



Distribution of roles and authority in a network centric environment



Agenda

- Swedish Armed Forces
Joint Development
Centre
- Integrated Project Teams
- The experiment
- Results and Conclusions
- Questions



Swedish Armed Forces Joint Development Centre



The Swedish Armed Forces is changing into becoming a flexible network based defence

Large scale demonstration and experimentation exercises are conducted.



Foto Mats Lindberg/FOI

Swedish Armed Forces Joint Development Centre



Experimentation exercises



- Not traditional military exercise nor traditional experiment
- Experienced personnel in realistic/relevant environment

Integrated Project Teams

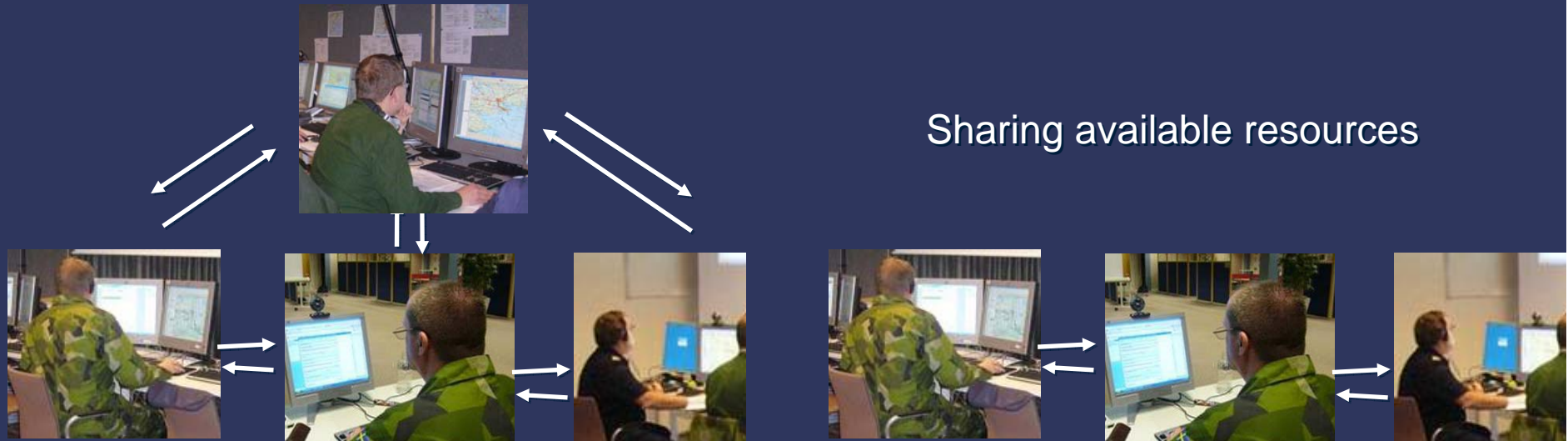
- Lead by an experienced officer
- Members with different areas of expertise (Subject Matter Experts, SME) - military, methodological and technological competence.
- People from the Swedish Armed Forces and the Swedish Defence Research Agency (FOI).



Roles and authority

- ❖ Distribution of roles and authority
- ❖ Centralised vs. delegated authority

Central admin in charge of resources



The experiment

Design

- Within-groups design. Four games (two with centralised authority and two with delegated authority)
- Dependent variables: Rated performance (assessed by SME and the participants themselves)

Data collection

- SME observations
- Surveys
- Group discussion



The experiment

Participants



- ❖ 25 people participated (24 male, 1 female)
- ❖ Three teams with 4-5 participants in each (air force-, ground force- and marine force officers)
- ❖ Three observers
- ❖ Two role administrators
- ❖ Seven game control personnel

Scenario

Bogaland

- Developed in detail and used in many Swedish military exercises
- Conflict between two fictive countries
- International UN peace enhancement force BFOR assigned to handle the conflict.

The three teams were part of BFOR.

The teams' task was to plan and complete an operative task in Bogaland



Results

- Good method to use IPT and experimental exercises
- Rich discussions
- Increased understanding for scientific experiments



Results

- The results showed no unequivocal difference between centralised and delegated authority ($p > 0.05$)
- Regression analyses show that there are a number of factors that are important in the delegated authority condition
 - that the team has a suitable role composition to solve the assigned task
 - that the team member has a clear role in the team
 - that cooperation between the team works well
- Only important in the delegated authority condition

Results

- ❖ Delegated authority better opportunities to allocate and optimize resources. But more difficult to get a general view of available resources.
- ❖ Easier to make decisions in the centralised condition but central administration can become bottle neck.



Conclusions

- Strengths and weaknesses with both centralised and delegated authority
- Must identify situations – maybe combine or alternate?
- Maybe authority to handle resources should be delegated in small, clear organizations – centralised authority in large, complex organisations?
- Further research is needed



Conclusions

- ❖ Good to work in Integrated Project Teams that are lead by experienced officers
- ❖ Value to the Swedish Armed Forces and increased scientific reliability.



Questions?