

Managing and Leading Organizational Change

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Who is Pekka PYY?

Born in Finland, more than 30 years of nuclear experience

Holds M.Sc degree in nuclear engineering and Doctorate in reliability engineering / risk assessment

Several international positions of trust over the years (e.g. General Secretary of ESReDA, Chair of OECD Halden Reactor Project Programme Group, etc.)

(Senior) Project manager with VTT Technology Research in Finland in 1980s-1990s – Area: risk assessment, human, organization (consultant to most Nordic nuclear utilities)

Programme manager with the OECD Nuclear Energy agency in 2000s

Senior manager safety, security and safeguards with TVO Olkiluoto 4 project in Finland 2007 – 2014

Senior Expert, Organization and Management Systems IAEA, 2015

Interested in sports, history and cultures

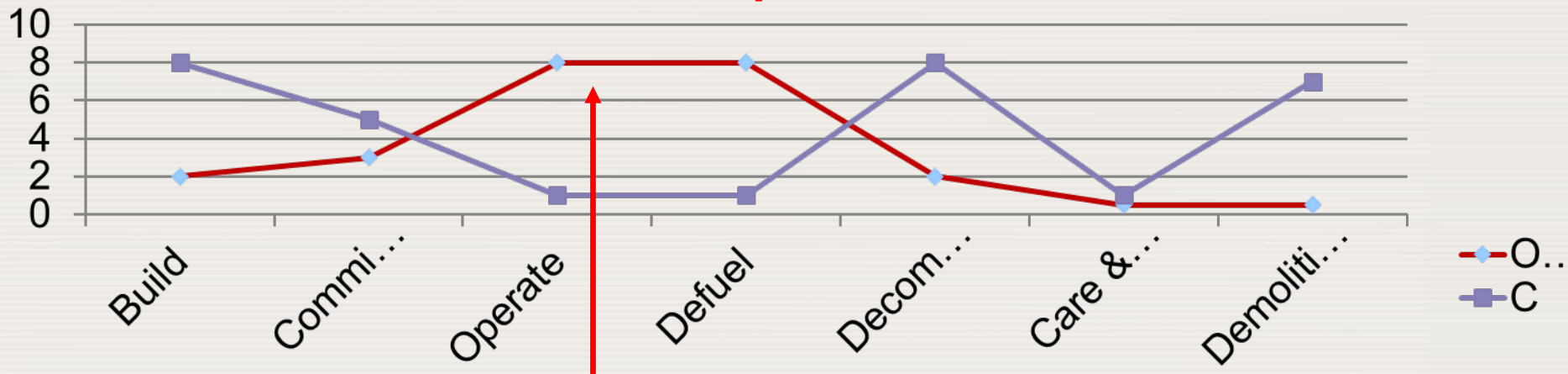
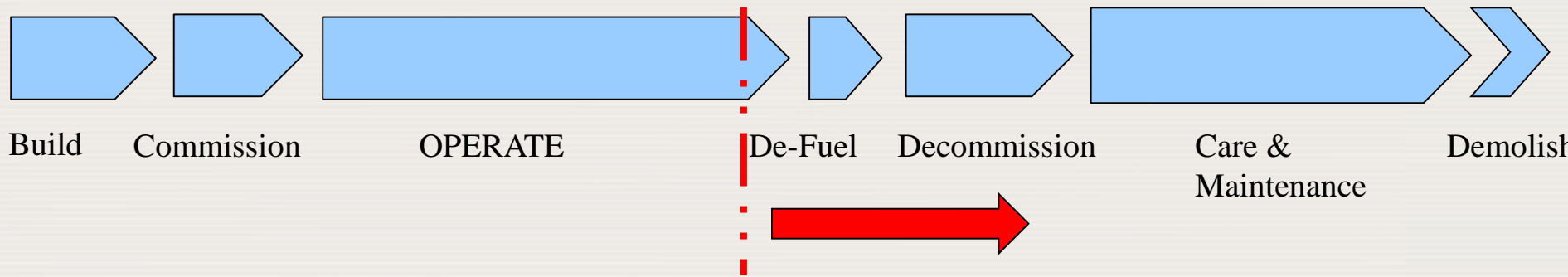


I MANAGING CHANGE

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change

Charles Darwin

Typical Lifecycle Process and Transitions



You may make large modifications that also lead to organizational changes
 - Some changes may be directly safety, security or safeguards (3S) related –
 some indirectly or non-3S related

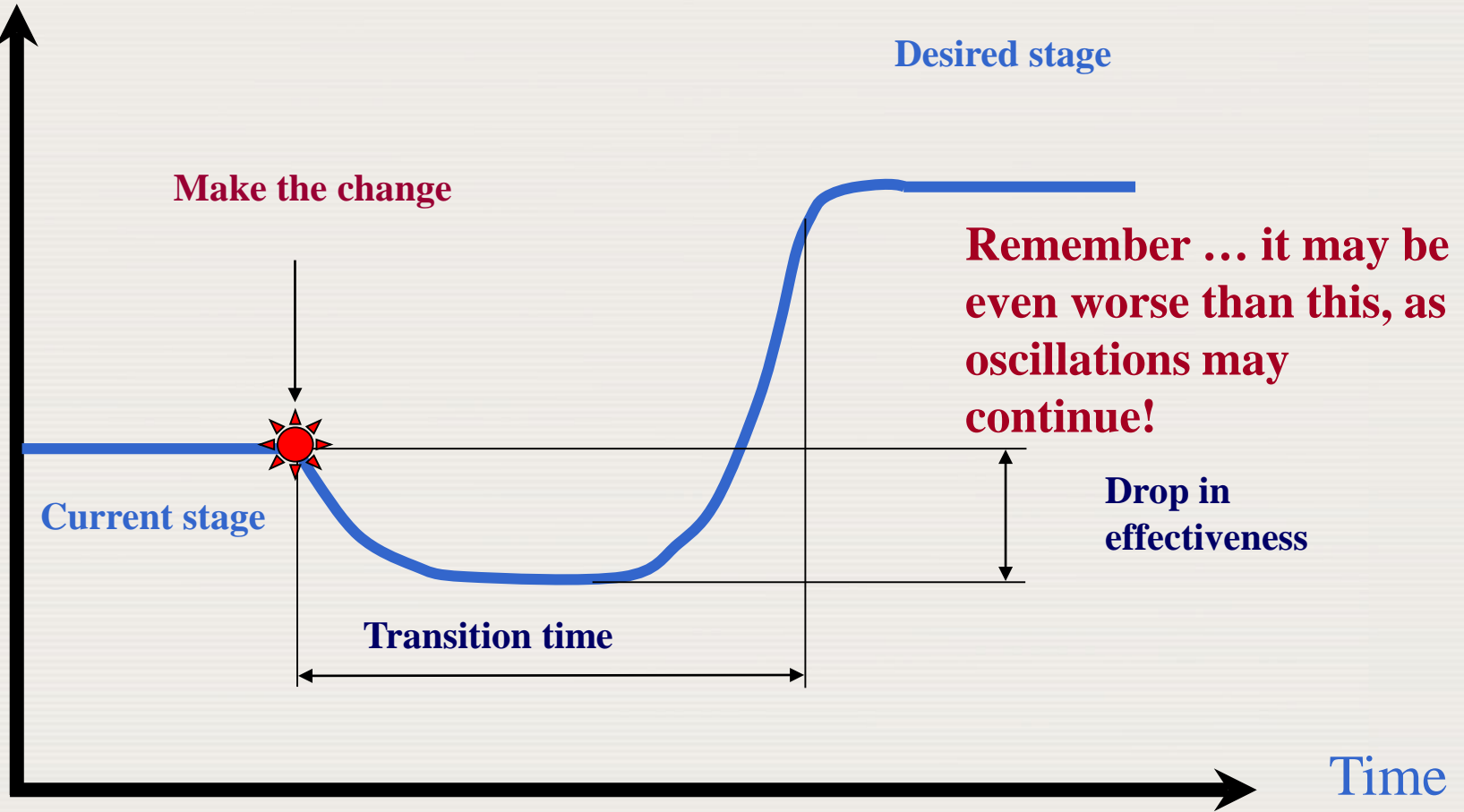


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Observe that sometimes slightly different terms may be used

Managing the change curve

Effectiveness



Successful change management will minimize drop in effectiveness and transition time

Driving change is not easy

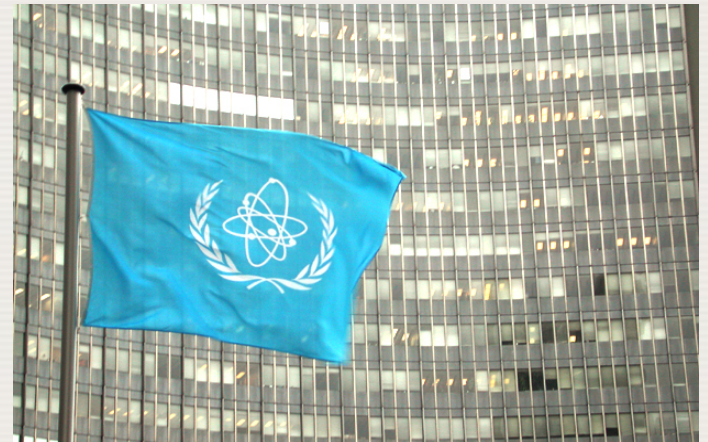
- **Organizational change cannot be handled as simply as a technical one** – some of them may leave permanent scars!
- People find change painful - **Resistance** to leave the comfort zone, **Difficulty to look beyond**, etc
- **Blindness** from past and present successes
- **3S (Safety-Security-Safeguards) or business sustainability cannot be compromised**
- **Planning and monitoring** has to be there
- **Licensing/regulatory constraints** (depends on the system)
- **Public interest** (stakeholders/interested parties)

- **Two out of three organizational changes fail*** ... but it is better to be a driver than passenger of change

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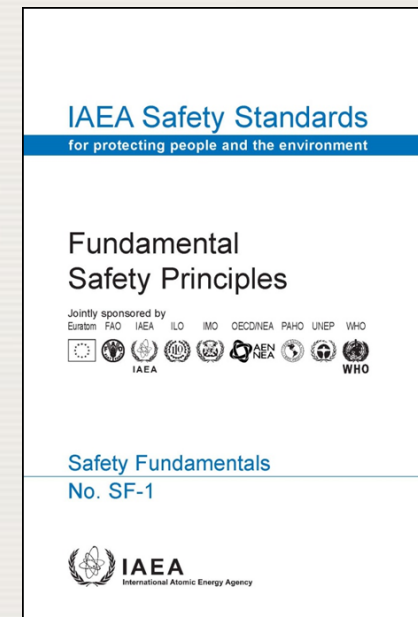
II IAEA GUIDANCE

In the following, safety means nuclear (radiological) safety as we are often discussing IAEA Safety Standards and alike, but the text may be applicable more widely to 3S (Safety, Security and Safeguards)



IAEA activities in 'Change' area

- **Safety Standards**
 - GSR Part 2 (Leadership and Management for Safety, 2016)
 - GS-G-3.1 (2006) & GS-G-3.5 (2009)
- **Other IAEA documents**
 - INSAG-18 (Managing Change in Nuclear Industry, 2003)
 - TECDOC-1226 (Managing Change in Nuclear Utilities, 2001)
 - NG-T-1.1 (Managing Organizational Change in nuclear Installations, 2014)
 - NG-T-1.3 (Development and Implementation of a Process Based Management System, 2015)



INSAG-18 (2003)

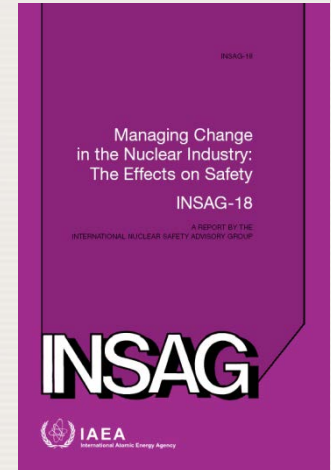
Intention: to raise awareness

Analysis of the current status

- Changes in the industry and their drivers
- Impact on safety
- Regulatory role
- Practical steps to follow

Conclusions

- **Reductions** in the level of **safety** are not acceptable – effective and **immediate actions** need to follow if this happens
- The boards of **operating companies** must remain aware that they have the **responsibility** for safe operations and that both they and the **regulators must be convinced** that safety considerations have been given **priority commensurate with their significance** during any process of **major change**
- Individuals' **commitment to good safety (organizational) culture** must be recognized.

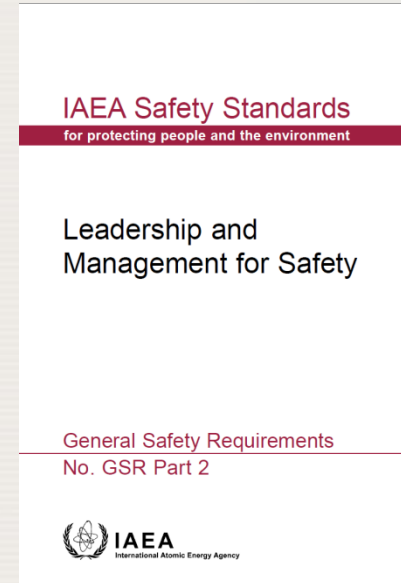


GSR Part 2 Requirements (2016)

4.13. **Provision** shall be made in the **management system** to **identify** any changes (including organizational changes and the cumulative effects of minor changes) that could have significant implications for safety and to **ensure that they are appropriately analysed**.

Superseded GS-R-3 (2006):

- Organizational changes shall be evaluated and classified according to their importance to safety and each change justified. ←
- The implementation of such changes shall be planned, communicated, monitored and controlled to ensure that safety is not compromised



Graded approach



Have a management system in the first place!

GS-G-3.1 Guidance (not superseded yet)

- When organizational change is required **no reductions** in the level of **safety** achieved are acceptable, even for short periods of time (!?)
- Systematic and transparent **project management process** whose rigor is proportionate to the **significance** of the change
- **Risks** of the change to the objectives of the organization should be identified and evaluated
- **Interaction** of different changes should receive careful consideration
- **Communication with stakeholders** should be carried out **honestly and openly**:
 - Explain what is happening and why
 - Address impacts
 - Describe what impact the activity or change will have on safety and the organizations processes
 - Introduce training for those who are involved in communication

GS-G-3.1 Guidance (not superseded yet)

- Changes should be **classified** against agreed criteria and wrt **safety significance**
- May necessitate **different levels of approval** (significance)
- The organization shall **explain** how safety is maintained (during/after)
- **Monitoring /review** mechanism (incl. cumulative changes)
- **One individual** should preferably approve each change with the endorsement of those whose areas of responsibility are most affected(??)
- Substantiation should be prepared and an endorsement sought from the **organization's safety unit**
- If changes affect any **third party approvals**, licences, accreditation or certification then these parties should be consulted
- Monitoring should be carried out to provide **early warning** of any impact on overall performance

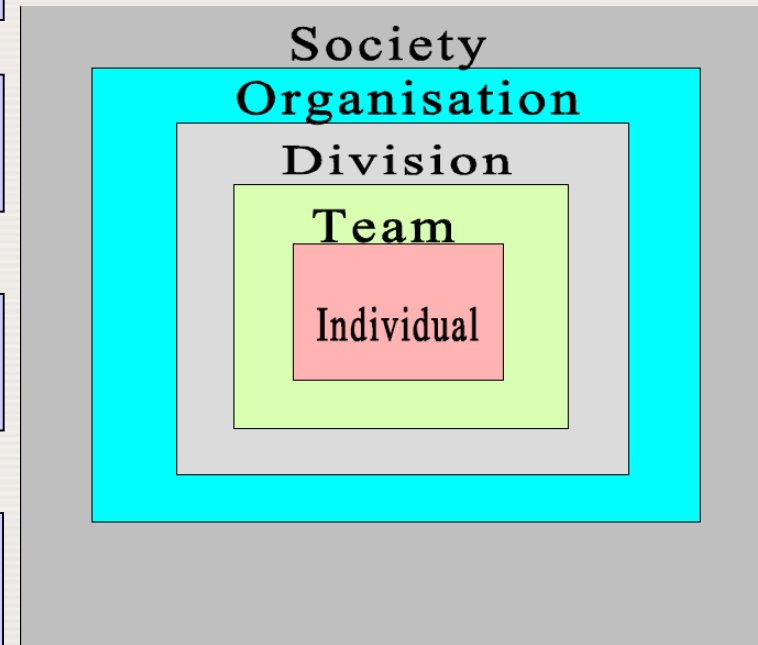
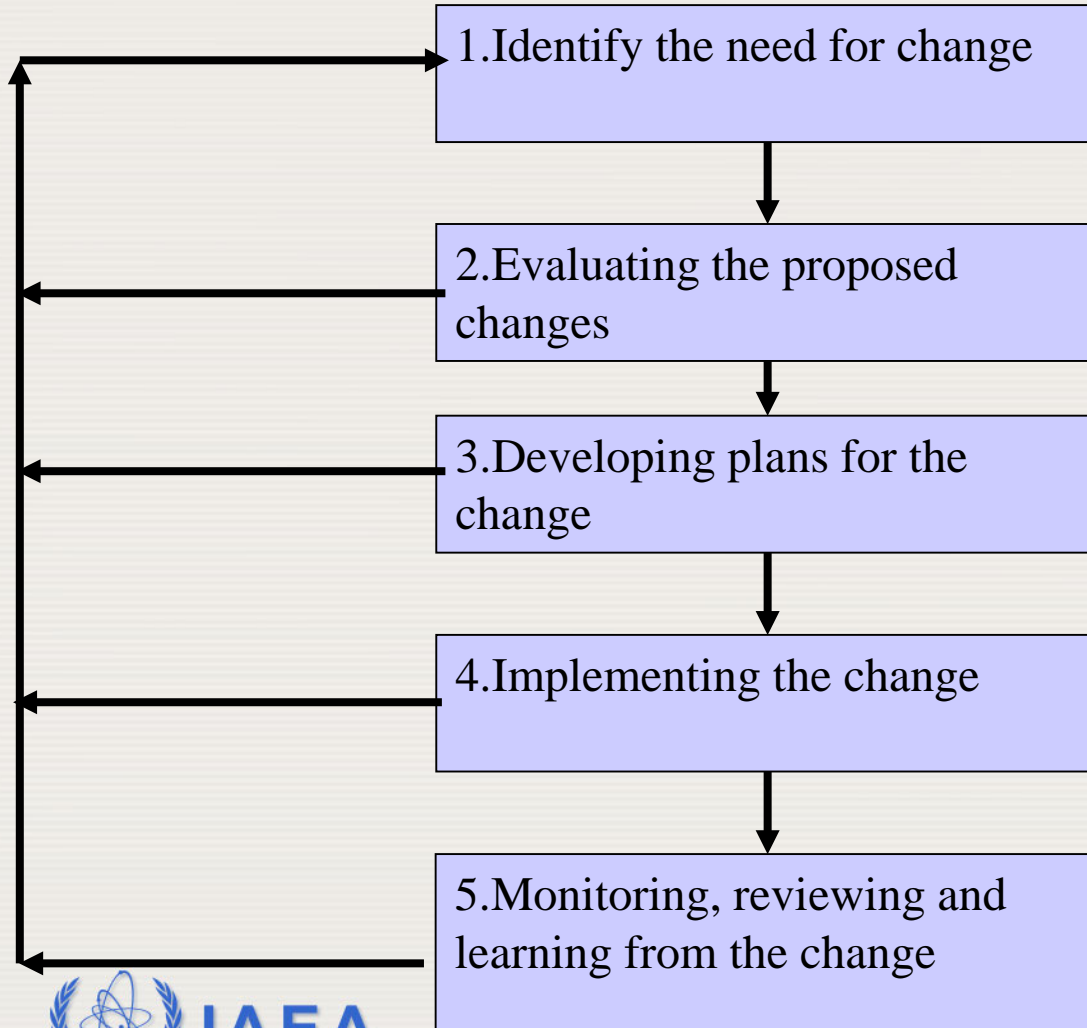


These are excerpts - to get a full picture, one should consult the paras 5.56-5.71 of GS-G-3.1



TECDOC-1226 MoC Process

PDCA or ADDIE (Analyse, Design, Develop, Implement, Evaluate)!



Role of senior management and regulators

TECDOC-1226 Detailed Process

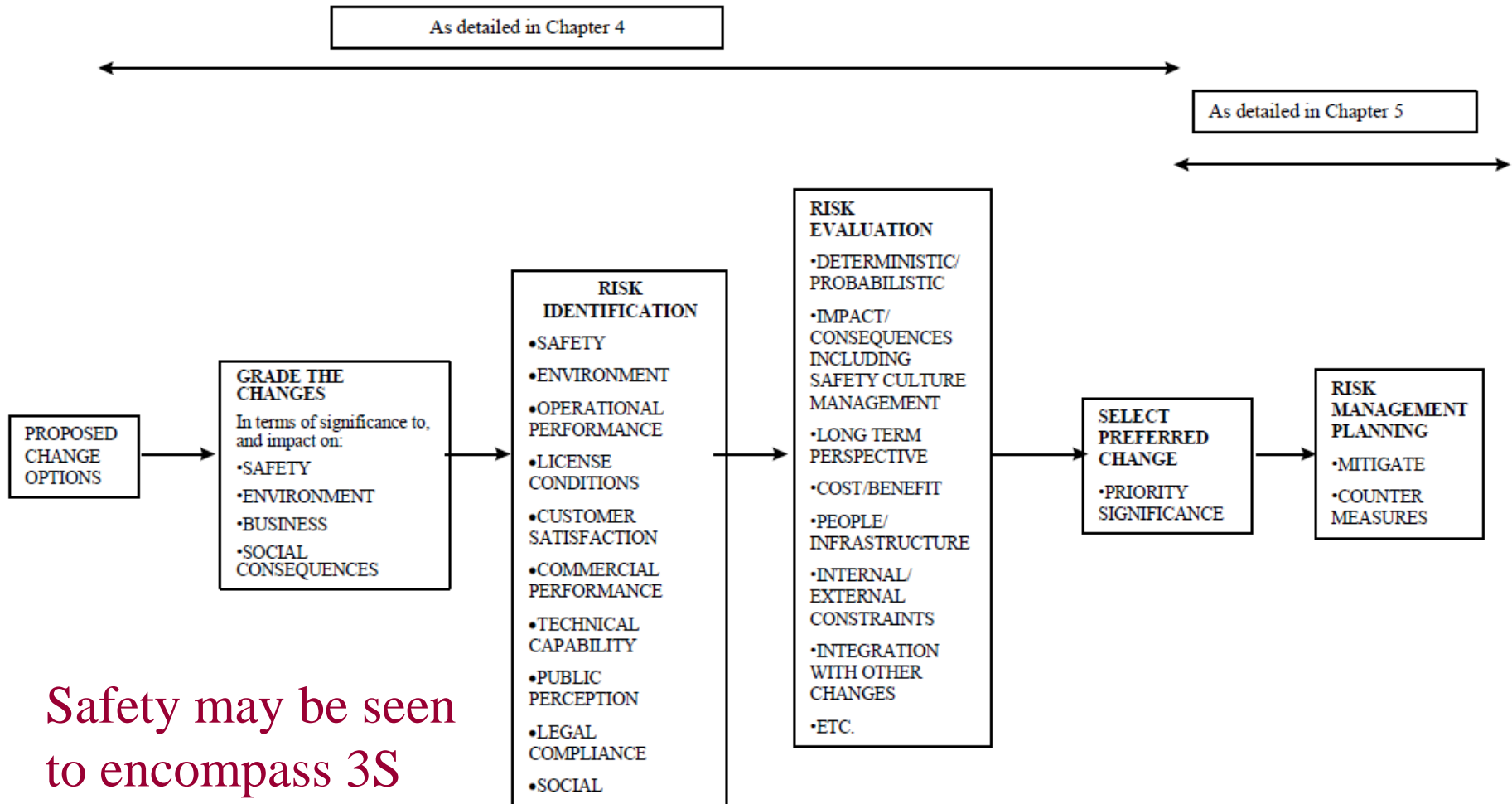


FIG. 2. Flow chart showing the various stages in the evaluation of proposed changes.

NG-T-1.1 Managing Organizational Change in Nuclear Organizations (2014)

- Gives more in-depth information about the **organizational and cultural aspects of the changes**
- Presents different situations, **different strategies** and tactics for the change, and different examples (in Annex)
- **Leadership view** on implementing the change
- Special section on safety implications (incl. Fukushima teachings)
- Theoretical considerations organised in a table matching with the steps in the process in Section 8
- Annexes include useful examples of e.g. classifications
- The model applied e.g. in NG-T-1.3 (2015)

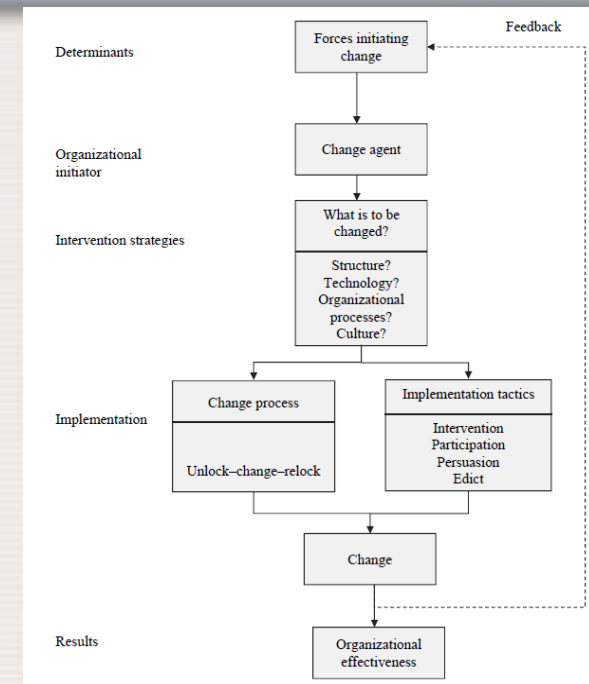


FIG. 1. Model for managing organizational change.



II LEADING CHANGE

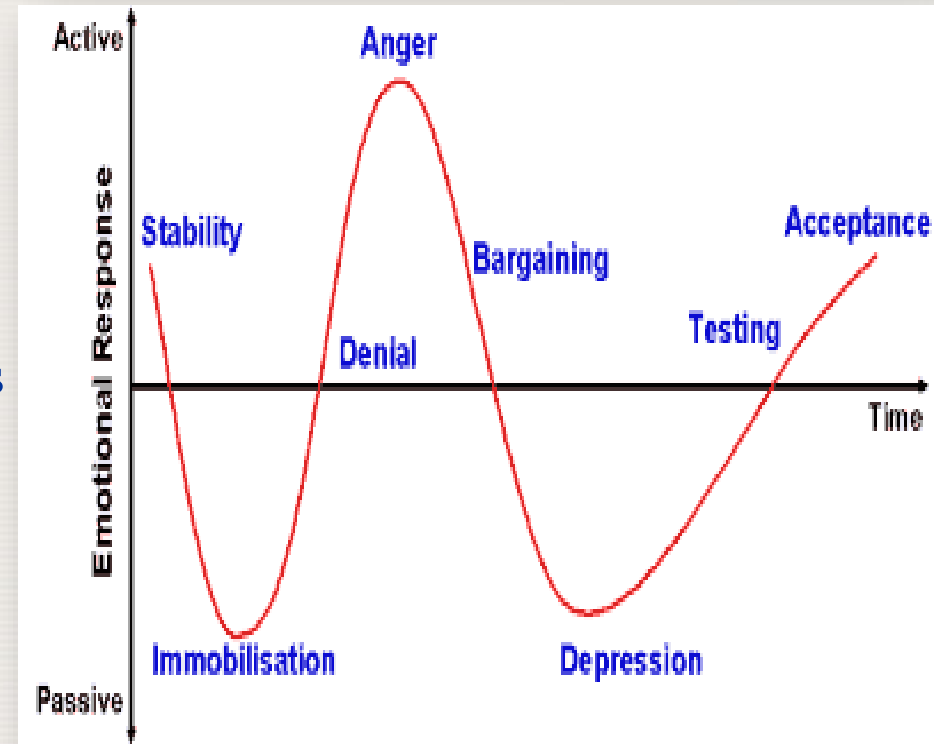
GSR Part 2:

'Leadership' is the use of an individual's capabilities and competences to give direction to individuals and groups and to influence their commitment to achieving the fundamental safety objective and to applying the fundamental safety principles, by means of shared goals, values and behaviour.

'Management' is a formal, authorized function for ensuring that an organization operates efficiently and that work is completed in accordance with requirements, plans and resources. Managers at all levels need to be leaders for safety.

Why people need leadership in transitions?

- Organizational changes can elicit the same type of response as in the grieving process.
- The grief stages: denial, anger, bargaining, depression and acceptance.
- People will inevitably feel threatened during periods of change.
- David Rock's **SCARF model** can help us understand the human/social response to change and **how leaders can mitigate the negative impact that transitions will have on people.**
- The basic premise of the SCARF model is that the organising principle of the **brain** is to **minimize threats** and **maximize rewards.**



Elizabeth Kubler-Ross Five Stages of Grief (Change)

SCARF

Human Need	Leadership Behaviour
Status	Reinforce <u>how important everybody is</u> to the successful and safe transition.
Certainty	Plan the changes and <u>communicate the key milestones</u> . <u>Share those plans</u> with the people they affect. <u>Keep people informed</u> ; be <u>authentic</u> and share <u>honestly what you know and what you do not know</u> . <u>Assure</u> people that <u>you will communicate</u> when the information is available and be sure to follow up.
Autonomy	Specify the <u>choices</u> people have, <u>give them some control</u> over what becomes of them and when.
Relatedness	Create a <u>sense of community</u> - “we’re all in this together” / “one team”. <u>Acknowledge and deal with emotions</u> — acknowledge people’s feelings and respond with <u>empathy</u> . Create opportunities for healthy, informal and <u>real conversations</u> — <u>take time to discuss tough issues even when there are no answers available</u> .
Fairness	<u>Publicise</u> every decision possible. Be <u>transparent</u> and <u>explicit</u> about the reasons for decisions

Access the CBH Hub

GO:

- <https://nucleus.iaea.org/sites/connect/CBHpublic/Pages/default.aspx>
- 1) In the upper right corner of this web page, click on "Register" and complete the form. An email will be sent to you after your registration. Click on the link in the email to confirm your registration in NUCLEUS. (If you already have a NUCLEUS account start at Step 2.)
- 2) Send your user account name, i.e. your email address, to CBH.Contact-Point@iaea.org with the following information: your name, position, organization and country. Please indicate in which topics you are interested: Workforce Planning, Nuclear Training and SAT, Nuclear Leadership Development, Stakeholder Involvement, Human Performance. You can also choose all topics.
- 3) Once your registration to the Hub is approved and confirmed by email, you can access the Members Area in the Nuclear Energy Capacity Building Hub.
- <https://nucleus.iaea.org/sites/connect-members/cbh/Pages/Home.aspx>
- And then SHORTCUT to the LeaD tool (**LEADING CHANGE IS 6.3**):
- https://nucleus.iaea.org/sites/connect-members/cbh/LeadershipTool/LEADERSHIP_TOOL/Leadership.html

III SECURITY AND ORGANIZATIONAL CHANGES

Do people really understand security and safeguards?

- Sometimes people seem to have problems to understand similarities and differences between (nuclear) safety, security and safeguards
- In many languages, even the word may be the same
- Also, in different regulatory/conceptual systems the words are used in different meaning (US safeguards information means physical protection information– in French EPR reactor, safeguards building is safety systems building, etc.)
- Sometimes people do not even wish to understand and violate knowingly information protection rules (“because we need to make progress, so I have sent this info...” – the aim is good, the act is wrong)
- Need to know –principle causes burden in projects with many different organizations (projects like a decommissioning one)

MAKE SURE PEOPLE UNDERSTAND THE REASONS WHY CERTAIN THINGS CANNOT BE DONE / DISCLOSED / TOLD TO THEM

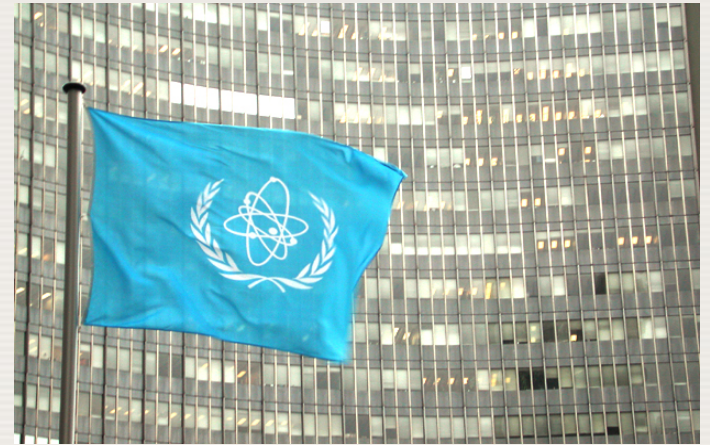
How to ensure security in organizational changes?

- There is no silver bullet – **responsibilities for security and the related processes need to be clear** in all facilities and activities in all situations
- They have to remain clear in any organizational change – **do people still know who is accountable, responsible, consulted and informed in the security processes during/after the change?**
- Organizational changes take **time to stabilize** so you have to be patient
- **Process for managing change: I) Identification; II) Evaluation (what are the risks?); III) Planning; IV) Implementing; V) Monitoring, reviewing and learning (incl. management oversight and regulatory role)**
- Leadership for change (**motivate people to stay conscious about security related matters – in a graded manner – what does it mean?**)
- Why do you need to lead people: because motivation, behaviours and culture are interlinked
- **Human, technology and organization** – including management and leading their changes with all the states and transitions between them – this may not be rocket science, but difficult because “the devil lies in details” – and **the details may be different in different cases**

Security and decommissioning?

- You have **many organizations with different backgrounds** present at site – some of them **may do not have the stout nuclear safety and security culture**
- Not **all their representatives may be benevolent** (activism or worse) – decommissioned unit may represent a good mock-up to rehearse actions for operating units (in all senses)
- Your (**remaining** operations) **staff** may have become cynical and inattentive “this is the end of everything so who cares”
- Some of them may be **susceptible to malevolent recruiting** to act as insiders or at least as information sources
- It may be difficult to understand why **we still need to maintain control and declassify/destroy the information/other material responsively** (they may be used to attack still remaining installations)
- In dismantling, also the force necessary to breach walls and door may be tested – and nuclear material moves outside in transports
- We need to remember that **decommissioning of one unit does not mean that the whole industry would be decommissioned** – stay vigilant

THE IAEA IS THERE TO AID THE MEMBER STATES



...Thank you for your attention