

# Q-FREE CAPITAL MARKET DAY

## MARKET OUTLOOK



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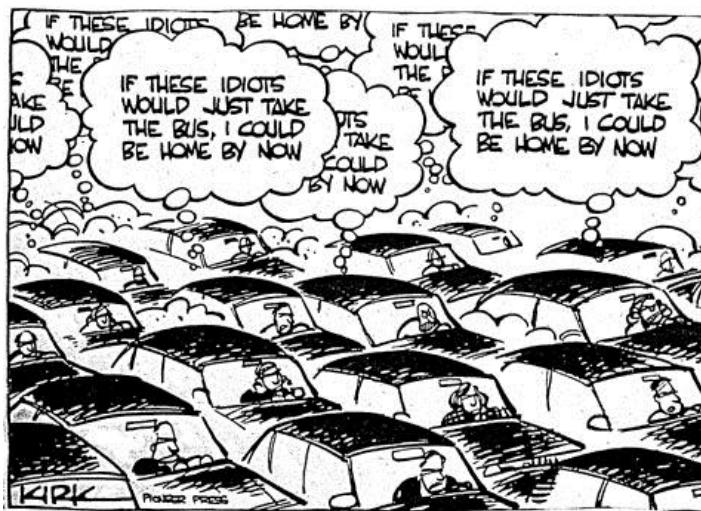
# Market outlook

Q-Free  
Capital Market Day  
22-11-2011



Lot of talking

Jakarta will have a still stand situation in 2014



# Market outlook

## COMING FROM TRADITIONAL HIGHWAY TOLLING

- Highway Tolling
- Proven technology through long tradition

## Q-FREE'S NEXT GENERATION OFFERING

## MAIN MARKET SEGMENTATION

## DEVELOPMENT OF ORGANIC MARKETS

- Focused strategy
- New markets with different volumes

## MARKET UPDATE

- Europe
- Russia
- M. East & Africa
- North and Latin America
- Indonesia

## CONCLUSION

# Coming from traditional highway tolling

## Highway Tolling (ETC/ERP/RUC/E-Vignette)

- Market driver is financial contribution to road infrastructure
- Used as new tax income in troubled times

## Proven technology through long tradition

- European open standard is dominant in the World market (CEN DSRC)
- Q-Free with more than 30 years experience as technology supplier
- Q-Free's mature offering “best in class” (products, systems and price)
- First references in the market both for CC, ERI and TT
- Few serious competitors in this market are able to match references and price

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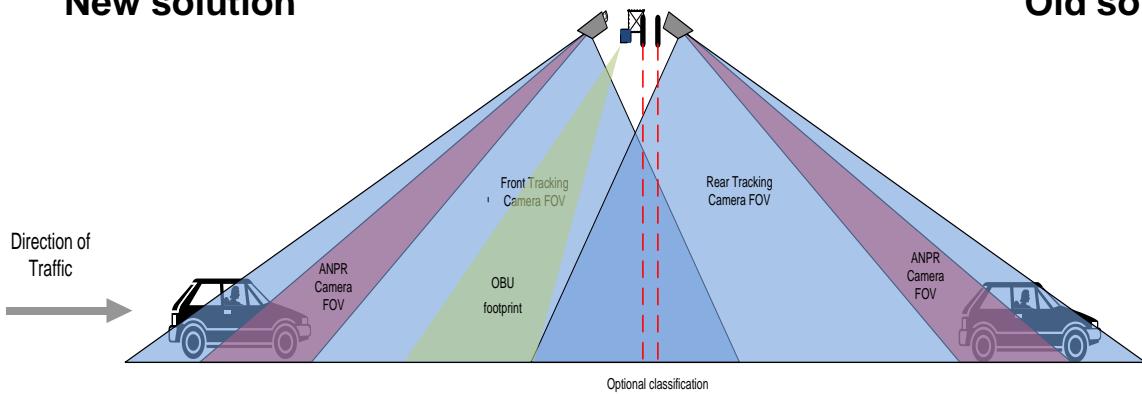
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# Q-Free's next generation offering

## Single Gantry MLFF

### New solution



### Old solution



- Same offering in all segments
- High degree of standardization (Blue Print)
- Can be used for both rural and urban environments
- New Radio- and Video-systems can be used as subsystems towards integrators (Single Lane)
- New OBU610 "best in class"
- Cost optimized solution
- First in the market [QFREE.wmv](#)

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# Main Market segmentation and growth

	Highway Tolling (ETC/ERP/RUC)	Congestion Charging (CC/ERP)	Electronic Registration and Identification (ERI)	Truck Tolling (TT)
Market Driver	Financial contribution to road infrastructure	Traffic-, Emission-, Travel time-reduction and financial contribution to road infrastructure and public transport	Automated enforcement of car license and applications as (CC, ERP, Acc, Security, etc.)	Increase tax income from heavy transport
Standardization	European open standard is dominant in the World market (CEN DSRC)	Technology is going towards a combination of Video and/or DSRC (Open standard)	Technology is going towards a combination of Video and DSRC (Open standard)	Technology is divided between DSRC and GNSS
Offering**	End to End	RS, OBO	End to End	RS, OBO
References	✓	✓	New market	✓
Competition	Focused Suppliers	Focused / Global Suppliers	Focused Suppliers	Focused / Global Suppliers
Type of project	Supply	Supply / BOT	Supply / BOT	Supply / BOT in consortium

\* Compound Annual Growth Rate

\*\* Q-Free's next gen offering "best in class" (Products and Systems)

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# Development of organic markets

## Focused strategy for new markets

- Selected markets with political and financial readiness
- Green field development
- New trends in the market is often related to traffic congestions and low quality of vehicle information data bases
- Entering with turn key solutions for CC, ERI, TT or bigger ETC projects
- Existing references and standard offering can be used in these new markets
- New SG offering and concept gives us easier access to the market
- Often possible to get status as a development partner
- Countries like Chile, Columbia, Slovenia, Russia, Indonesia, Taiwan, China, US etc.
- Entering in passive markets like India, Middle East, etc. with global partners for product sales

## New markets with different volumes

- Lack of vehicle identification need to be addressed before you can do effective enforcement
- Conf. Jakarta with 15M vehicles in the greater Jakarta area that need electronic identification/OBU's
- Combination of ERI, CC and Parking Access projects

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# Market update – Europe

- Nordic
  - Steady growing ETC and CC market
  - Norway is looking in to modernise implemented base
  - Sweden is planning for ETC tolling and additional CC
  - Denmark is planning for CC in Copenhagen and national TT project
- Central Europe
  - France with a steady growing ETC market and implementing new national TT system
  - Slovenia, Belgium, Hungary, Poland, Bulgaria, Romania, Belarus, Croatia, UK, etc are all in the process of implementing national TT systems
  - Germany is looking in to modernise TT system



# Market update – Europe

- South Europe
  - Portugal with mature and steady growing implemented ETC base
  - Portugal is also looking in to national ERI
  - Spain needs new tax income and will follow Portugal model
  - Turkey with mature and steady growing implemented ETC base and is evaluating to modernise implemented base to MLFF
  - Turkey is also looking in to CC for Istanbul and other cities
- Europe in general
  - TT will be implemented in the corridor countries in Europe
  - Technology for TT could be DSRC or GNSS but they all need interoperability with DSCR
  - Scope for Q-Free could comprise of GNSS OBU, DSRC OBU, Back Office, Road Side Enforcement and Services & Maintenance
  - Each of these cases represents an opportunity of several hundred MNOK

# Market update – Europe and Russia

- In general for Europe
  - After successful operation over several years of CC in Stockholm new cities will materialise like Gothenburg, Copenhagen, Paris, London, etc.
  - Economic situation in Europe forces governments to look in to additional tax schemes
  - New offering from Q-Free makes it easier to implement in urban environment
  - Existing references qualifies us for the market and makes us a strong competitor both for Systems- and Service & Maintenance- offering
- Russia
  - Huge coming market for ETC, TT, ERI and CC
  - Activities are picking up speed and first OBU's from Q-Free are on the streets
  - Partnering activities is escalating in local markets

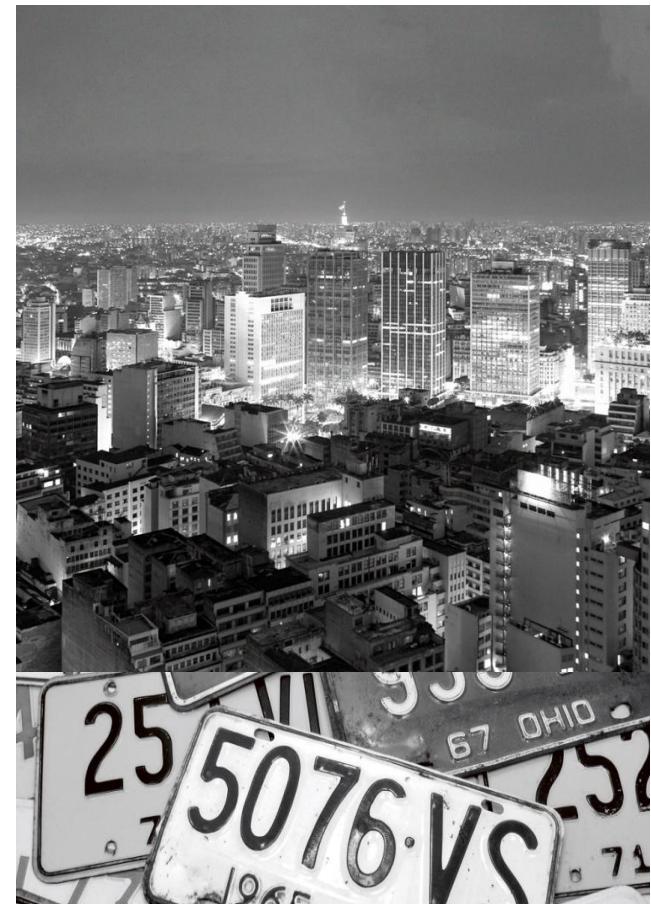
# Market update – M. East and Africa

- Middle East
  - Dubai looking in to modernise existing ETC implementation
  - New ETC and Boarder Access projects to come
  - Partnering market for Q-Free
- South Africa
  - Delivered tags to ETC/Sanral - accumulated 46 MNOK during first half year
  - Similar sized opportunity remains
  - New ETC, ERI and TT infrastructure projects in future
    - In general for M. East and Africa
    - Technology is following European standard
    - Need for new tax income and control will boost the market



# Market update - Latin and North America

- Latin America
  - Sao Paulo with mature and steady growing implemented ETC base
  - Sao Paulo looking into modernise implemented ETC base to MLFF
  - National ERI implementation for Brazil under planning
  - OBU contract in Chile fundament for new setup
  - Chile is using European standard and will enlarge the use of high way tolling and are looking in to CC
  - Colombia, Ecuador and Peru is changing to European standard for ETC
- North America
  - Video solutions for enforcement and interoperability
  - New Video system offering fits US market
  - New offering enable organic growth



## Market update - Asia Pacific

- South East Asia
  - Thailand using European standard and first ETC implementation is well received
  - OBU penetration is increasing in Bangkok
  - Malaysia has decided to replace existing touch and go with European DSRC solution
  - Indonesia will use European DSRC standards in new ERI project
  - Vietnam looking in to ETC and CC implementations
- Greater China region
  - Taiwan will modernise existing installed ETC base
  - New ETC project rolling up as the biggest MLFF project in the world
  - Q-Free's Single Gantry MLFF solution well received in Taiwan
  - Interests in China for ERI is increasing after announcement in Indonesia



Tag – OBU610

# Market update - Asia Pacific

- Australia
  - Mature and steady growing implemented ETC market
  - Additional use of implemented OBU base for Parking Access systems is increasing
  - Long tradition for Q-Free and represents a good reference in the region
- India
  - Increased demand for ETC and CC solutions
  - Represents a big market for Q-Free as a product supplier
- Asia in general
  - High OBU volume markets for ERI and CC
  - OBU used for enforcement and new implementation of vehicle data bases
  - Traffic problems need to be solved
  - Represent a significant market for Q-Free with good footprint - Upside potential is high



# Market update - Indonesia

## Electronic Law Enforcement System in Jakarta

- The Electronic Law Enforcement System shall be implemented in such a way, so that the speed of the vehicles is not affected and that the vehicles are not forced to use certain driving lanes (so called **Multi-Lane-Free-Flow System**)
- The Electronic Law Enforcement obligation applies to **all motor vehicles that are registered within the jurisdiction of the Provincial Police of Jakarta** and will be implemented in different Phases to include all classes. Additionally more cities will be added in the future.
- All vehicles subject to the Electronic Law Enforcement obligation will have to be equipped by a non-discriminatory **electronic On-Board Unit (“OBU”)**. The On-Board Unit shall be logically linked to a specific registered vehicle and shall be non-transferable as such
- The Service shall enable **Electronic Law Enforcement** and create a base for future services to be implemented as **Electronic Road Pricing, Congestion Charging and other Access services**.
- **New legislation in place** facilitating implementation of road pricing/congestion charging

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## Coming from

- Project oriented company
- Non standardized products and solutions
- Mainly highway tolling (ETC/ERP/RUC)

## Today and going forward

- New Product and System offering (scalability and blue print)
  - New OBU610 “best in class”
  - New RSS650 “MLFF & SL”
  - New Camera sub system
  - New SG system
- Focused international sales going forward
  - Building markets in selected Countries (Active Markets)
  - Standardize Product sales with partners (Passive Markets)
- New Markets
  - CC, ERI, TT and Parking & Access
  - **New markets with different volumes (company changers)**
  - **Business creates Business in new markets**
  - **Desperate need for solutions to increase tax and solve traffic dead locks**

