



**ECA**

European Cockpit Association

# **Mental health in aviation safety (MESAFE) conference**

**Cologne 23-24.4.2024**

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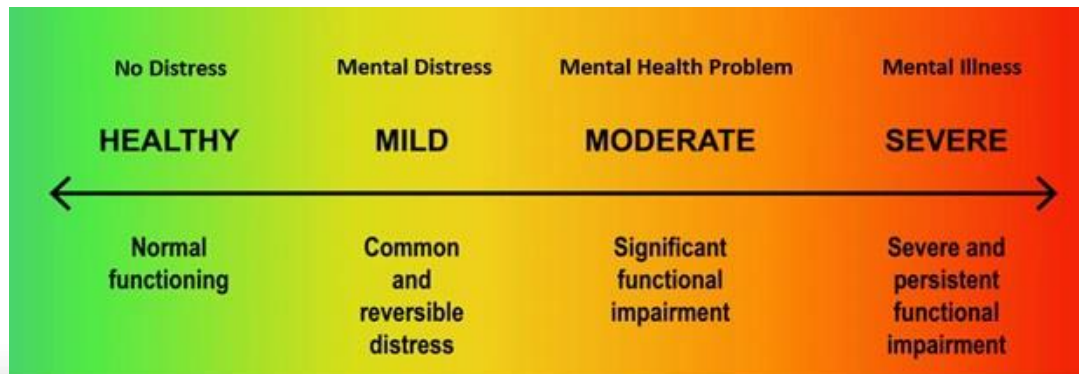
# Mental health

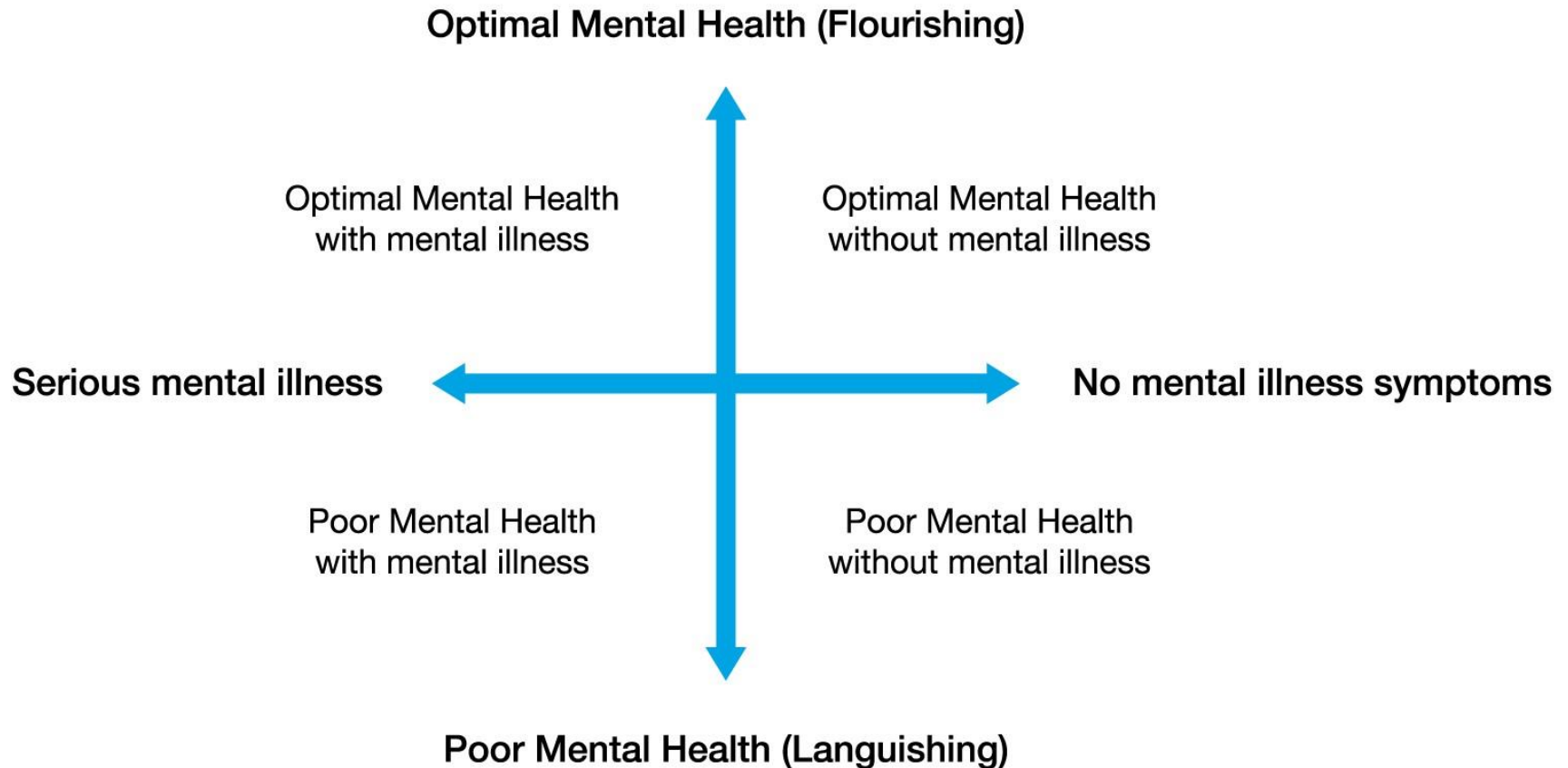
## Mental Health (WHO)

“A state of well-being in which an individual realizes their own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to their community”

## Mental Disorder (WHO)

“A mental disorder is characterized by a clinically significant disturbance in an individual’s cognition, emotional regulation, or behaviour. It is usually associated with distress or impairment in important areas of functioning”

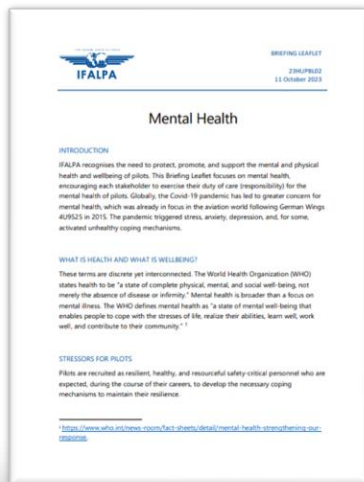
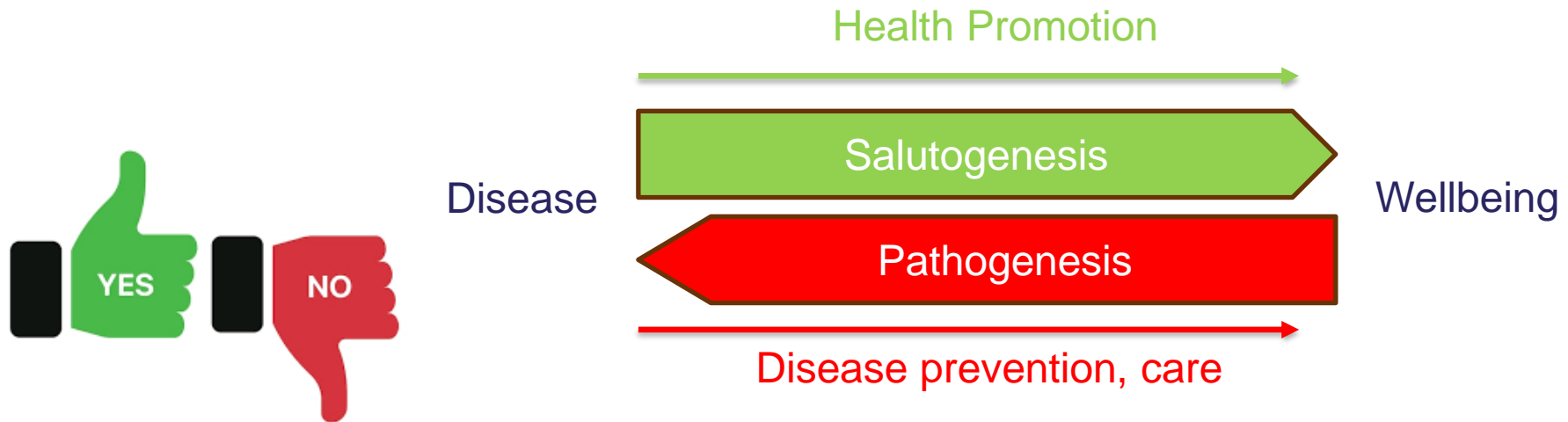




Westerhof GJ, Keyes CL. Mental Illness and Mental Health: The Two Continua Model Across the Lifespan. J Adult Dev. 2010 Jun;17(2):110-119.  
Dual-continuum model (CACUSS & Canadian Mental Health Association, 2013)



# Binary vs. salutogenic approach

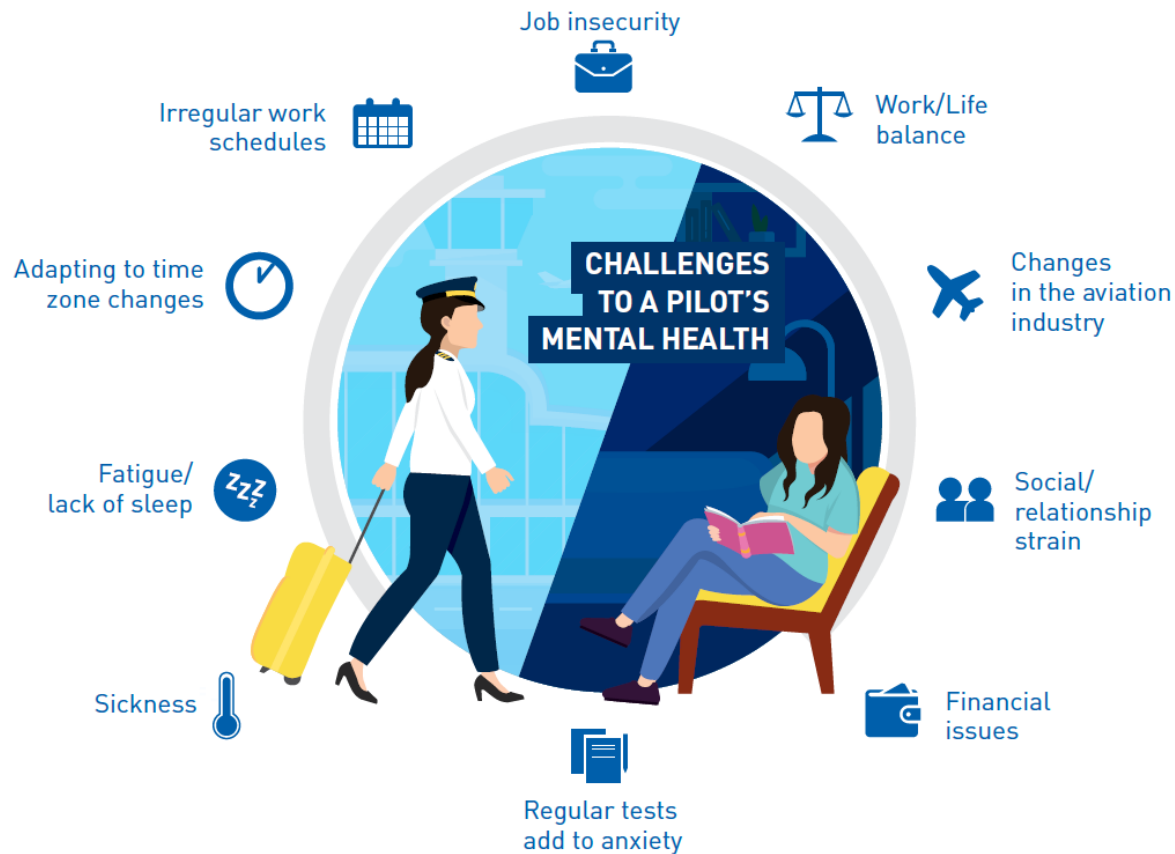


✓ The **Salutogenic approach** actively focuses on the individual's health and well-being on the health/disease continuum, rather than on the disease

✓ **Aeromedical certification** has largely adhered to a **binary pathogenic model** where certification is either granted or suspended depending on whether diagnostic criteria for mental or physical illness are met.

✓ This **binary pathogenic approach** discourages pilots from seeking appropriate health care and poses a risk to operational safety as well as to individual health

# Factors affecting Mental Health in Aviation



✓ **Fitness to Fly -  
A Medical Guide  
for Pilots, 1st  
Edition, 2018**  
individual health

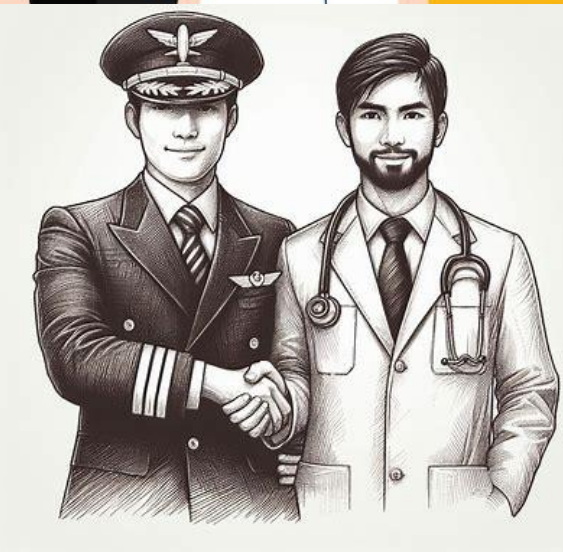
# Barriers for pilot's disclosure

- Loss of licence - fear
- Burdensome mental health assessments resulting even after a minor stressfull episode
- Sick-leave compensation





# Trust



# AME & Authority

- Keep the pilot flying as long as possible
- Life stressors and mental health symptoms are normal – and not always meaning unfitness
- Look behind the diagnoses
- Take pilots along in the decision making process
- With the consent of the pilot, try to find solutions with operator (e.g. schedule arrangements, part time etc).
- Avoid "just to be sure that there is no relapse, you are grounded for another year", instead find ways of ensuring other safe outcomes (PSP, TML, wingman etc.)





# MESAFE Matrix

MESAFE MATRIX			Catastrophic - A	Hazardous - B	Major - C	Minor - D	Negligible - E
Risk assessment of mental health			May cause catastrophic event	may cause flight safety critical event	May compromise flight safety	Reduced effectiveness and capacity to adapt to operational requirements	Minimal impact on flight safety
	Frequency per year	Flight hours between each event (approx) *	Total incapacitation	Severe incapacitation	Major decrement on performance	Minor to moderate performance compromise, may continue duties	Minimal impact on performance
Frequent 5	> 1/month	100	5A	5B	5C	5D	5E
Occasional 4	1-10 times	1,000	4A	4B	4C	4D	4E
Remote 3	10-99%	10,000	3A	3B	3C	3D	3E
Improbable 2	1-10%	100,000	2A	2B	2C	2D	2E
Extremely improbable 1	<1%	>1,000,000	1A	1B	1C	1D	1E
*given random onset of event unconnected to flight. If event is connected to flying activity (e.g. Murder suicide or flight anxiety),use career frequency rather than yearly							
	Risk unacceptable					**Operational risk reduction could be co-pilot, backup crew, time window to land helicopter etc. Personal risk factors could be close follow-up by psychologist, peer-support etc. Formalised risk reduction is documented and required in the certificate.	
	Risk unacceptable, but may in some cases be acceptable after thorough review and specific mitigation. A medical board should in such cases be employed**						
	Risk may be acceptable - may require operational and/or personal risk reduction**						
	Risk acceptable						

Figure 71 - the MESAFE matrix

# Use of Questionnaires

## Patient Health Questionnaire (PHQ-9)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Table 2: Physical and Mental Manifestations of Fatigue**

Physical Manifestations	Mental Manifestations
General feeling of tiredness	Difficulties in memorizing information
Reduction in vigilance	Lack of concentration
Growing and irresistible need to sleep	Periods of inattention
Nodding off/inadvertent napping	Slow understanding
Lethargy	Tendency to forget information and actions
Slowed reaction time	Bad mood
	Poor decisions
	Apathetic

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

For office coding: Total Score \_\_\_\_\_ = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

Total Score \_\_\_\_\_

Fatigue Manifestations (OGHFA BN) | SKYbrary Aviation Safety

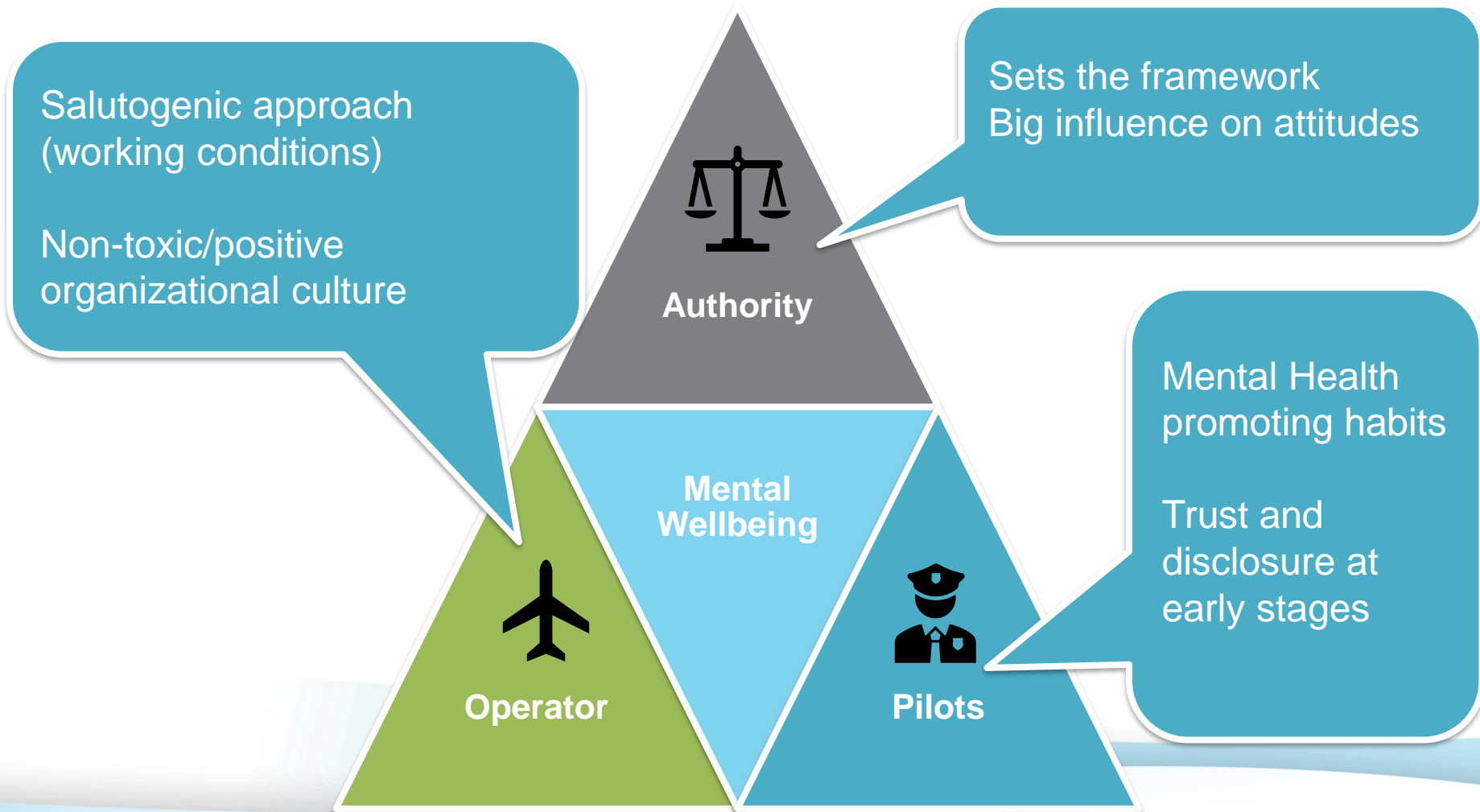


# Solutions

- **Peer Support**
- **MH issues are multifactorial** – work related stressors influence family/private life and vv.
  - sometimes work-related issues have crucial effect on wellbeing – shared responsibility btwn employer and employee
- **Mental Health Professional** – easy access, no mandatory obligation to report
- **Substance abuse** – Antiskid type approach
  - Structured treatment, rehabilitation and follow-up
  - Enables faster return back flying when program is successfully adhered to



# Shared responsibility



# MeSafe 3.2.2.1. Just Culture

A just culture for mental health in aviation is a safety culture in which all safety sensitive personnel **can report** mental health problems **in a supportive atmosphere without a risk of job- or income loss**. If indicated, **timely treatment according to the highest standards** is available. A maximum effort is made to ensure that employees can **return to their job safely**. Safety sensitive personnel should however provide **honest information** and **cooperate** with mental examinations and treatment to their best capabilities. Appropriate measures are taken to **protect confidentiality of medical information**. It is acknowledged that some mental disorders may hamper the ability to provide accurate information and that cooperation may be hampered in case of a severe mental disorders. In this situation, no punitive actions will be taken\*.



# Thank you



Questions?