



SMS Roadmaps and Safety Indicators

Can we build them without Safety Culture?

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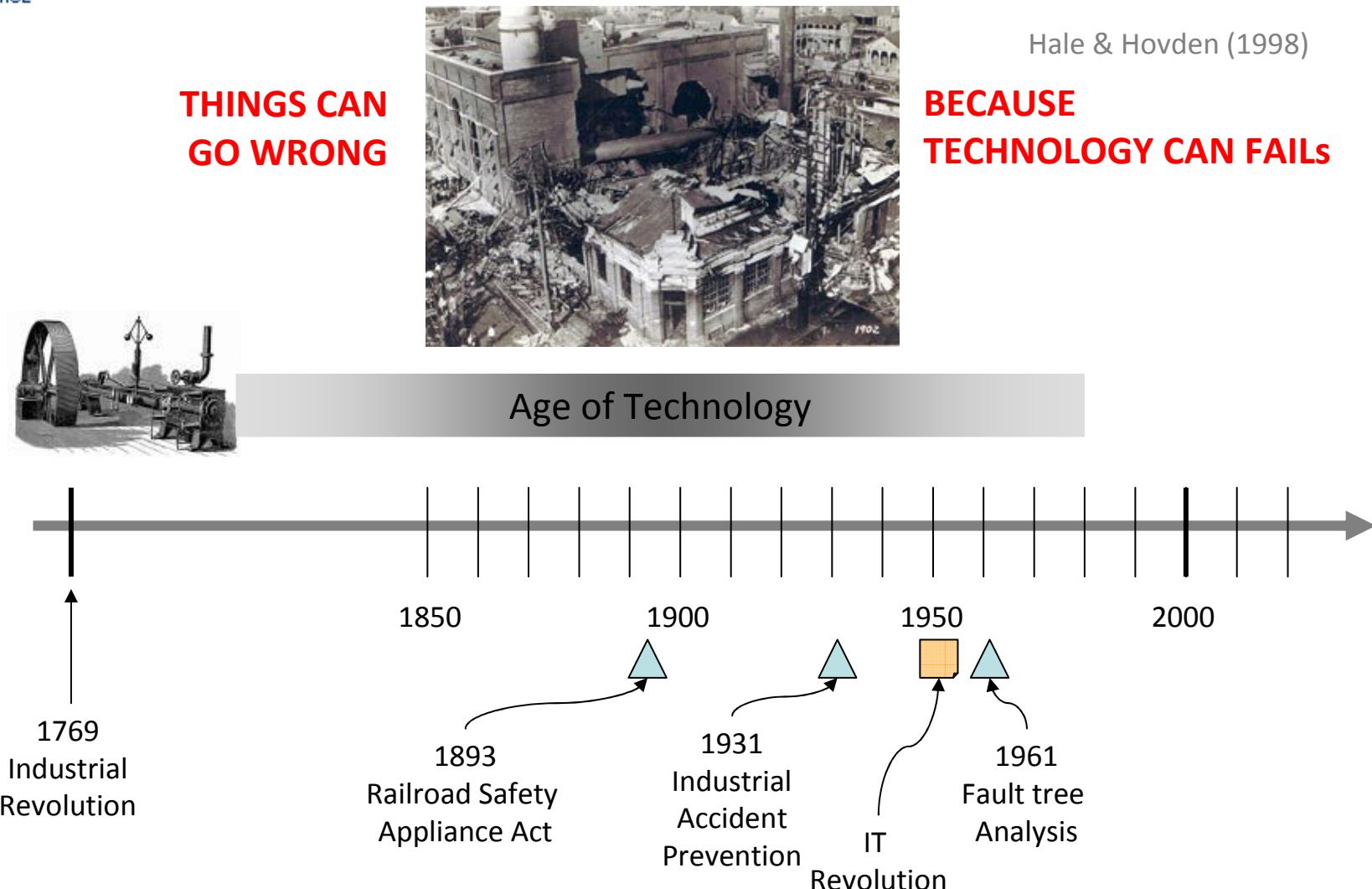


The European Organisation for the Safety of Air Navigation

“Few” challenges and paradigms

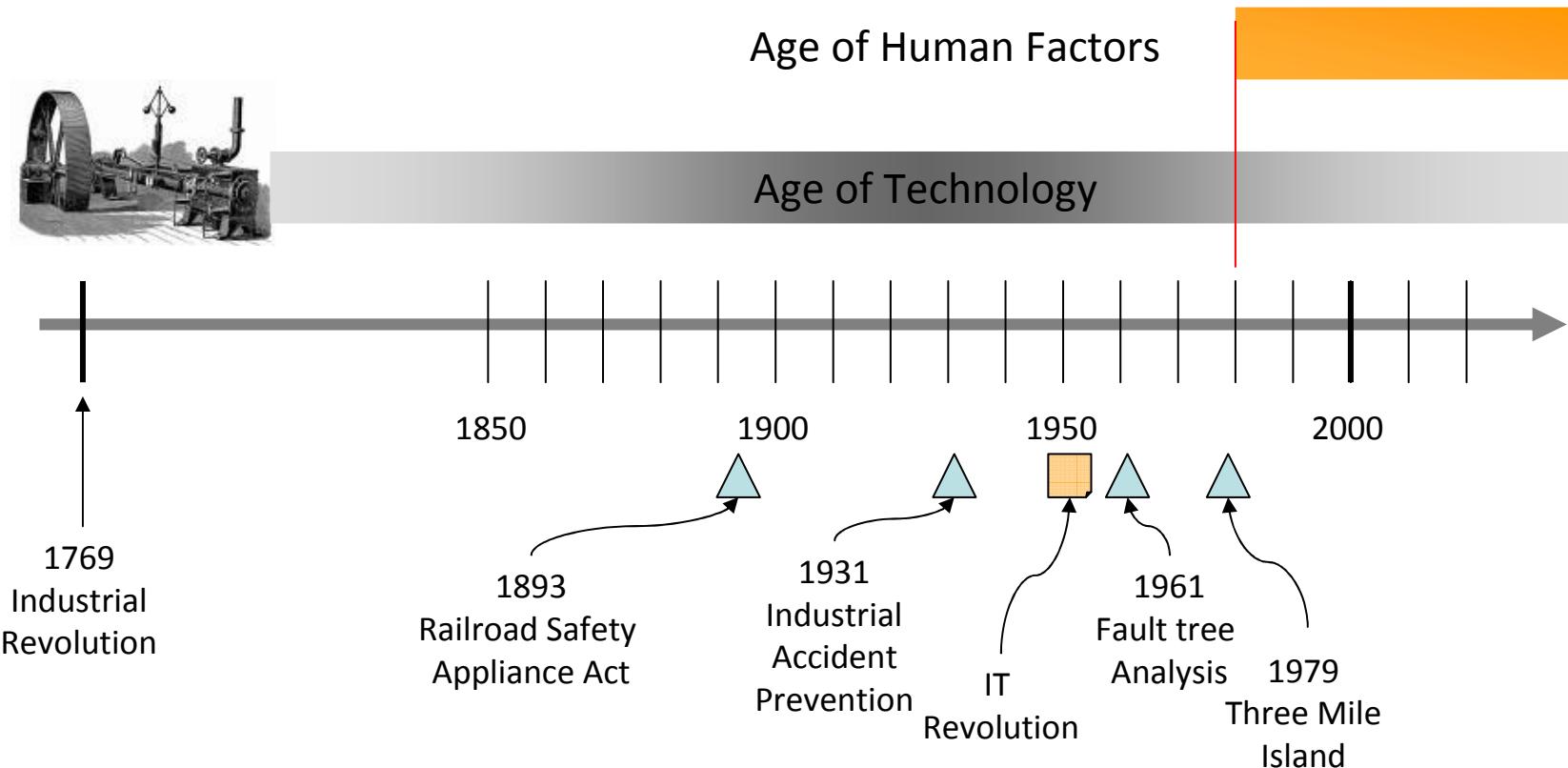
- Where are we with the today safety challenges
 - Three ages of Industrial Safety;
- Two views of Safety Management
 - From negative to positive safety;
- Reflections on Safety Indicators
 - Is there hope ?
- FABs , Multi-culturalism and CEOs.

Three ages of Industrial Safety

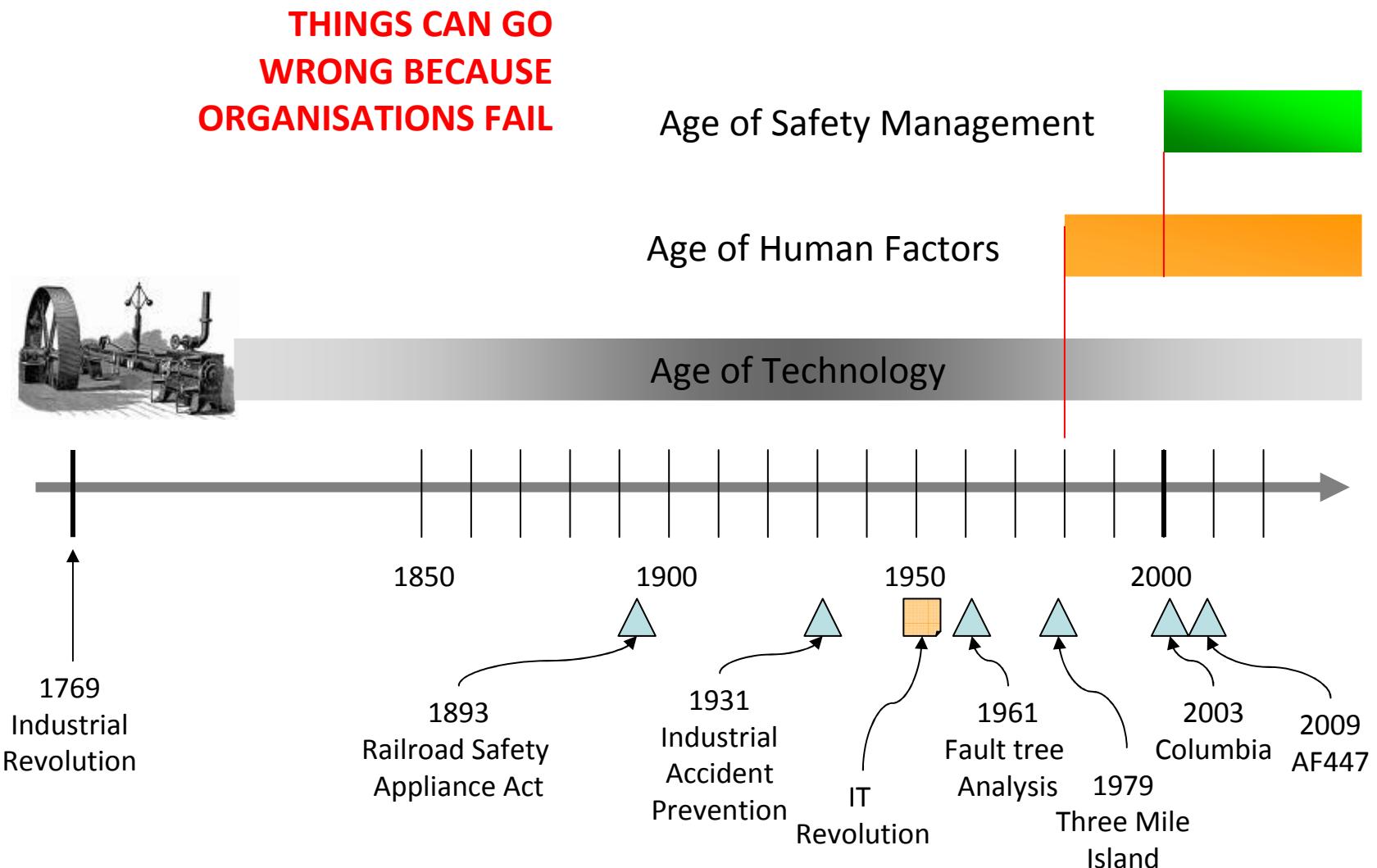


Three ages of Industrial Safety

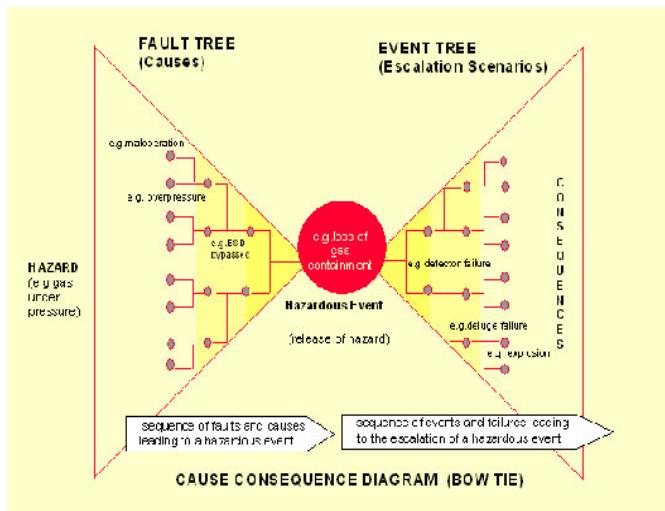
THINGS CAN GO WRONG BECAUSE
THE HUMAN FACTOR FAILS



Three ages of Industrial Safety



Two views of Safety Management



- Classical safety management uses a structural (component) view. The aim is to reduce the number of things that go wrong (**safe productivity**).
- Efforts focus on avoiding that something happens again (“fixing weaknesses,” prevention, protection).

- The more modern approach uses a functional view. The aim is to improve the number of things that go right (**productive safety**).
- Efforts focus on enhancing the organisation’s ability to *respond, monitor, anticipate, and learn*.



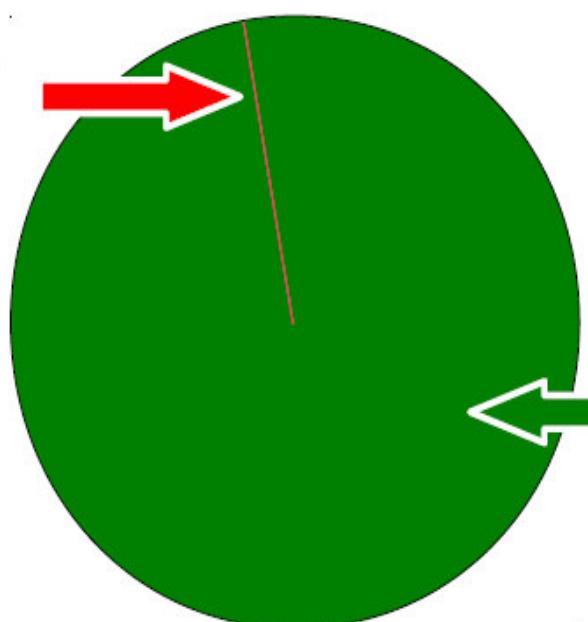
The views on Safety ! Is it enough to look at negative aspects?

Safety = Reduced number of adverse events.

Focus is on what goes wrong. Look for failures and malfunctions.
 Try to eliminate causes and improve barriers.

Safety and core business compete for resources.
 Learning only uses a fraction of the data available

10-4 := 1 failure in 10.000 events



1 - 10-4 := 9.999 nonfailures in 10.000 events

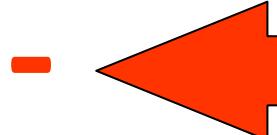
Safety = Ability to succeed under varying conditions.

Focus is on what goes right. Use that to understand normal performance, to do better and to be safer.

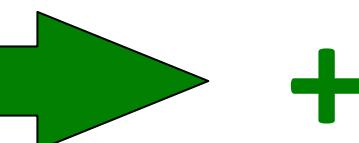
Safety and core business help each other. Learning uses most of the data available.

From Negative to the Positive

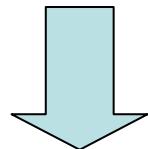
Negative outcomes
are caused by
failures and
malfunctions.



All outcomes
(positive
and negative) are
due to performance
variability.

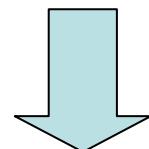


Safety = Reduced
number of adverse
events.



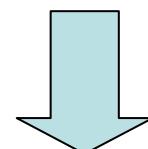
Eliminate failures
and malfunctions as
far as possible.

Safety = Ability to
respond when
something fails.



Improve ability to
respond to adverse
events.

Safety = Ability to
succeed under
varying conditions.

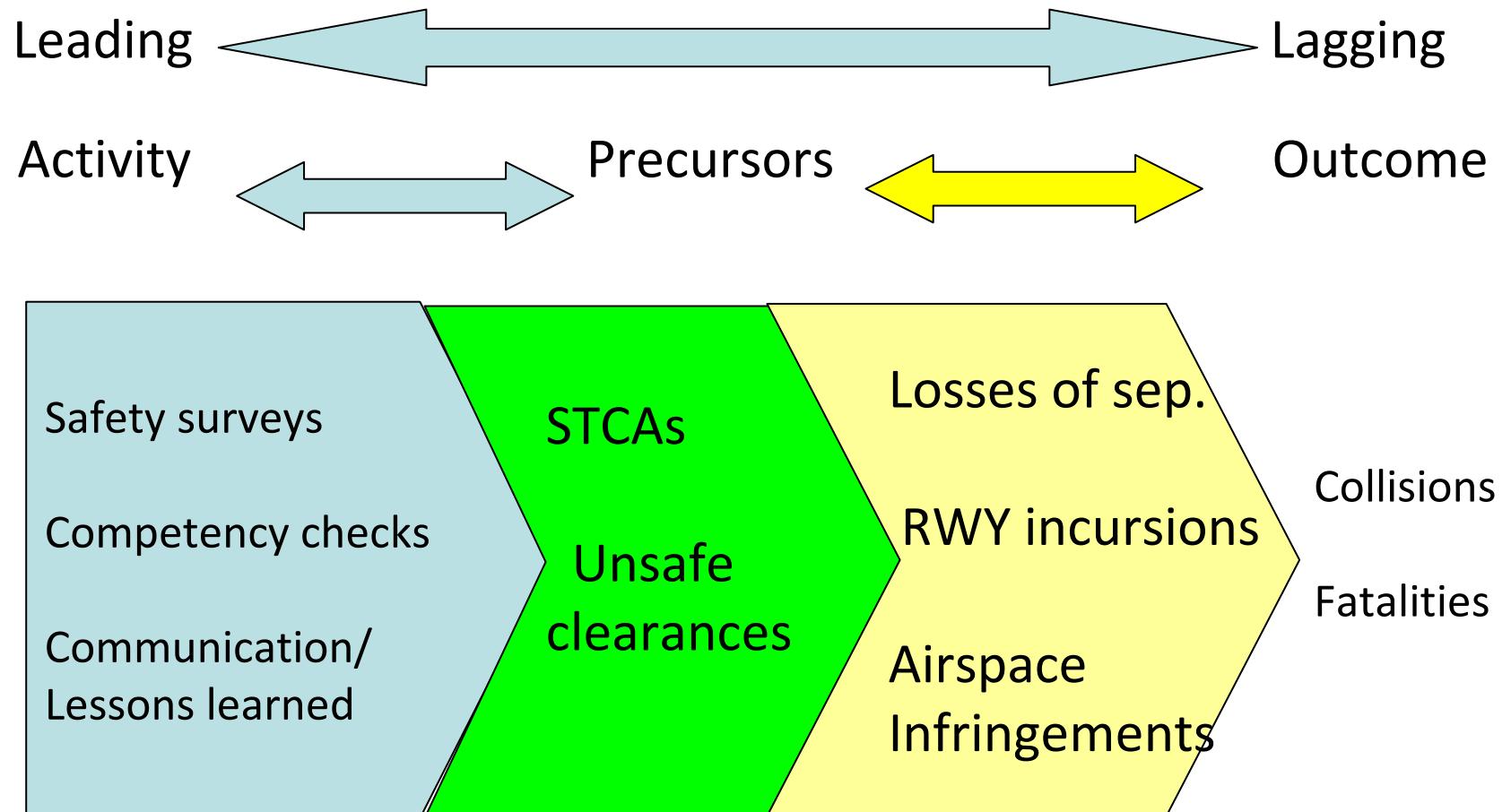


Improve **resilience**.

Some reflections on Safety Performance Indicators

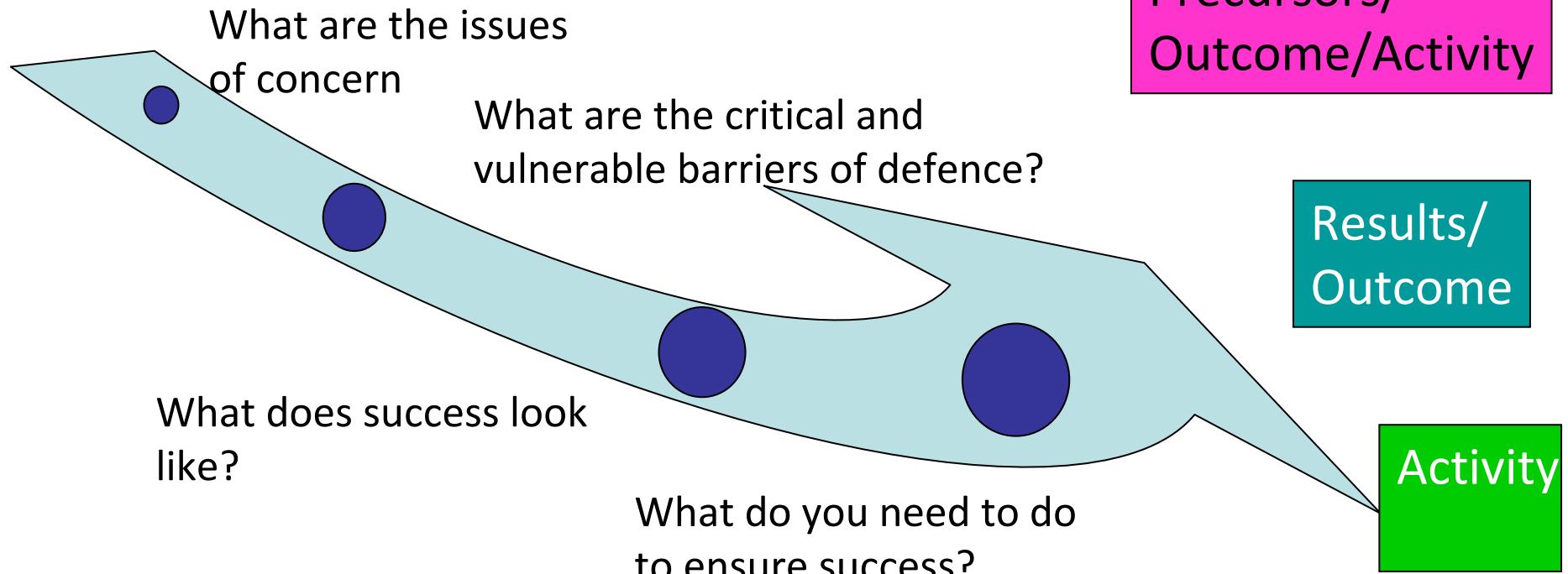
- SPIs needs a Benefit
 - *Changing Behaviour -> Changing Performance*
 - *Risk Management Effectiveness*
 - **(Safety and Cost)**
- SPI Reporting?
 - *Observation versus Influence*
 - *Available versus Alive*
- Purpose Driven?
 - *Reassurance versus Direction*
 - *Oversight versus Risk Management*
 - *Driving the right behaviours?*
- Part of a Bigger Picture?
 - *Industry wide / Cross Industry*
 - *Nationally / Internationally*
- Data Sources?
 - *Convenience versus Reliability*
 - *Available versus Aspirational*
- Measurement?
 - *Measurement versus counting*
 - *Safety versus Risk*
 - *Measuring to outcomes?*

Degrees of indicators leading vs. lagging/ process vs. outcome



What is the role of Safety Indicators ?

The key to identifying SPIs is to home in on the areas of “vulnerability” or of our “resilience”



Is there any good news ?

- We have and we are improving Taxonomies (both negative and positive);
- We have tools and methods;
- We are studying vary type of signals (weak & strong, tangible & intangible);
- We are developing (Leading/Lagging or Process/Outcome) Indicators;
- And we work together at local , FAB and Network level;
- We have SMS Roadmaps and Performance Plans covering SPIs and KPIs for ANSPs and FABs
 - Soon NM will have its own Perf Plan;
 - *SPIs and KPIs is a sensitive area of interface with NSAs and Public.*

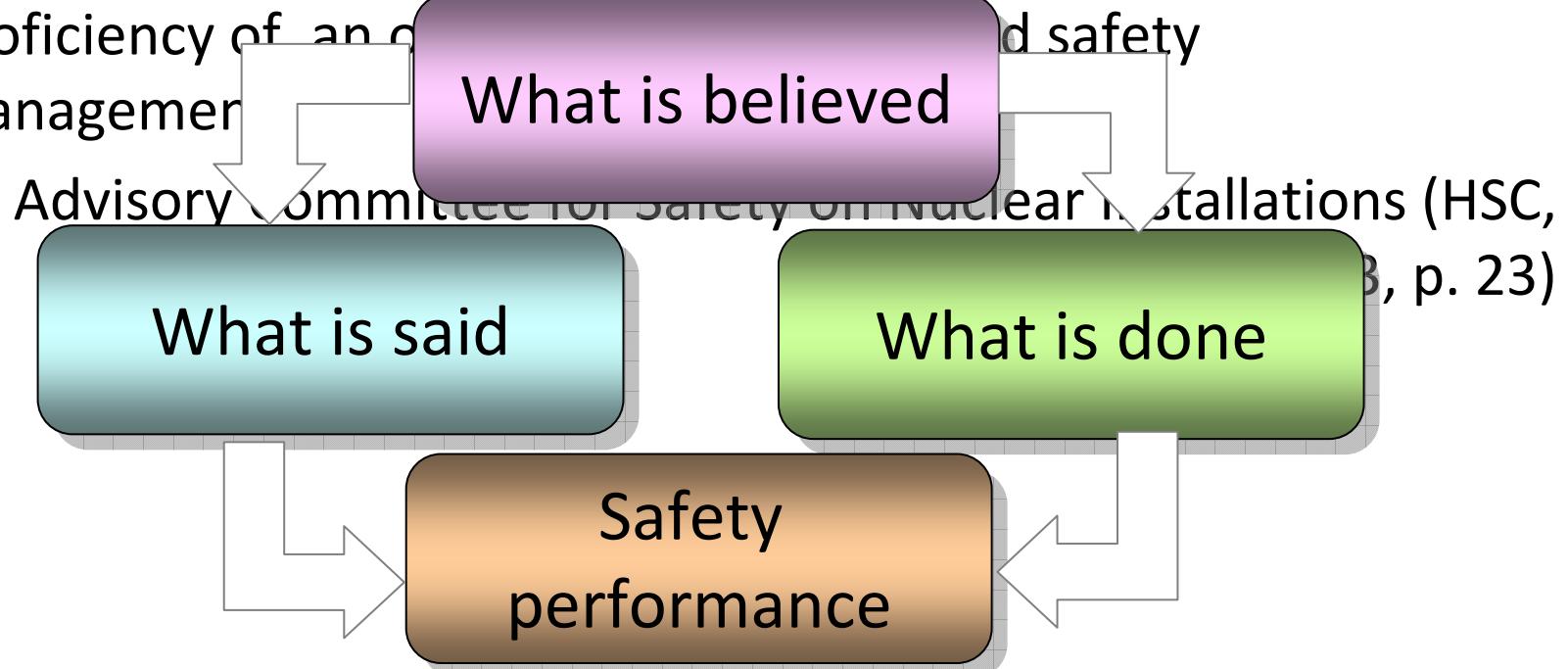
Safety Culture FABs, Multiculturalism & CEOs



FABs will bring together different ways of doing things. Different ANSPs must become one team. This requires understanding, and leadership from the top as well as understanding of the culture of Organizations

What is safety culture?

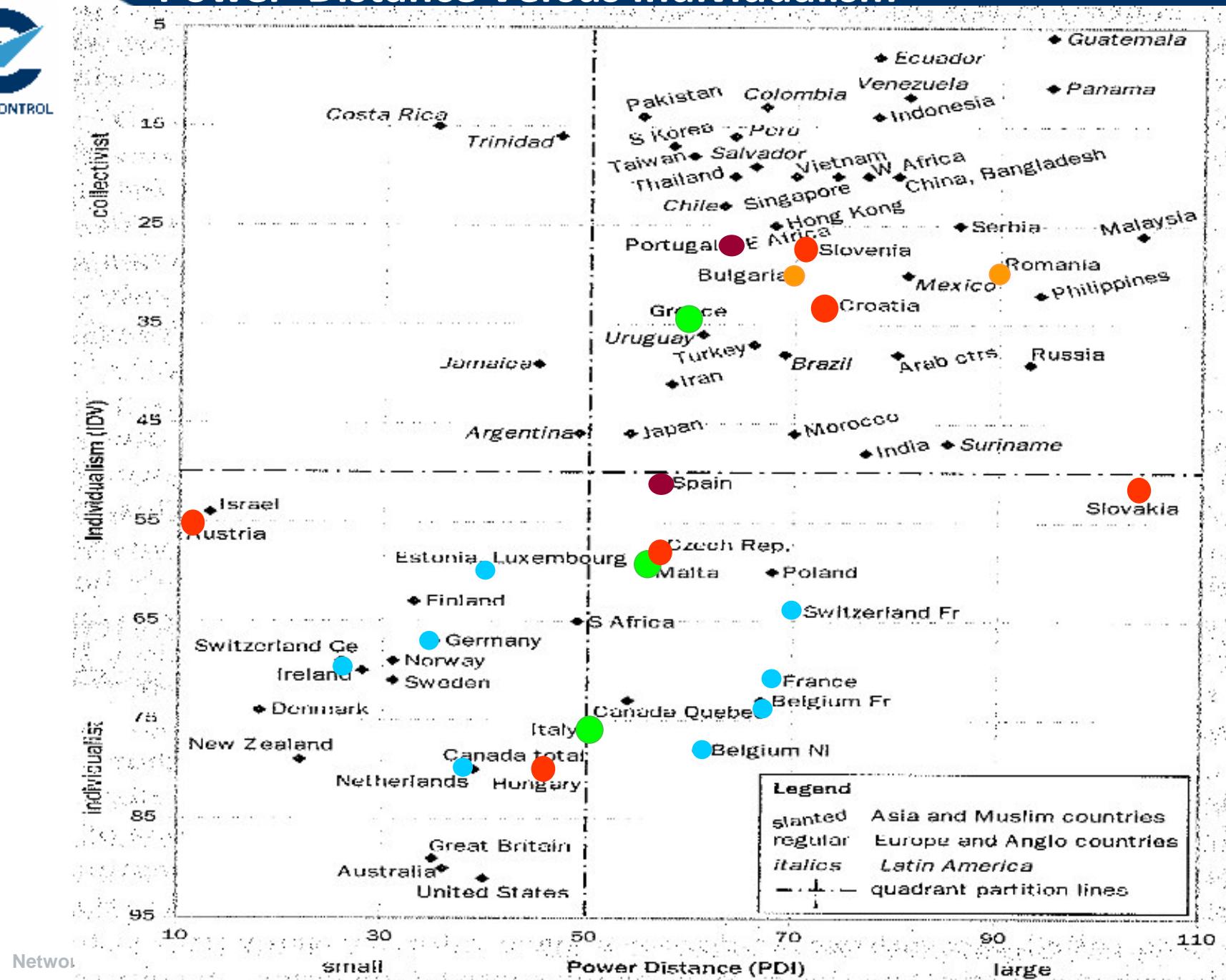
'The safety culture of an organisation is the product of individual and group values, attitudes, competencies and patterns of behaviour that determine commitment to, and the style and proficiency of, an organisation's safety management system.'



Dimensions of National Cultures that affect the Culture of Organizations

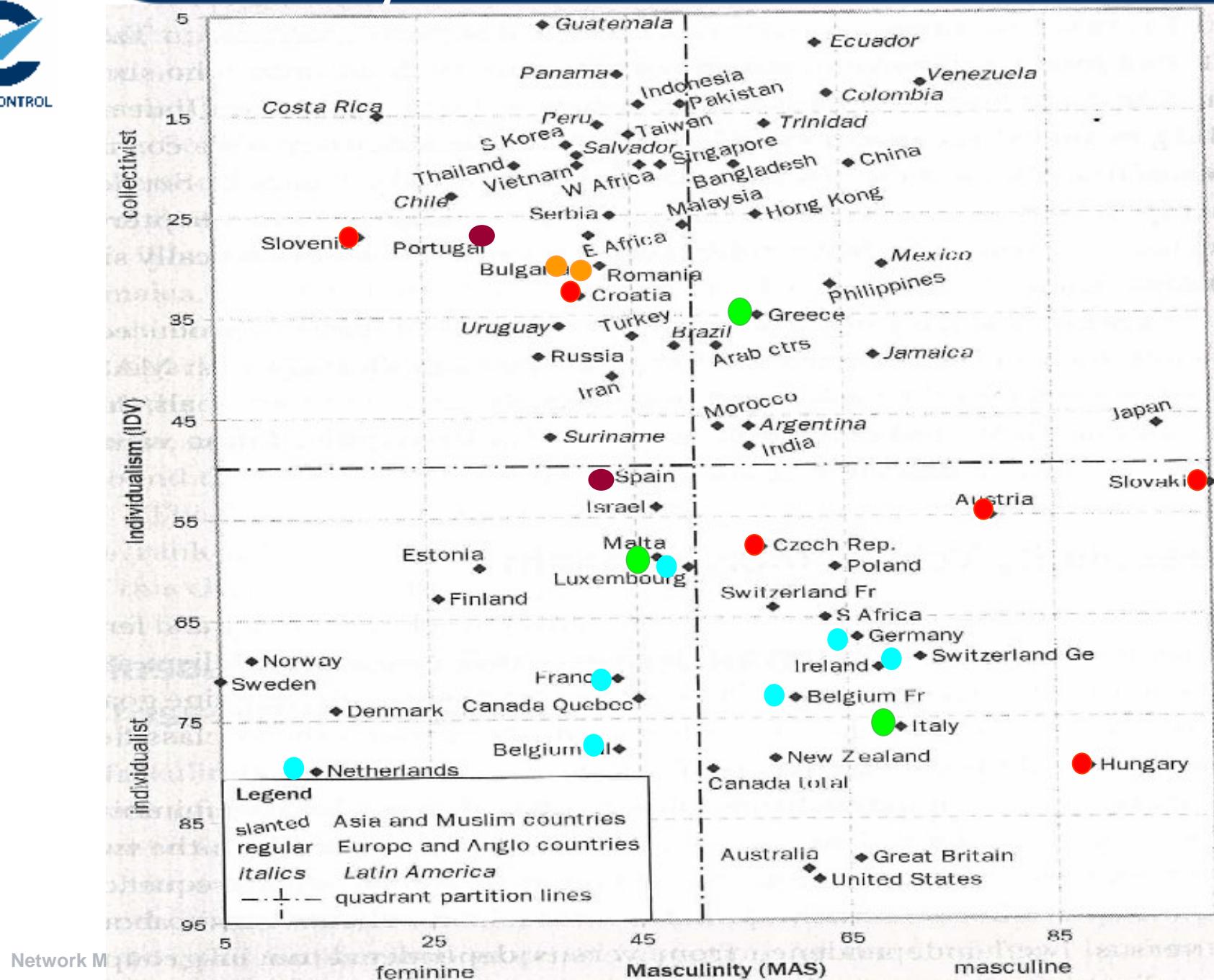
- [1] Power Distance
 - More equal than others;
- [2] Individualism vs. Collectivism
 - I, We and They;
- [3] Masculinity vs. Femininity
 - He, She and (S)he;
- [4] Uncertainty Avoidance
 - What is different is dangerous;
- [5] Long and Short Term Oriented
 - Yesterday, Now or Later.

Power Distance Versus Individualism

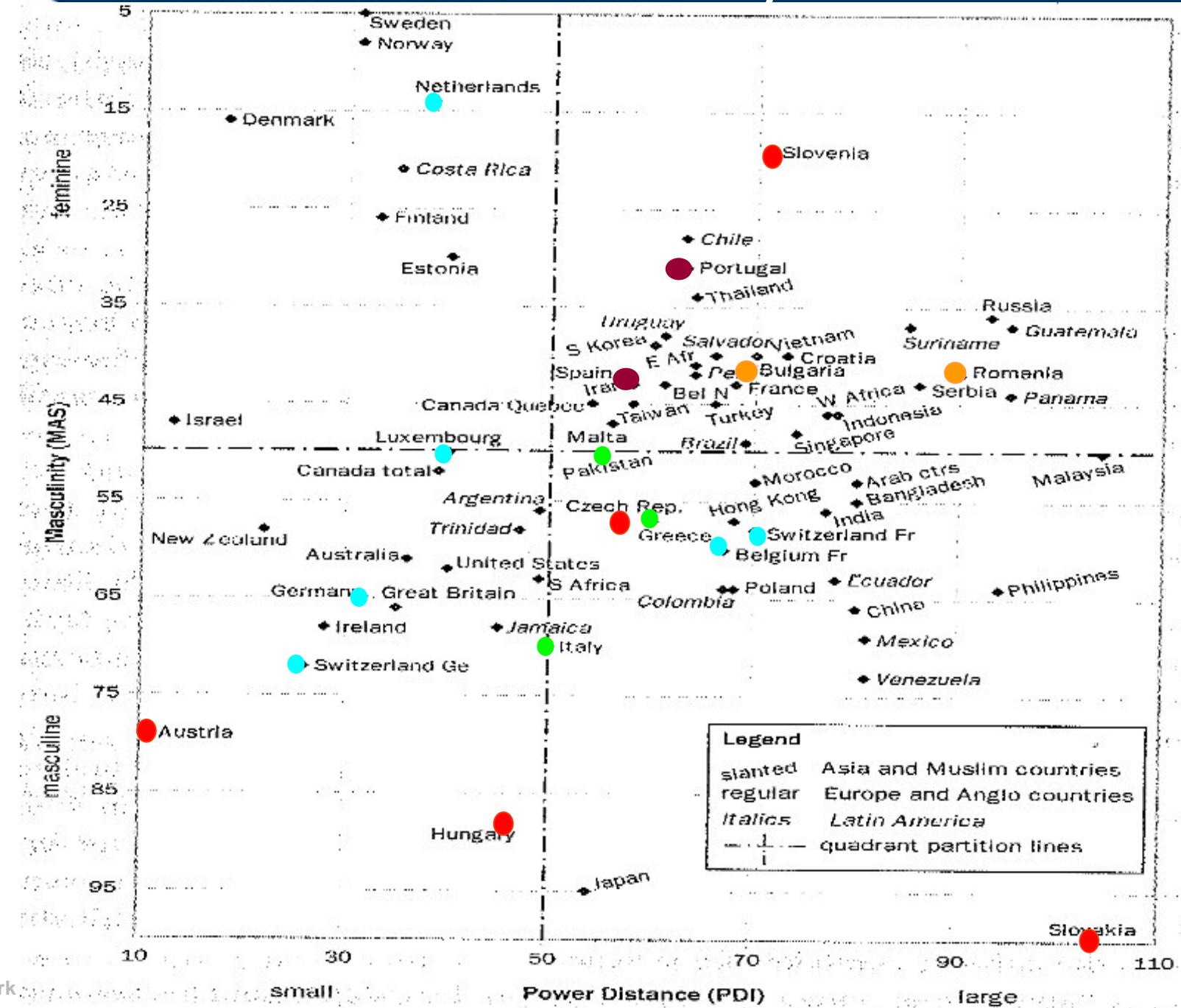




Masculinity Versus Individualism



Power Distance Versus Masculinity



The Challenge of Leadership for Multicultural FABs

Key Leadership Skills

- Using **empathy** to understand the business context and get 'hearts and minds';
- Avoiding quick judgements, understanding the values and **historical reasons** for them;
- **Balancing** different perspectives;
- Treating fundamental values as **non-negotiable**, but using cultural intelligence;
- Assuming an attitude of **questioning** rather than **asserting**;
- Don't get stuck on positions – dig into why it is important to people and find the **shared values**.

Working Together

- We need to deploy the mechanics i.e. the FAB SMS Roadmaps that were developed in the past 2 years, but;
- We need to keep the pace to complete all the Safety Culture measurements by end of 2013;
- Will need to start looking at multi-culturalism in FABs and try first FAB Safety Culture measurements at the end of RP1 beginning of RP2.





Intercultural Cooperation is the solution for Survival – we need to work with the Software of the Mind

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