



**FINANSTILSYNET**

THE FINANCIAL SUPERVISORY  
AUTHORITY OF NORWAY

Guidelines on  
**systems and controls in an automated  
trading environment**  
for trading platforms, investment firms and  
competent authorities

**Verdipapirseminar juni 2012**

- 1. Bakgrunn**
2. Krav til RM/MTFer og verdipapirforetak
3. Oppsummering

# Formål

"the purpose of these guidelines is to ensure **common, uniform and consistent application of MiFID and MAD** as they apply to the systems and controls of

- trading platforms and investment firms in an automated trading environment; and
- trading platforms and investment firms in relation to the provision of DMA or SA"

# Systems and Control

- "...utledes av verdipapirhandellogen og børsloven med tilhørende forskrifter §§ 3-11, 9-11, 11-1 og 11-2 og børsloven §§ 13, 26 og 27."
- Tredde i kraft 1. mai 2012 i Norge



# Hvorfor?

- MiFID ikke presis nok?
- Økt algoritmehandel og fokus på HFT
- DMA
- Flash crash
- Finanskrisen

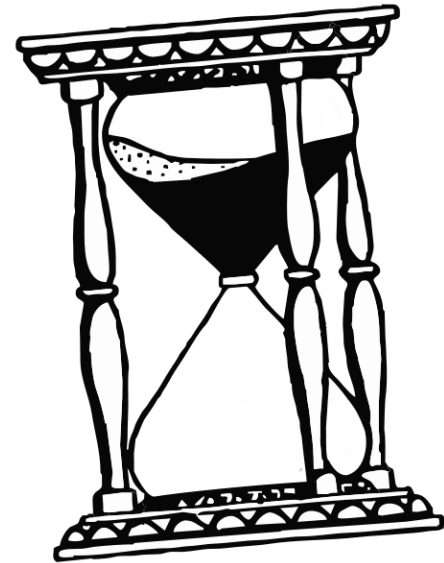


# When it rains, it pours

*"In 2003, a US trading firm went bust in 17 seconds after an employee accidentally turned on a trading algorithm..."*

*"It took the firm 47 minutes to realise it was bankrupt."*

*Kilde: London Evening Standard*



# Unlike

*"Facebook was scheduled to go public at 11:00 a.m. ET on Friday, but it hit the market some 30 minutes later, with some traders experiencing problems with order cancellations or completely losing access to the trading platform."*



*Kilde: Mashable*

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# Guideline struktur

## RM & MTF

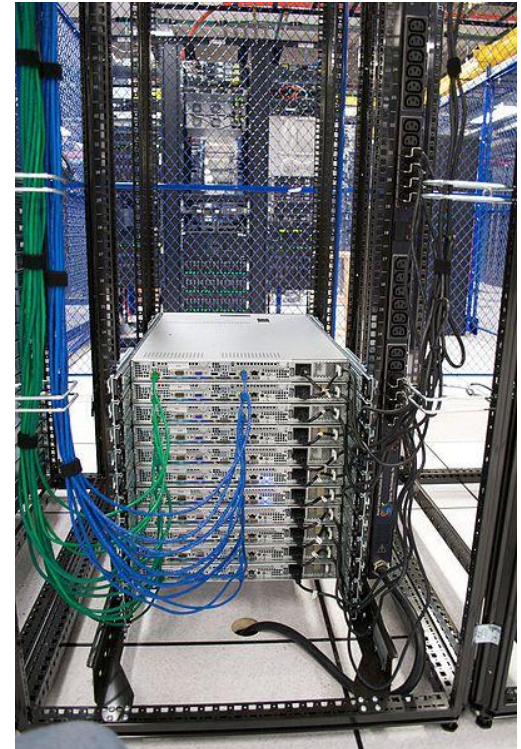
- #1 Electronic Trading Systems
- #3 Fair and orderly trading
- #5 Market abuse
- #7 DMA/SA

## Investment Firms

- #2 Electronic Trading Systems
- #4 Fair and orderly trading
- #6 Market abuse
- #8 DMA/SA

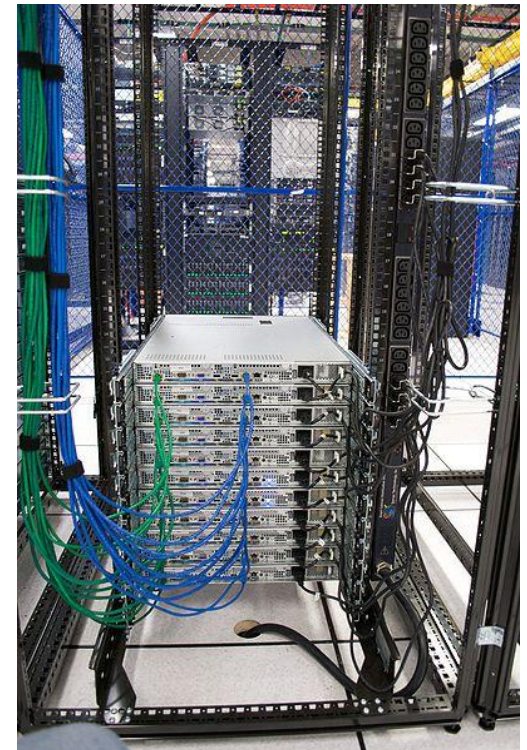
# RM/MTF: Guideline 1

- "Organisational requirement for [...] **electronic trading systems**"
  - Governance
  - Capacity and resilience
  - Testing
  - Monitoring and review
  - Security
  - Staffing
  - Record keeping and cooperation



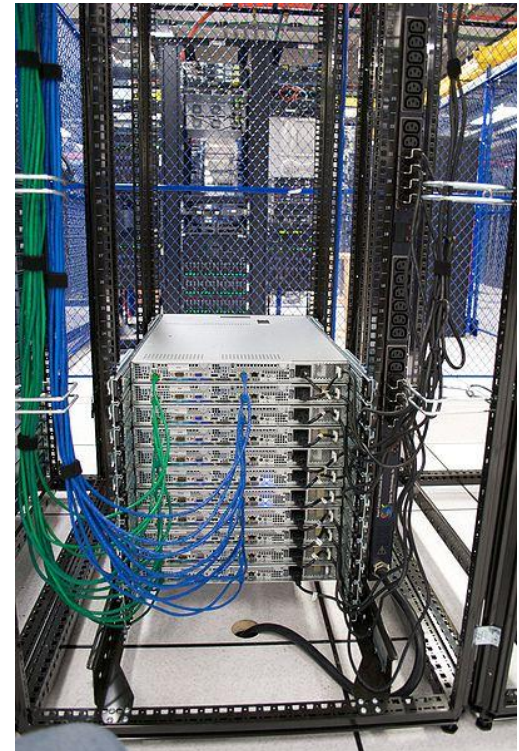
# Investment firms: Guideline 2

- "Organisational requirement for [...] **electronic trading systems**"
  - Requires "clearly delineated development and testing methodologies"
  - Test prior to deploying an electronic trading system or algorithm
    - Performance, back-testing, MiFID
  - Roll out should be "controlled and cautious"
  - Testing during operations if market conditions change



# Investment firms: Guideline 2 (cont')

- Monitoring in real time
  - electronic trading system
  - and algorithms
- Staffing
  - Sufficient number of staff, with necessary skill
  - Knowledgeable about the electronic trading system and algorithms
- Record keeping and cooperation



# RM/MTF: Guideline 3

- "Organisational requirement ... to promote **fair and orderly trading...**"
  - Due diligence of non-EU investment firms
  - IT compatibility
  - Pre- and posttrade controls
  - Trader access and knowledge
  - Measures to cope with excessive flooding
  - Measures to constraint or halt trading (CB)
  - Obtaining info from members
  - Record keeping and co-operation





# Investment firms: Guideline 4

- "Organisational requirement ... to promote **fair and orderly trading...**"
  - Be able to block or cancel orders due to price, size, access or risk
  - Training on order entry procedures
  - Close scrutiny by compliance staff



# RM/MTF: Guideline 5

- "Organisational requirement ... to **prevent market abuse...**"
  - Examples: Quote Stuffing, Momentum ignition, Layering and spoofing
  - Staffing
  - Monitoring
  - Identification and reporting of suspicious trades
  - Reveiw
  - Record keeping



# Investment firms: Guideline 6

- "Organisational requirement ... to **prevent market abuse...**"
  - Understanding, skill and authority of compliance staff
  - Training in market abuse
    - Initial and regular refreshing.
  - Monitoring activity
    - Monitor all order and transaction activity (firm and clients)
    - "...having adequate systems in place (including automated alert systems)"





# RM/MTF: Guideline 7

- "Organisational requirement ... whose members provide **direct market access**
  - Ultimate responsibility
  - Adequate systems to handle DMA
  - Due diligence prior to provision of DMA
  - Record keeping of policies and procedures relating to DMA/SA
    - MTF: Keep records for minimum 5 years
    - RM: Kept at least as long as home CA requires



# Investment firms: Guideline 8

- "Organisational requirement ... whose members provide **direct market access**
  - Due diligence on direct market access
    - Appropriate to the risks posed by the client
  - Clarity about right and obligations
  - Pre-trade controls
  - No naked/unfiltered market access
  - Monitoring activity to the same extent as own trading.



1. Bakgrunn
2. Krav til RM/MTFer og verdipapirforetak
3. **Oppsummering**

# Oppsummering

- En lang liste med detaljerte krav
  - Mye er selvinnløsende
  - Mye er på plass i dag
- Mulige problemområder
  - Record keeping, training, reviews, auditing
  - Monitoring

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