How to cook your Examiners

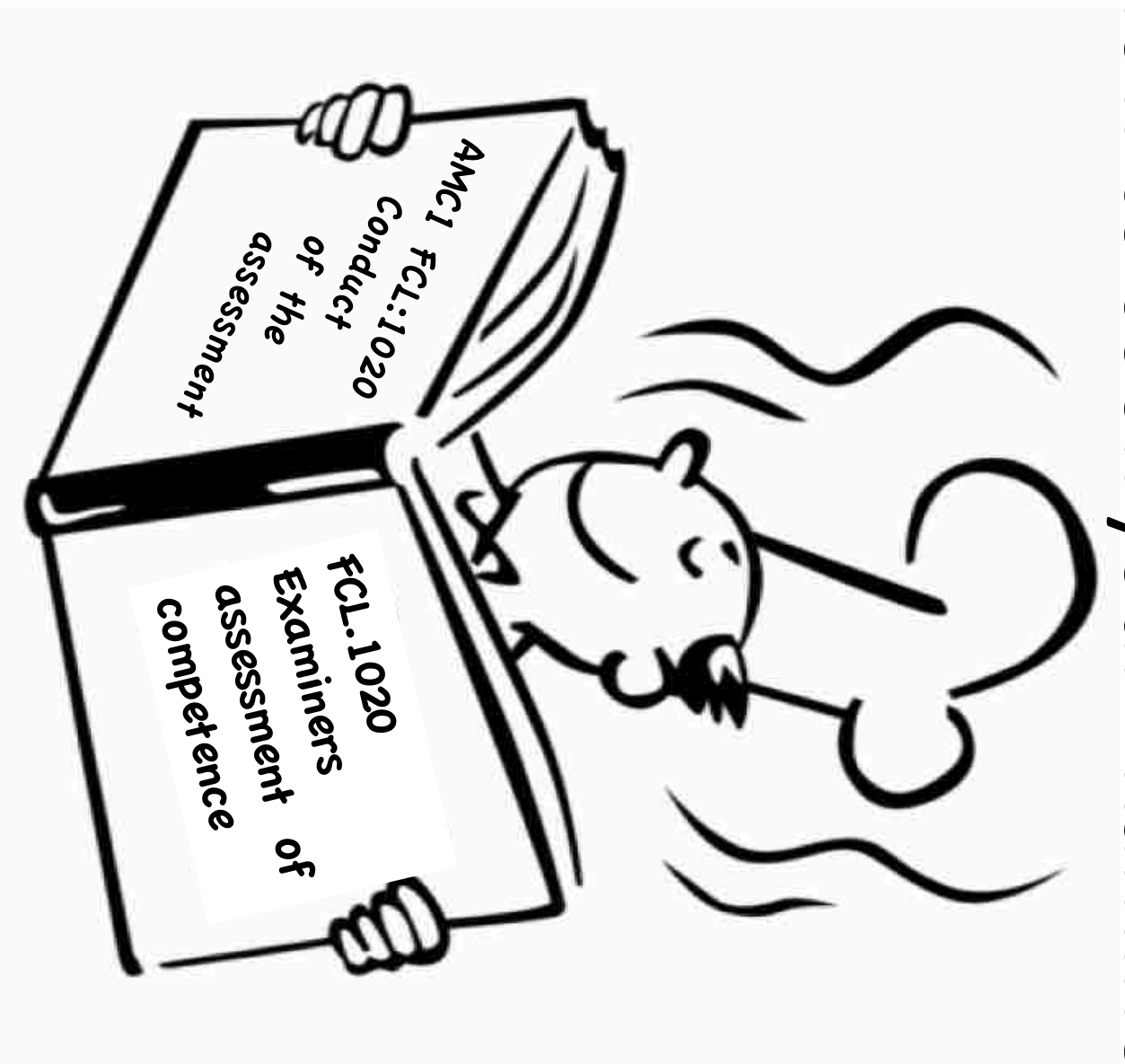AMC1 FCL.1020
Conduct of the assessment
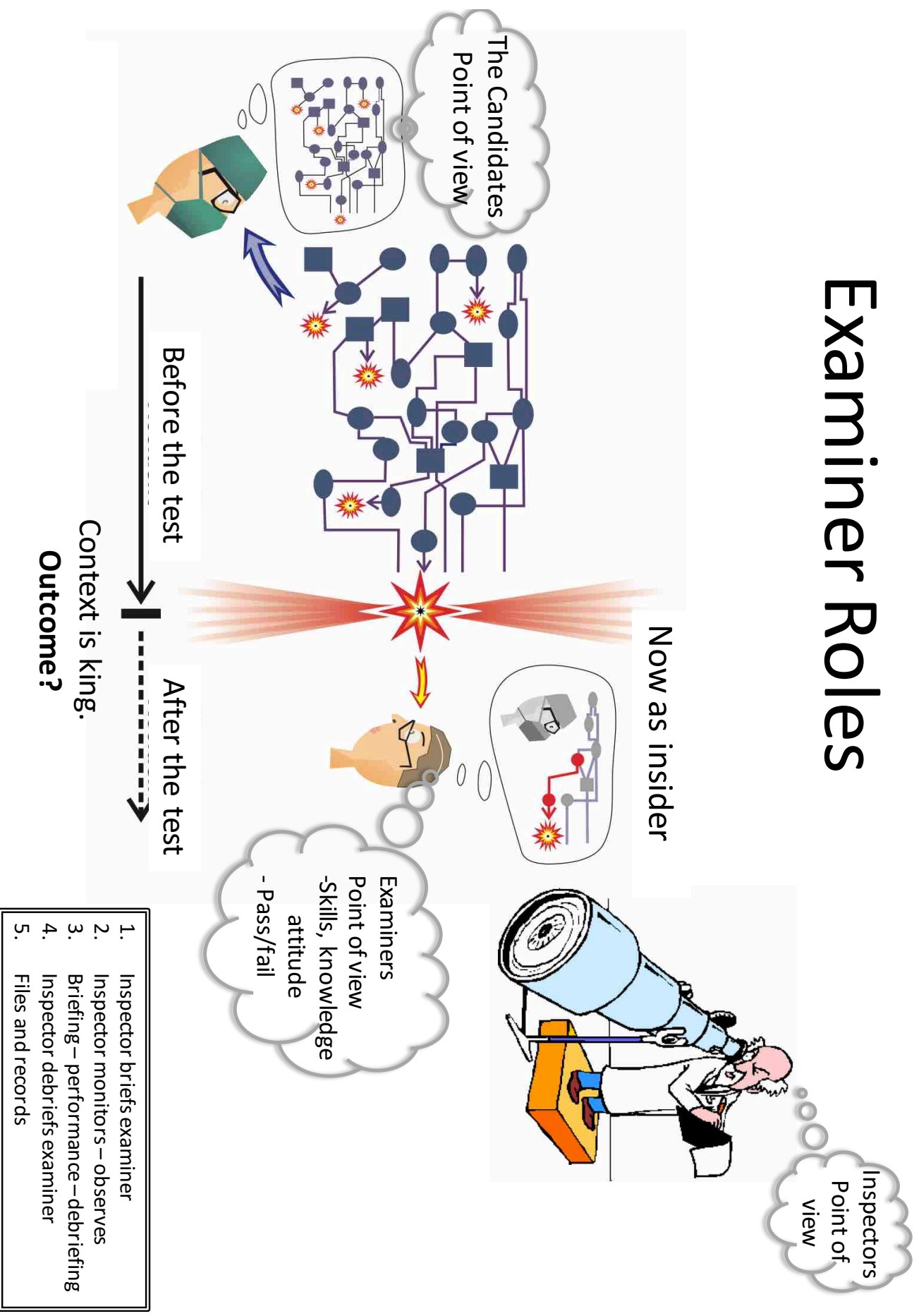
FCL.1020
Examiners assessment of competence

Humans and performance in the new examiner setting

- Complex environments
  - The importance of culture and drift
- What Is Non Technical Performance
  - Human Factors
  - Human Performance Limitations
  - Crew Resource Management
- Threat and Error Management (TEM), practical use

Technology and Human Error at the "sharp" end

DENMARK, 6, 2000 : a patient broke wind while having surgery and set fire to his genitals. The 30-Years-old man was having a mole removed from his bottom with an electric knife when his attack of flatulence was ignited by a spark. His genitals, which where soaked in surgical spirits, caught fire. The man who is suing the hospital, said: 'When I woke up, my penis and scrotum were burning like hell. Besides the pain, I can't have sex with my wife.' Surgeons at the hospital in Kjellerup said: 'It was an unfortunate accident'

Examiner Roles

The Candidates
Point of view

Before the test

After the test

Context is king.
Outcome?

Now as insider

Examiners
Point of view
-Skills, knowledge
attitude
- Pass/fail

Inspectors
Point of
view

1. Inspector briefs examiner
2. Inspector monitors – observes
3. Briefing – performance – debriefing
4. Inspector debriefs examiner
5. Files and records

HF – HPL - CRM

Human Factors
"fit" between the user, equipment and their environments.

Human Performance & Limitation:
How the human body, its limitations, the psychological processes and how they interact with the aviation environment

CRM
Focuses on interpersonal communication, leadership, automation and decision making in the cockpit
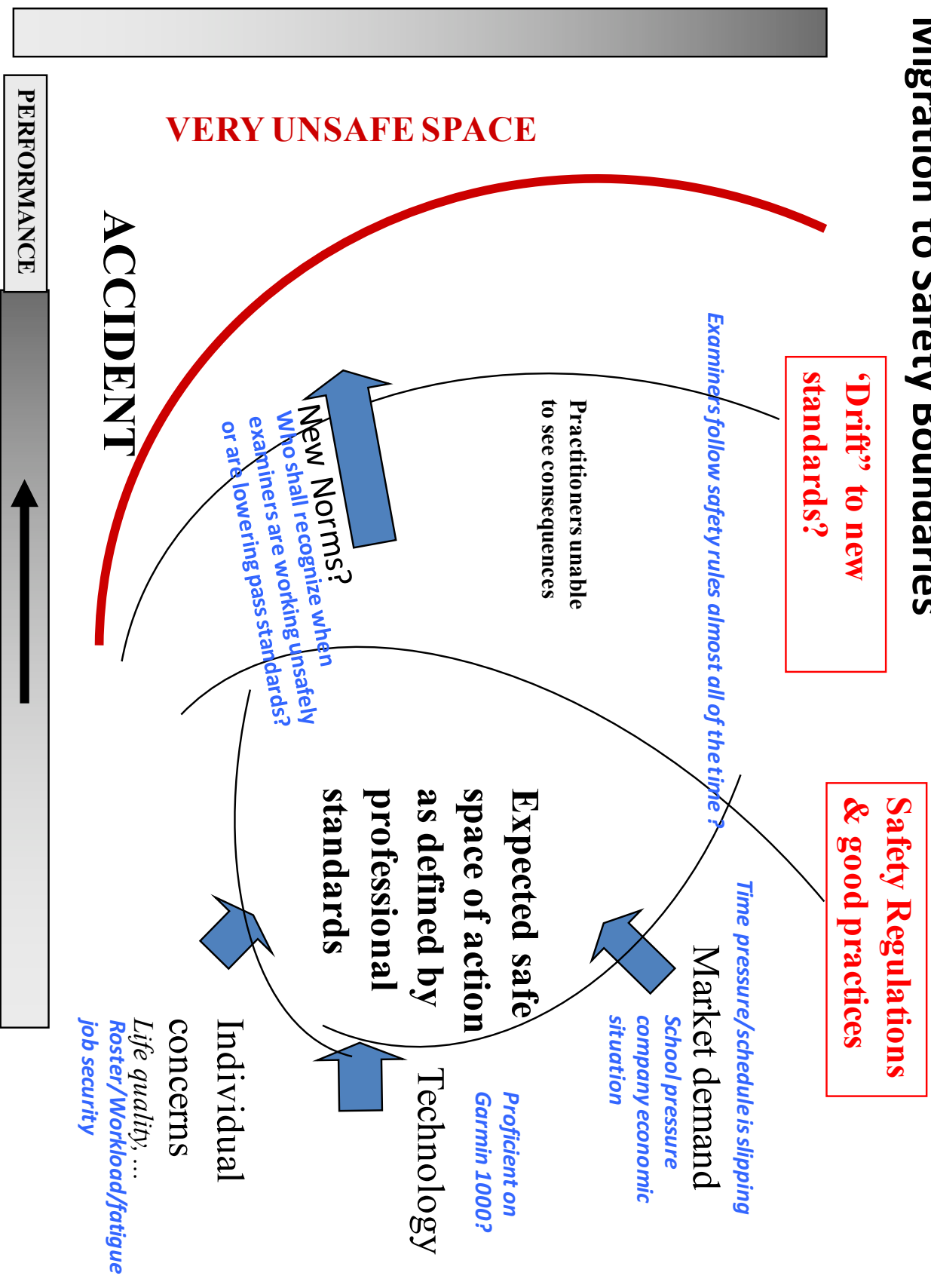
HF

HPL

CRM

CRM + HPL

HF
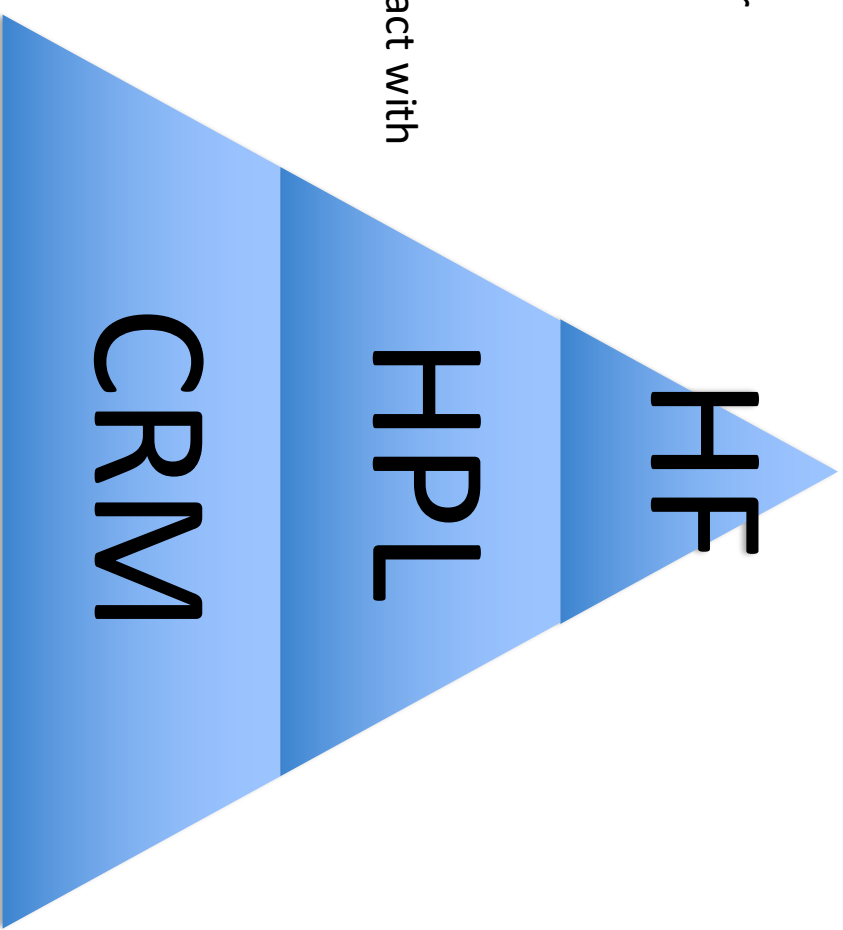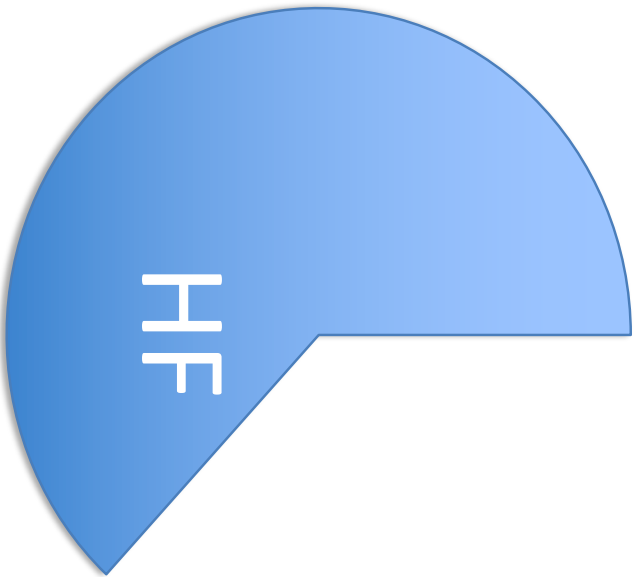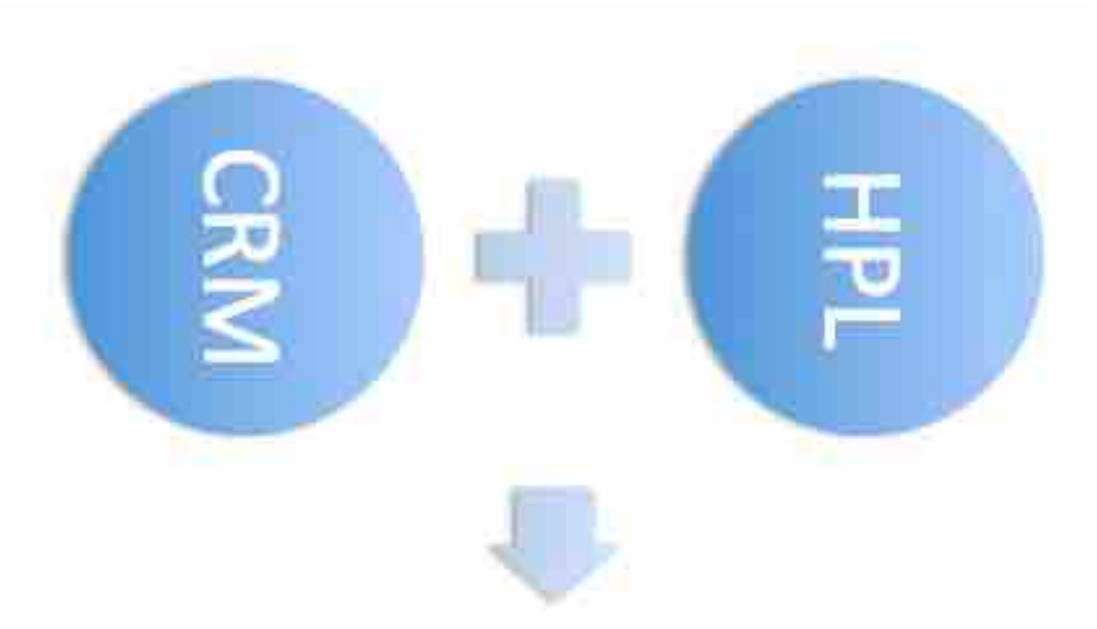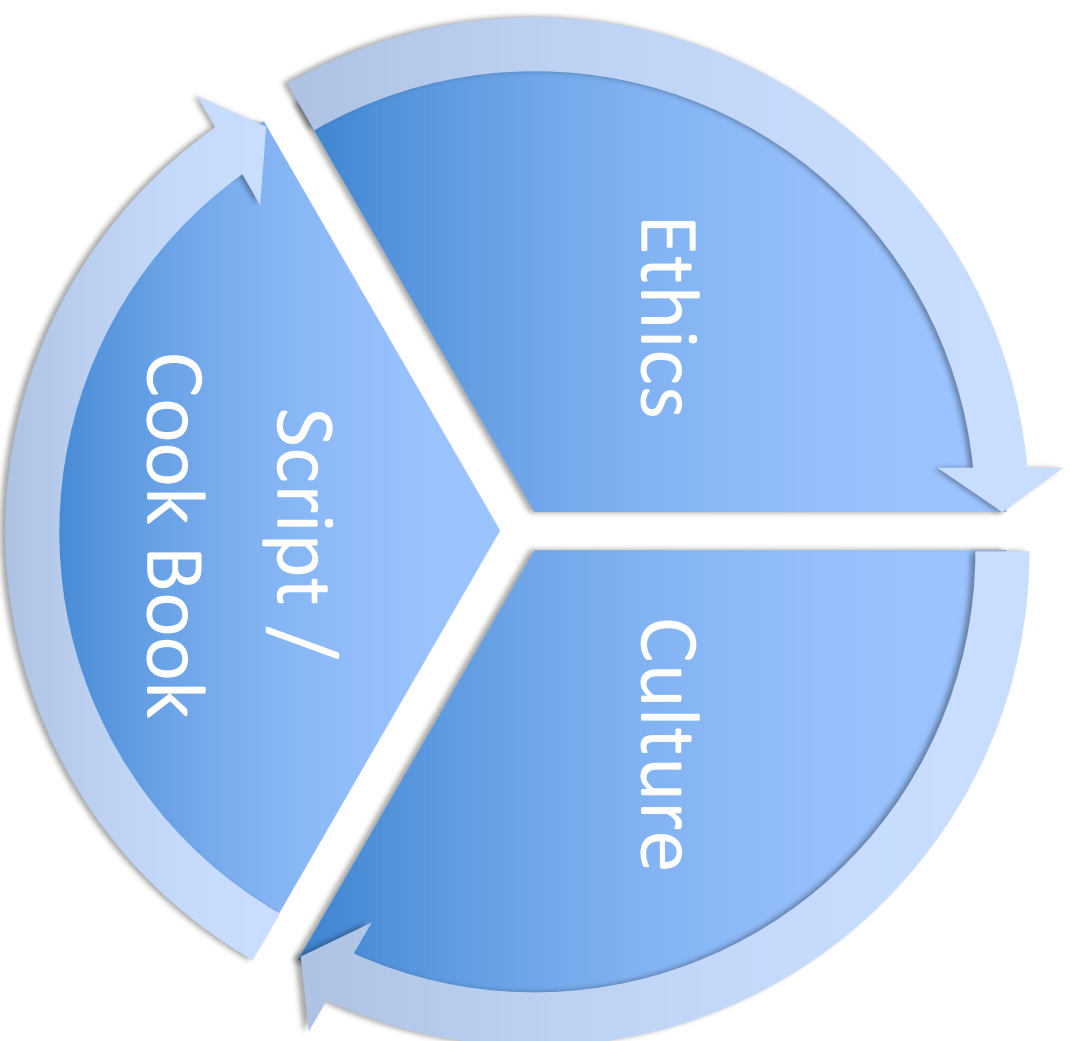
What is "examiner safety culture"

Schoolchildren wear gas masks during nuclear safety training lessons in Rudo, Ukraine near an isolated zone around the Chernobyl nuclear power plant April 3, 2006. (AP Photo/Sergey Ponomarev) #

Rudo close to Chernobyl 2006

Examiners integrity and role as "models" in Systemic Migration to Safety Boundaries

VERY UNSAFE SPACE

ACCIDENT

PERFORMANCE

Examiners follow safety rules almost all of the time ?

'Drift' to new standards?

Practitioners unable to see consequences

New Norms?
Who shall recognize when examiners are working unsafely or are lowering pass standards?

Expected safe space of action as defined by professional standards

Individual concerns
Life quality,...
Roster/Workload/fatigue
job security

Technology
Proficient on Garmin 1000?

Market demand
School pressure
company economic situation

Time pressure/schedule is slipping

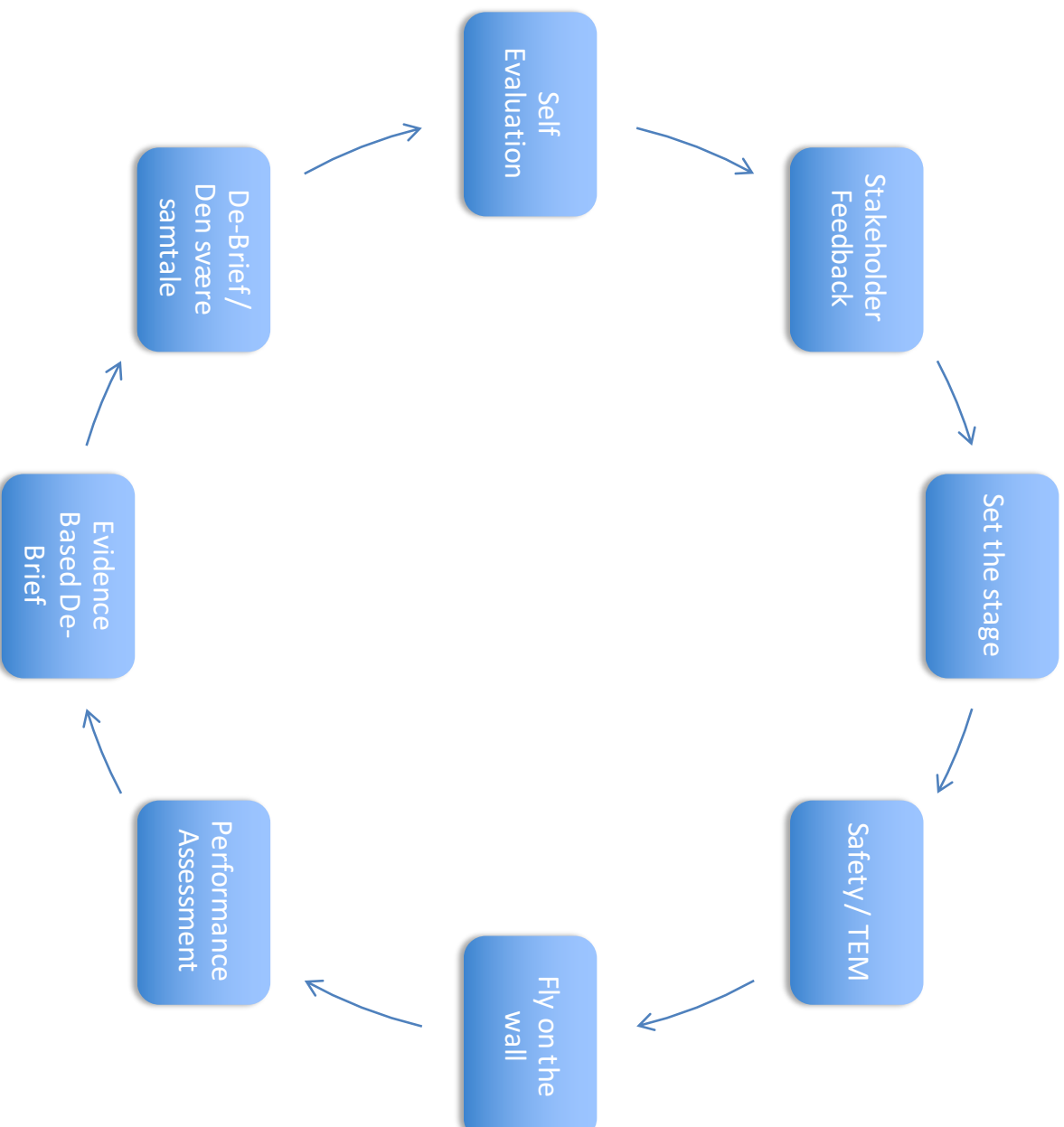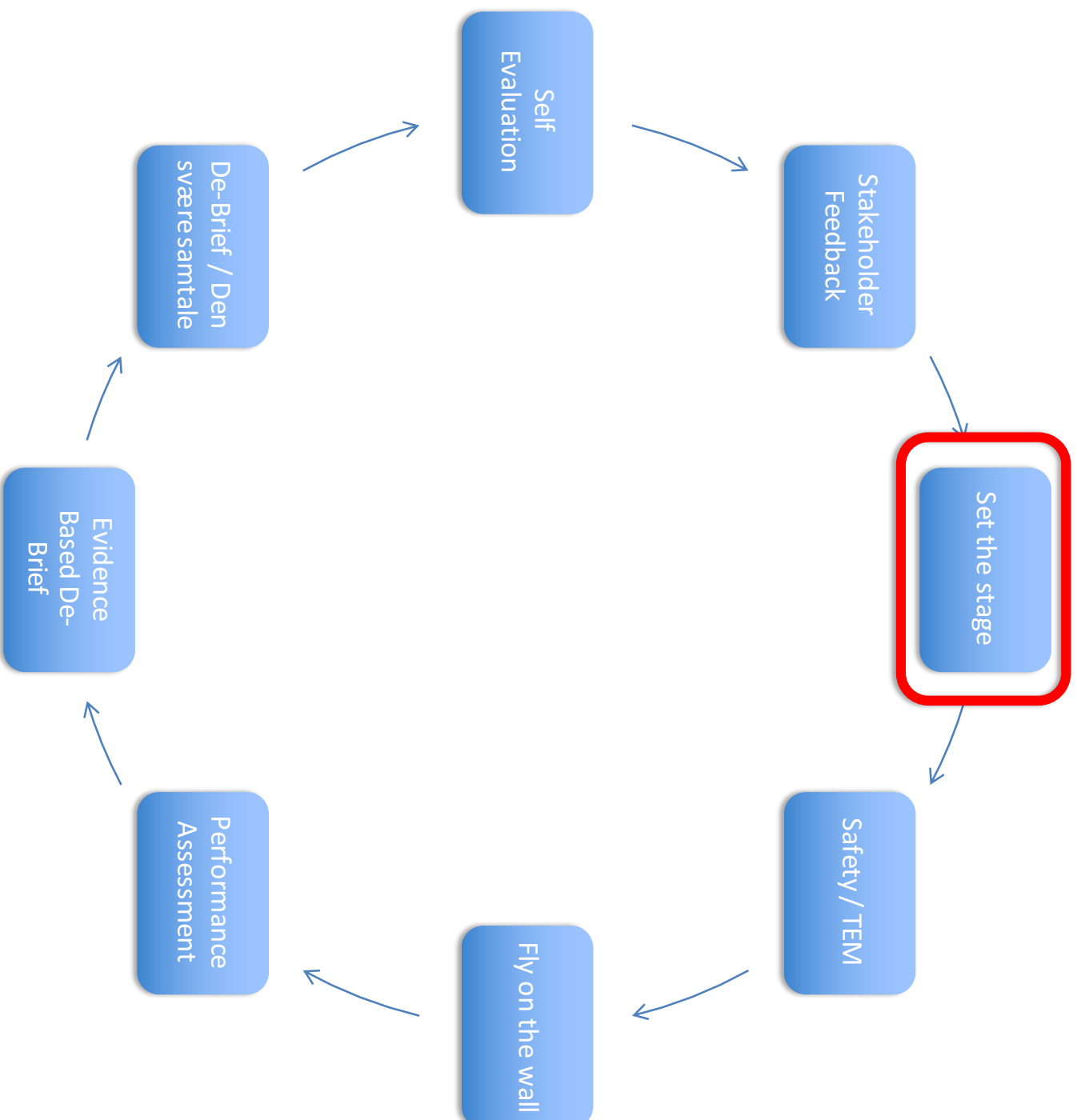**Safety Regulations & good practices**

The script

Super Eight

1. Set the stage / Trust establishment
2. Safety and threat assessment
3. "Fly on the Wall" not ownership
4. Performance assessment. Knowledge, Attitude, Skills
5. Evidence based examiners/inspectors de-brief
6. The difficult de-brief / handling of failed test
7. Self evaluation and sparing
8. Feedback to stakeholders

Super Eight

Self Evaluation

Stakeholder Feedback

Set the stage

Safety / TEM

Fly on the wall

Performance Assessment

Evidence Based De-Brief

De-Brief/ Den svære samtale

Self Evaluation

Stakeholder Feedback

Set the stage

Safety / TEM

Fly on the wall

Performance Assessment

Evidence Based De-Brief

De-Brief / Den svære samtale

Will I pass or not???

AMC FCL.1015 Examiner Standardization

EXAMINER APPROACH

(n) An examiner should encourage a friendly and relaxed atmosphere to develop both before and during a test or check flight. A negative or hostile approach should not be used. During the test or check flight, the examiner should avoid negative comments or criticisms and all assessments should be reserved for the debriefing.

Examiner Pre-flight objectives

- Establish trust
- Assess if candidate is ready for test
- Assess knowledge level
- (Attitude is seldom an issue, and difficult to handle)

Set the Stage

- Deal with emotions & Body Language
- How is the applicant
  – Appearance, Sweating, Anxiety
  – Illness
  – Fatigue (Training schedule) etc.
- Applicant ready to perform
  – Language barrier (FCL.1030)
  – Comfortable (enough)
  – Trust established (sex, race, age)
- Test Formally
  – Check Qualification, training and experience
    documentation, medical (FCL.1030)
  – Type of test, pass criteria
  – A/C papers, airworthiness

How to prepare Candidate

Good examiner practice:

- Be on-time
- **Be communicative**
- **Be well prepared**
- Be motivated
- Be honest and humble
- Be open for feedback
- Create a nice atmosphere

Voice communication

- Intonation & Loudness
- Articulate clearly – no mumbling
- Hidden messages
- Two way communication
- Closed loop communication

How to prepare Candidate

(t) A test or check is intended to simulate a practical flight. Thus, an examiner may set practical scenarios for an applicant while ensuring that the applicant is not confused and air safety is not compromised.

(u) When manoeuvres are to be flown by sole reference to instruments, the examiner should ensure that a suitable method of screening is used to simulate IMC.

(v) An examiner should maintain a flight log and assessment record during the test or check for reference during the post or flight debriefing.

(w) An examiner should be flexible to the possibility of changes arising to pre-flight briefings due to ATC instructions, or other circumstances affecting the test or check.

(x) Where changes arise to a planned test or check an examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test or check flight should be terminated.

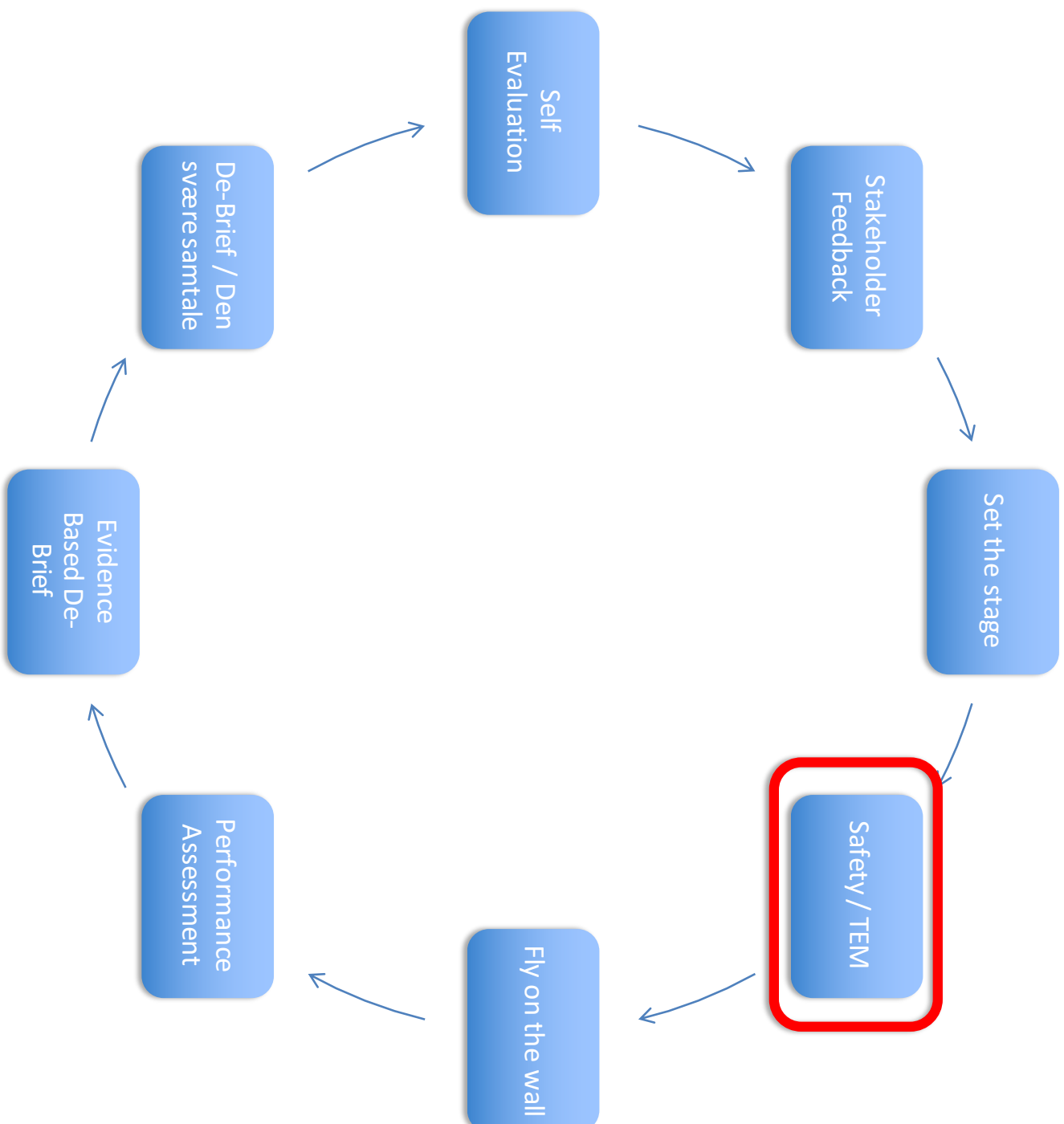**Context**

Screen

Log

Flexible

Changes

How to prepare Candidate

The examiner should

- State objectives clearly
- Show a structured plan for the session
- Master question techniques
  - Open questions
  - No trap questions
- Wait for candidates to answer
  - Balance verbatim and paraphrasing
- Follow up on candidate inputs
  - Be flexible and follow leads but use questions to direct and get back on track
- Keep candidates in the loop
- KEEP CONTEXT IN MIND
- Use updated briefing material
- Keep track of time
- Stick to the books

TEM taxonomy

Error Definition

Errors are defined as flight crew actions or inactions that:

- ⋎ lead to a deviation from crew or organizational intentions or expectations;

- ⋎ reduce safety margins; and

- ⋎ increase the probability of adverse operational events on the ground or during flight.

Aircraft handling / Procedural / Communication - errors

Safety, Simulator Tests

Safety, Simulator Tests

- Simulator
  - Fire extinguisher, alarms
  - Emergency stop
  - Rope latter stowage and use
  - Air supply
- Location briefing,
  - Emergency/fire exits
  - And signs

Safety, aircraft tests

- PIC or
  back-seat

- Threat assessment of the day
  - Airspace, Weather, Terrain, Crew composition
- Power/authority gradient
- Real problems
  - Desirably discovered by the Applicant
  - Cancel test, work together, how to share tasks

Aircraft Cases

EKYT XXXX   26023G38 9999 FEW023 SCT035CB 15/07 0998=   LOCAL VFR

EKCH 1204-1304 030/03 5000 BR FEW008 BKN012
        BECMG 1208/1210 130/05 FEW005 3000 BR
        BECMG 1214/1216 SCT008 BKN 010

EKCH 1120   16002 2500 FEW003 OVC005 07/07 1020=

Your local flight is planned ETD 1200!
Threats?   LOCAL IFR

EKBI 2106-CMG2206 250/15 9999 FEW015 BKN023
        BECMG 2112/2114 280/20 8000 –RA FEW008 BKN018 OVC 023
        BECMG 2116/2118 290/20 4000 RA FEW005 BKN 012 OVC015

Your flight is planned ETD 1600!
EKBI 1520 270/17 7000 BKN 012 OVC 018 14/12 992=
Threats?   VFR NAV
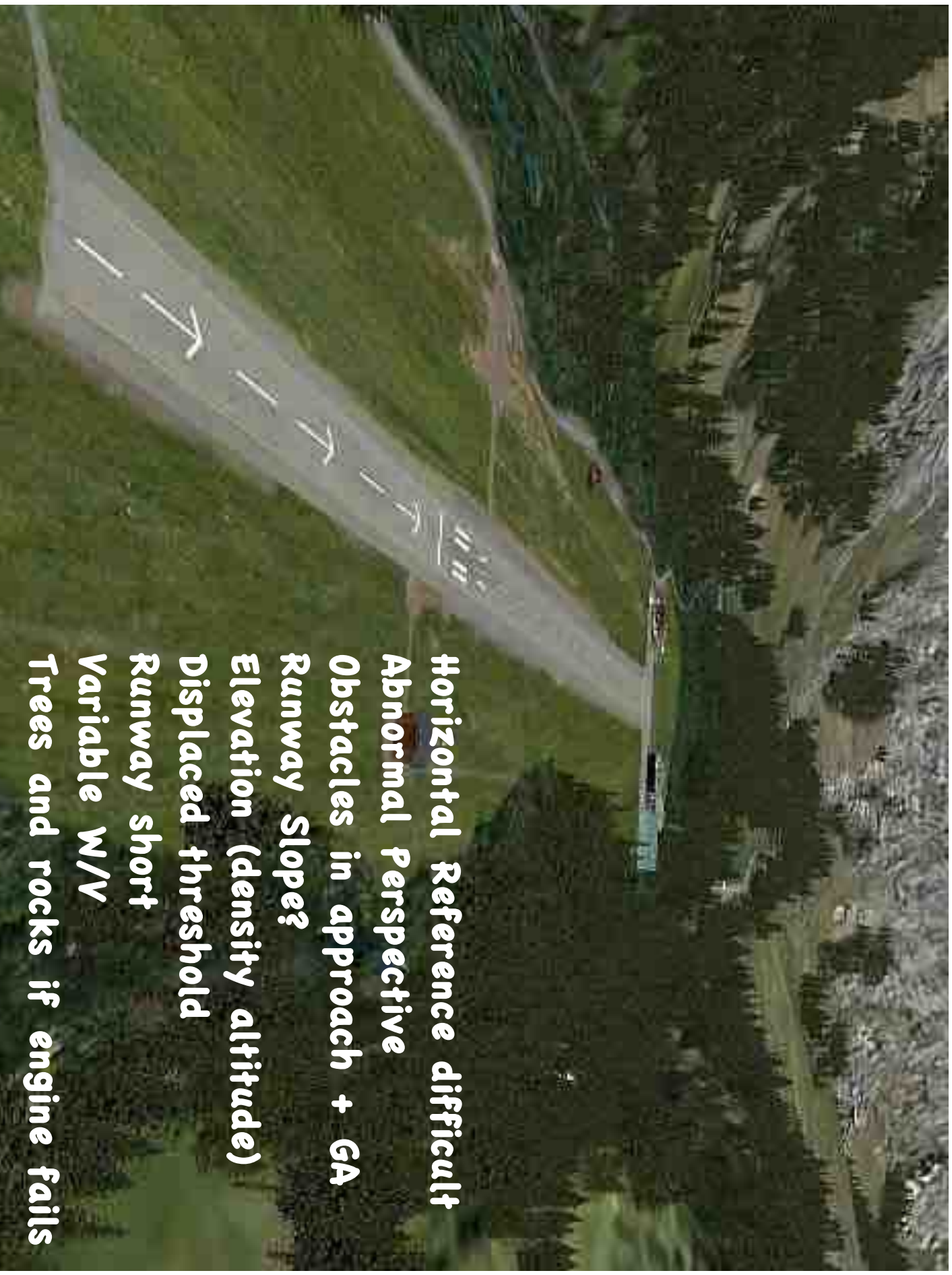
Horizontal Reference difficult
Abnormal Perspective
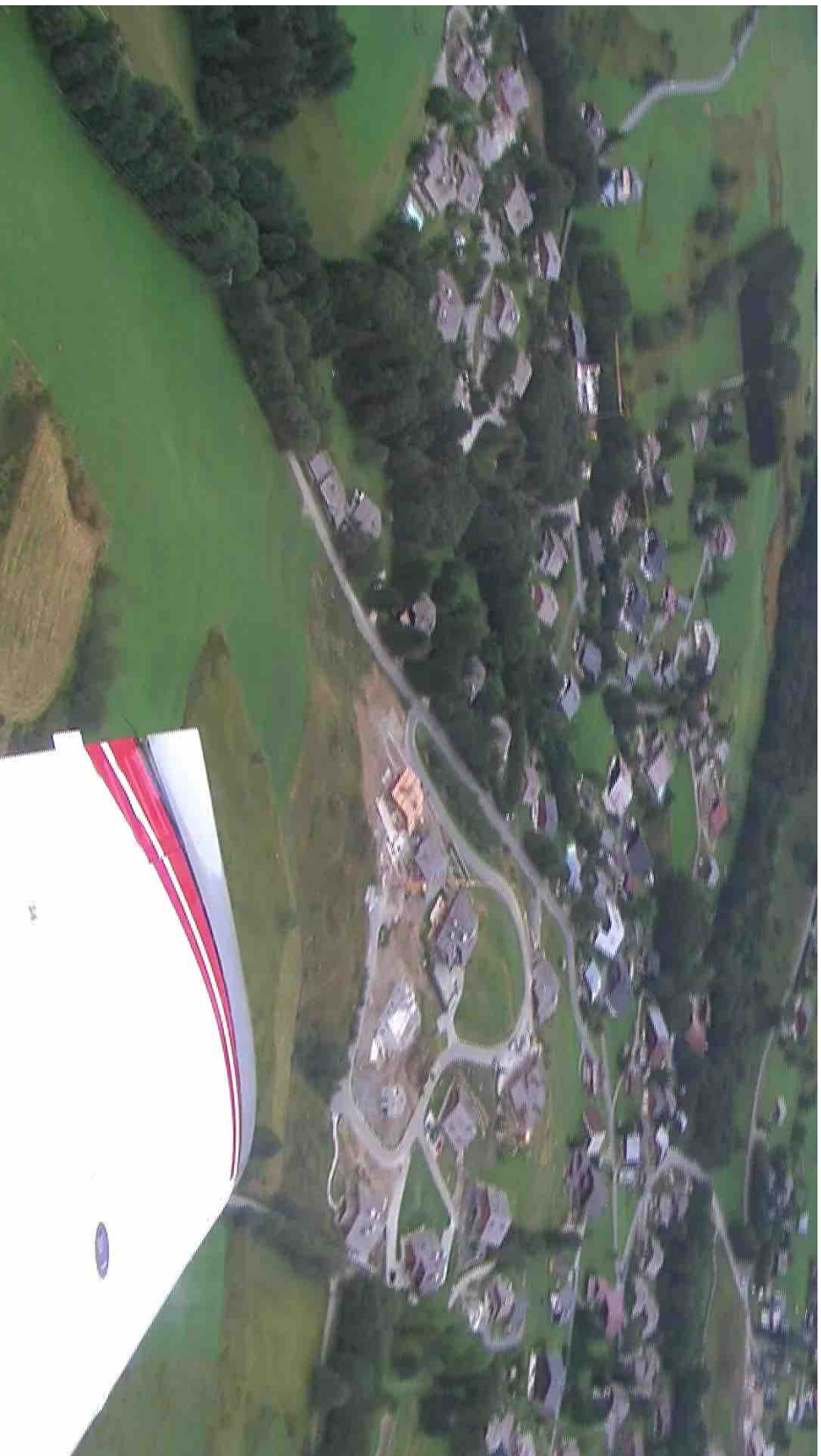Obstacles in approach + GA
Runway Slope?
Elevation (density altitude)
Displaced threshold
Runway short
Variable W/V
Trees and rocks if engine fails

Observe threats

Multi Pilot scenarios / LOFT missions

- Professional integrity
  - Nobody has five stripes
- Relevant
  - Captain or First officer
- Realistic
  - More than one solution
  - Not Peru, adapted for the expected area of operation
  - Not independent multiple failures
  - No repositioning
  - No unrealistic context changes, such as changing CAVOK to CATIII
- Communication Closed loop

MP Case

MP Case

Management of Threats and Errors

- Knowledge
- CRM
- Task sharing (MP)
- Vigilant
- SOP
- Be honest
- Make correction

SPEAK UP

Management of threats and errors

Multi Crew Performance

Observation

What could be the source

Self Evaluation

Stakeholder Feedback

Set the stage

Safety / TEM

Fly on the wall

Performance Assessment

Evidence Based De-Brief

De-Brief / Den svære samtale
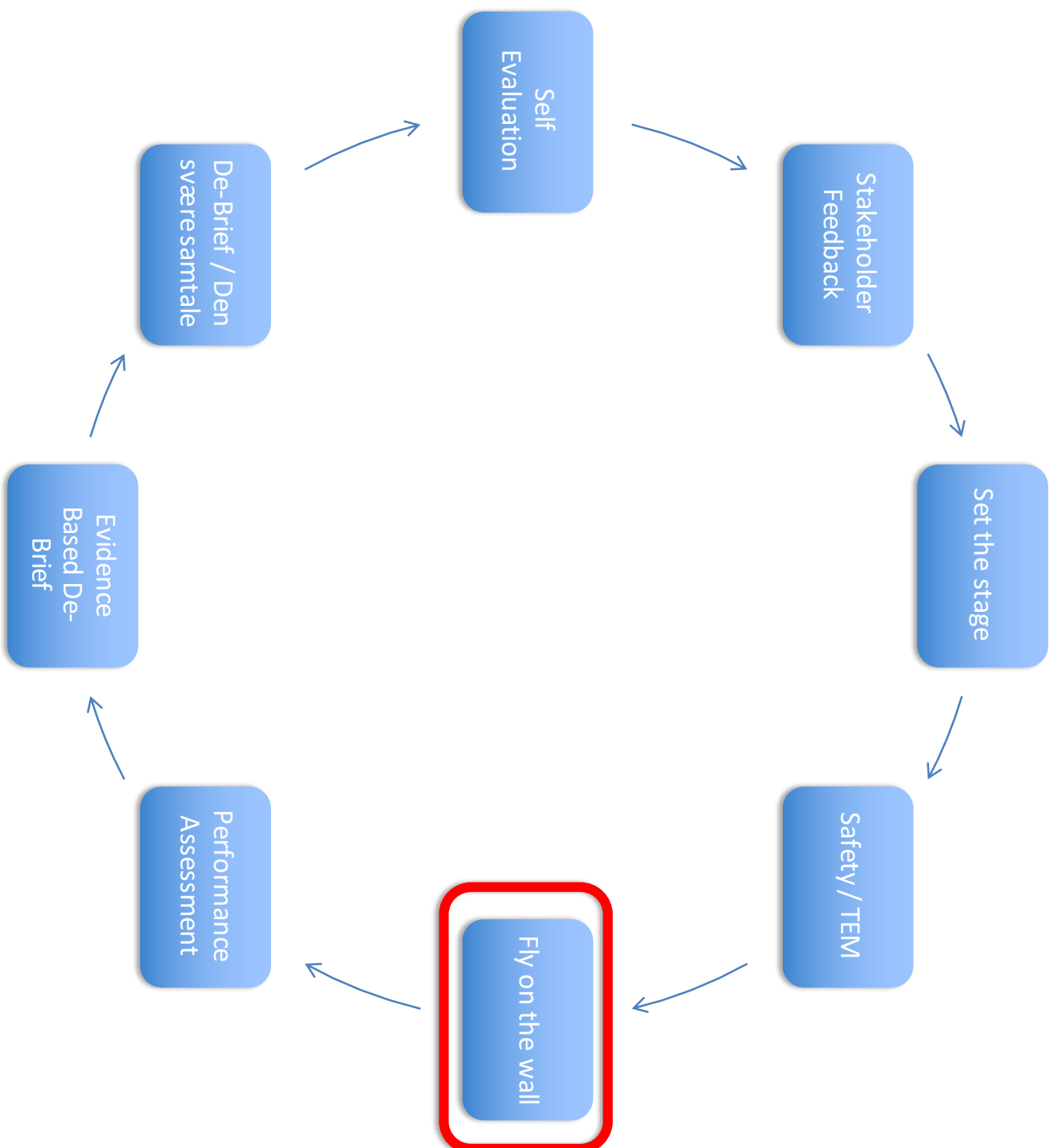
Fly on the wall

Examiner Performing the Test

- During LOFT act as support, do not interfere

- During manoeuvres support, repos. and shortcuts possible

- Don't take a share in decision making or guide – it will be difficult to fail if you have a stake in the outcome

- Timing is crucial

- All items to be performed

- If substandard performance, decision to retake maneuver reasonable?

- Keeping brief, factual and unobtrusive notes.

- Feedback is important
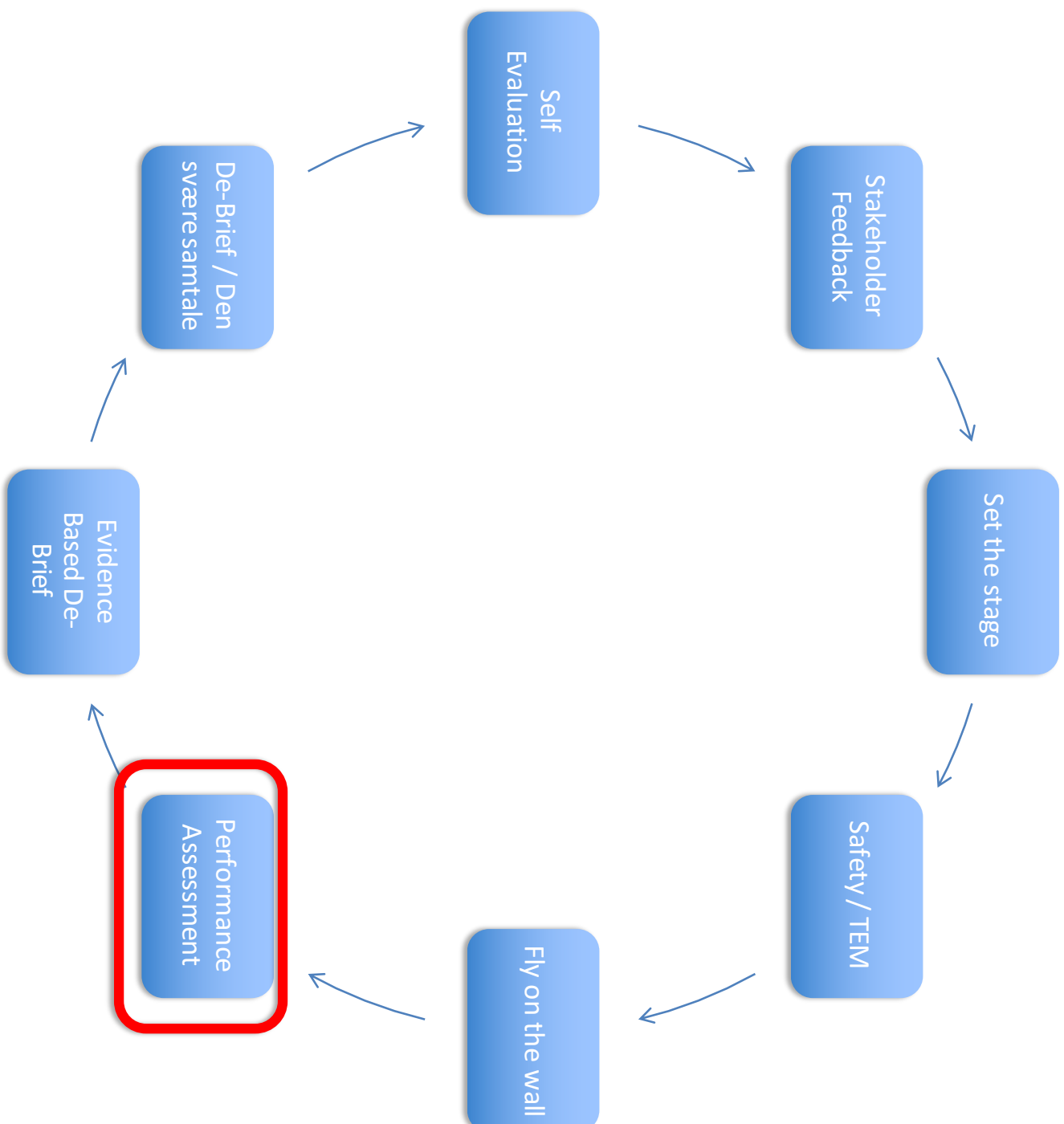
Assessment

An examiner may terminate a test or check at any stage, if it is considered that the applicant's competency requires a complete re-test or re-check.

Performance Triangle

Knowledge

Attitude

Skills

(1) a 'pass', provided that the applicant demonstrates the required level of knowledge, skill or proficiency and, where applicable, remains within the flight test tolerances for the licence or rating;

(2) a 'fail' provided that any of the following apply:

 (i) the flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions;

 (ii) the aim of the test or check is not completed;

 (iii) the aim of exercise is completed but at the expense of safe flight, violation of a rule or regulation, poor airmanship or rough handling;

 (iv) an acceptable level of knowledge is not demonstrated;

 (v) an acceptable level of flight management is not demonstrated;

 (vi) the intervention of the examiner or safety pilot is required in the interest of safety.

(3) a 'partial pass' in accordance with the criteria shown in the relevant skill test appendix of Part-FCL.

Should an applicant choose not to continue a test or check for reasons considered inadequate by an examiner, the applicant will be assessed as having failed those items or sections not attempted. If the test or check is terminated for reasons considered adequate by the examiner, only these items or sections not completed will be tested during a subsequent test or check.

Performance evaluation

- The landing was on centerline, but the pilot was cutting in before others in the traffic pattern, despite ATC guidance..
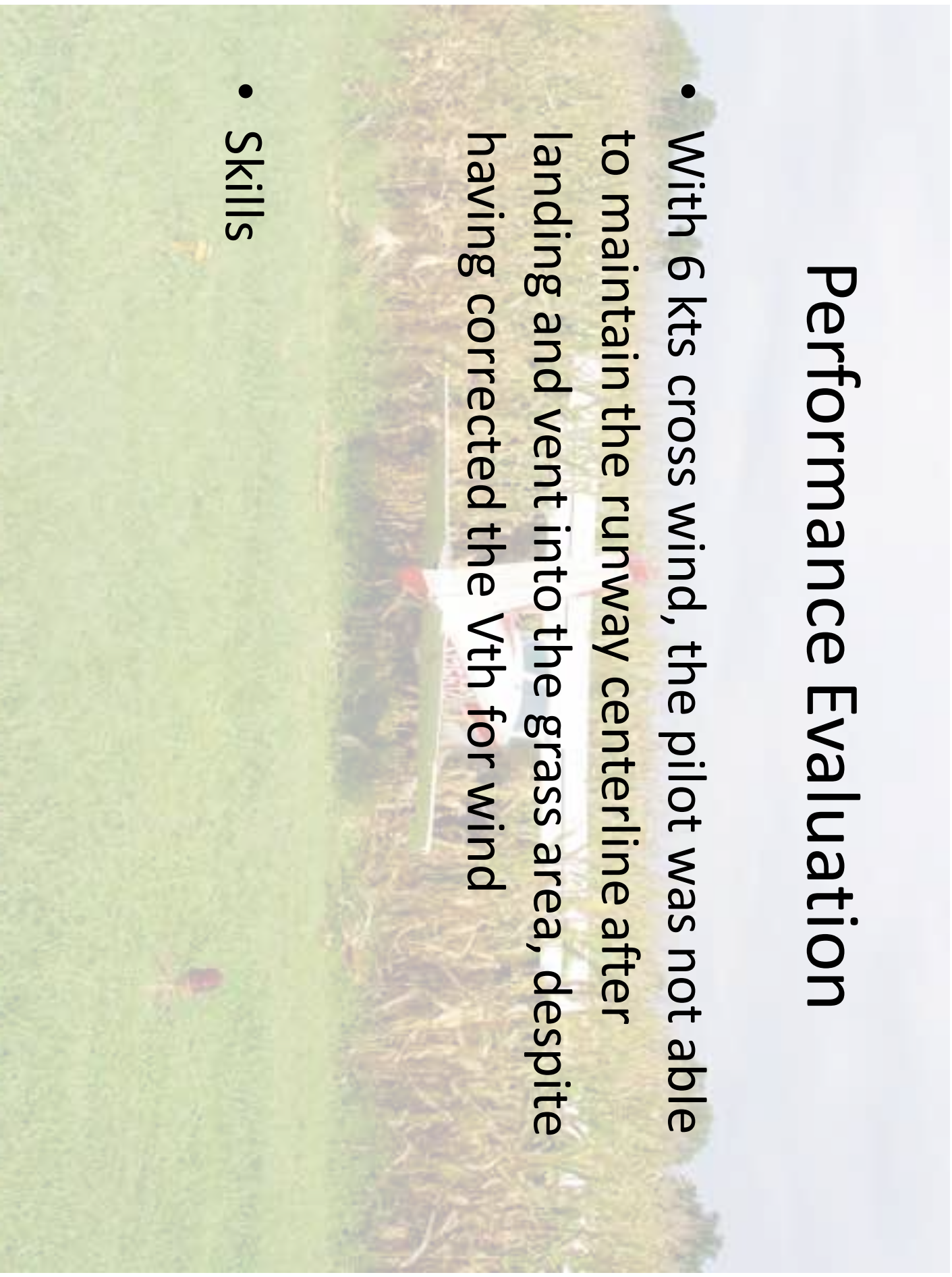
- Attitude

Cross wind landings

Performance Evaluation

- With 6 kts cross wind, the pilot was not able to maintain the runway centerline after landing and vent into the grass area, despite having corrected the Vth for wind
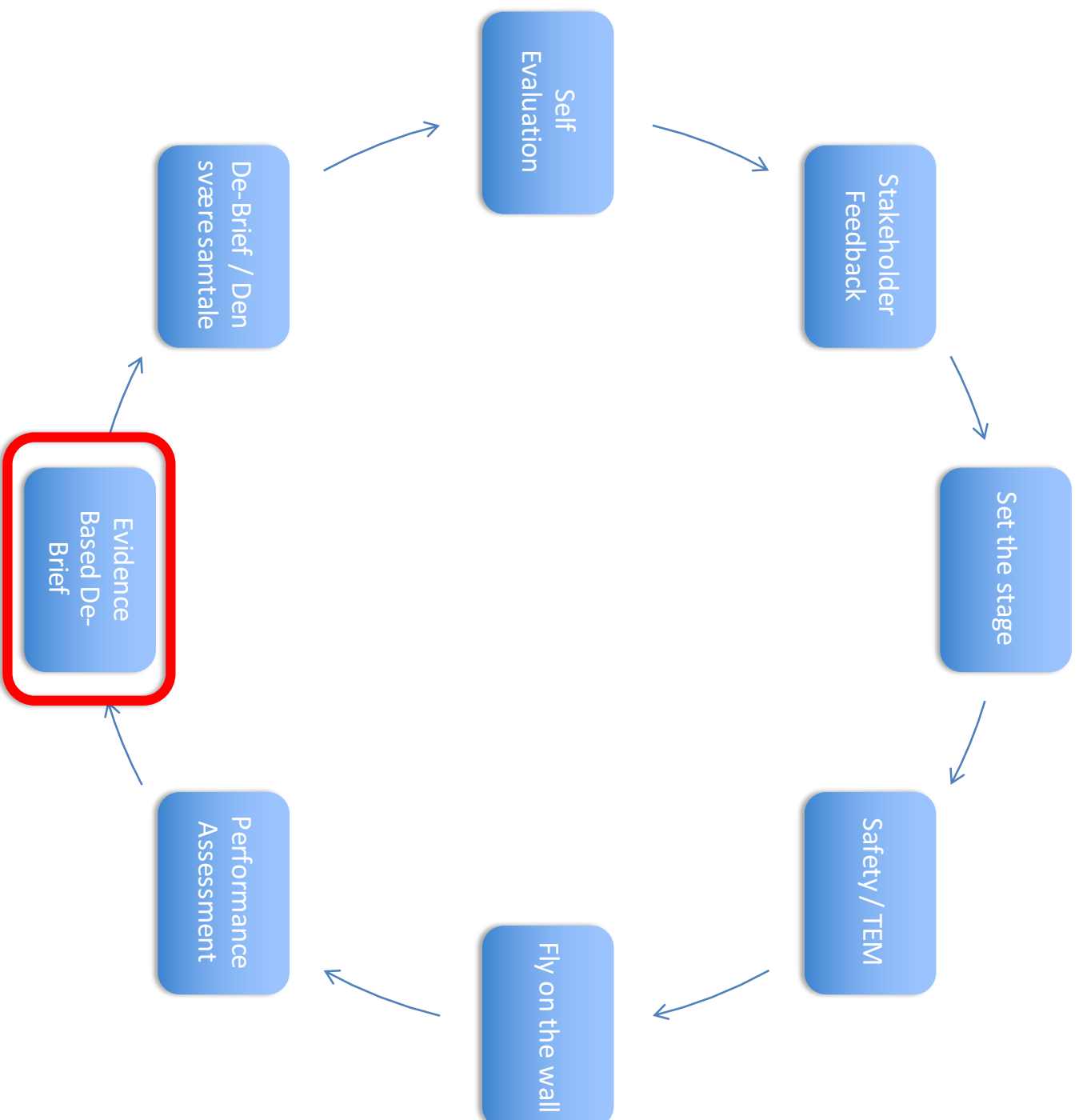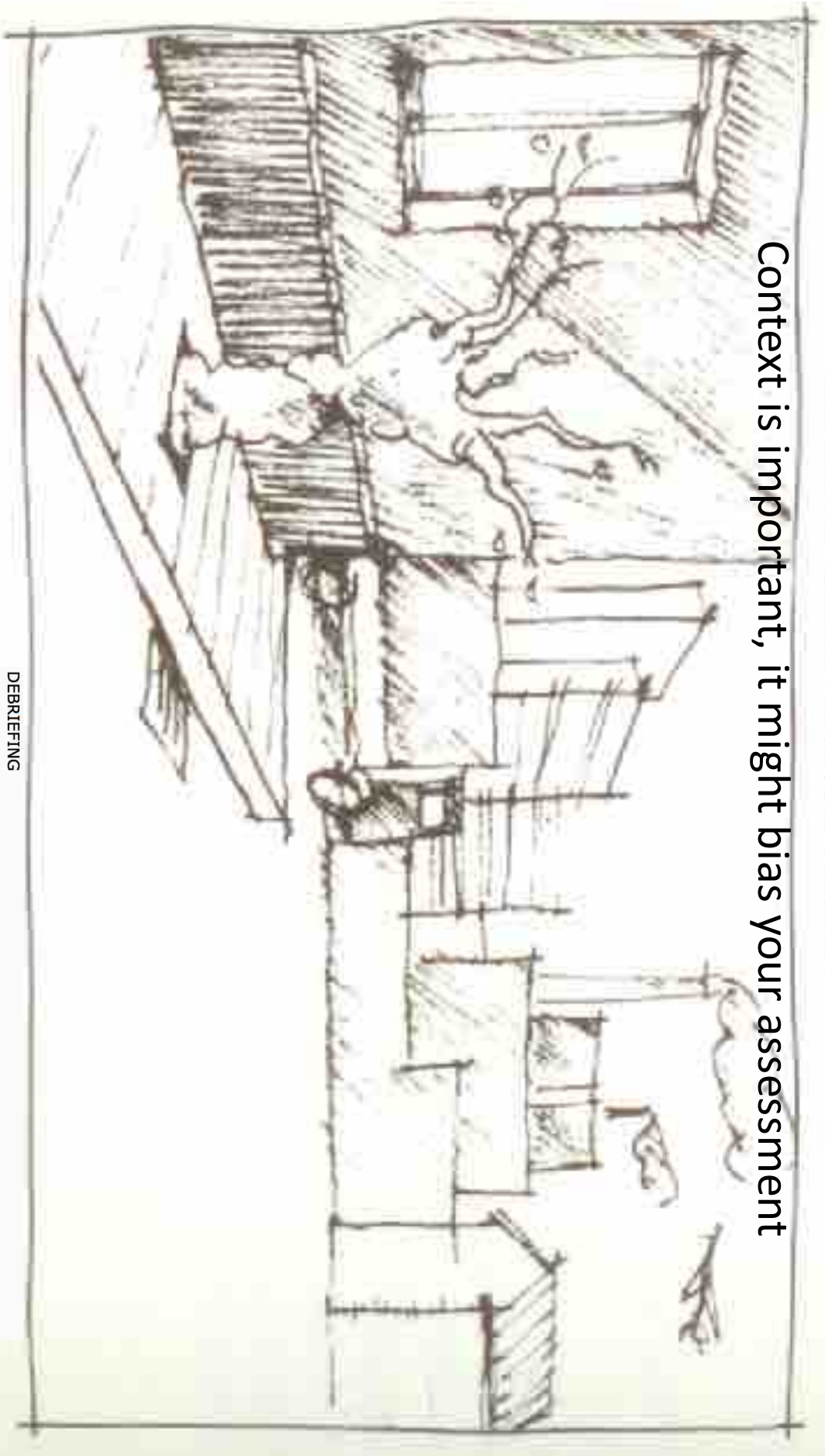
- Skills

Performance Evaluation

- The pilot landed the aircraft in conditions exceeding maximum cross wind limit
  - Could be Attitude?

- He later explained that he did not remember the cross wind limit on the aircraft

Knowledge

Context is important, it might bias your assessment

DEBRIEFING

(g)   The examiner applicant should demonstrate to the inspector the ability to conduct a fair, unbiased debriefing of the 'candidate' based on identifiable factual items. A balance between friendliness and firmness should be evident. The following points should be discussed with the 'candidate', at the applicant's discretion:

(1)   advise the candidate on how to avoid or correct mistakes;

(2)   mention any other points of criticism noted;

(3)   give any advice considered helpful.

Best practice de-brief

- Summarize
- Honesty, integrity and reliability must be unquestionable
- Only observed performance can be evaluated
- Don't be Prejudiced by instructor opinions or training records
- Watch out for own opinion
- Avoid YOU message, use I message (this is how I see the performance)
- Ideally the candidate sense learning regardless of pass/fail
- Time manage debrief and paper work, allow questions
- Failure with root cause in Attitude must be explained with observations of performance
- Comments are important, they require explanations
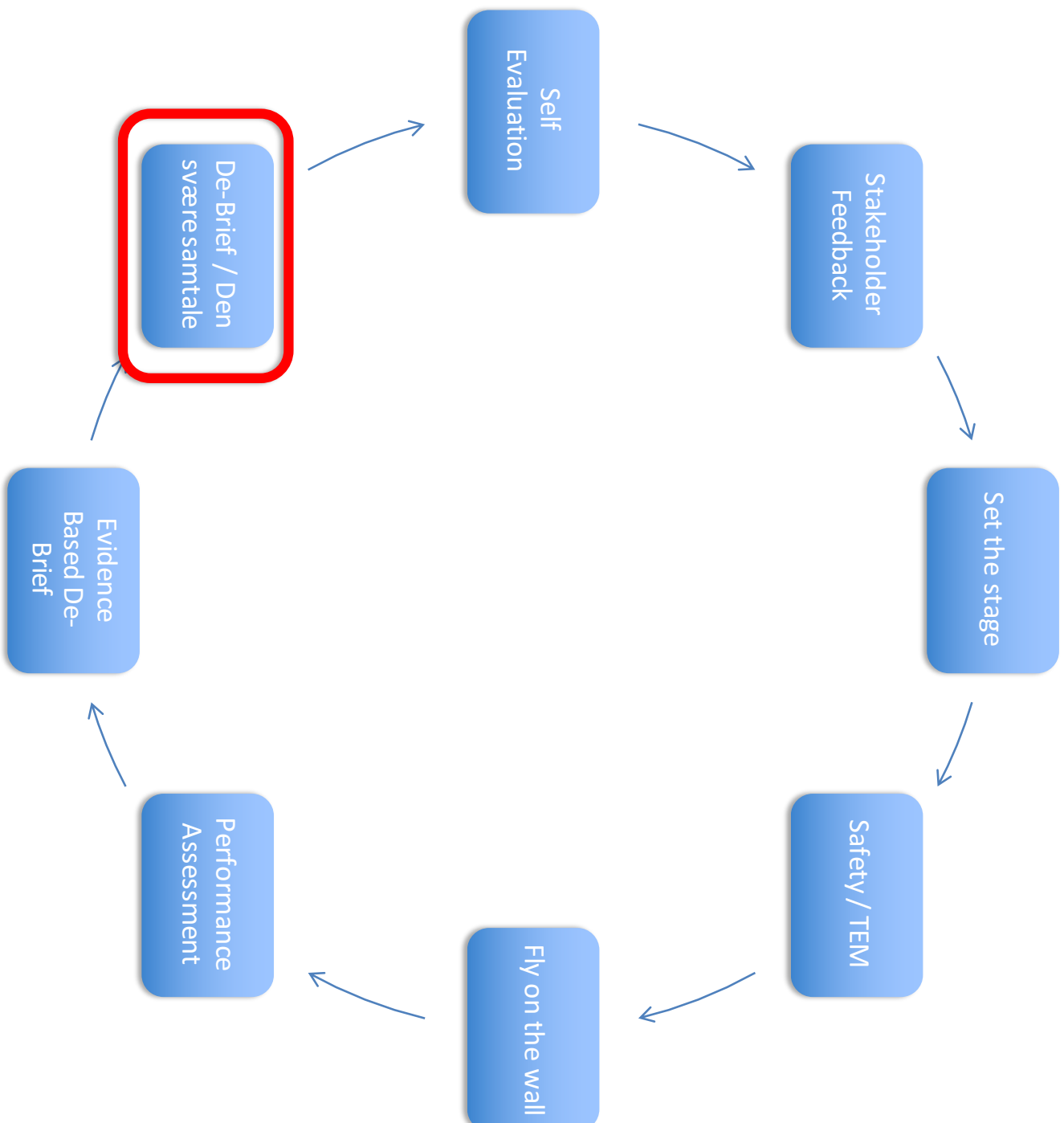
Best practice

De-brief of Fail assessment

- Founded on observable:
  - facts or
  - Behavior (non technical performance)
- Avoid to pass fail message airborne if possible
- Make up your mind before leaving the the aircraft or SIM
- State pass/fail in the beginning of the debrief, unless attitude is an issue.
- Neutral, describing what the applicant did, not what he is... (personality or any obscure opinions)
- During debriefing pull questions when candidate has a realistic understanding of his performance
- Uses brief, factual and unobtrusive notes.
- Take printouts if SIM, use if necessary as documentation
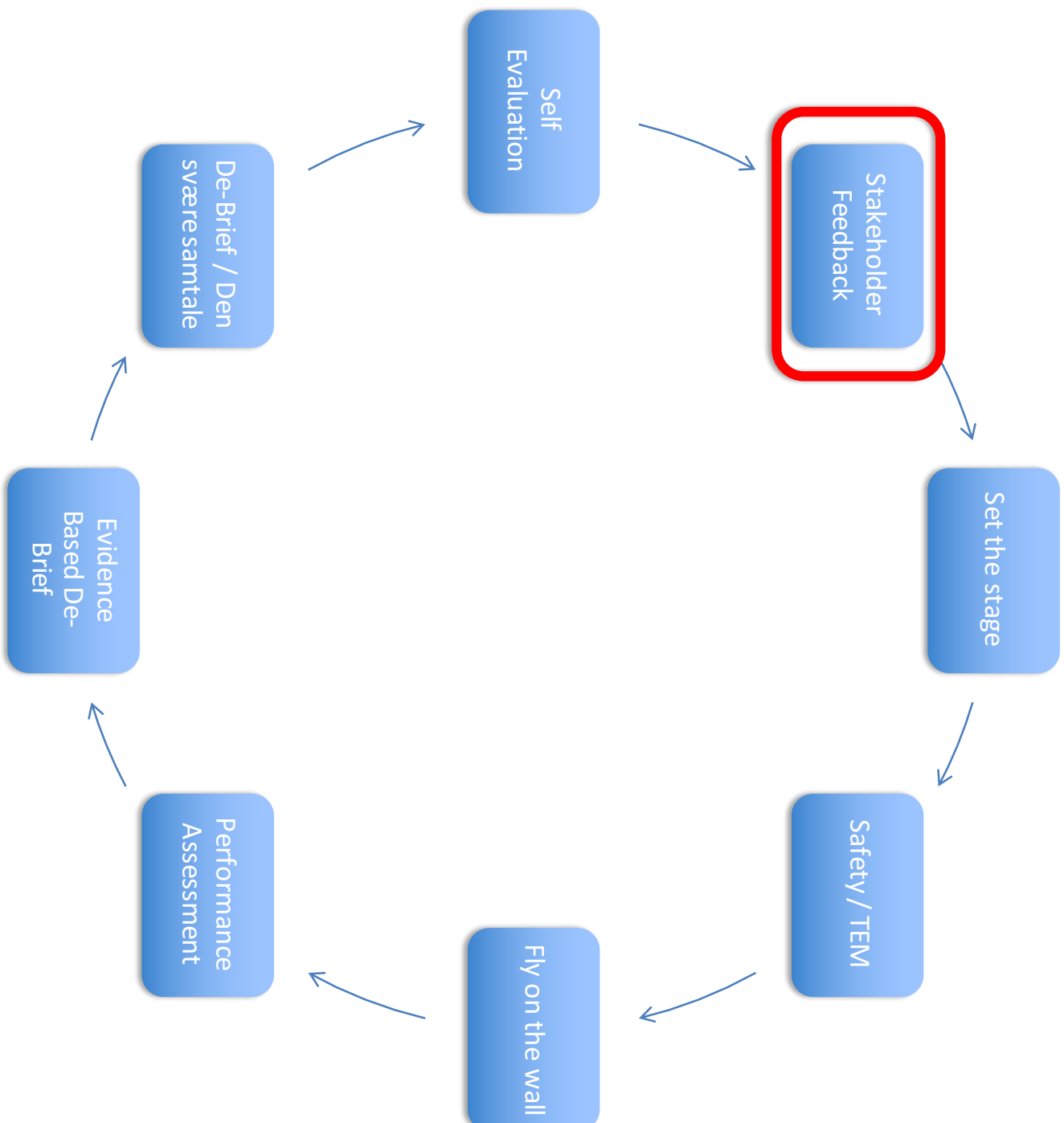- Summarize and emphasize good performance too
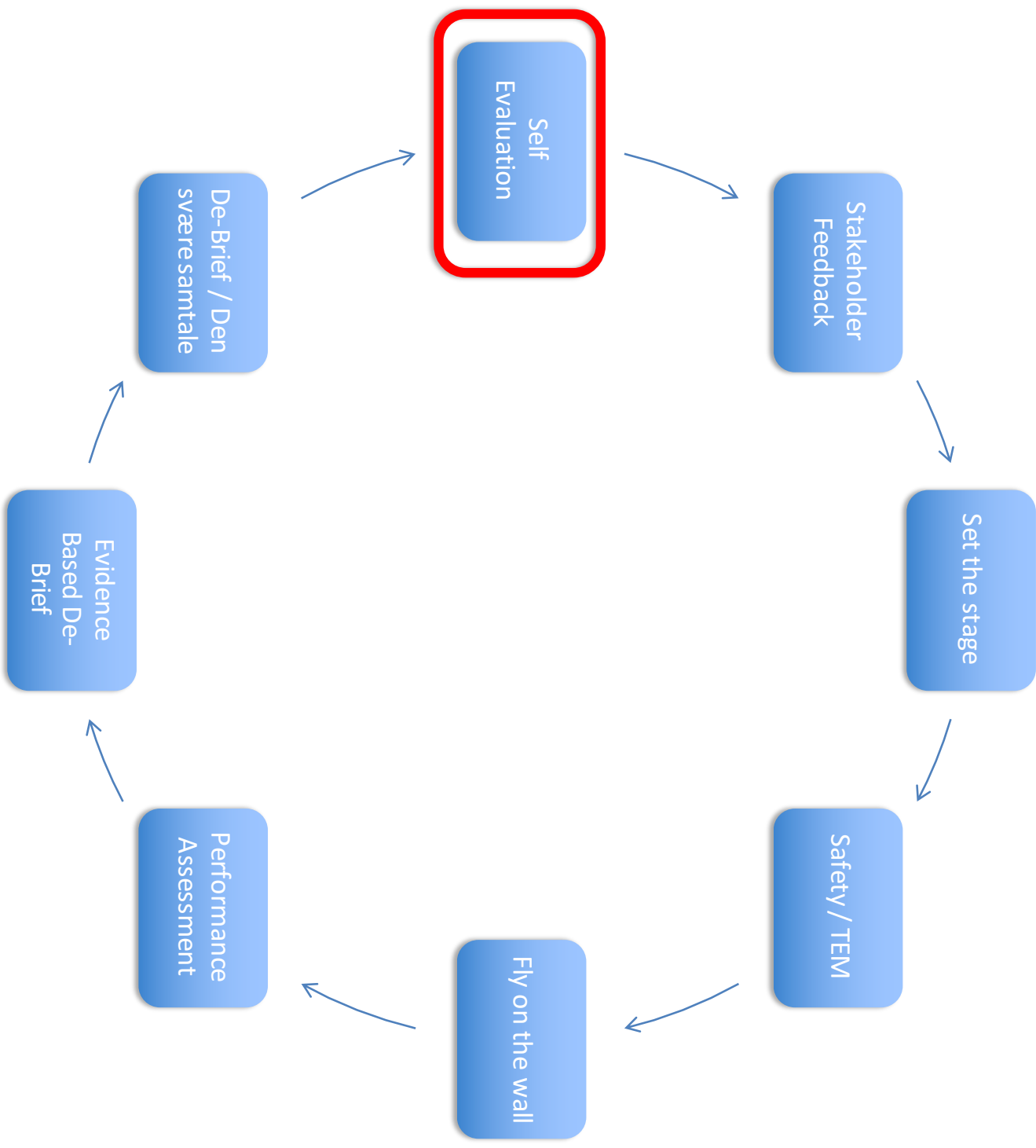
Self evaluation

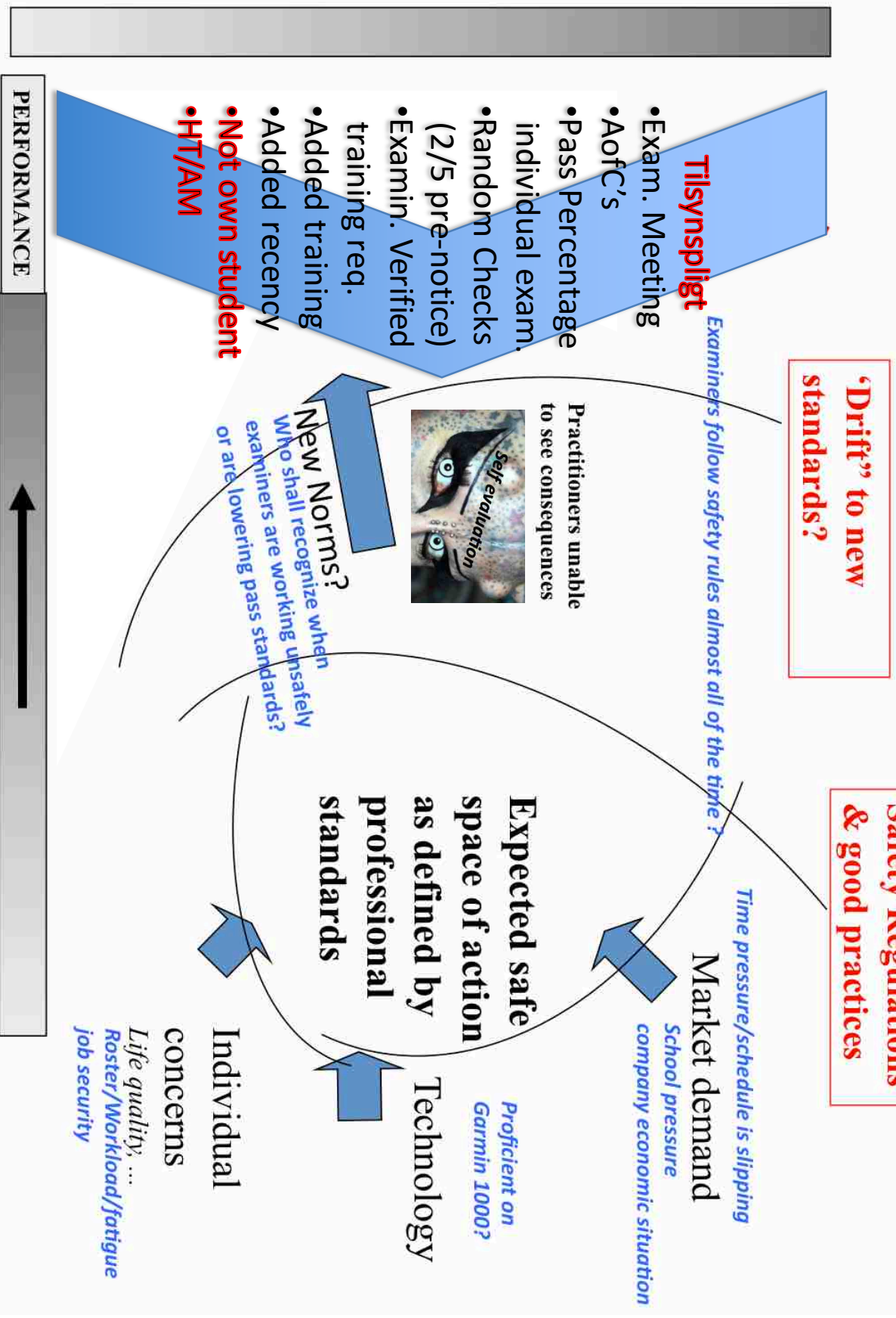Am I on the official standard or drifted to a lower standard? (or higher)

Do I have obsessions

Am I still open to alternate solutions

Who do I use as sparing partner

Examiners integrity and role as "models" in Systemic Migration to Safety Boundaries
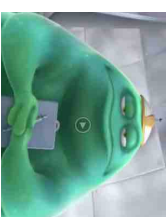
PERFORMANCE

Tilsynspligt

- Exam. Meeting
- AofC's
- Pass Percentage
- individual exam.
- Random Checks
- (2/5 pre-notice)
- Examin. Verified
- training req.
- Added training
- Added recency
- **Not own student**
- **HT/AM**

'Drift" to new standards?

Examiners follow safety rules almost all of the time ?

Practitioners unable to see consequences

Self evaluation

New Norms?
Who shall recognize when examiners are working unsafely or are lowering pass standards?

Expected safe space of action as defined by professional standards

Safety Regulations & good practices

Time pressure/schedule is slipping
School pressure
company economic situation

Proficient on Garmin 1000?

Market demand

Technology

Individual concerns
Life quality, …
Roster/Workload/fatigue
job security

New feed-back opportunities

Candidate

School

Examiner

Authority
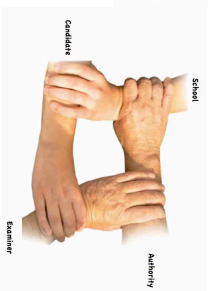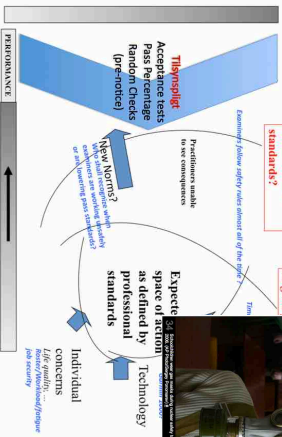
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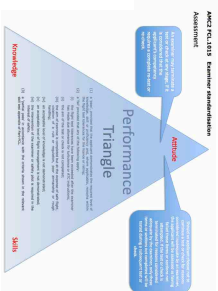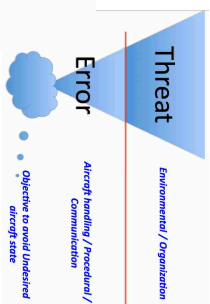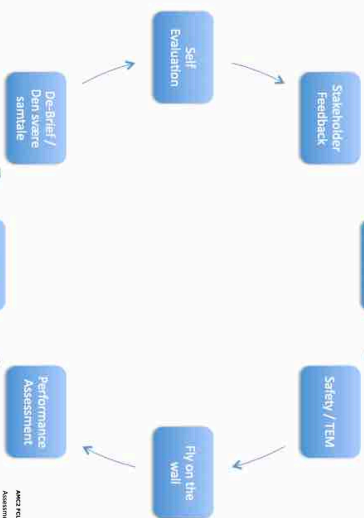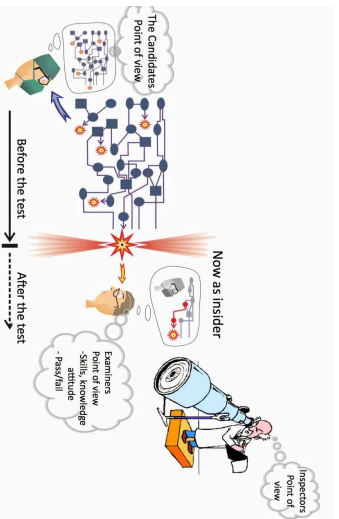
Developing Examiner Ethics

- Suggestion from schools

- Must be transparent ,

- Usable for all Stake holders

  - Candidates
  - Examiner
  - Schools
  - Transportstyrelsen

- Recruitment new examiners / how to select

- How does all parties benefit

Ethics

- Your own role as examiner

    - Objectives in mind (ex. CPL or ATPL standards, "the official one")
    - Being aware of integrity and status as a role model
    - Exercise/assume the role as "civil servant"
    - Deal with corporate pressure
    - You must se and acknowledge the human. The candidate is NEVER just another one.
    - Workload management (examiners never appear under time pressure...)
    - Objective / neutral statements
    - Techniques to signal different roles in tests, particularly instructor skill tests
    - Don't make traps
    - Avoid taking ownership of the test, evaluate – limited directions/involvement
    - Close loops, leaving candidates guessing about what you want them to do will destruct your debrief
    - NEVER, never invent your own rules, bypass safety procedures or petty the rules

Tak for denne gang