



Energy Efficiency in the Military:

NATO SMART ENERGY **From Conflict to Innovation**

Susanne Michaelis

NATO

Alpbach Forum, 25 August 2017



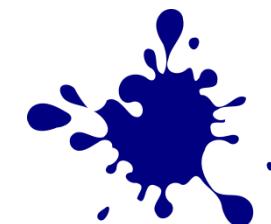
CARTOONS

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Energy Dependency Makes the Military Vulnerable

Afghanistan and Iraq:
One casualty every 24th convoy
⇒ 3000 casualties 2003-2007



Fully Burden Cost (FBC):
5-250 €
per litre fuel

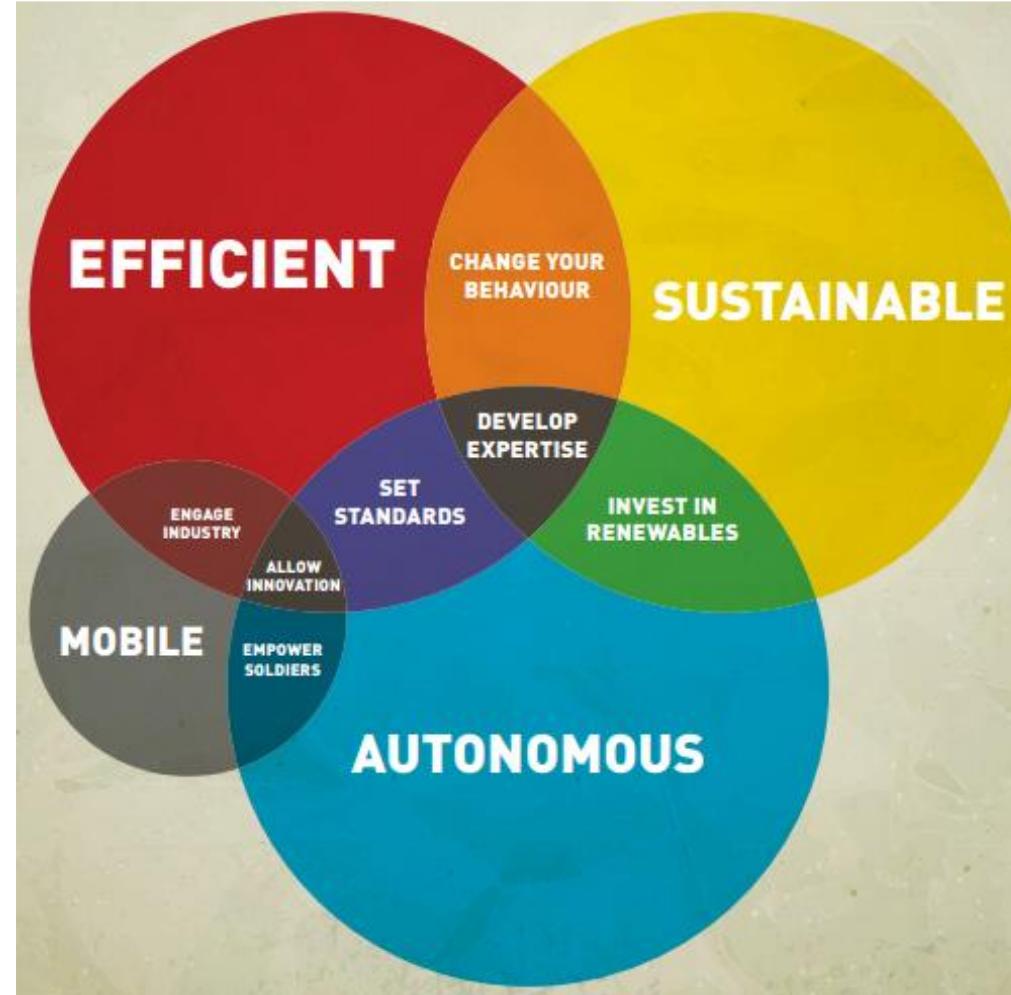
NATO Smart Energy

Efficiency:
Less consumption
-> less logistics

Mobility:
More flexibility
-> more effectiveness

Sustainability:
less logistics
-> less footprint

Autonomy:
More renewables
-> more resilience



Requirements for NATO Response Force

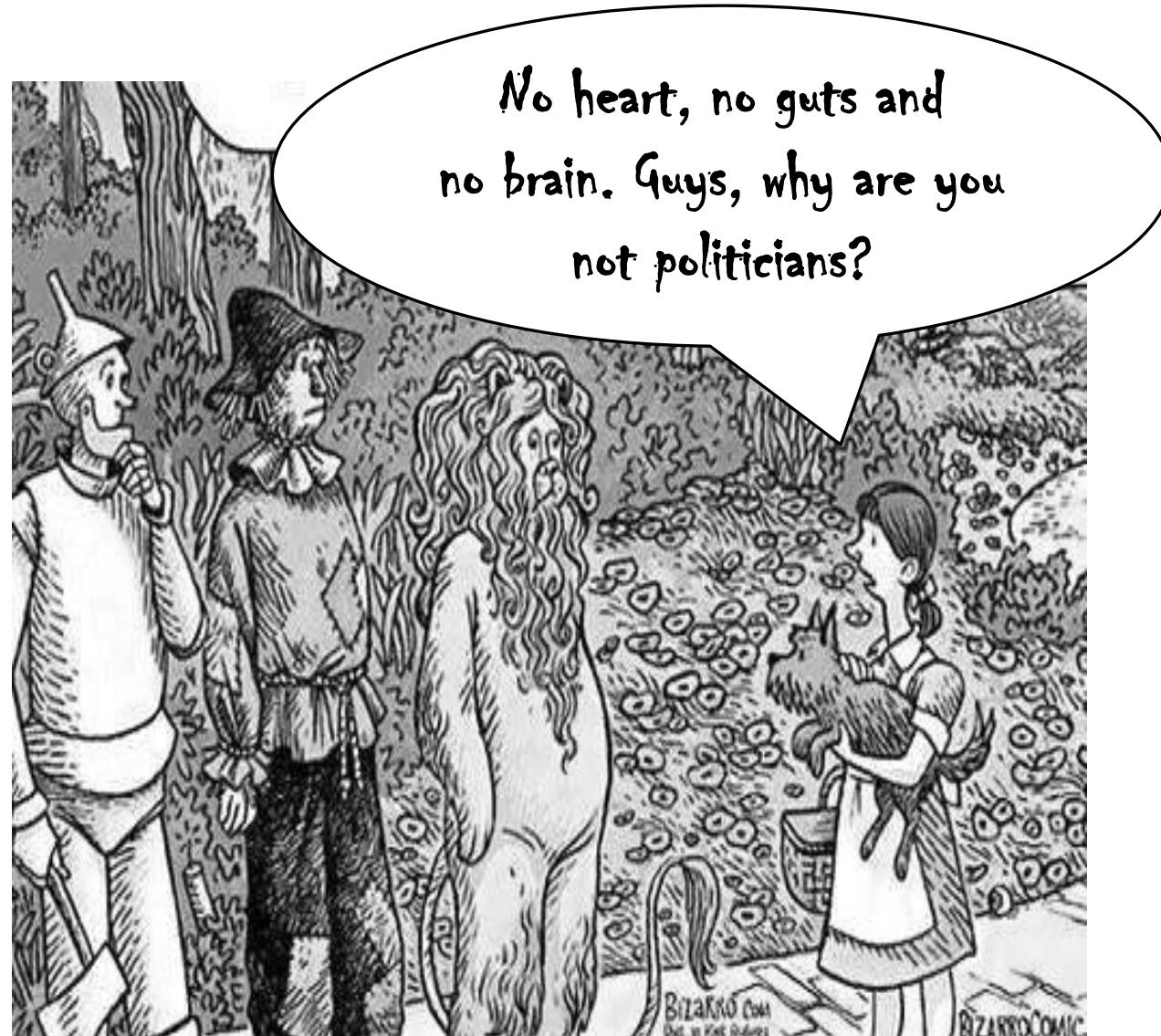


Smart Energy in NATO Declarations



Heads of state and government:

« We will work towards significantly improving the energy efficiency of our military forces »



Smart Energy Stakeholders

Commander

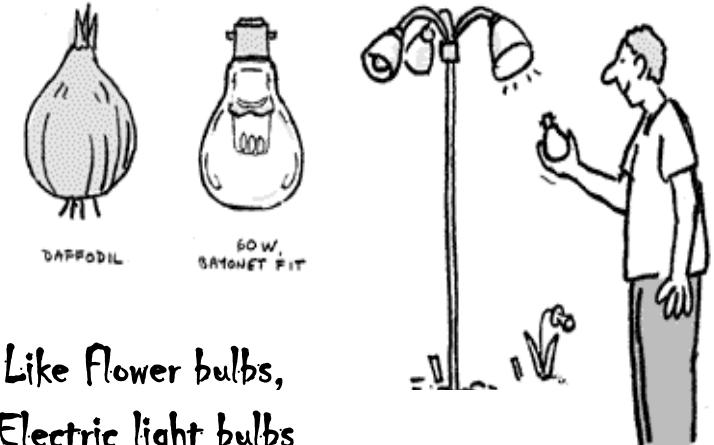


Soldier

« I dunno but I've been told ...
Shootin' things is gettin' old ...
Kiss a baby - hug a tree ...
Use alternative energy ... »



Innovator

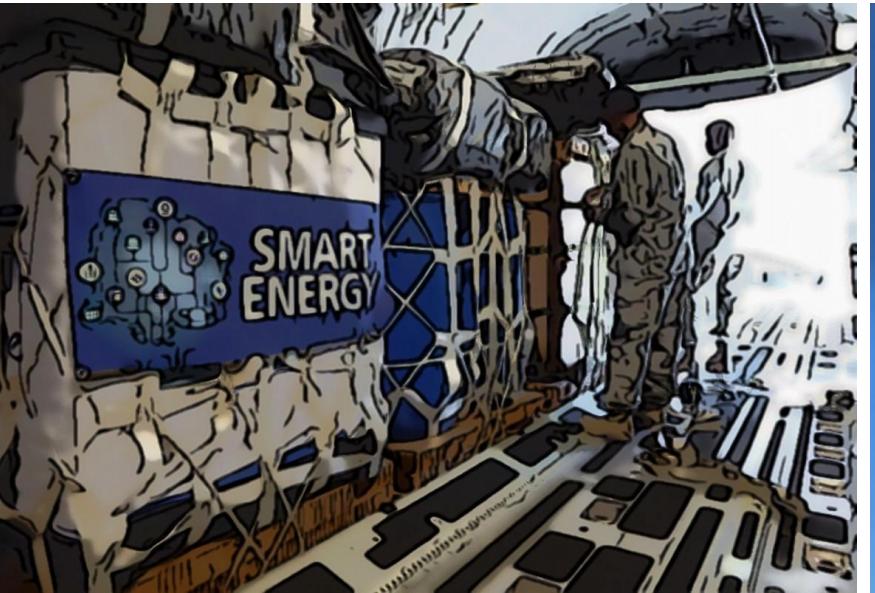


... diplomat, engineer, logistician, budget controller ...

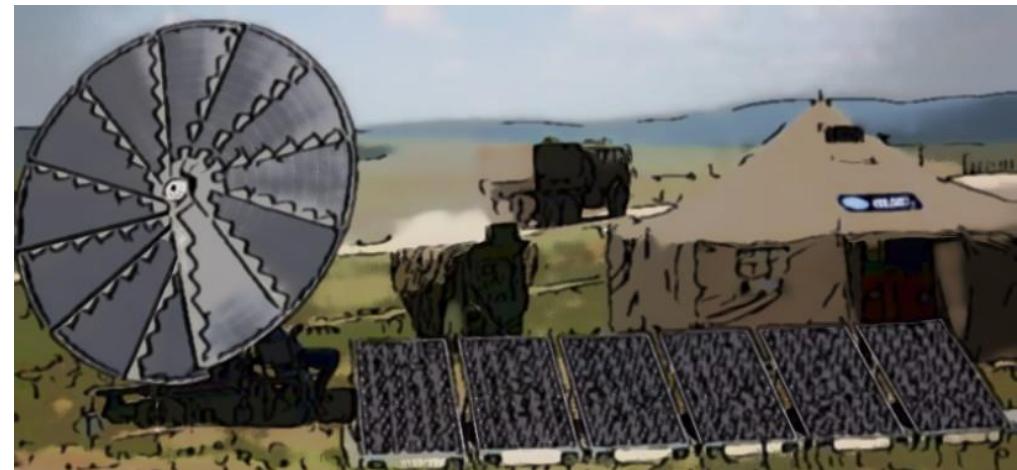
Awareness rising, training, exercises,
policy development, standardisation agreements and innovation support



innovative Technologies Tried and Tested in Exercises



Capable Logistician
2015, Hungary

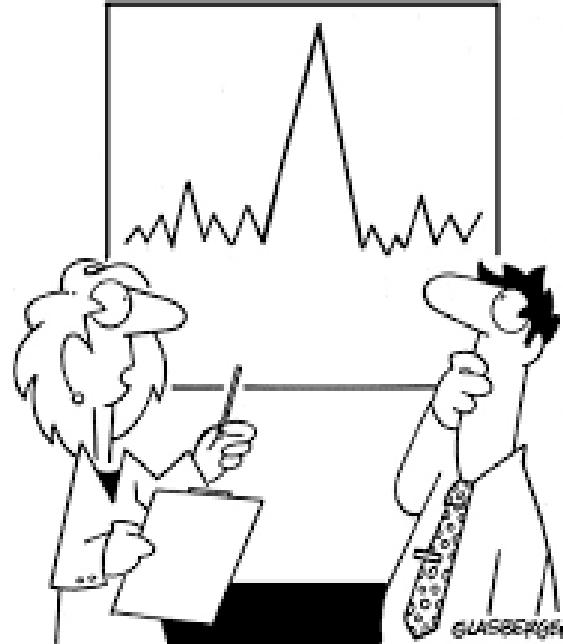




What will **NATO** do next ?



« We have three sources for data:
The crystal ball, the coin flip and Siri.
All tell us: We are doomed! »



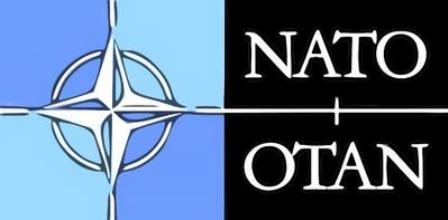
« I recommend you following our **NATO**
standards. Unfortunately, they are classified. »



« I have no idea how to integrate this energy
flash into our field camp power grid. »

- Encourage nations to disclose data on fuel consumption
- Declassify and publish **NATO** policies and standards
- Create a new standard for integrating innovative technologies

→ **NATO** Smart Energy Training and Assessment Camp (SETAC)



Smart Energy – More information

Dr. Susanne Michaelis
Energy Security Section
Emerging Security Challenges Division (ESCD)

NATO HQ
Bd Leopold III, 1110 Brussels
Tel: +32 2 707 4520
Email: michaelis.susanne@hq.nato.int



www.natolibguides.info/smartenergy