

# AFOSA Workshop 3

Per-Erik Oeberg

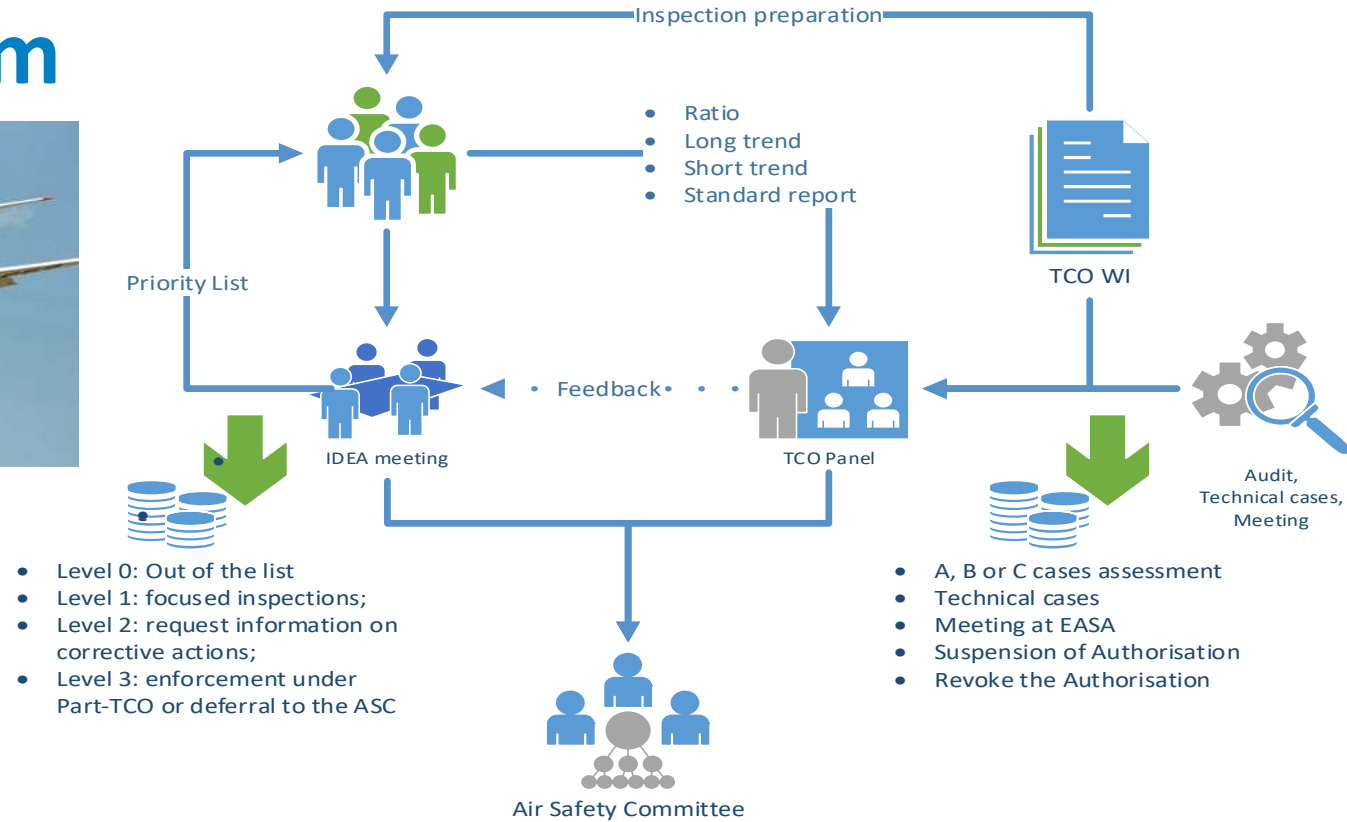
Risk based targeting (SWC) & Lessons learned

Singapore 2-4 July 2019

**Your safety is our mission.**

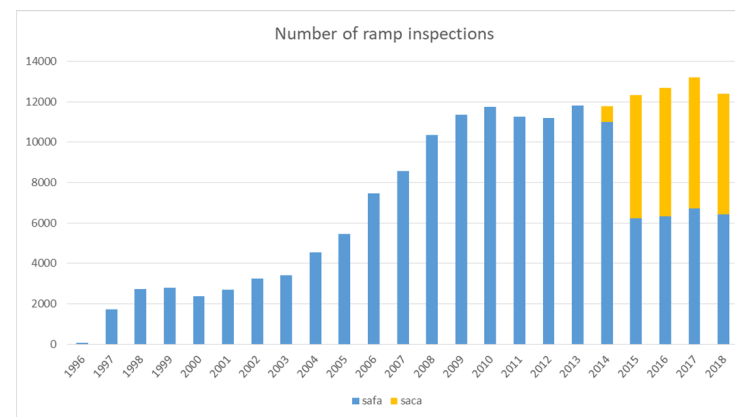
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# The System



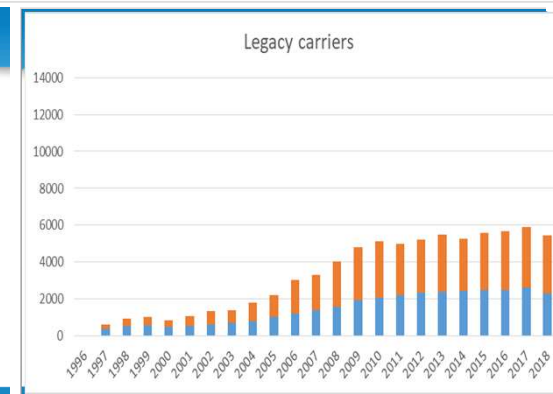
# SAFA/RAMP Inspection evolution

- Increase in inspections
  - Number of States increased
  - The introduction of Quota lead to more inspections (more contributors)
- However;
  - The cooperative outcome was unsatisfactory
  - Discussions did not have any affect on the outcome and we had to change this



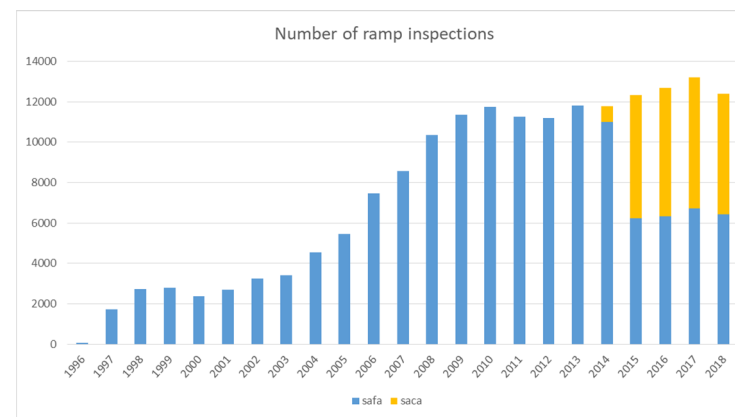
Top 10 1996-2016 Inspected

Founded	Aircraft Inspected	Num Of Inspections	Ratio
1985	394	2274	0.44
1933	327	1884	0.5
1923	329	1765	0.57
1948	94	1526	0.58
1995	345	1430	0.63
1948	296	1246	0.34
1974	322	1115	0.61
1957	164	1054	0.32
1953	341	1044	0.43
1957	112	1021	1.16
<b>1957.1</b>	<b>2714</b>	<b>14358</b>	<b>0.558</b>



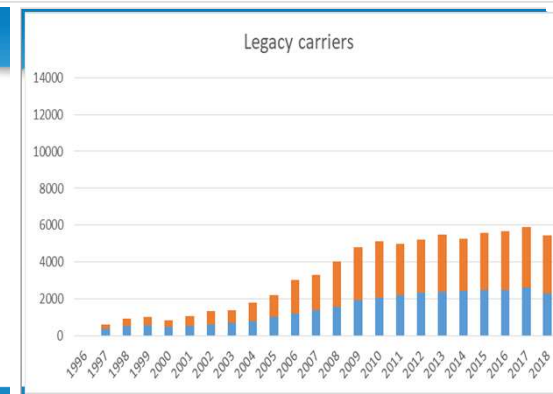
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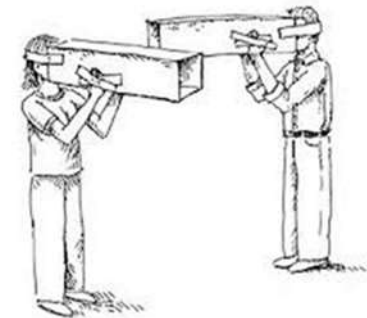
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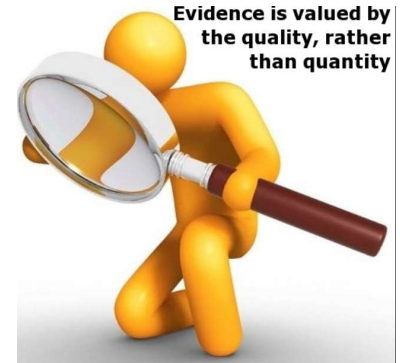
# Root cause Analysis

- Over-inspection of well known, larger & frequent operators
- Under-inspection of smaller OPR, less frequent operating out of office and/or at remote airports
- National programmes were risk-based, however;
  - Only on National level
  - In some cases not at all...



# The solution

- EASA initiated the System Wide working group 2016 project with a mission to;
- Replace a Volume system with a risk-based system based upon traffic and confidence
  - Enabling reallocation of resources from over-inspected operators to under-inspected operators
- Create a cooperative oversight system for all Member States
- Coordinate number of inspections



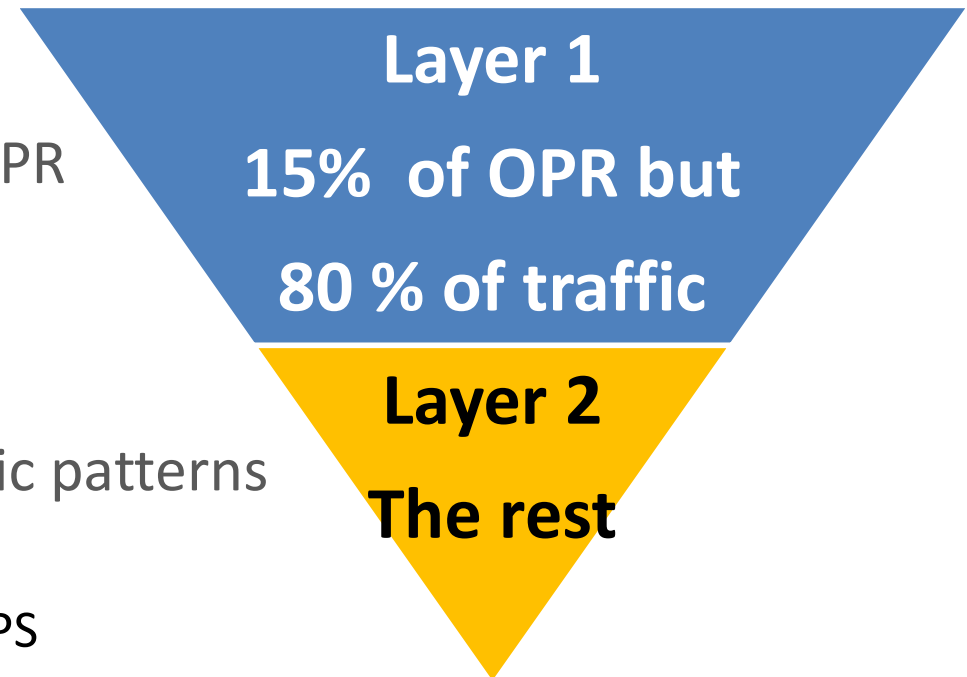
## Two Layers of operators

### → Layer 1

- “Legacy” & known frequent OPR
- Easy to catch

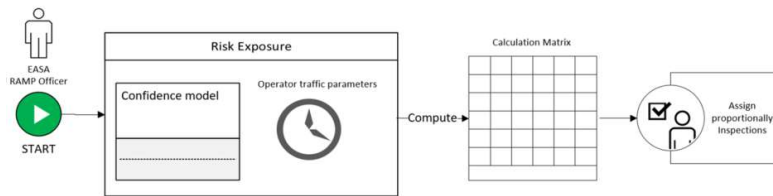
### → Layer 2

- Less frequent and erratic traffic patterns
  - Pure ACMI OPR
  - Business, helicopter & special OPS
  - Interoperability group’s (Norwegian)
  - OPR with untrustworthy basic data



# Layer 1 calculation model

OPR	Landings		OPR	Landings	EASA Target	Landings in State	State Target
ABC	15677		ABC	15677	36	3542	8
DEF	2798		DEF	2798	22	35	0
HIJ	246098		HIJ	246098	55	2875	1
...	...		...	...			
DCT	76489		DCT	76489	87	473	2
				3990	13	78	1
				27623	46	2890	5



## ESTABLISH CONFIDENCE

## SET TARGETS

### "RISK FOOTPRINT"

## DISTRIBUTE TARGETS PROPORTIONALLY



# The outcome

OPR Code	OPR Name	2017	SWC 2018	Change
RYP	RYANAIR	154	66	-57%
THY	TURKISH AIRLINES-TURK HAVA YO.	146	58	-60%
EZY	EASYJET AIRLINES CO. LTD	138	82	-41%
DLH	DEUTSCHE LUFTHANSA, A.G.	125	67	-46%
WZZ	WIZZ AIR HUNGARY LTD.	121	63	-48%
AFL	AEROFLOT - RUSSIAN INT. AIRL.	116	59	-49%
AUI	UKRAINE INTERNATIONAL AIRLINES	114	40	-65%
QTR	QATAR AIRWAYS COMPANY	113	35	-69%
BAW	BRITISH AIRWAYS	104	63	-39%
AUA	AUSTRIAN AIRLINES AG	91	48	-47%
AEE	AEGEAN AIRLINES S.A.	85	47	-45%
VLG	VUELING AIRLINES	82	72	-12%
SVA	SAUDI ARABIAN AIRLINES	79	22	-72%
TRA	TRANSAVIA HOLLAND B.V.	78	38	-51%
PGT	PEGASUS HAVA TASIMACILIGI	73	41	-44%
SAS	SCANDINAVIAN AIRLINES SYSTEM	73	55	-25%
UAE	EMIRATES	72	45	-38%
KLM	KLM ROYAL DUTCH AIRLINES	72	46	-36%
RAM	ROYAL AIR MAROC	71	52	-27%
AFR	AIR FRANCE	71	47	-34%
ASL	AIR SERBIA (AD BEOGRAD)	70	54	-23%
BEL	BRUSSELS AIRLINES	70	48	-31%
DAI	DFITA AIR LINES, INC.	68	55	-19%



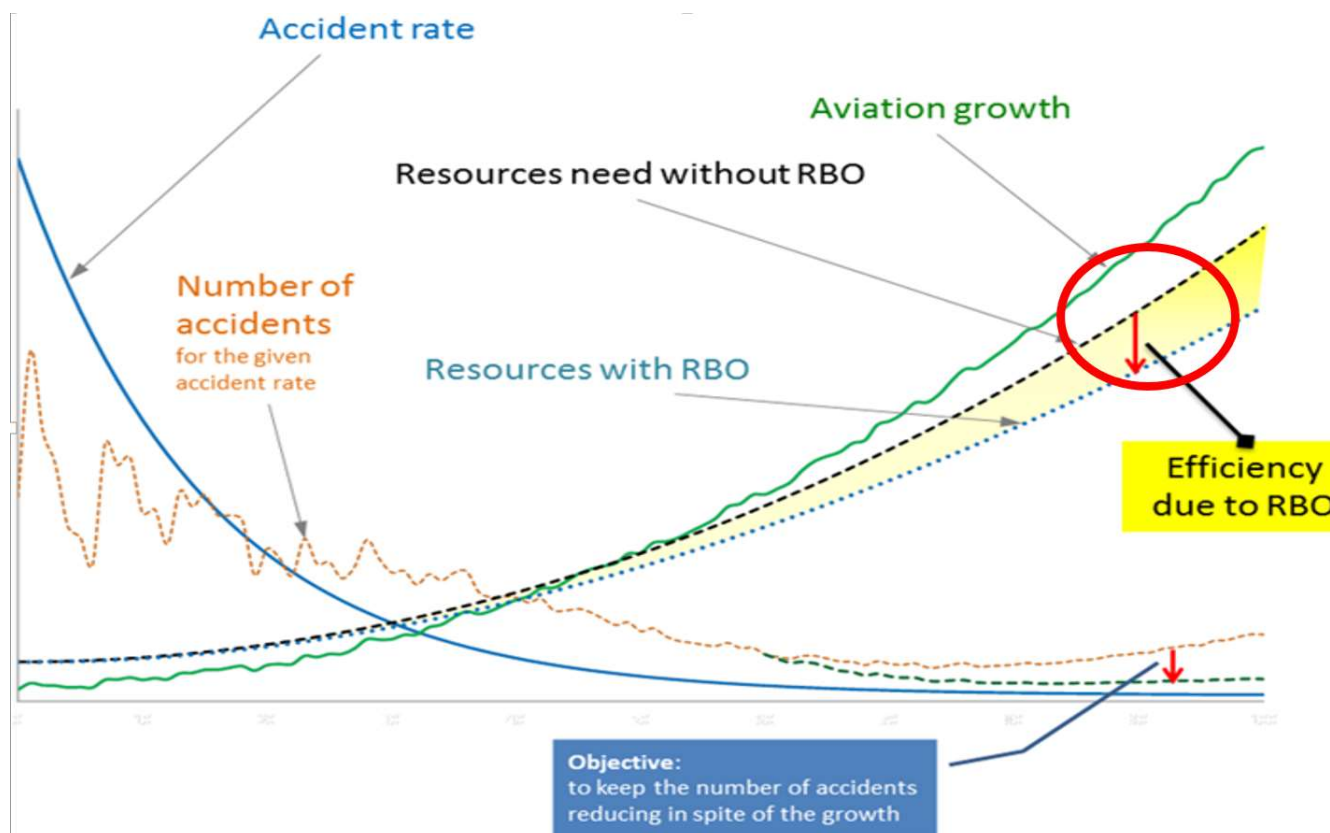
Layer 1  
decrease  
40% but  
same level of  
safety

# Lessons learned

- States in a group working independently with National Systems might create un-wanted and un-fair result
- Important to do a minimum number of inspections per State without compromising the quality of individual inspections
- Coordination and planning is essential for the cooperative outcome and best use of resources
- A “gentlemen agreement” can be achieved between States if the principles for establishing number of inspections is fair and reflects the “risk footprint”

→ Don't wait to long if un-wanted results is detected

# Why Risk based targeting?



# Targets



# National Coordinator task's

- Establish Annual ramp inspection programme including a control mechanism that warns for possible over-inspection
- Monitor progress and adherence to targets  
Prioritise and allocate resources
- Follow up and amend annual programme,  
Support and supervise Inspectors short term planning
- Make decisions regarding  
deviations and record all deviations

# Basic planning principles



- Repetitive inspections of those operators where previous inspections have not revealed safety deficiencies should be avoided
- Non-discrimination based on the nationality of the operator, the type of operation or type of aircraft
- Calculate targets making use of, safety relevant indicators and fair principles
- Allow for National specific reasons such as demanding airports etc.

# Annual plan



"A GOAL WITHOUT A PLAN IS JUST A WISH"

OP1

ANNUAL RAMP INSPECTION PROGRAMME - 2019																				
Established and maintained in accordance with RIM procedures																				
Operator-related info				Traffic-related info				Period				Ratio updated: 17.01.2019		Safety-related info			Inspections		Quota updated: 17.01.2019	
ICAO des.	Airline	State	Type	Seasonal Traffic?	Target inspections	1	2	3	4	Layer 1 midyear update	SAFA Ratio	Priority list 12.2017	Target	Done	To do	Quota pts	Comments			
AFL	AEROFLOT - RUSSIAN INT. AIRL	Russian Federation	Passenger	NR	2	1		1		1	0.30	0	2	0	2	NR				
AUI	UKRAINE INTERNATIONAL AIRLINES	Ukraine	Passenger	W	2	1		1		2	0.30	1	2	0	2	NR				
EST	REGIONAL JET OU (NORDICA)	Estonia	Passenger	NR	2		1	1		2	0.39	0	2	1	1	NR				
BEE	FLYBE JERSEY EUROPEAN	United Kingdom	Passenger	NR	1		1			1	0.66	0	1	0	1	NR				
BRU	BELAVIA	Belarus	Passenger	NR	1		1			0	0.17	1	1	0	1	NR				
DLH	DEUTSCHE LUFTHANSA, A.G.	Germany	Passenger	NR	1			1		1	0.23	0	1	0	1	NR				
FCM	NORDIC REGIONAL AIRLINES OY	Finland	Passenger	NR	3					3	0.31	0	3	0	3	NR				
LOT	LOT - POLSKIE LINIE LOTNICZE	Poland	Passenger	S	1		1			1	0.28	0	1	0	1	NR				
MYX	SMARTLYNX ESTONIA	Estonia	Passenger	S	1			1		1	0.33	0	1	0	1	NR	See comment			
RYR	RYANAIR	Ireland	Passenger	NR	1	1				2	0.18	0	1	0	1	NR				
SRN	SPRINT AIR S.A.	Poland	Passenger	NR	1	1				1	0.30	0	1	0	1	NR				
WGN	WESTERN GLOBAL AIRLINES, LLC	United States of									2.86	1	1	0	1	NR				
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# Last minute change of plan

## → Planned,

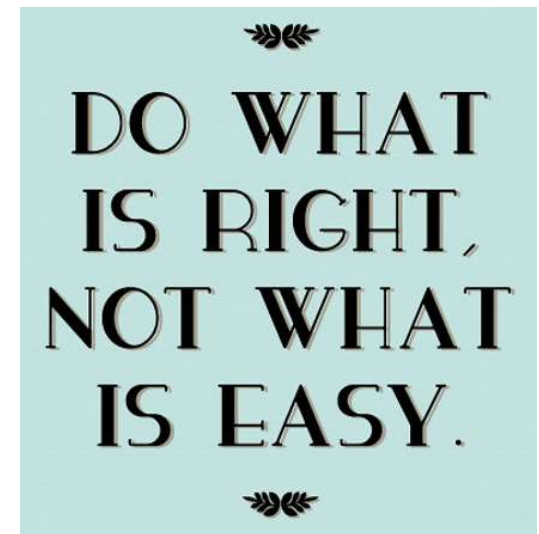
- Series of incidents or accidents on a certain operator with a suspected root cause that could be confirmed via a ramp inspection
- Operators identified by whistle blower information that could be checked via a ramp inspection

## → Last minute change on-site

- immediate aviation safety hazards which seriously threaten flight safety (potential CAT3 situation)
- Operators (or from States) being suspected of non-compliance
- Operators with low number of inspections or no inspections at all

## In short

- Select target's carefully and make use of;
  - Annual Plan
  - Intel from local sources
  - Occurrence reports and whistle blower information
- Don't deviate from the plan
  - Except for immediate safety related reasons or if “valuable” targets unexpectedly shows up
- Acknowledge Inspections from fellow States as equal  
“Cooperative Oversight” and request inspections from other AFOSA States if needed

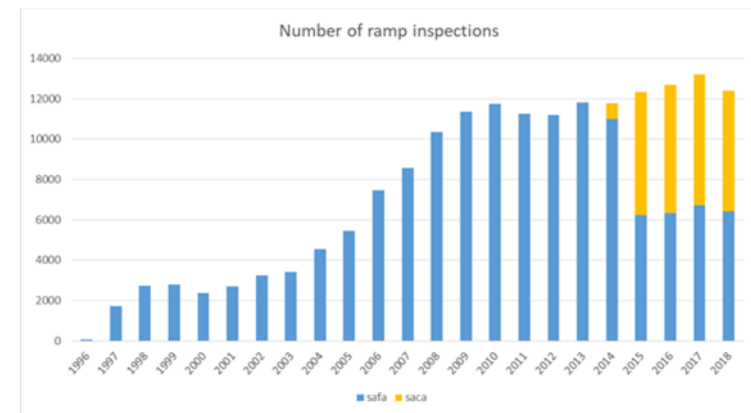


# Planning lessons learned

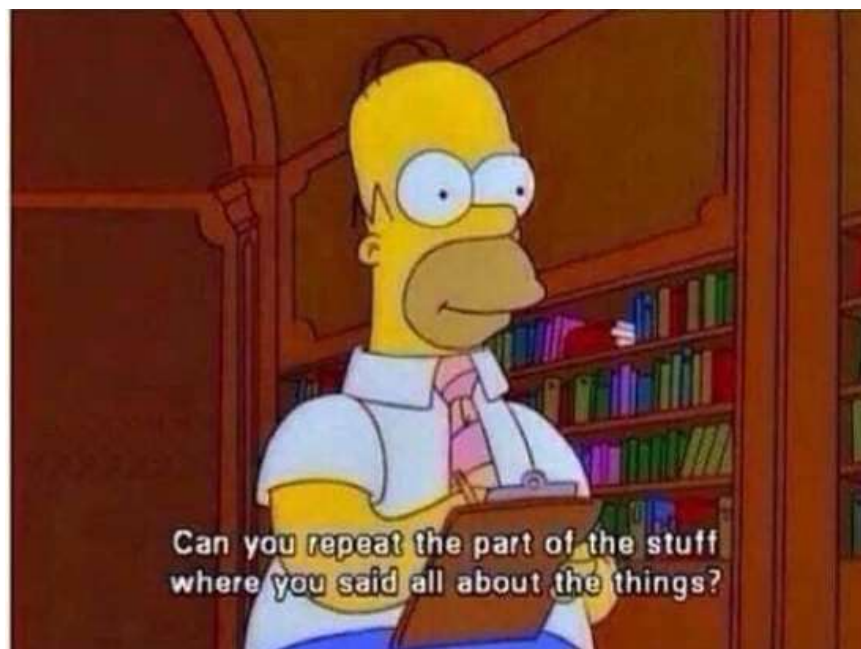
- Keep inspectors busy with focus on quality and “suspected operators” to achieve experience
- Close cooperation with “traffic entry departments” is helpful in targeting
- Well known Operators with frequent operations will receive more inspections – if not addressed they will finally become over inspected
- Less frequent and inconvenient operations will be under inspected if not planned/prioritised from the beginning

# Summary

- Keep focus on the implementation of your program (s)
- Qualified and dedicated inspectors in small and flexible team (s) is a key success factor
- Use same teams for SANA and you have an system at no extra cost
- Inspector should inspect regularly with focus on quality
- Avoid the flaws we experienced



# Questions????



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Thank you

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