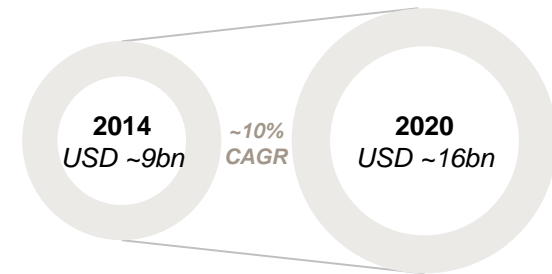


Key drivers

- ✓ Funding of new or maintenance of old road infrastructure
- ✓ Political commitment to **reduce congestion and pollution**
- ✓ Demand for **differentiated service levels** on highways

## Traffic management equipment and solutions

Est. market size

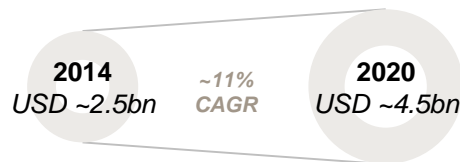


Key drivers

- ✓ Economic **cost of congestion and accidents** drives need for remote monitoring and management
- ✓ Political push to **utilize infrastructure capacity** in a smarter way
- ✓ **New sensors and data sources enable** new services

## Infomobility equipment and solutions

Est. market size



Key drivers

- ✓ Political interest in **measuring impact** of infrastructure projects
- ✓ Demand from public to receive **travel and traffic information**
- ✓ **New sensors and data sources enable** new services

## Parking management equipment and solutions

Est. market size



Key drivers

- ✓ Rapid **growth in number of vehicles** drives need for more parking space
- ✓ Parking increasingly seen as a **source of revenue**
- ✓ Automation as enabler for **more cost efficient operations**



# Q-Free has evolved from a tolling company into an ITS player

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## Leveraging key technologies to develop new ITS offerings

### Complementary technologies obtained through a series of acquisitions

**TCS** INTERNATIONAL  
Parking Guidance System

**elcom d.o.o.**  
Variable Message Signs

**INTELLIGHT**  
THE COMPLETE TRAFFIC FRAMEWORK  
Traffic Controllers

**TDC**  
INFOMOBILITY SOLUTIONS  
Infomobility solutions

**trafficdesign**  
Tolling, parking, traffic management

**Open Roads**  
Traffic management

**TRAFFIKO**  
Central Parking Management System

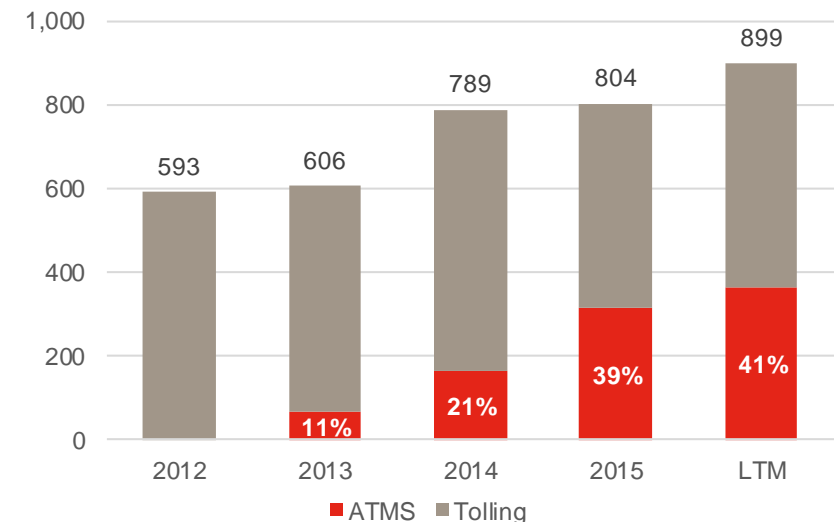
### New offerings developed and monetized

- Q-Free is in the process of developing new ITS offerings based on acquired technology and extension of core tolling technologies
- For example, our parking offering comprises a central SW system from Traffiko, parking guidance solutions from TCS/Elkom, and automatic license plate recognition technology and tags from tolling
- The move into adjacent business areas has been successful: Q-Free now has a ~NOK 100m run rate in quarterly revenues from new segments
- Going forward, Q-Free will focus on developing competitive and complete offerings in prioritized market niches

### Rationale for pursuing new offerings

- ✓ Position Q-Free for future growth
- ✓ Secure *multiple revenue streams* from a broader range of projects with different business models and risk profiles
- ✓ Leverage key Q-Free technologies in new areas

### Development in revenues from new segments (NOKm)





# Fundamentally different business models – revenues less volatile with new offering

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## Business model varies from segment to segment

### Tolling & Traffic Management

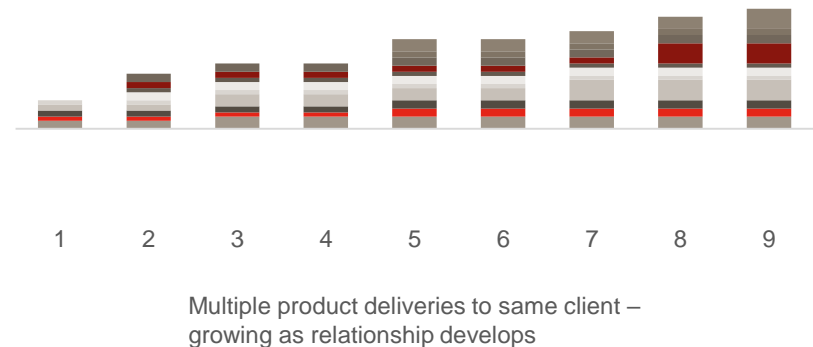
- **Government tenders**
- **Large initial projects** with long tail of service/maintenance work and opportunities for additional product sales
- **Supplier financed** – working capital intensive, paid at delivery
- Large projects often involve **consortiums of suppliers**

## Cash flow profiles (illustrative yearly profile)



### Parking & Infomobility

- Orders from **government bodies** and **private parking operators**
- Several smaller contracts (NOK 0.5-2m) involving a **combination of product and software sales**
  - Subsequent annual license fees and service and maintenance contracts
  - Opportunity to enter into **frame agreements** with large parking operators
- Delivery times typically 3-4 months – not very capital intensive, 2 instalments (signing and delivery)



# Despite a crowded landscape, Q-Free aims for a leading role in certain niches

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- ✓ Vast, fragmented market with hundreds of players = Large addressable market with structural opening for Q-Free
- ✓ Wide range of products and services offered = Several different offerings and niches that can be targeted
- ✓ No dominant global player = Opportunity to build global leadership within niches
- ✓ Very few players able to provide end-to-end solutions in multiple segments = Q-Free has technology, position and references to create market leading offerings within selected segments

Q-Free is one of the global leaders in electronic tolling and is well positioned to become a leader in adjacent niches based on recent acquisitions and application of core tolling technology in new areas

# Over the next years, Q-Free will target 3 key segments

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TOLLING

## *Potential to maintain position as top 3 player in DSRC tolling*

- Q-Free has a leading position as supplier of electronic tolling solutions based on DSRC and ALPR with references from 30+ countries globally
- The recently awarded NOK ~470m Slovenia contract underpins Q-Free's strong position in the market and the large revenue potential within tolling



PARKING

## *Potential to become a top 3-5 player*

- Q-Free has a complete offering based on tolling technology combined with Parking Guidance Systems (PGS) and Car Park Management Solutions (CPMS) from recently acquired companies
- The company offers ticket-, cash-, and barrier-less parking, and is seen as a technology innovator in parking
- APCOA contract for Globen in Stockholm was a breakthrough for Q-Free in this segment



INFOMOBILITY

## *Potential to become a top 3-5 player*

- Through recent acquisitions, Q-Free can offer a very interesting suite of applications in infomobility
- Q-Free has references from more than 50 markets and is well positioned to capitalize on prior investments in R&D by expanding its distribution network

# Tolling | Q-Free's position

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## Industry structure

- National/regional/local road authorities, and sometimes private concessionaries
- Only a few companies can provide core Dedicated Short Range Communication (DSRC) technology modules
- Several system integrators combine their own solutions with externally sourced hardware to market complete systems
- Big IT systems providers compete for various operational and commercial back-office systems

## Our main revenue streams

### Projects

- Delivery of complete tolling systems including tags, roadside equipment and back-office solutions. Typically delivered by Q-Free alone, but in some cases through consortiums

### Service and maintenance

- Customers enter into long-term (typically 3-10 years) service agreements with Q-Free after delivery of an initial project or after upgrades of old systems

### Products

- Mini-tenders for tags, upgrades/replacements of complete gantries, and/or addition of e.g. imaging systems

## Q-Free's competitive edge

- ✓ **Unrivalled performance:** highest system accuracy and reliability
- ✓ **Unique domain know-how:** Industry pioneer with 30 years of experience in DSRC tolling and global references
- ✓ **Trusted partner:** high delivery precision, global reach/local presence, and ethical business practices

***Q-Free is the industry pioneer and a world-leader in DSRC and video tolling***

## Our offering



On-Board Units (OBU)



Transceivers/ readers



Back-office system



Cameras and sensors



Complete electronic tolling systems

**Q-FREE**

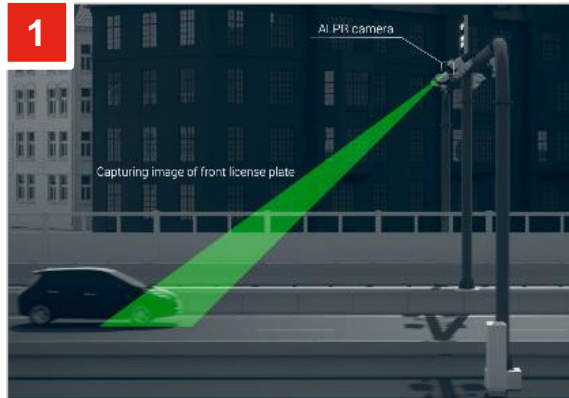
# Tolling | How it works

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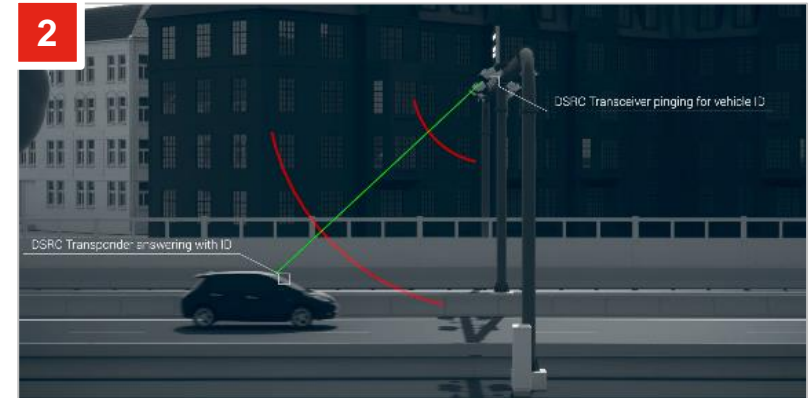


Q-Free's tolling system combines information from various sources to collect payments from vehicles with or without tags

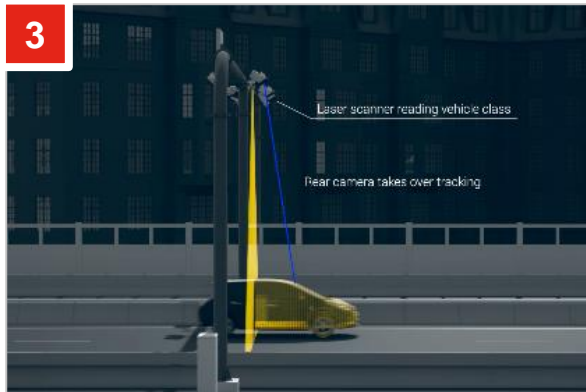
Three sources for identification processed in real-time ensure best-in-class performance



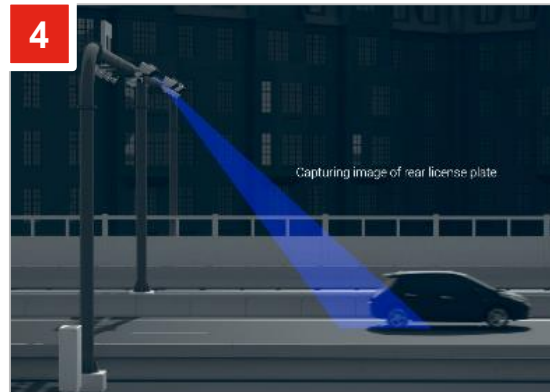
Front license plate capture and vehicle tracking using Q-Free's world-leading Automated License Plate Recognition (ALPR) technology consisting of proprietary cameras and software algorithms



Reading of Q-Free's high-quality tags using Q-Free's world-leading DSRC transceivers with exceptional reading performance



Vehicle classification using high-performance laser scanners with Q-Free's proprietary software algorithms for capturing parameters such as vehicle speed, presence and position



Rear license plate capture and vehicle tracking using Q-Free's world-leading Automated License Plate Recognition technology incl. proprietary cameras and software algorithms



Processing of data from cameras, transceivers/ tags and vehicle detectors in Q-Free's roadside controller, submission of relevant data to central back-office system for billing and reporting



# Parking | Q-Free's position

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## Our offering

- Flexible and innovative offering by combining key technologies from acquired companies with elements from tolling: software (Traffiko), hardware/software (TCS), license plate recognition and tags (tolling)
- The two main products are
  - A modular Central Parking Management Systems (CPMS) including access control, payment modules, claims enforcement etc.
  - Parking Guidance Systems (PGS) with single space sensors, level counting and facility counting
- Q-Free provides CPMS software systems and hardware for access control and PGS software and hardware such as sensors, LED lights and Variable Message Signs



Q-Free delivery of a barrier-less, ticketless system for 1 400 spaces to APCOA in Globen, Stockholm

- CPMS system incl. 18 cameras, ALPR technology and 21 touchscreen payment kiosks
- Parking Guidance System

## Industry structure

- Q-Free is focusing on the **high-end off-street market**
- This segment is **fragmented**, but dominated by big private operators, e.g.

INDIGO

Q-PARK

APCOA  
PARKING

- There are few global parking technology providers, Q-Free mostly faces **competition from regional/local players**

## Our main revenue streams in parking:

- **System sales:** Delivery of complete parking systems to private operators such as APCOA
- **License fees:** Recurring annual software system fees
- **Service and maintenance:** contract-based or time-based
- **Product sales:** Retrofits of existing car parks with e.g. ALPR technology for improved access control

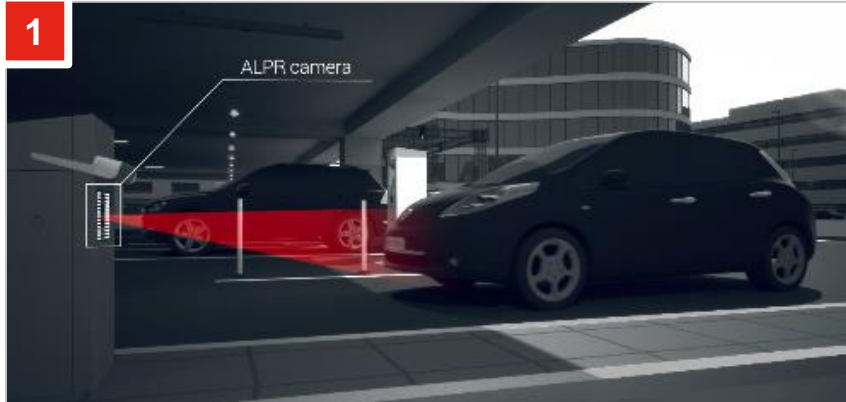
## Our competitive edge:

- ✓ **Unrivalled performance:** best in class uptime and accuracy
- ✓ **High flexibility:** modular offering based on open standards and no legacy to defend
- ✓ **Trusted partner:** high delivery precision, global reach/local presence, and ethical business practices

Q-FREE

# Parking | How it works

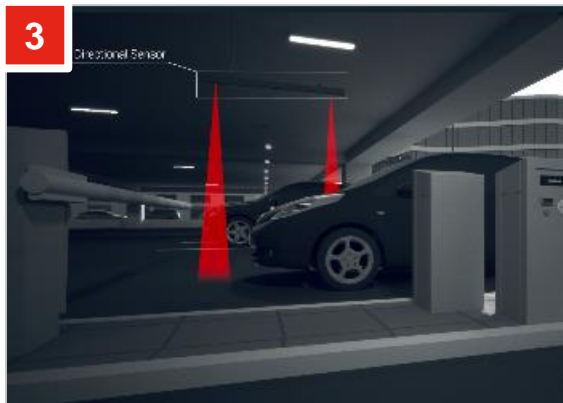
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Front license plate capture using Q-Free's world-leading Automated License Plate Recognition (ALPR) technology consisting of proprietary cameras and software algorithms



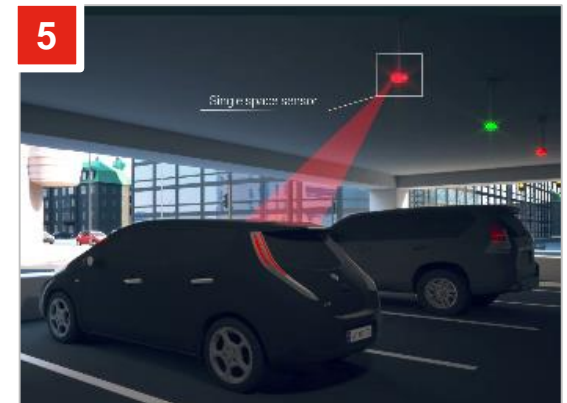
Q-Free's best-in-class Dedicated Short-Range Communication transceivers and On-Board Units can be used for access control and payment



Directional ultrasound sensors used to detect movements



Variable Message Signs show real-time information about quantity and location of available spaces



Ultrasound sensors mounted above each individual parking space detect vehicle presence and communicate occupancy status to a zone controller



# Infomobility | Q-Free's position

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## Our offering

- Q-Free is a technology leader in Infomobility after the acquisition of TDC in the UK and subsequent investments in R&D
- Q-Free has references from more than 50 markets globally



**Air pollution monitoring systems**



**Weigh in motion systems**



**Traffic counters and classifiers**



**Journey time and traffic reporting**



**Cycle / pedestrian counting**

## Industry structure

- The main customer group is **public authorities**, i.e. Departments of Transportation
- There are few global infomobility technology providers, Q-Free mostly faces **competition from regional/local players**
- Whereas tolling and parking require local setups, infomobility products can be **sold through qualified distributors and partners**

## Our main revenue streams in infomobility

- **Product sales:** sales to single sites or smaller projects covering product installations at multiple sites
- **Service and maintenance:** customers enter into service contracts with Q-Free for maintenance of installations and reports and data processing

## Our competitive edge

- ✓ **Unrivalled performance:** accurate real-time data
- ✓ **High flexibility:** modular, interoperable offerings
- ✓ **Trusted partner:** high delivery precision, global reach/local presence, and ethical business practices

# Q-Free's competitive edge summarized



Innovative technology and solutions with best-in-class performance and reliability



Modular offerings that integrate well with existing systems and allow Q-Free to work with most end-customers and players in the value chain



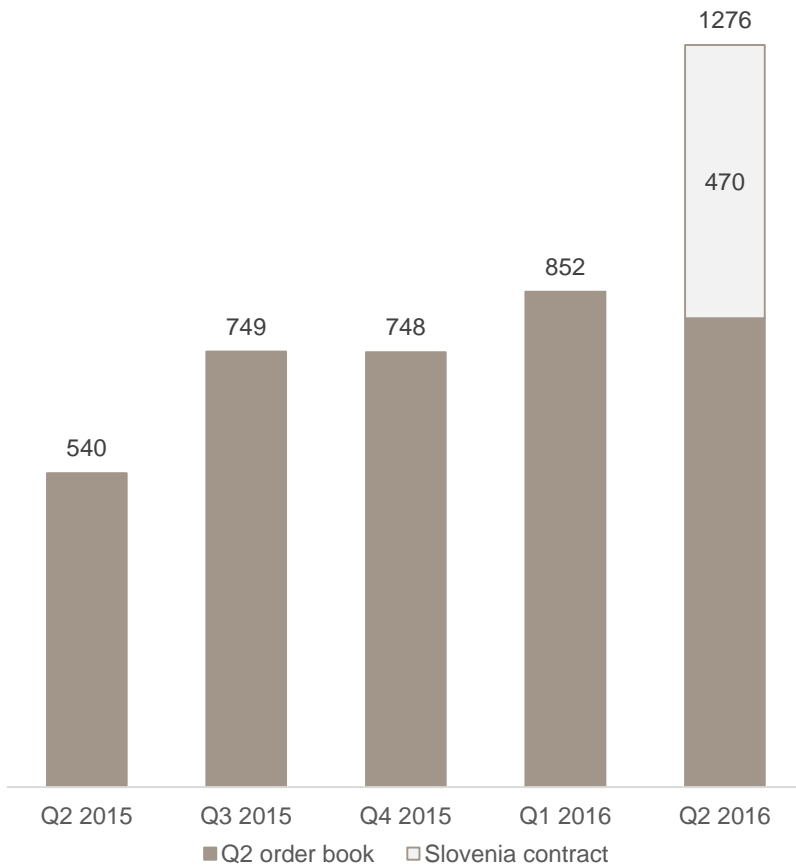
A trusted partner with global references, global reach, local presence, high delivery precision, and ethical business practices

***Higher revenues  
for lower cost for  
clients***

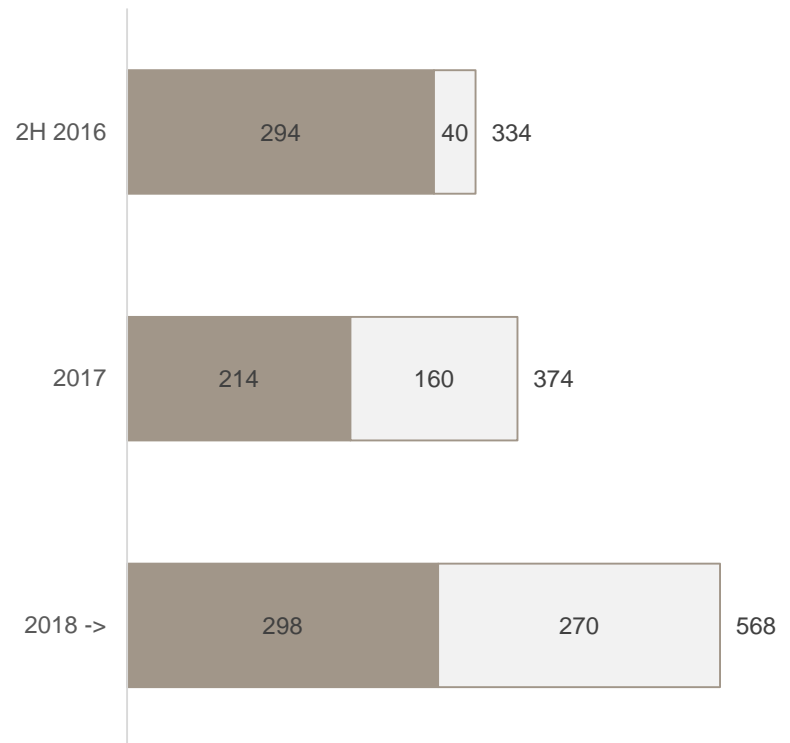
# All-time high backlog and remaining strong pipeline of opportunities

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Development in order book (NOKm)



Estimated order book delivery schedule



# Priorities going forward linked to growth, margin and cash flow

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## Growth

- Convert record high order backlog into revenues
- Benefit from high tender activity in established markets (USA, Indonesia, Norway, Spain, Thailand etc.)
- Focus on niches where Q-Free has competitive advantages - tolling, parking, infomobility

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## Margin

- Reduce fixed cost base by streamlining acquired companies, offering and geographical presence
- Continue COGS reductions to improve product and project margins
- Maintain capital discipline and exercise tight cost control when revenues start to increase
  - Prioritize projects and opportunities
  - Increase productivity through process improvements in sales, R&D and operations
  - Reallocation of resources instead of new hires

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## Cash flow

- Significantly reduce investment levels compared to last years
- Reduce working capital (invoicing, supplier T&C, vendor financing in projects)
- Divest non-core offerings

# Contemplated equity issue

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- Q-Free has called for an extraordinary general meeting on September 19<sup>th</sup> 2016, where the Board of Directors will ask the shareholders for an authorization to increase the company's share capital by up to 25%
- The rationale for the equity issue is to strengthen Q-Free's equity in order to support an improved financial structure as basis for a turnaround of the company and future profitable growth
  - The proceeds from the equity issue will be spent on
    - working capital to convert the record high order backlog into increased revenues and integration and streamlining of the acquired companies
    - financing of attractive future contracts (in order pipeline) so we can maintain a high order intake and stabilize revenues at a higher level (most ITS projects today involve significant upfront investments in working capital)
  - We will **not** pursue additional acquisitions until the turnaround has been completed
  - A more balanced financial structure will also offer an opportunity for further debt-financing
- ABG Sundal Collier is advising Q-Free in connection with the contemplated equity issue

# Q-Free | Leading the way

Exposure to a large industry with strong underlying market growth

The industry pioneer in electronic tolling with more than 30+ years of history and global references

New Board and CEO with proven industrial track record

Exciting opportunities in new segments based on acquisitions and expansion of core tolling technologies



All-time high order backlog with strong contributions from both legacy tolling business and new segments

Focus on select niches where Q-Free can have leading and distinctive positions

# Appendix

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# Profit and loss statement

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NOK 1,000	Q2 2016	Q2 2015	Q/Q-%	1H 2016	1H 2015	Y/Y-%	FY 2015
<b>Revenues</b>	<b>246,241</b>	<b>178,718</b>	<b>37.8%</b>	<b>465,213</b>	<b>369,662</b>	<b>25.8%</b>	<b>803,525</b>
<b>Gross profit</b>	<b>171,944</b>	<b>136,828</b>	<b>25.7%</b>	<b>324,168</b>	<b>272,281</b>	<b>19.1%</b>	<b>571,173</b>
<i>Gross margin (%)</i>	69.8%	76.6%		69.7%	73.7%		71.1%
Operating expenses	160,538	123,149	30.4%	307,114	239,444	28.3%	587,149
<b>EBITDA</b>	<b>11,406</b>	<b>13,679</b>	<b>-16.6%</b>	<b>17,054</b>	<b>32,837</b>	<b>-48.1%</b>	<b>-15,976</b>
<i>EBITDA margin (%)</i>	4.6%	7.7%		3.7%	8.9%		-2.0%
Depreciation, amortisation and impairment	14,261	21,504	-33.7%	28,946	43,614	-33.6%	144,482
<b>Operating profit - EBIT</b>	<b>-2,855</b>	<b>-7,825</b>		<b>-11,892</b>	<b>-10,777</b>		<b>-160,458</b>
<i>EBIT margin (%)</i>	-1.2%	-4.4%		-2.6%	-2.9%		-20.0%
<b>Pre-tax profit</b>	<b>5,017</b>	<b>8,120</b>		<b>-6,727</b>	<b>-18,389</b>		<b>-182,098</b>
<i>Profit margin (%)</i>	2.0%	4.5%		-1.4%	-5.0%		-22.7%
<b>EPS</b>	<b>0.01</b>	<b>0.09</b>		<b>-0.10</b>	<b>-0.33</b>		<b>-2.79</b>

# Service line overview

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NOK million	Q2 revenues	YoY growth	Q2 order intake	Order backlog
Tolling	158	42	118	673
Parking	23	4	20	31
Urban	27	18	35	34
Inter-urban	10	-10	3	20
Infomobility	10	-1	7	17
Security	18	13	17	31
Total	246	66	200	806

# Balance sheet

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## BALANCE SHEET - ASSETS

NOK 1.000	30.06.2016	31-Mar-16	31-Dec-15
Development	195,839	199,400	214,526
Goodwill	343,059	344,960	367,465
Total intangible assets	538,898	544,360	581,991
Machinery, fixtures and fittings	38,052	39,699	43,854
Total fixed assets	38,052	39,699	43,854
Shares	393	674	660
Other long term receivables	2,052	1,625	1,592
Total financial fixed assets	2,445	2,299	2,252
Total non - current assets	579,395	586,358	628,097
Inventories	79,785	96,612	81,378
Total inventories	79,785	96,612	81,378
Accounts receivables	172,898	132,016	149,606
Work in progress	75,621	69,375	44,269
Other receivables	39,013	40,012	28,616
Total receivables	287,532	241,403	222,491
Cash	17,686	52,911	65,349
Total current assets	385,003	390,926	369,218
<b>Total assets</b>	<b>964,398</b>	<b>977,284</b>	<b>997,315</b>

## BALANCE SHEET - EQUITY & LIABILITIES

NOK 1.000	30/06/2016	31/03/2016	31/12/2015
Subscribed share capital	27,124	27,124	26,627
Share premium reserve	451,252	451,252	439,350
Other paid in capital	20,529	20,529	20,529
Total paid in capital	498,905	498,905	486,506
Other equity	-104,141	-92,501	-70,007
Total retained equity	-104,141	-92,501	-70,007
Total equity	394,764	406,404	416,499
Pension liabilities	18,775	18,775	18,775
Deferred tax	10,608	6,582	12,630
Debt to financial institutions	150,000	0	0
Other non-current liabilities	99,820	128,007	135,894
Total non-current liabilities	279,203	153,364	167,299
Debt to financial institutions	66,756	182,256	150,000
Accounts payable	90,239	83,352	77,913
Tax payable	2,233	2,689	2,051
Public duties payable	19,783	10,109	19,713
Advance payments customers	19,557	18,454	12,576
Other short term debt	91,863	120,656	151,264
Total current liabilities	290,431	417,516	413,517
Total liabilities	569,634	570,880	580,816
<b>Total equity and liabilities</b>	<b>964,398</b>	<b>977,284</b>	<b>997,315</b>

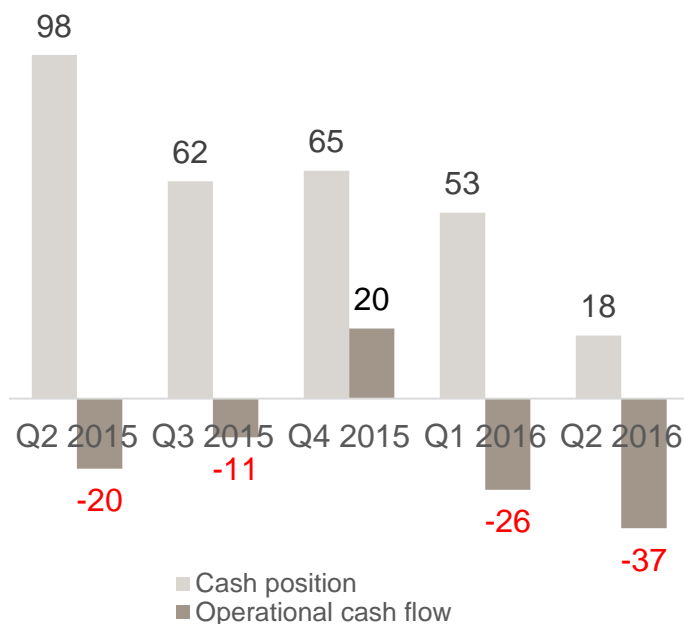
# Cash flow and financial position

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Cash development (NOKm)

Financial position (NOKk / Percent)



	June 30, 2016	March 31, 2016	December 31, 2015
Total intangible assets	538 898	544 360	581 991
Net working capital (excl. cash and interest- bearing debt)	143 642	102 755	40 352
Net working capital % of 12 months revenues	16 %	12 %	5%
Equity ratio	40.9 %	41.6 %	41.8%
Net interest bearing debt	216 756	182 256	150 000