





Short introduction to Q-Free ASA



- Established in 1984
- Present in 18 countries
- 270 employees
- Publicly listed at Oslo Stock Exchange - QFR
- Head office in Trondheim, Norway



- 25 years of relevant market experience
- All resources committed to making tolling solutions
- Focusing on local presence and contribution, we create jobs and support local businesses
- Best skills available for implementing tolling solutions

♦ Q-Free Offices



An Interoperable Business Environment



- Norwegian Public Roads Administration (NPRA) policy:
 - Open, well defined interfaces
 - Free competition on all system modules.
 - Free competition on service provision.
- This policy secures interoperability, locally and internationally.
 - How has this policy influenced Q-Free's business environment?



Electronic Tolling System Development in Norway


Single Lane Mixed Manual and ETC

National Interoperability

Fully Automated Toll Stations (ETC and Video)

Nordic Interoperability (EasyGo)

The NPRA policy lead to the development of more user friendly and efficient system solutions.



Basic Elements of the Norwegian Electronic Tolling System

Data Collection

Transaction Handling

Business Management

Vehicle identified by

Charging based on


Accounts handling

DSRC OBU or Video ANPR

Zones or Time/Distance/Place

CRM, External Interfaces, etc.

DSRC = Dedicated Short-Range Communication, ANPR = Automatic Number Plate Recognition.



A Variety of Services now Available

Ferry Ticketing


Car Parks

Electronic Toll Collection

Travel Time Information Systems

Access Control

With open interfaces, a large number of services have become available in Norway. Open standards have enabled many providers to offer their products and services.




Data Collection with GNSS

Global Navigation Satellite System (GNSS)

- Payment is transferred when the vehicle passes a pre-defined spot in the road network, known as: Virtual Charging Point
- The OBU contains a GPS Module for positioning
- Drivers declare classification data that is stored in the On Board Unit, e.g. number of axels





That's it folks!

Thank you for your attention!

Further questions can be directed to:

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