



3.4. Management of training within an integrated management system at STUK

Regional Workshop on the Management of Training Systems for Nuclear and Radiation Safety

7/11/2023 Manila, Philippines

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Content

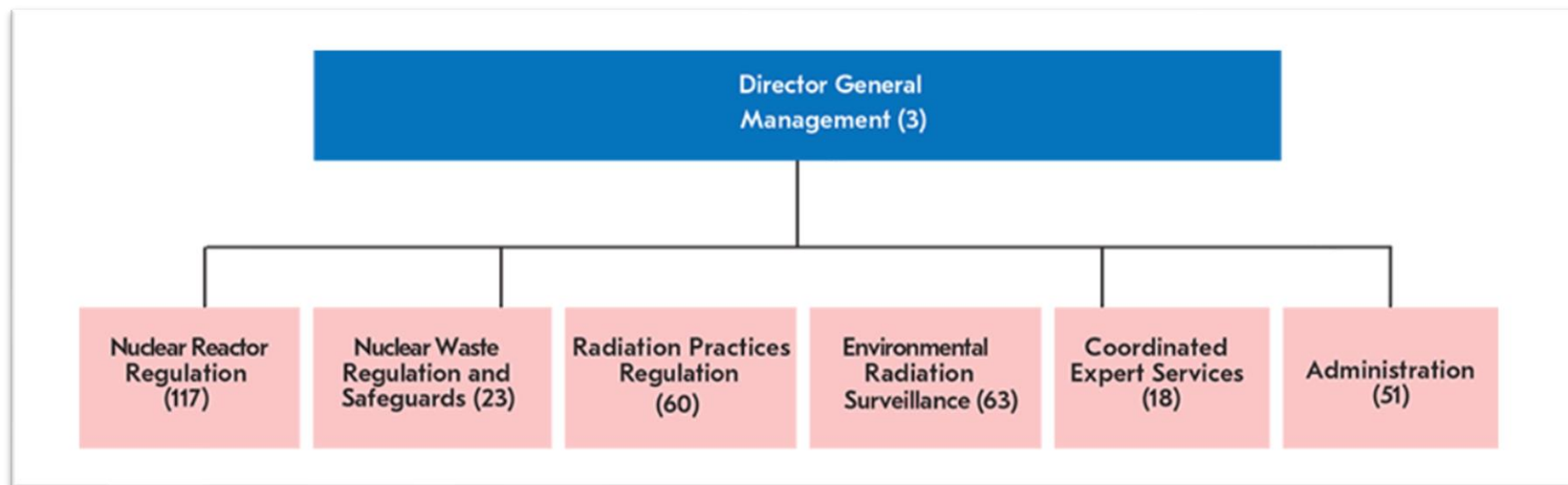
- Overview
- IMS and Capacity building in STUK
- Basics of Training in STUK
- Process Support
- Evaluation



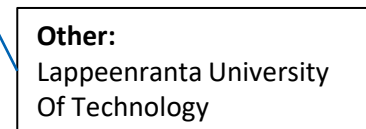
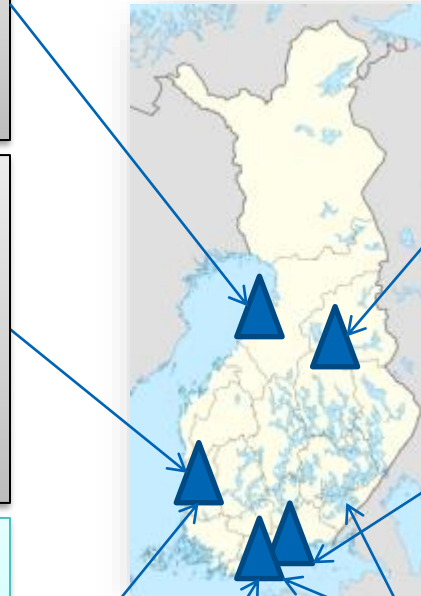
SÄTEILYTURVAKESKUS
STRÅLSÄKERHETSCENTRALEN
RADIATION AND NUCLEAR SAFETY AUTHORITY

Various competence needs in STUK

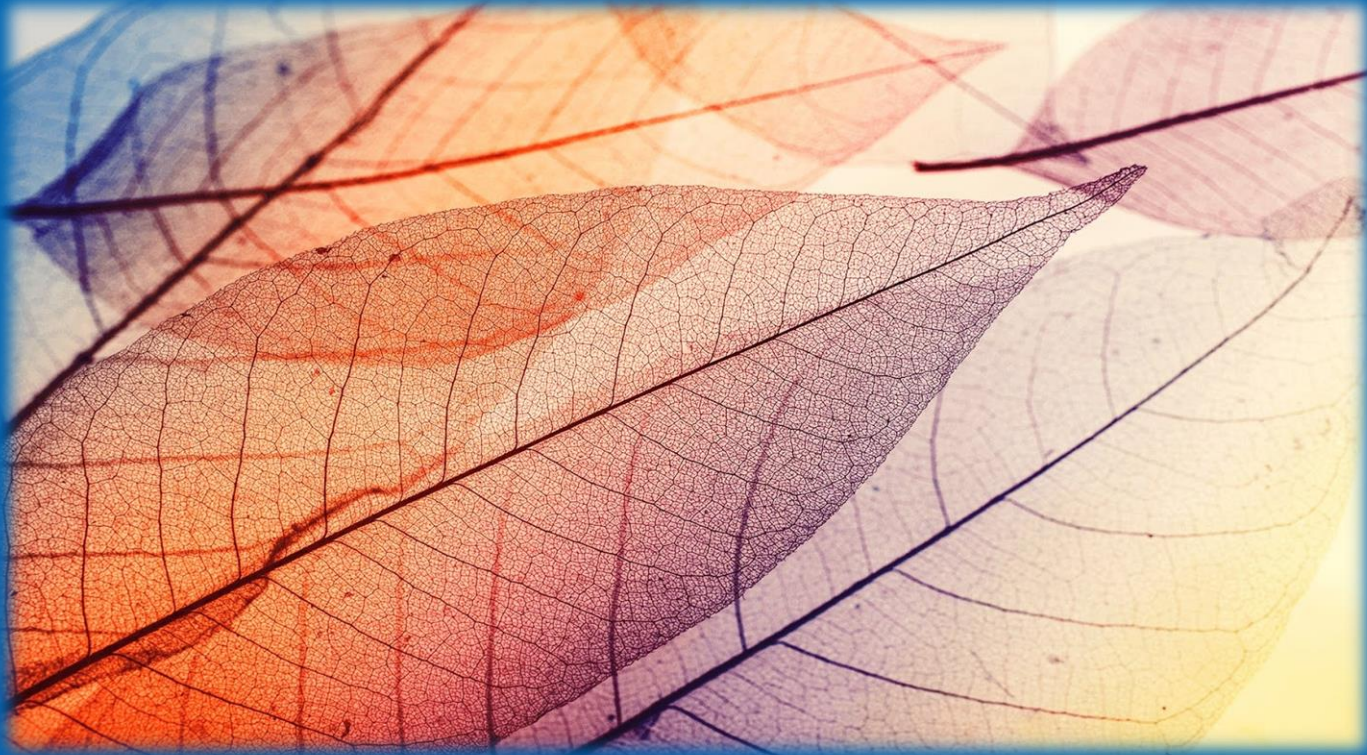
- STUK has various tasks – not all of them are related 'directly' to nuclear energy or use of radiation
- STUK's professional competence needs differ greatly from department to another



Operational environment is constantly changing (e.g. nuclear energy in Finland)



IMS, Capacity building - and training in STUK

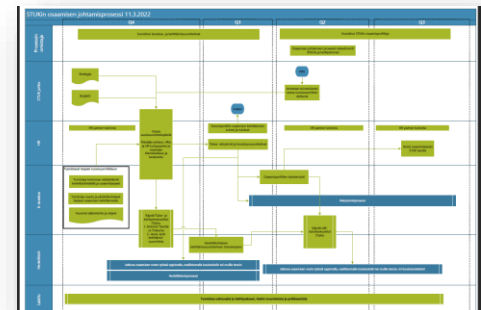


Integrated Management System in STUK

- STUK's integrated management system (IMS) is 'the bed rock' of all activities in STUK.
- The purpose of the IMS is to ensure the safety, quality and productivity of STUK's operation.
- The IMS consists of policies, internal guides etc. - including evaluation and auditing methods and various elements of continuous improvement.
 - Various manuals and instructions of different organizational areas are included.
- Capacity building is included in IMS
 - HR/HRD/KM specific processes and procedures etc.
 - *HR/HRD/KM elements embedded in other processes*

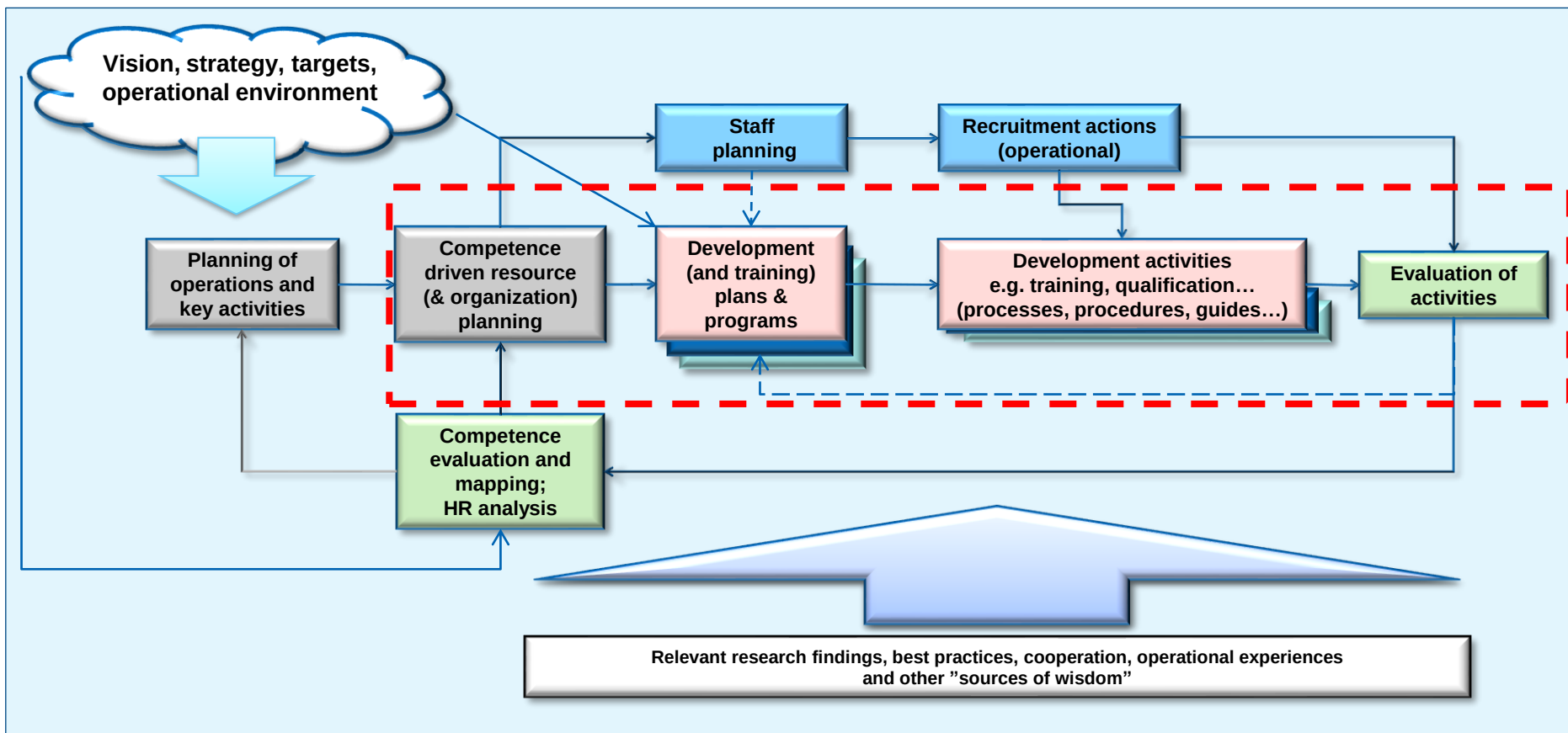


Administrative support processes
– Capacity building process



Simplified Model of Regulatory Capacity Building in STUK

- A simplified flowchart of Regulatory Capacity Building system in STUK
 - Training as a methods of developing competence in STUK



Examples of Capacity Building (and training) elements in STUK's IMS

(HR) Policies

Personal right & responsibility to develop professional competence
Support for development of capacity
'Minimum of 10 days of formal training per year'
etc.

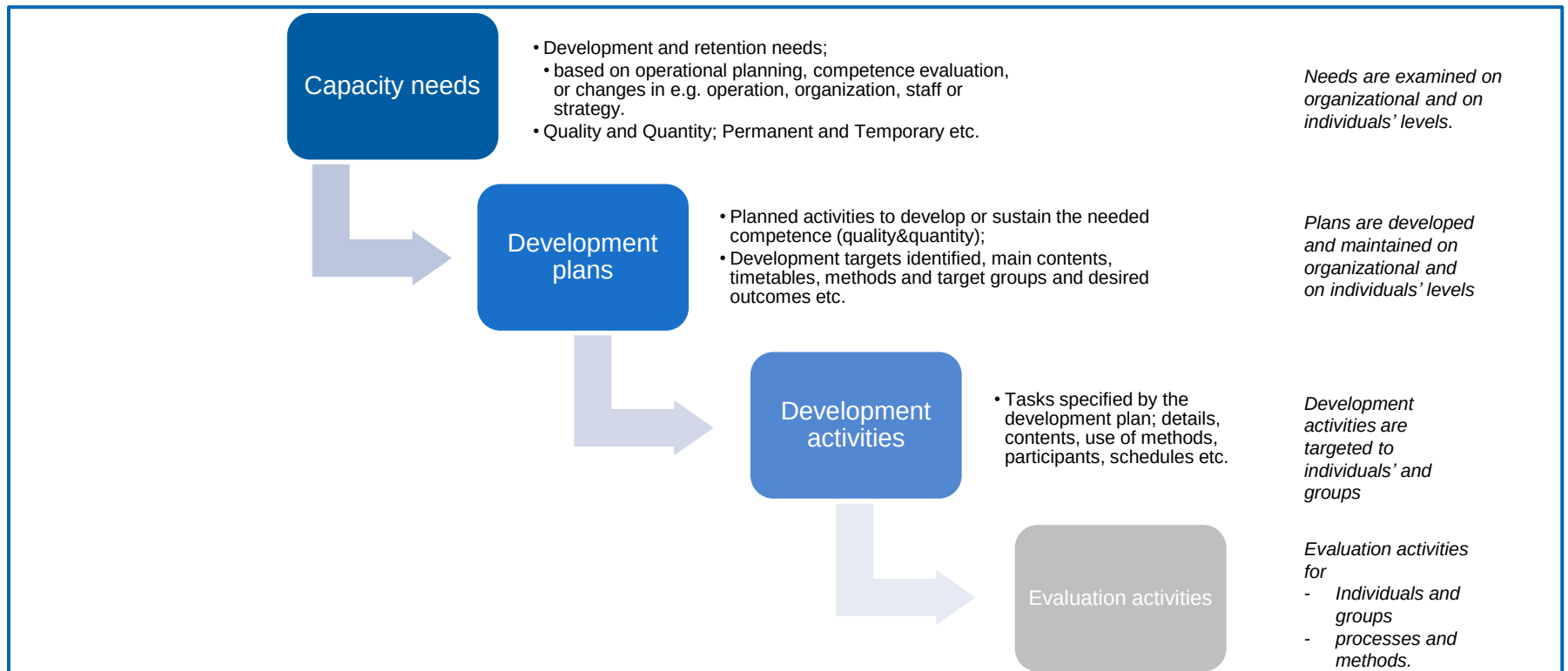
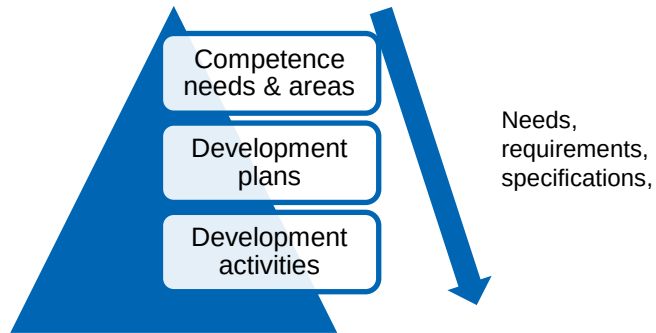
Guides (Processes)

Competence management program
Training process and procedures
Mentoring process
Personal development discussion process
(incl. Personal development plans)
Job-rotation and internal mobility guide
etc.

Instructions

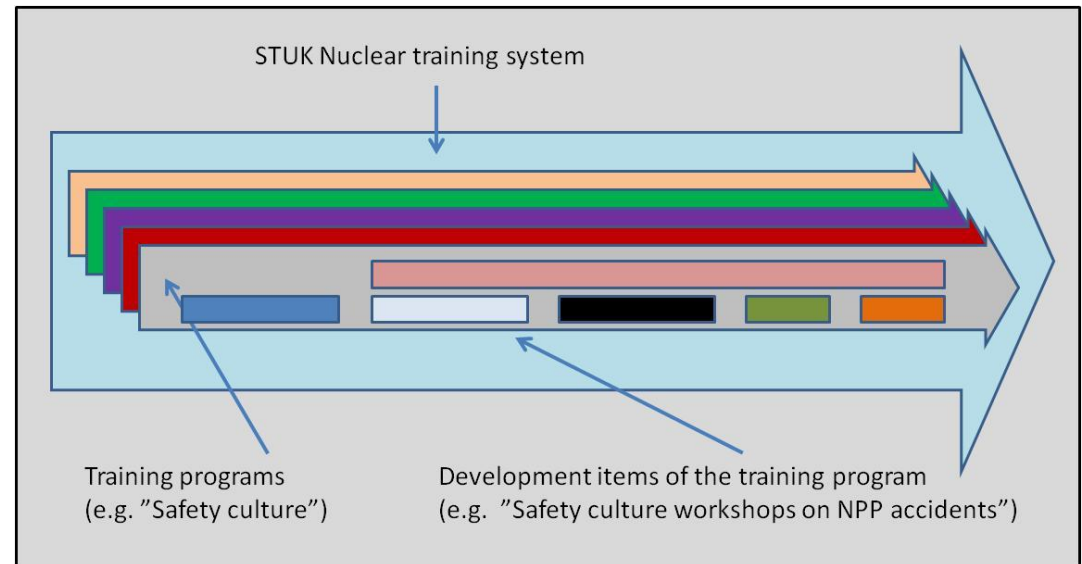
Facilitator's handbook for 'developing a good training event'
(Practical) user manual for HRD platform
Quick guide for developing an e-training event
Managers' instructions
Introduction related instructions
etc.

Steering the Capacity Building in STUK



Basic structure of STUK's training system

- Each training program has a responsible "owner" and description & plan.
- Each training program consists of development activities (e.g. training) that have their responsible "owners" and descriptions&plans.
- Training and development targets, themes and means are planned and evaluated periodically.
- Prioritization of development actions and items are based on the competence and evaluated safety needs.



Training personnel in STUK

- Senior experts are a vital part of STUK's training organization
 - However, young professionals are used as trainers (basic courses etc.) with the support of senior specialists
- To become a trainer or a training program responsible, an expert must display *adequate* understanding of the topic area
 - The same requirement is applied to their substitutes
- Use of external trainers is common in STUK
- The contents of training programs are evaluated annually by the senior experts of the respective topic area.
- The overall quality and improvement needs of e.g. a training event are evaluated regularly – and then turned into development actions.

Plans and Descriptions

- Training programs and individual training items are planned and described.
- They are evaluated against the planned objectives
- The description steers the planning process by highlighting key elements to be considered and defined
- Current activity: a new system platform for plans and descriptions is being developed

Säteilyturvakeskus

Ydinvoimalaitosten valvonta

Yhteenveto
Koulutuskuvauk-
sisäinen
27.2.2017

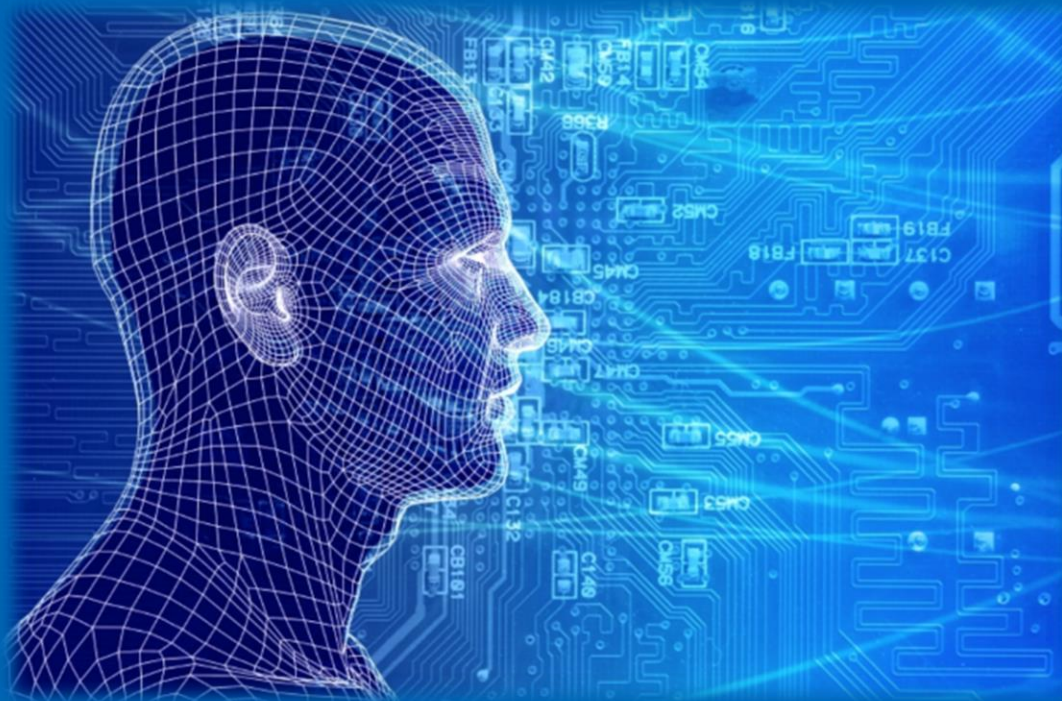
1 (3)

Inspector training for mechanical equipment and structures – training description

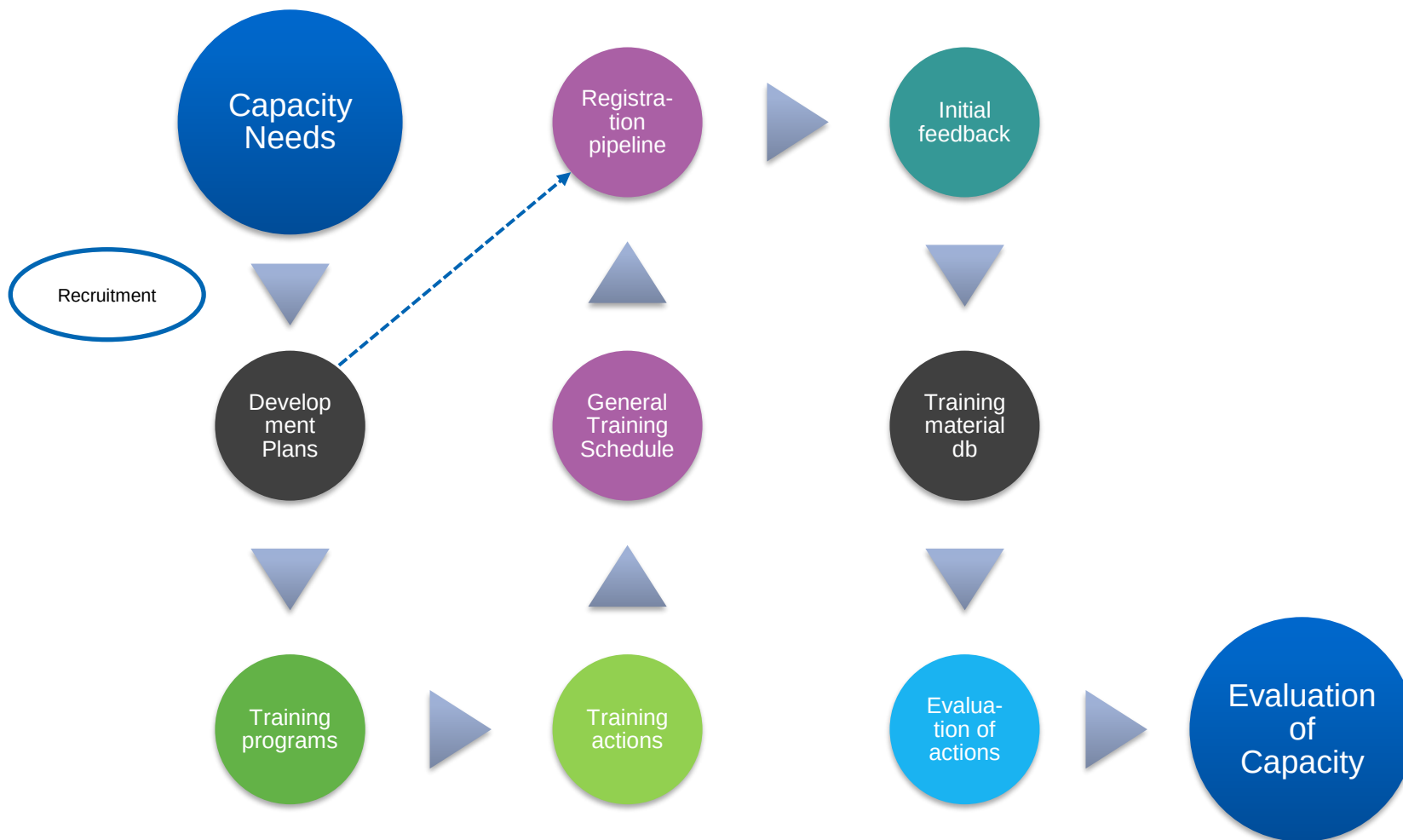
This document describes the main contents, planned activities and responsibilities of a training item (or training series). The owner of the training ensures that this description is kept up to date at all times. The training owner is supported by the training specialist and the trainers specified in this document. The content of this document shall be revised annually – or when significant changes are made to the content.

1	Name of the course or training series	Inspector training for mechanical equipment and structures
2	Training category	Inspector qualification: Discipline specific inspector training
3	Training program	Mechanical equipment and structures
4	Owner of the training item	Martti Vilpas ja Petri Vuorio
5	Trainers	See section 8.
6	Focus group; targeted audience	This training series is intended (primarily) for the new inspectors or for the inspectors moving from other domain areas. It is highly recommended for all inspectors taking part into inspections of the discipline. The training series is mandatory part of the inspector qualification for the inspectors in Mechanical Engineering and Manufacturing Technologies sections. The training is also recommended for the experienced inspectors as a refresher course. Questions and conversations on different topic areas benefit, not only the inexperienced, but also the experienced inspectors. At the same time, sharing of knowledge between the experienced and experienced inspectors (and the professionals with different expert areas and backgrounds) is enabled. Inspectors (and trainees to be qualified as inspectors) from other disciplines and domain areas take part into different parts of this training.
7	Goals and targets	The training strengthens the basic preparedness for carrying out inspec-

Support for Training in STUK



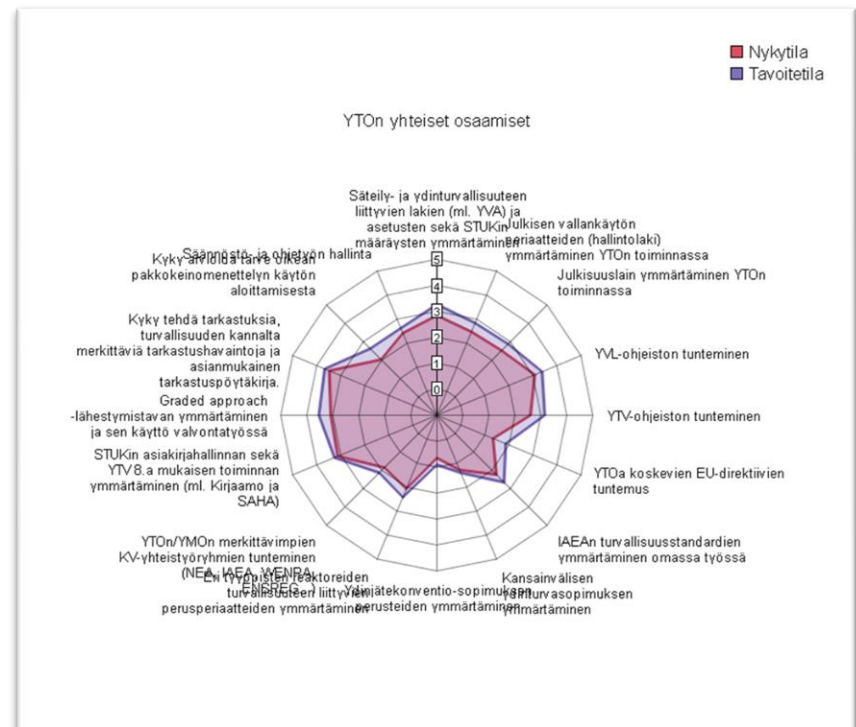
'Simplified Flow' of Training Related Data in STUK's system network



Process Support

- Competencies and capacity needs are evaluated according to a specified process
- The findings of the analysis are included in STUK's annual planning process – and in the revision of training plans and structures
- Competence data is linked with the training activities
- Instructed by the IMS

Yönnäntätoiminta	☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	1	N/A
Palkkahallinnon osaaminen	☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	2	N/A
Palkkausjärjestelmä ja palkitsemisen kehittäminen	☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐	3	2
Tiedon tuottaminen, analysointi ja raportointi johtamisen tueksi	☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐	3	3
Työterveys	☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐	2	3
Työhyvinvointi	☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐	3	4
Rekrytointi	☐ ☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐	4	4
Osaamisen johtaminen	☐ ☐ ☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐	4	4
Osaamisen kehittäminen	☐ ☐ ☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐	4	4
Valmentava vaikuttaminen	☐ ☐ ☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐	4	4
Kieku HR-osaaminen	☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	N/A	3
Sympa	☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐	3	3



Process Support

- Personal development plans
 - 'Learning dreams'
 - Based on the competence analysis and organizational needs of the designed role of each individual
- Personal training plans consist of:
 - Structured items (role based)
 - Personalized items (need based)
 - Contemporary items (new items, strategy items etc.)
- Instructed by the IMS

Yrityksen johtaminen	☐ ☒ ☐ ☐ ☐ ☐ ☐	1 v
Aluehallinnon osaaminen	☒ ☐ ☐ ☐ ☐ ☐ ☐	N/A v
Aluejärjestelmä ja palkitsemisen kehittäminen	☐ ☐ ☒ ☐ ☐ ☐ ☐	2 v
Tiedon tuottaminen, analysointi ja raportointi johtamisen tueksi	☐ ☐ ☐ ☒ ☐ ☐ ☐	3 v
Työterveys	☐ ☐ ☒ ☐ ☐ ☐ ☐	2 v
Työhyvinvointi	☐ ☐ ☐ ☒ ☐ ☐ ☐	3 v
Älykkyystesti	☐ ☐ ☐ ☐ ☒ ☐ ☐	4 v
Osaamisen johtaminen	☐ ☐ ☐ ☐ ☐ ☒ ☐	4 v
Osaamisen kehittäminen	☐ ☐ ☐ ☒ ☐ ☐ ☐	4 v
Alueellinen vaikuttaminen	☐ ☐ ☐ ☐ ☒ ☐ ☐	4 v
Älykkyystesti HR-osaaminen	☒ ☐ ☐ ☐ ☐ ☐ ☐	N/A v
Yhteistyö	☐ ☐ ☐ ☒ ☐ ☐ ☐	3 v

HENKILÖKOHTAISEN OSAAMISEN KEHITTÄMISSUUNNITELMA - OPPIMISUNELMAT

henkilökohtaisella osaamisen kehittämissuunnitelmalla tuetaan kehittymistä ja vahvistamaan osaamista. Suunnitelmaan kirjataan osaamisen nähteen näkemyksen henkilökohtaisen kehittämisen tavoitteista ja keskeisistä menettelyistä aikatauluineen. Osaamisen kehittämisen toimen annattaa hyödyntää monipuolisesti erilaisia kehittämistapoja kuten projektit, kehityshankkeet, työryhmytyöskentely, työparityöskentely, arkastajavaihto, tehtävien monipuolistaminen, tehtävien syventäminen/kaventaminen, verkostoituminen, seminaarit, koulutukset ja koulut sekä itseopiskelu. Suunnitelmaan on tärkeä palata säännöllisesti ja varmistaa yhdessä, että siihen kirjatut toimenpiteet toteutuvat.

‘yöhen, työrooliin ja osaamiseen liittyvät pidemmän aikavälin kehittämistavoitteet

turvallisuuskulttuuriosaamisen kehittäminen edelleen ja niihin tehtäviin suuntautuminen entistä vahvemmin, kansainvälisiin työryhmiin osallistuminen jatkossakin (mahdollisuus reflektioon ja osaamisen kehittämiseen)

KEHITTÄMISSUUNNITELMA

isää uusi

Tärkeysjärjestys	Kehitettävä osaamisalue ja kehittämistavoitteet		Osaamisen kehittämisen toimenpiteet tuleville : vuodelle
Toiminnot	turvallisuuskulttuuriosaaminen		mentorointi (Pia), tarkastukse...

Ilisitko valmis toimimaan mentorina?

☒ Kyllä

oivoisitko saavasi mentorointia?

☒ Kyllä

litä osaamista voisit jakaa muille tai niten voisit toimia muiden ehittymisen tukena?

osaamisen hallinta ja kehittäminen, kouluttajana toimiminen

Process Support

- Training data, e.g.:
 - Participation data
 - Feedback from trainers and participants
 - Execution rate of the programs
 - Examination (score) data
 - Competence data
- General information about performance evaluation
- Instructed by the IMS

JÄRJESTÄ: | ALOITUSAIKA *

☆ EA2 ensiapukoulutus • Jaettu <i>Koulutukset</i> 6.11.2019 8:30 - 7.11.2019 22.10.2019 8:00 16:00 Suomi	KAIKKI 5	OSALLISTUU 3
☆ OL3-järjestelmätuntemuskoulutus 2019 • <i>Koulutukset</i> 14.11.2019 9:00 - 18.11.2019 15:30 13.11.2019 0:00 Auditorio, STUK Suomi	KAIKKI 28	OSALLISTUU 28
☆ Tietosuojaperehdytys • Jaettu <i>Koulutukset</i> 18.11.2019 14:00 - 15:00 15.11.2019 23:59 Suomi	KAIKKI 3	OSALLISTUU 3

	Tutkintoaste	Tutkintonimike	Oppilaitos	Suuntautumisvaihtoehto	Valmistumisvpm	Lisätiedot	Ensimmäinen tut
xiiminnot	Ylempi korkeakoulututkinto (yliopisto)	Kasvatust. maist., aikuiskasvatus	Tampereen yliopisto	Kasvatustieteen maisterin tutkinto, aikuiskasvatus	24.4.2007		☒
xiiminnot	Ylempi korkeakoulututkinto (yliopisto)	DI	Tampereen teknillinen yliopisto	Tuotantotalous		Kesken	☐
xiiminnot	Ylioppilastutkinto	YO	Valkeakosken lukio				☐

JUT KOULUTUKSET JA OPINNOT

lää uusi

	Koulutuksen nimi	Aihe	Tyyppi	Koulutuskorvaus	Lisätiedot	Kouluttaja	Alkupvm	Päättyisvpm	Kesto (h)	Kesto (6 h = 1 pv)	Kesto (pv)	Tunniste
xiiminnot	HFE perusteet	Ydinturvallisuus	Sisäinen	Kyllä		useita	17.4.2018	17.4.2018	1,5	0,25	1	1974
xiiminnot	HFE perusteet	Ydinturvallisuus	Sisäinen	Kyllä		useita	21.3.2018	21.3.2018	1,50	0,25	1	1936
xiiminnot	AES-2006 training for STUK / R...			Kyllä		Säteilyturvakeskus	18.6.2015	18.6.2015	6,00	1,00	1	10741
xiiminnot	AES-2006 training for STUK / R...			Kyllä		Säteilyturvakeskus	17.6.2015	17.6.2015	6,00	1,00	1	10742
xiiminnot	Tulokaskoulutus osa 3					STUK	12.6.2015	12.6.2015	2,00	0,33	1	10743
xiiminnot	Tulokaskoulutus osa 2					STUK	11.6.2015	11.6.2015	3,00	0,50	1	10744
xiiminnot	Human Factor -koulutus, Nina Koivula			Kyllä		Säteilyturvakeskus	1.6.2015	1.6.2015	3,00	0,50	1	10745
xiiminnot	ISO9001:2015 -muutokset ja niiden soveltaminen			Kyllä		Säteilyturvakeskus, Jussi Moisio	27.5.2015	27.5.2015	6,00	1,00	1	10746
xiiminnot	Lean-koulutus			Kyllä		Säteilyturvakeskus	13.5.2015	13.5.2015	3,00	0,50	1	10747
xiiminnot	Fennovoiman projektisuunnitelman			Kyllä		Säteilyturvakeskus, Janne	6.5.2015	6.5.2015	2,00	0,33	1	10748

Evaluation on Training and Effectiveness

- Training system is under constant evaluation and assessment
 - Major revision in 2023-2024 (2025)
- Training programs and the individual training actions are evaluated (required by the IMS)
- Training contents and methods are evaluated against the set objectives
- Evaluation of effectiveness is carried out on various levels of the training system
 - Feedback, staff surveys, examinations, interviews, meetings, monitoring of individuals' development, observation of broader actions, follow-ups, advanced courses
- Training structures, targets and contents are revised periodically
 - New needs, emerging topics, training volumes, 'blindspots'
- Slowly shifting towards the evaluation of personal development plans and their success rate (& the shown performances in daily work).
 - "The bigger picture"
 - Quality measurements & Effectiveness measurements





Questions?



Thank you!

For further information:
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