

IAEA International Conference on Physical Protection of Nuclear Material and Nuclear Facilities

THE REGULATOR'S TOOLS TO SUPPORT THE OPERATOR'S SECURITY CULTURE

Carsten Speicher

Ministry of the Environment, Climate Protection and the Energy Sector,
Baden-Württemberg, GERMANY

Vienna, Austria
13-17 November 2017



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Talking points

**“AWARENESS WITHOUT ACTION IS
WORTHLESS.”**

PHIL MCGRAW

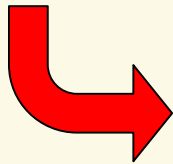
- Why fostering a robust security culture?
- What are the main challenges?
- What actions the regulator may support?
- Summary



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Security Culture, where to find it?



IAEA Nuclear Security Series

<p>NSS No 20 (2013) Nuclear Security Fundamentals</p>		<p><i>Sustaining A Nuclear Security Regime</i> <i>(c) Developing, for and maintaining a robust NUCLEAR SECURITY CULTURE;</i></p>
<p>NSS No 13 (2011) "Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities" (INFCIRC/225/ Rev. 5)</p>		<p><i>"A NUCLEAR SECURITY CULTURE should be developed and maintained in order to ensure the physical protection of nuclear material and nuclear facilities"</i></p>
<p>NSS No 14 (2011) "Recommendations on Radioactive Material and Associated Facilities"</p>		<p><i>... individuals involved in the management of radioactive material should give due regard to the NUCLEAR SECURITY CULTURE with regard to radioactive material"</i></p>
<p>NSS No 15 (2011) "Recommendations on the Security of Other Radioactive Material and Nuclear Regulatory Bodies"</p>		<p><i>The State should implement relevant elements of the NUCLEAR SECURITY CULTURE for the trustworthiness program"</i></p>
		<p><i>"A robust computer SECURITY CULTURE is an essential component of any effective security plan"</i></p>

Knowing the state of the security culture in order to be able to continuously improve it is not a "nice to have" gimmick but a social and legal obligation!



- + IAEA Model Code of Conduct (2003)
- + A-... NM (2005)

- + UN SCR 1540 (2004)
- + EU CBRN Action Plan (2009)



berg
ENERGIEWIRTSCHAFT

International Obligations
UN, IAEA, bi-/multilateral resolutions, contracts...

Facility
potentially dangerous (ECBRN!)

State
with its officials

regulation

Operator
responsible for safety, security...

self-responsible operation

Citizens, Stakeholders, Activists, ...
high expectations to feel safe and secure

operation = safe and secure operation

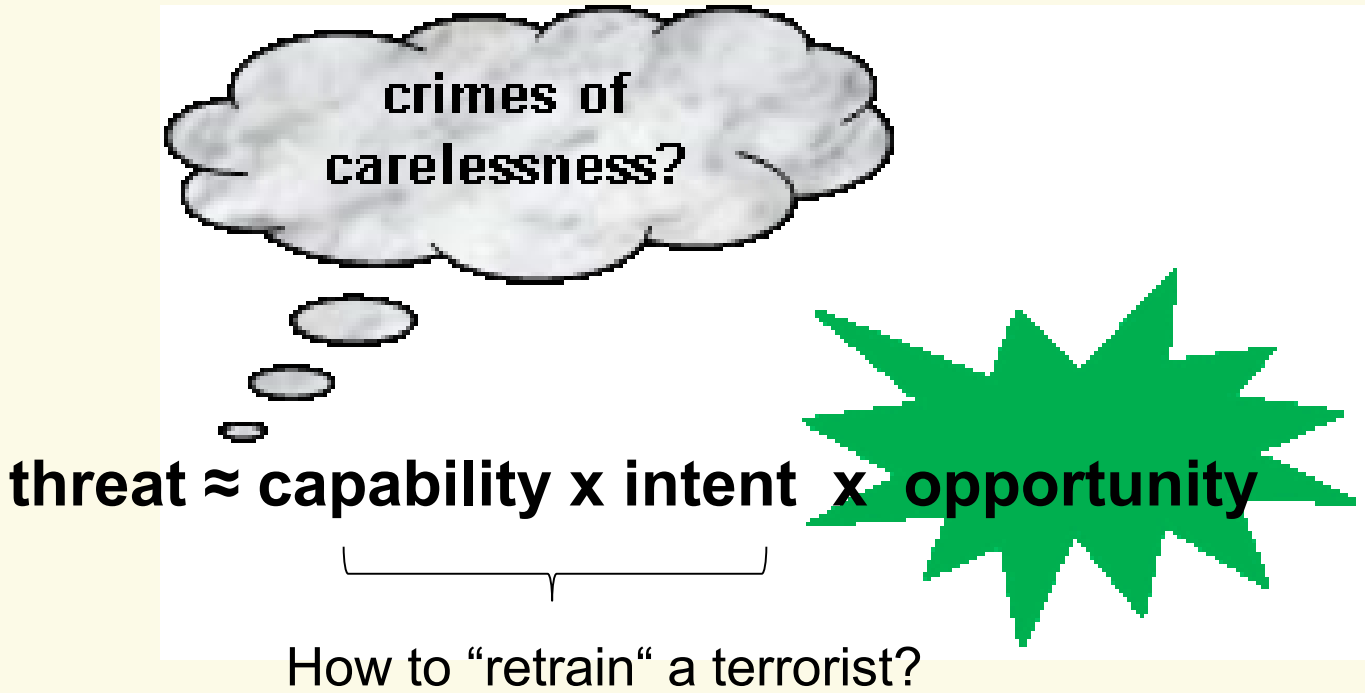


Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

cyber crime ≈ capability x intent x opportunity

On the other hand: is physical protection sufficient?



Why considering even low level events pays off...



Fostering a positive security culture is not confined on nuclear facilities, it is mandatory for any area with potentially dangerous materials and/or technology!

loosely

- F.E. Bird, Jr., Practical Loss Control Leadership, International Loss Control Institute, Atlanta, GA
- J. Reason, Human Error, Cambridge University Press, Cambridge 1990

Some examples for security culture in practice?

- stolen or lost radioactive sources (*laid back attitude toward security rules*)
- people ignore or even do not know security rules (*apathy, laziness*)
- bored, apathetic or even sleeping guards (*security is an unnecessary obstacle to hinder effective production*)
- managers refuse to follow security rules when entering protected areas (*claiming special rights for them no time*)
- maintenance of security systems postponed due to financial reasons (*short cuts due to business goals*)
- missing feedback culture (*“my bosses know exactly what to do“ vs. “I frequently reported gaps and however nothing happend“*)



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

What about the contribution of the regulator do? (Part I)

- Giving the **initial impulse** to the operator to start a self-assessment campaign
- Developing an **appropriate** and **tailored** self-assessment plan
- **Evaluating the results** and helping to derive an action-plan
- **Monitoring** the progress of the action plan
- **“Appreciating”** the effectiveness of the action plan



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

What about the contribution of the regulator do? (Part II)

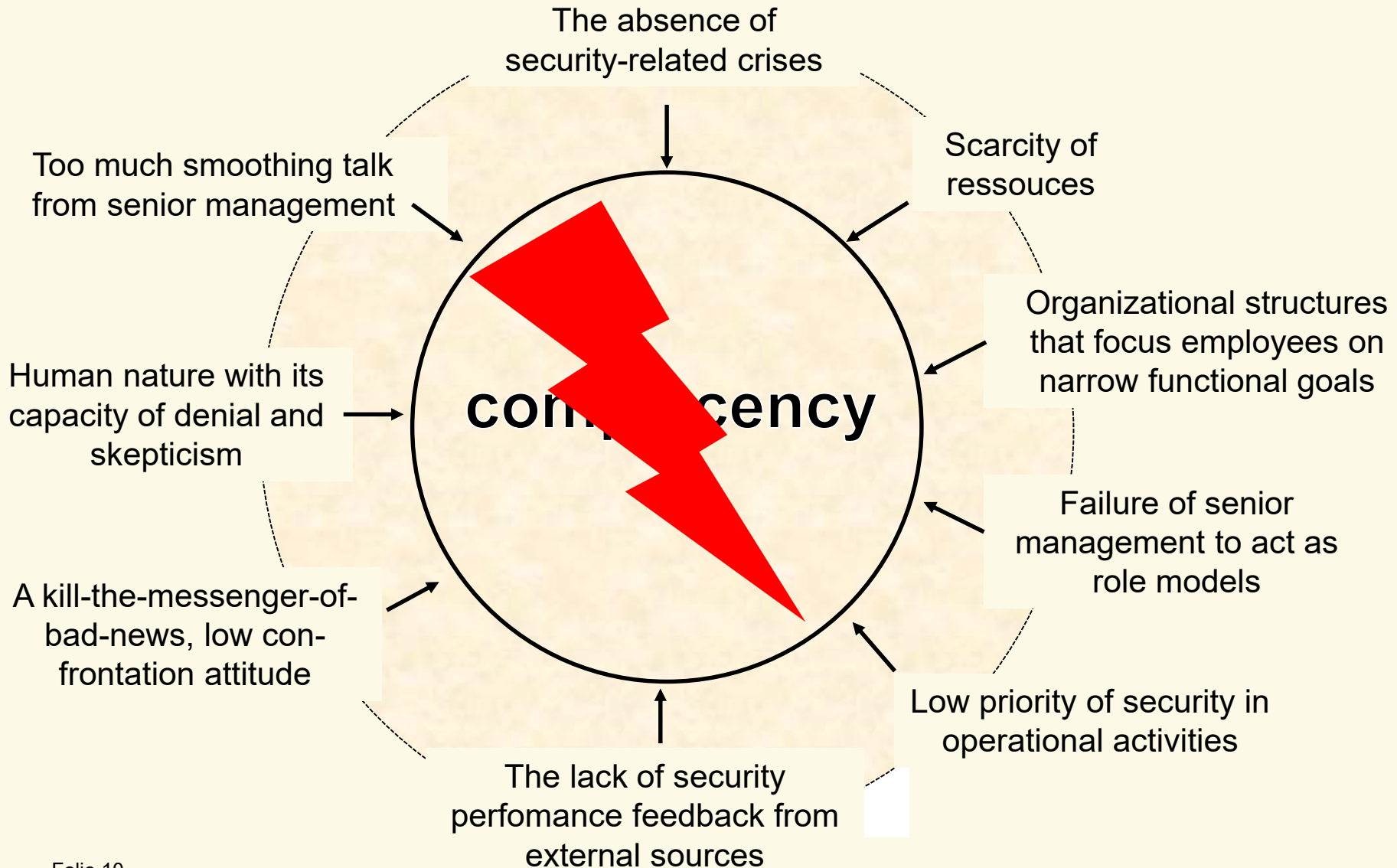
- Specifying a **subsequent** self-assessment campaign
- Offering **help** to create tools to raise the awareness level of the staff
- Offering **realistic examples** (e.g. taken from the IAEA ITDB)
- Organizing regional or national **workshops** on NSC or applying for IAEA workshops on NSC
- Offering participation in national or international **conferences** and workshops



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

root causes of complacency



Attitudes toward security

Avoidance

people regard security as inherently dangerous, unnecessary, or even harmful

Apathy

people don't care one way or another about security

Participation

people follow the rules while acting like security is not their problem

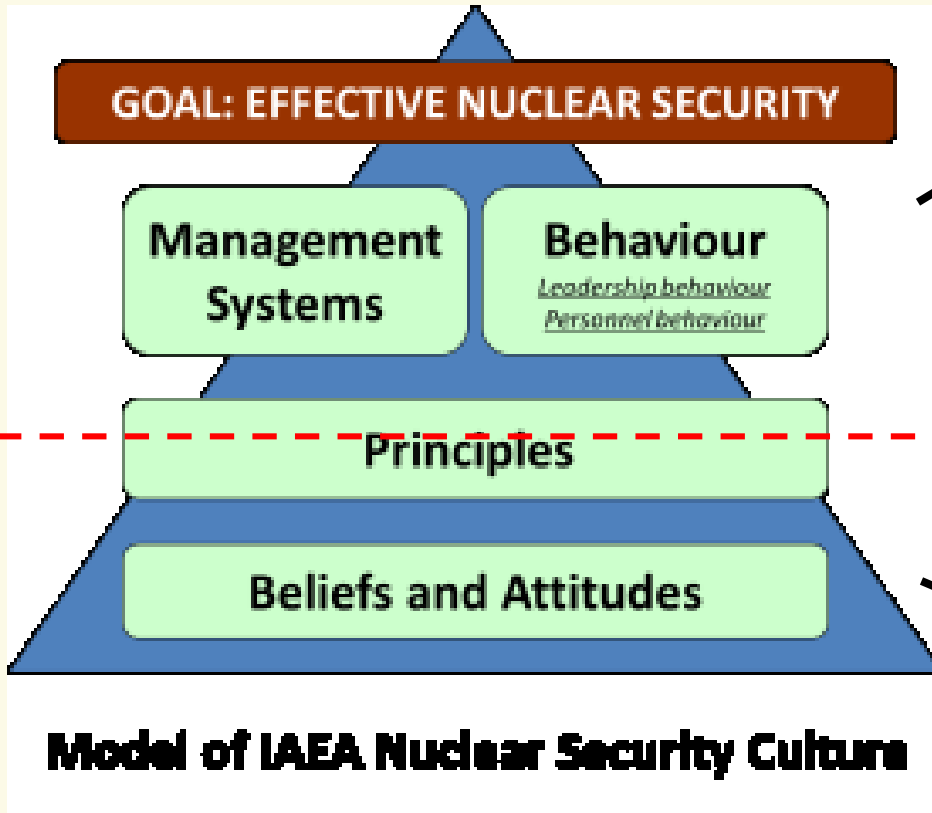
Ownership

people assume responsibility and regard security as their programme



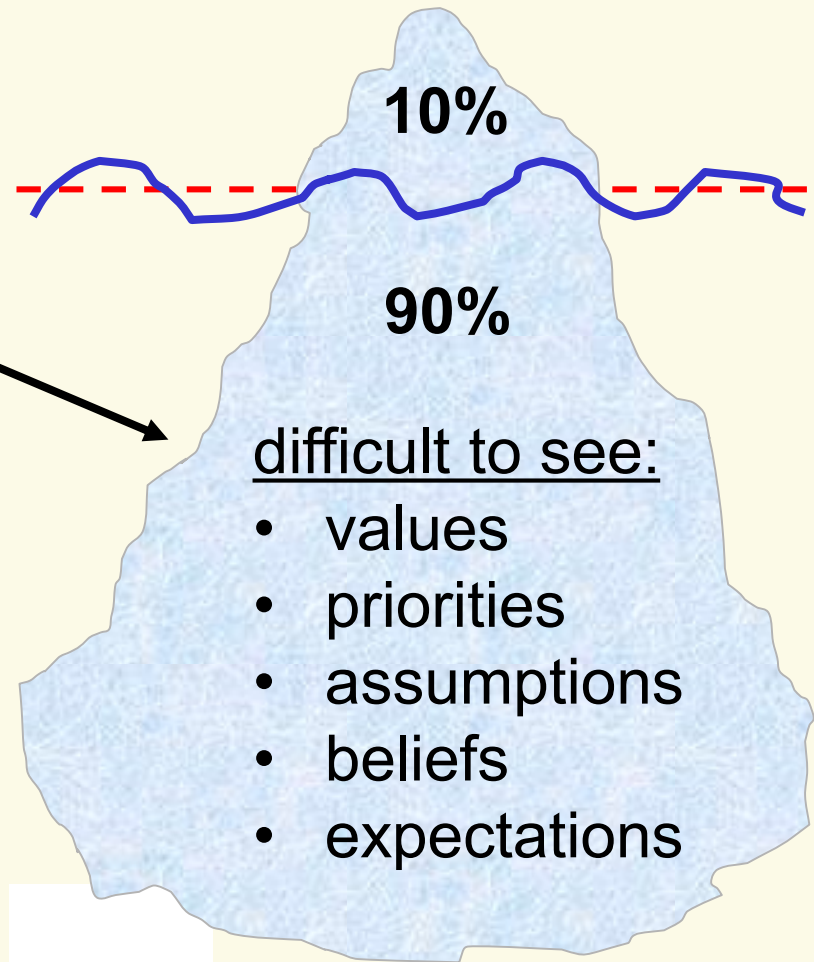
Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT



easy to see:

- behaviours
- habits
- appearance



our national experience:

most of the observed and analysed **security related events** (also low-level) are highly influenced by “weak spots“ of the practised nuclear security culture!

To be more precise...

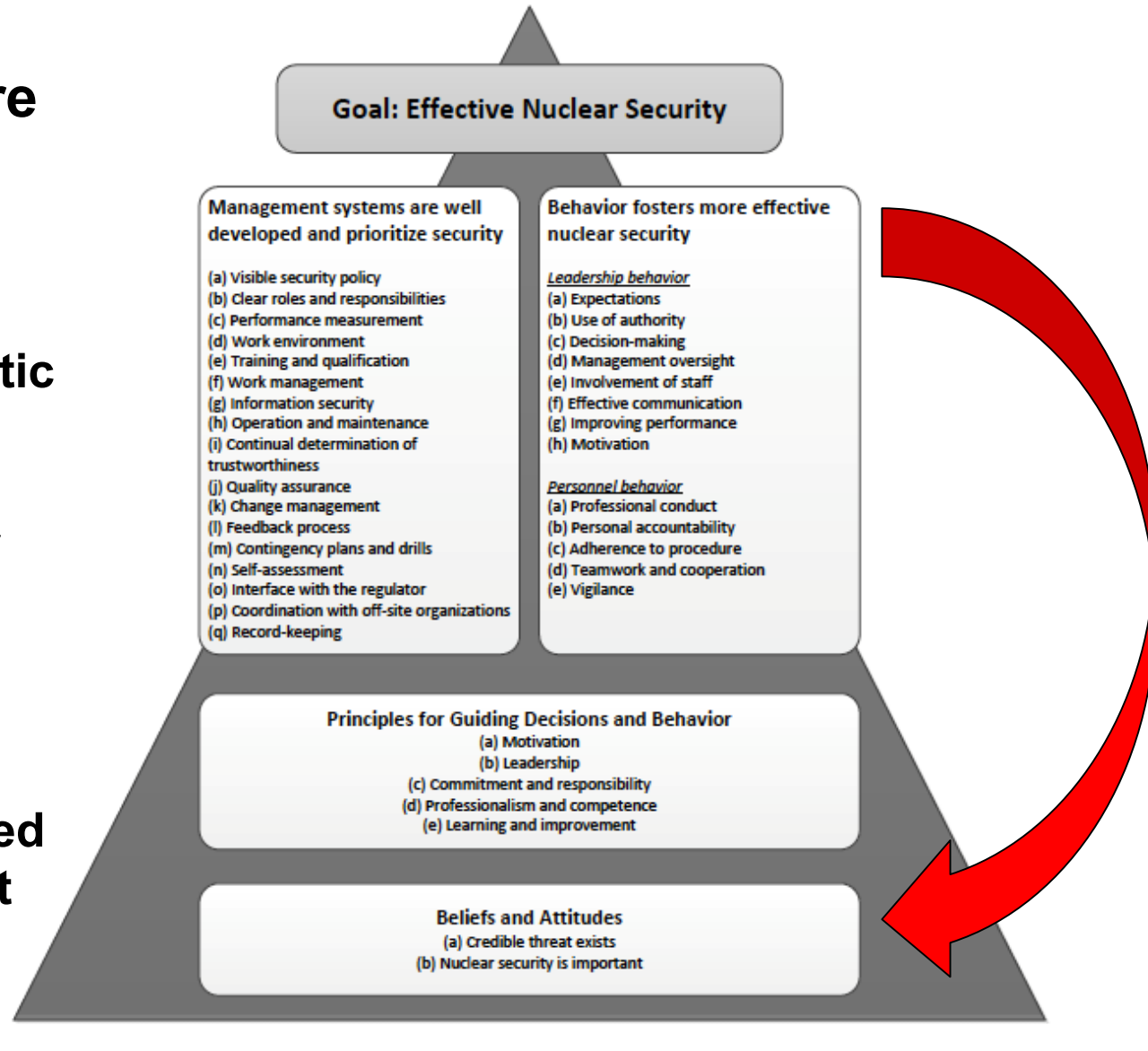
characteristic



indicator



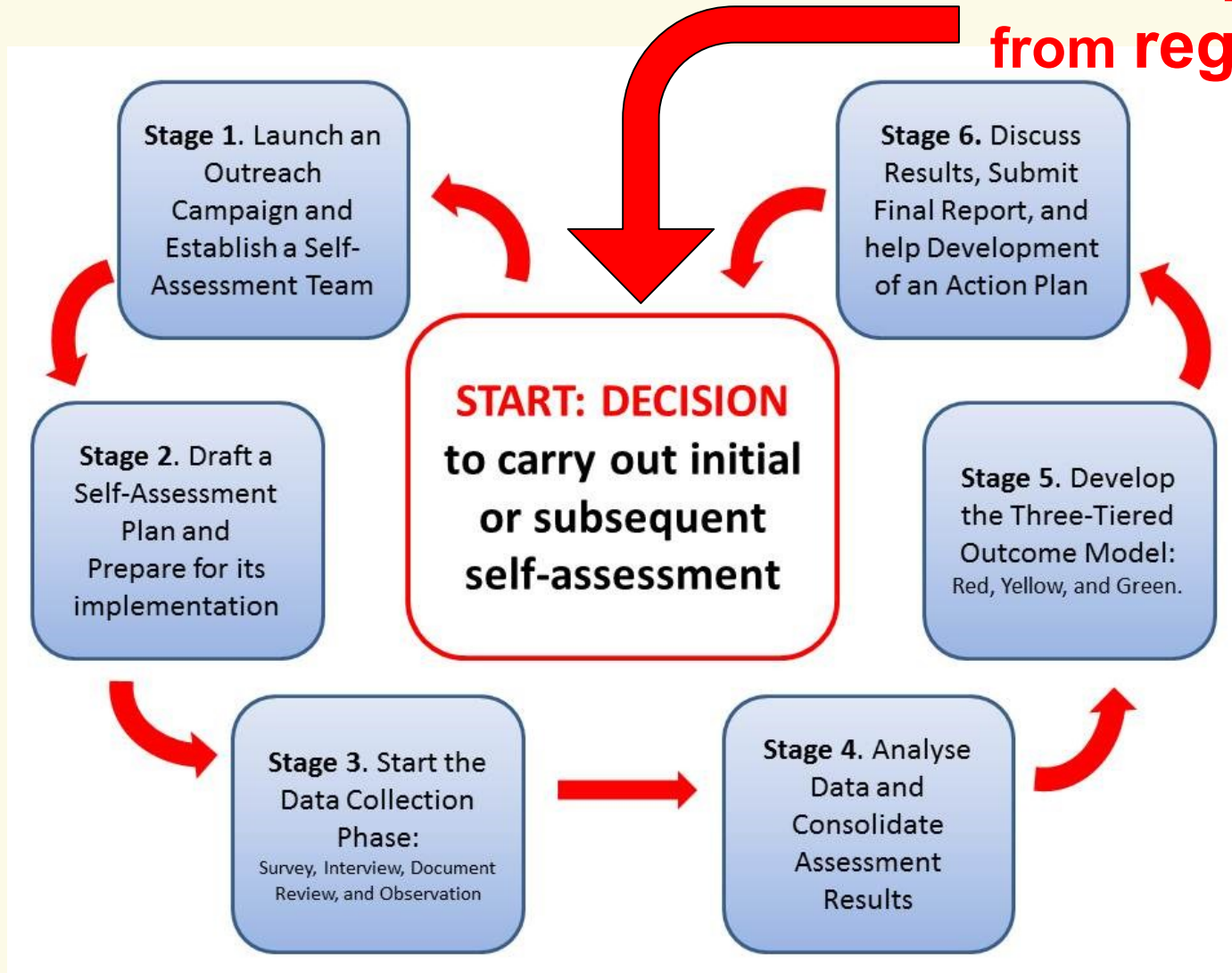
personalized statement



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

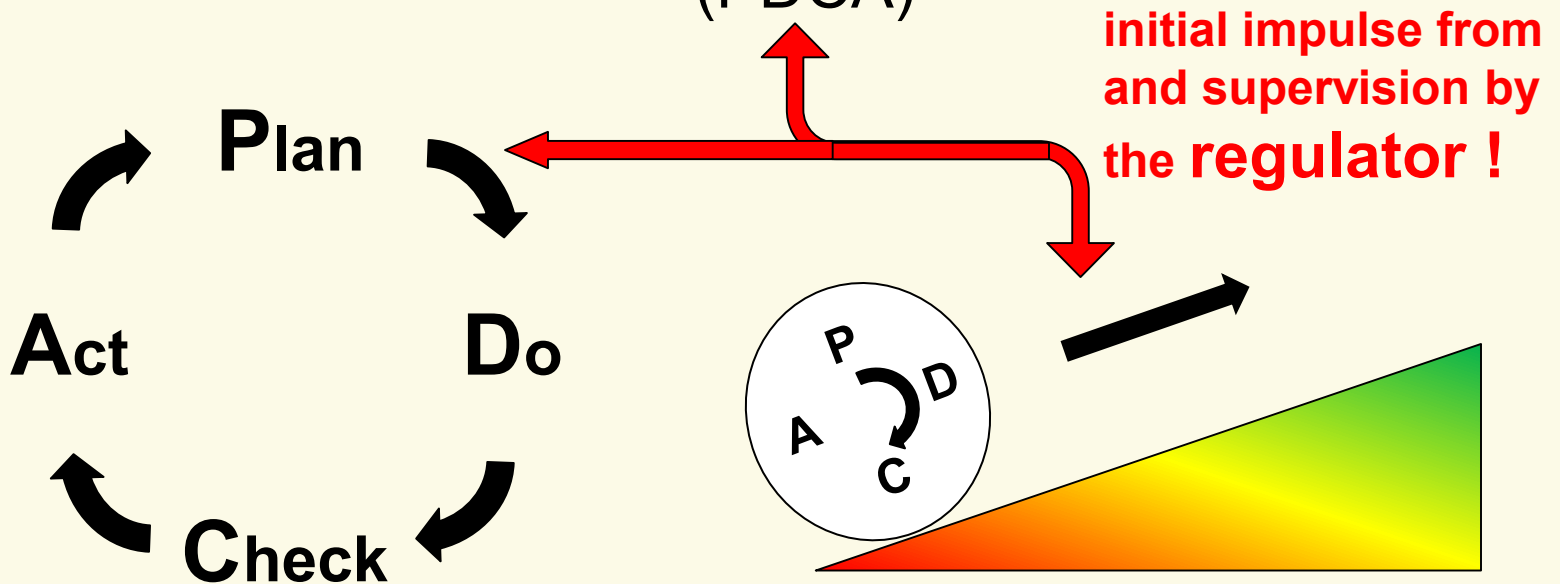
How to crack the (cultural) iceberg? **initial impulse: from regulator**



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Quality assurance → continuous improvement
(PDCA)



- The data collecting and evaluation method and its processes have to be regularly checked (and modified)!



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Summary

- Security culture is essential to grant **efficient security** (...human factor!)
- Before improving s.th. you have to **know the current state** (...improving something unknown?)
- Biggest benefit: raising **awareness** and a feeling of **self-responsibility** to security!
- The regulator is a team player with **various opportunities** to support the operator.

Prevention Is Better Than Cure.
Especially When Something Has
No Cure.

Thank you for your attention!



“Organizational culture means to the organization the same thing as the oil in the gearbox: It supports the long-term effectiveness and functionality“

(A. Hagemann)



Any questions?

Please contact:

Carsten Speicher
carsten.speicher@um.bwl.de
Tel.:+49-711-1262613

...and C. Speicher says:

“Taking care of the oilcan and its content is the duty of and the task for any **operator** and **regulator!**“



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT