Competences of security personnel: Detection of Deviant Behavior in a Museum Context

Maaike Lousberg, MSc, project manager

Dianne van Hemert, PhD, scientific lead
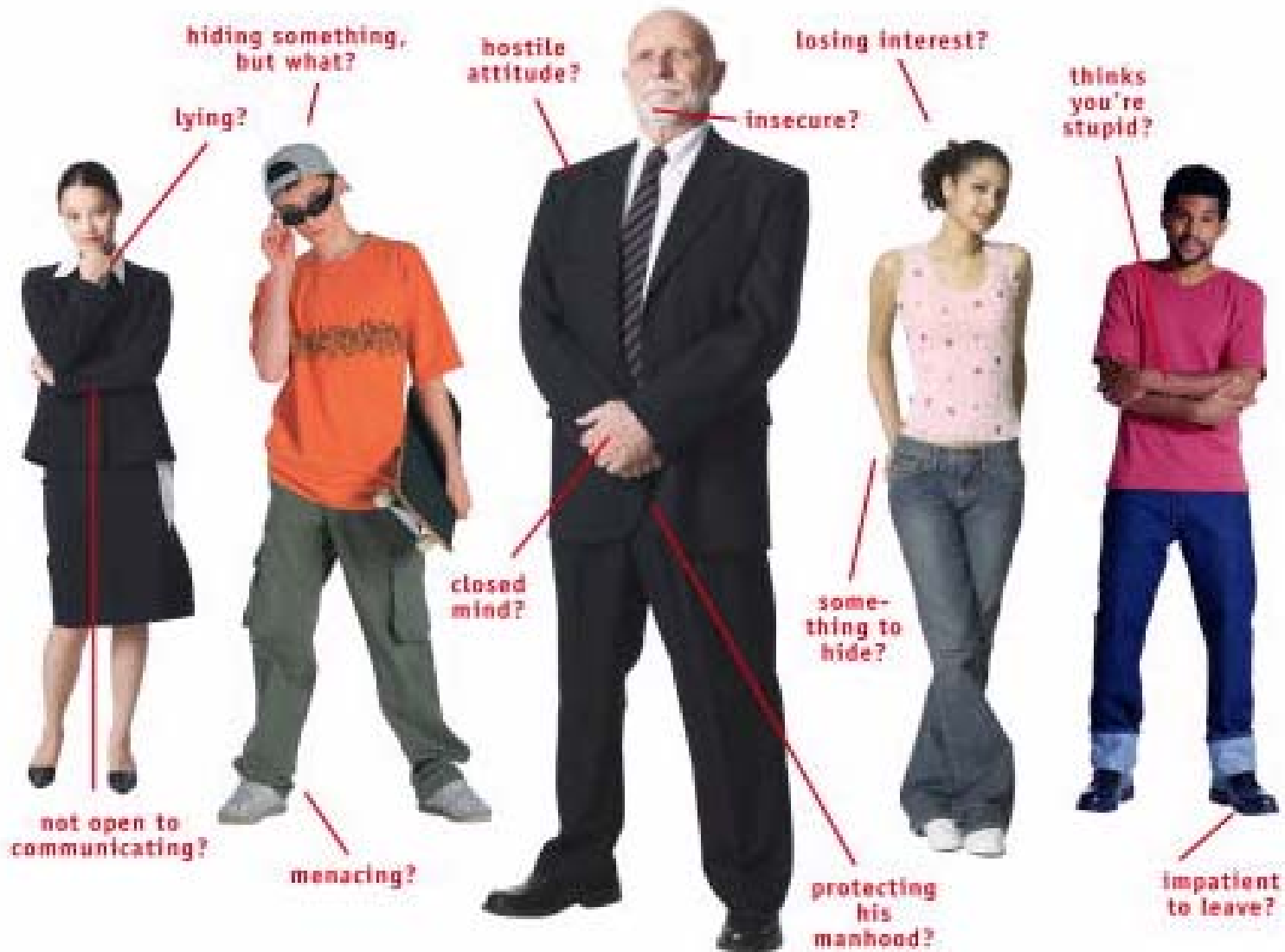
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Dutch Research Institute

Applied Research & Innovation

Defence, Safety & Security

Human Factors

TNO innovation for life

SURVEILLANCE & DEVIANT BEHAVIOUR

ORGANISATION »
Decision Making
Cooperation
Communication

INDIVIDUAL
Competences
Training

TASK EXECUTION »
Observation
Non-verbal Prickling
Verbal Prickling

PRIVACY »
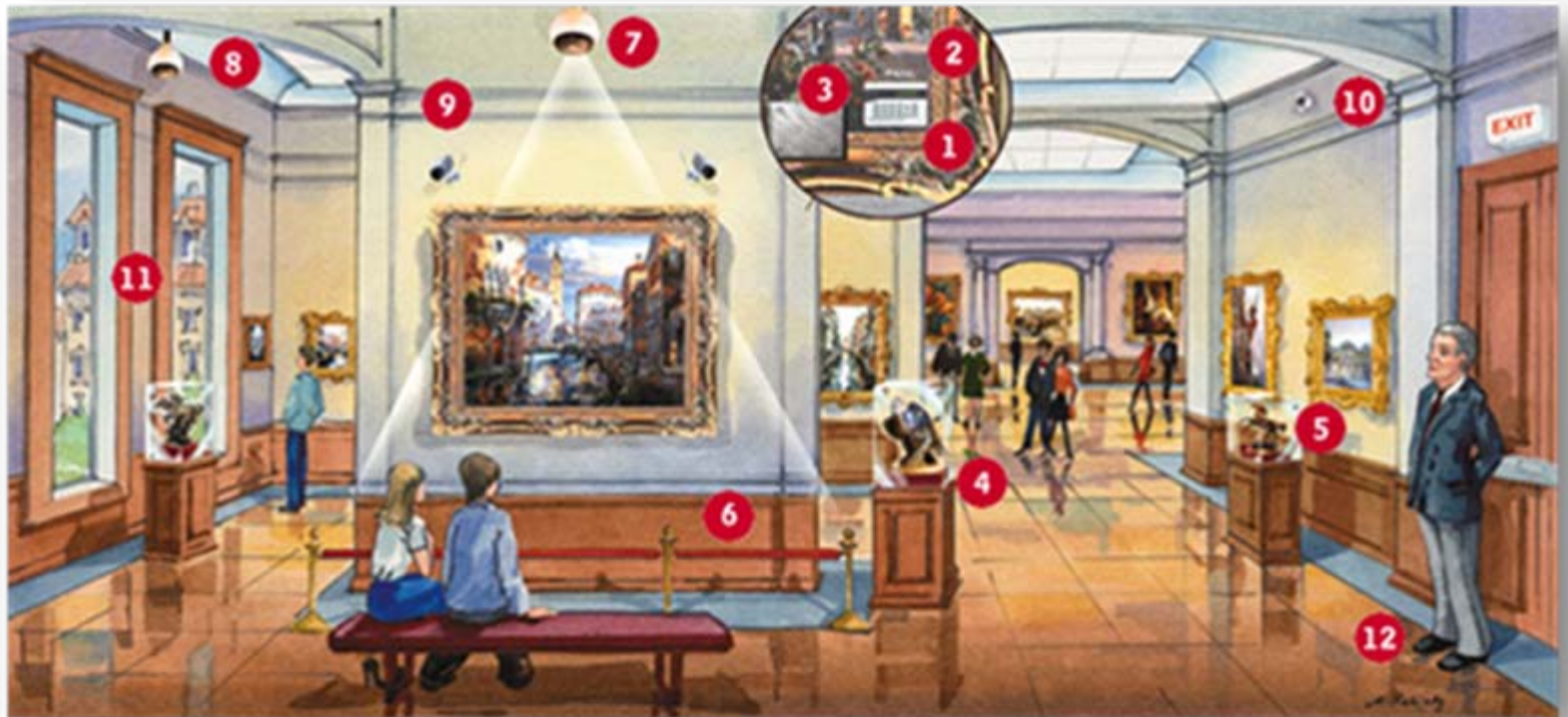**Privacy-By-Design**
Legitimate action
Service & Security

TECHNICAL SUPPORT »
Control room
Intelligent cameras
Decision Support

Deviant behavior in a museum context

Competences: Easy?

> Which competences are necessary for performing tasks adequately (detection, reaction)

> How can we assess these competences?

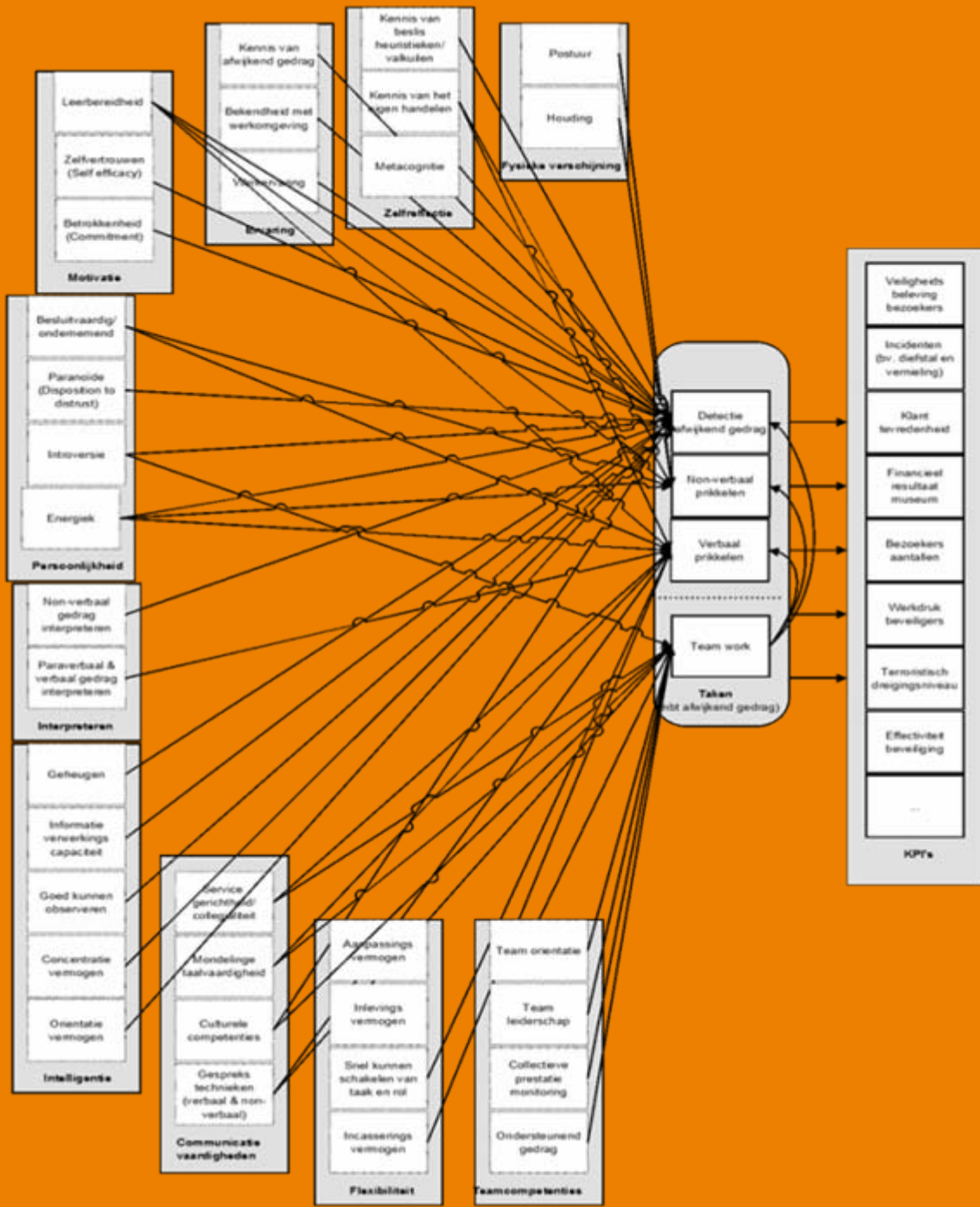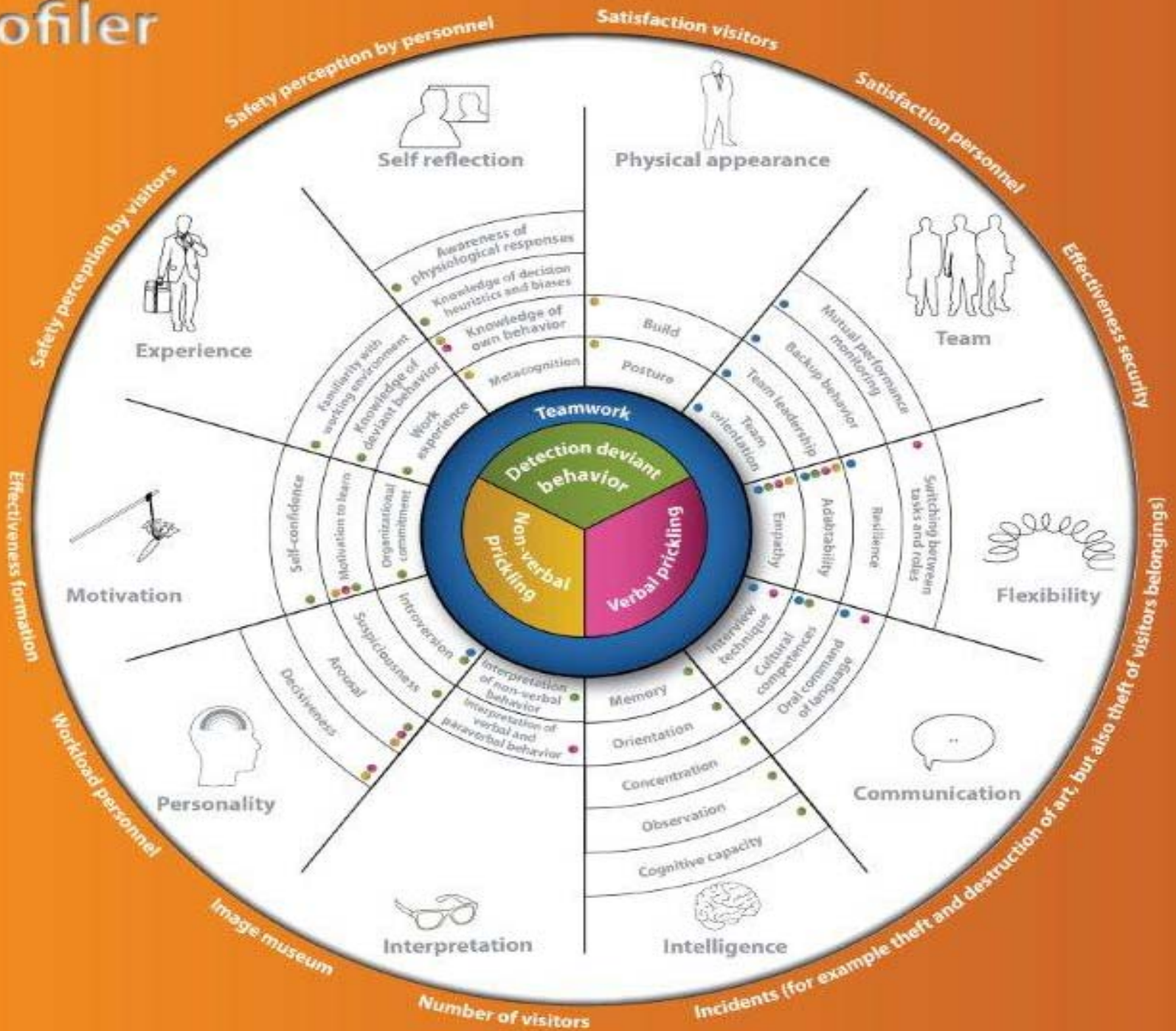# Which competences are possibly relevant?

> Interviews

> Document analysis

> Literature review
>> Lying and lie detection
>> Physiological reactions to stress
>> Biases in observation
>> Reacting

Hypothetical Model

Profiler

Self reflection

Physical appearance

Team

Effectiveness security

Satisfaction visitors

Satisfaction personnel

Safety perception by personnel

Safety perception by visitors

Experience

Awareness of physiological responses

Knowledge of decision heuristics and biases

Knowledge of own behavior

Metacognition

Build

Posture

Mutual performance monitoring

Backup behavior

Team leadership

Team orientation

Familiarity with working environment

Knowledge of deviant behavior

Work experience

Teamwork

Detection deviant behavior

Non-verbal prickling

Verbal prickling

Switching between tasks and roles

Resilience

Adaptability

Empathy

Flexibility

Effectiveness formation

Self-confidence

Motivation to learn

Organizational commitment

Motivation

Introversion

Suspiciousness

Arousal

Decisiveness

Interpretation of non-verbal behavior

Interpretation of verbal and paraverbal behavior

Interview technique

Cultural competences

Oral command of language

Memory

Orientation

Concentration

Observation

Cognitive capacity

Communication

Effectiveness of visitors belongings)

Workload personnel

Personality

Interpretation

Intelligence

Image museum

Number of visitors

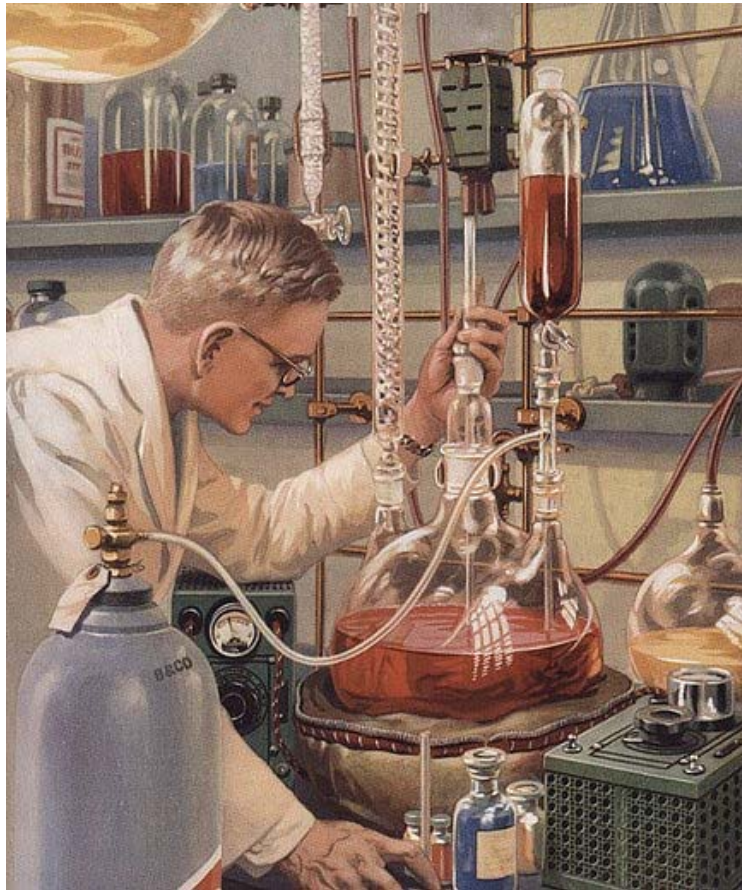Incidents (for example theft and destruction of art, but also theft of visitors belongings)

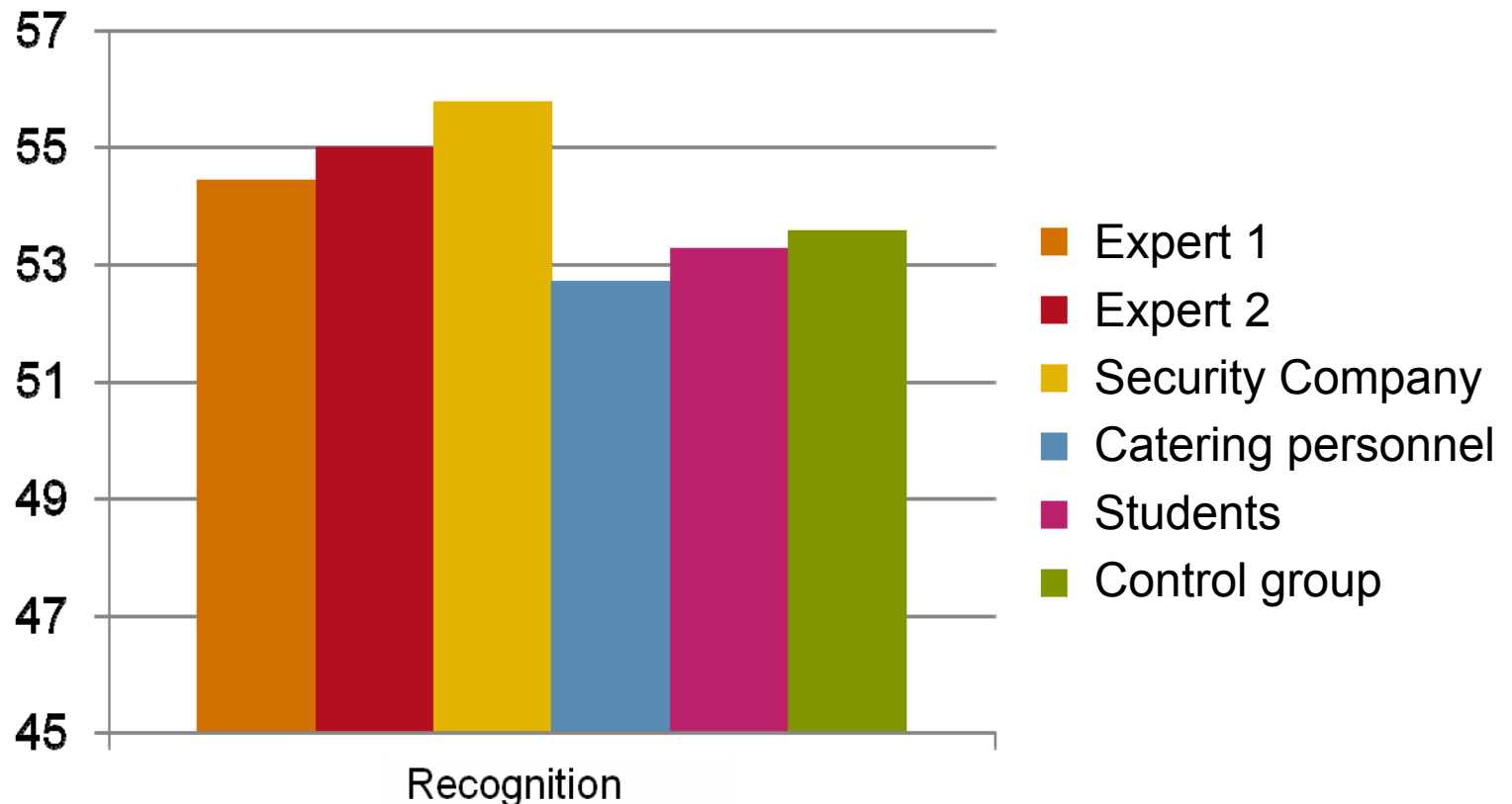# Testing our hypothetical model

Experiment:

100 Participants

1. Expert group 1
2. Expert group 2
3. Regular Security officers
4. College Students Security
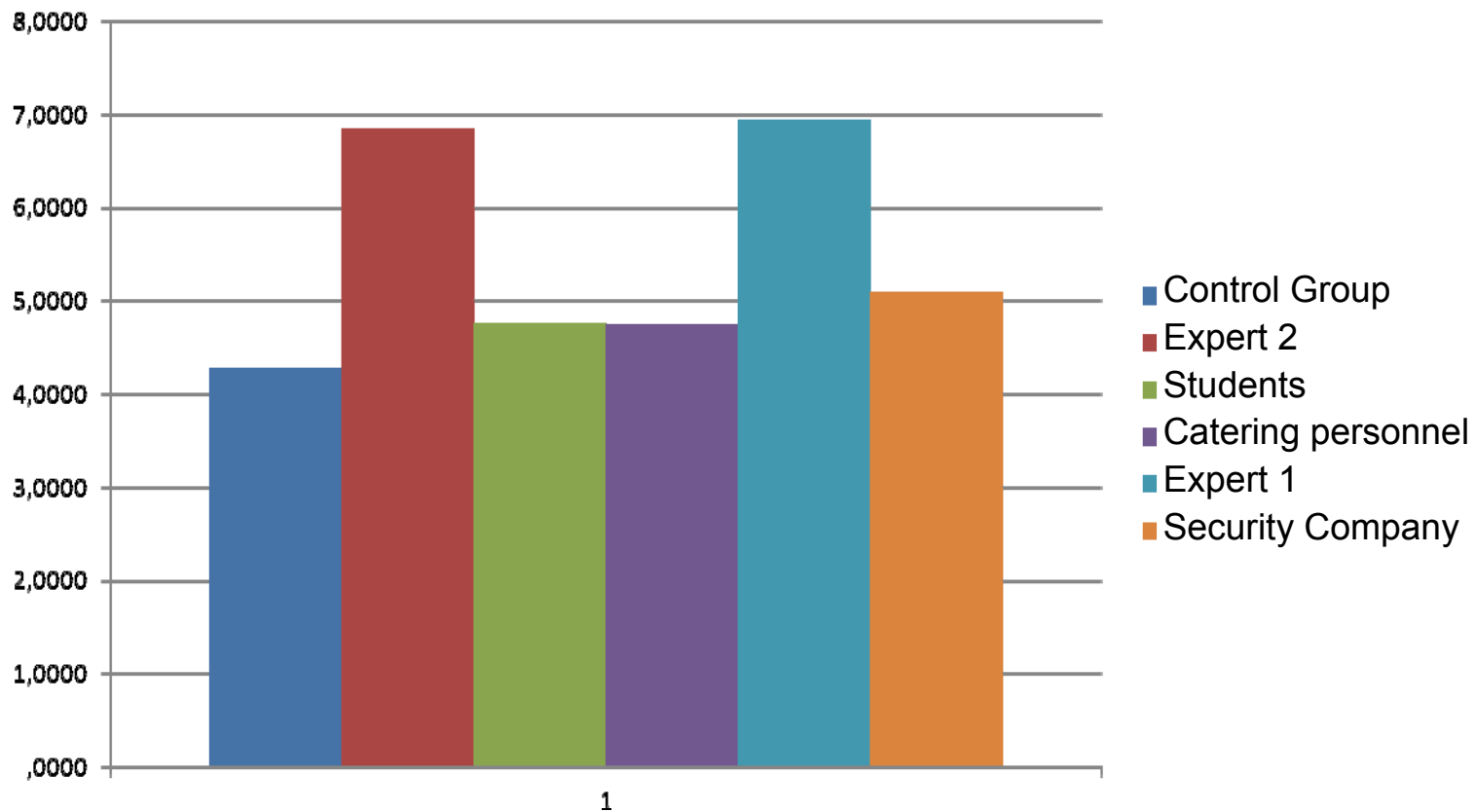5. Catering personnel
6. Control Group

Difference between groups in the recognition task

Differences between groups are not very significant

Differences between groups on reaction task

What expectations did **not** come true?

Intelligence	Communication
Perspective Taking	Motivation

Which competences are relevant?

Experience

Team Functioning

Neuroticism
Negative

Extrovert

Confidence

Self Reflection
Negative

Flexibility

Conclusion

› There are competences that can be linked to people that are "good" at detecting and reacting to deviant behavior in a museum context.

› Whats next?

› The Rijksmuseum (possibly later on, the Van Gogh) will use this knowledge to *select* new security personnel.

› Art Secure will use this knowledge to help museums *select and train* their security personnel.

› TNO will *apply the knowledge* resulting from this project in *other domains*.

Questions?

Maaike.lousberg@tno.nl
Dianne.vanhemert@tno.nl