





What is Emergo Train System (ETS)?

ETS is a pedagogic simulation tool for education, training and simulation within the field of emergency medicine, disaster medicine and health care.

ETS is also an Educational concept training ETS instructors and ETS faculties.



What is Emergo Train System (ETS)?

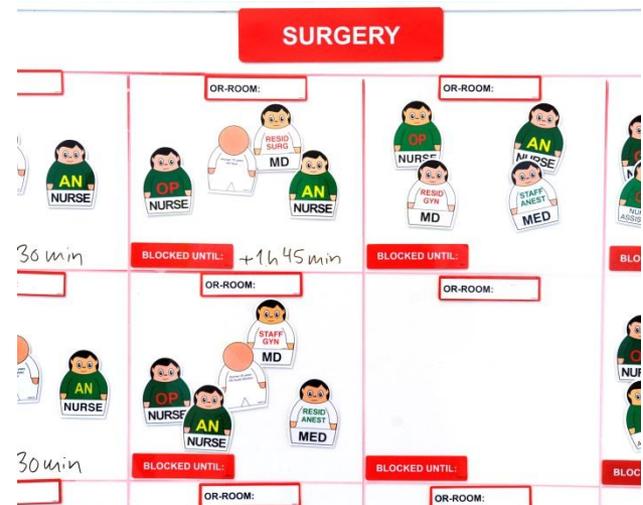
- Developed in Sweden during the late 1980s as a disaster simulation training system.
- Owned by the Region Östergötland, Sweden
- Developed and quality controlled by the University of Linköping
- Administrated by KMC – Centre for Teaching & Research in Disaster Medicine and Traumatology





ETS as a simulation tool

ETS is a pedagogic tool developed for disaster simulation exercises. It is based on a number of magnetic symbols plotted on whiteboards in pre-hospital and/or hospital scenarios.





ETS as a simulation tool

(click on the boxes i display mode to get more information on the web page)

Pre-hospital set

Hospital set

Victimbank
trauma

Victimbank
uninjured/psych
shock

Patientbank
in-hospital ED

Psychosocial
support

Victimbank burn

Victimbank
trigger

Patientbank
in-hospital
Surgery

Victimbank
penetrating
trauma

Victimbank
pediatric trauma

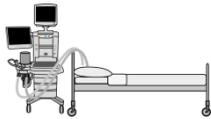
Patientbank
in-hospital ICU

Figurant cards

Victimbank
bomb/blast
trauma



Example of magnetic symbols for hospital setting



EXAMINATION ROOM



EMERGENCY DEPT



SURGERY DEPT



ISOLATION UNIT

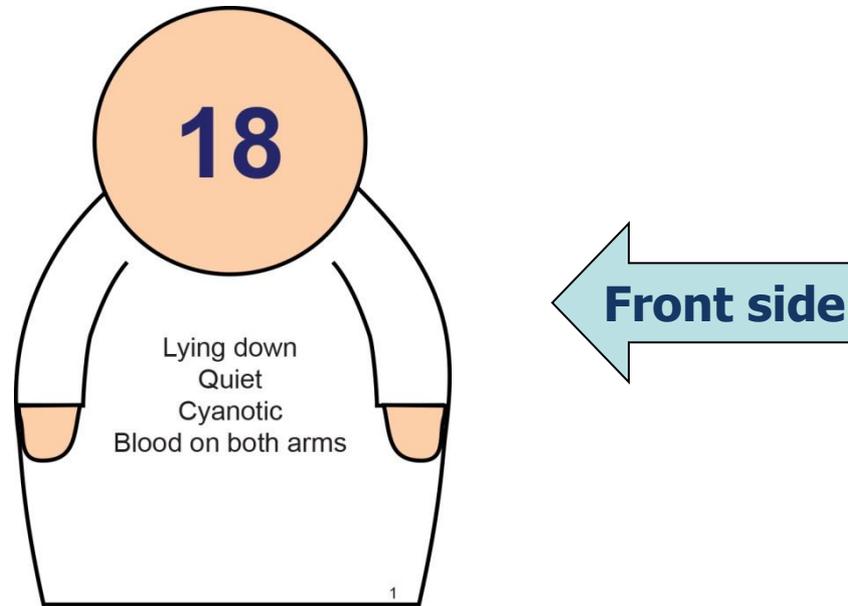


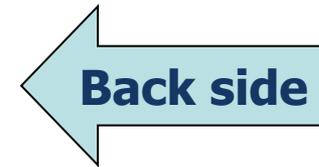
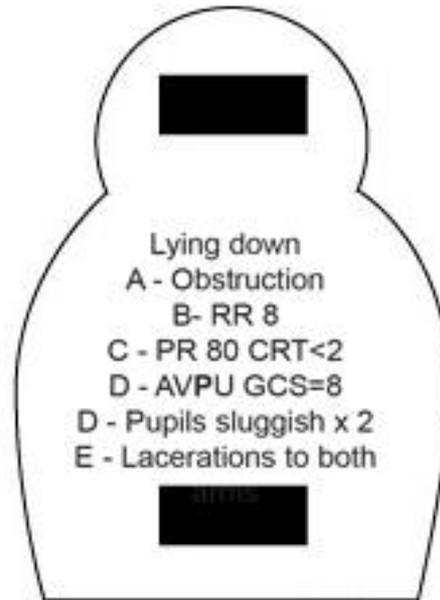
ETS version 4 victim/patient banks

- Trauma victim bank (pat 1-200)
- Burn victim bank (pat 401-500)
- Penetrating trauma victim bank (pat 501-600)
- Pediatric trauma victim bank (pat 601-700)
- Bomb/blast victim bank (pat 701-800)
- In-hospital patientbank ED (pat H1-H100)
- In-hospital patient bank Surgery (pat H201-H300)
- In-hospital patient bank ICU (pat H401-H450)
- Uninjured/psych shock victimbank (pat 301b-350b)
- Trigger victim bank (pat T1-T50)



Trauma victim bank

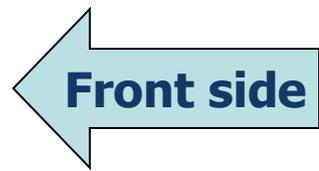




...in concordance
with the PHTLS/ATLS/TNCC®

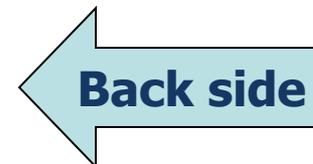


18	EMERGENCY DEPARTMENT
Female ca 20 years unidentified Unkown.	
Finding / Intervention	
Airway: Obstruction / Intubation	
Breathing: RR 8 Breath sounds normal SpO2 92% / Intubation	
Circulation: HR 80 BP 90/55 Temp 35,5 CRT<2 Lacerations to both arms. Heart sounds normal /	
Disability: GCS=9 PERL sluggish x 2/size normal Not moving extremities x 4	
Exposure: Lacerations both arms / Cleaning, sterile dressing	
CT/X-ray: CT Frontal contusions /	
ED: 40 min	CT/X-ray: 20 min



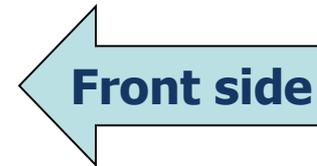
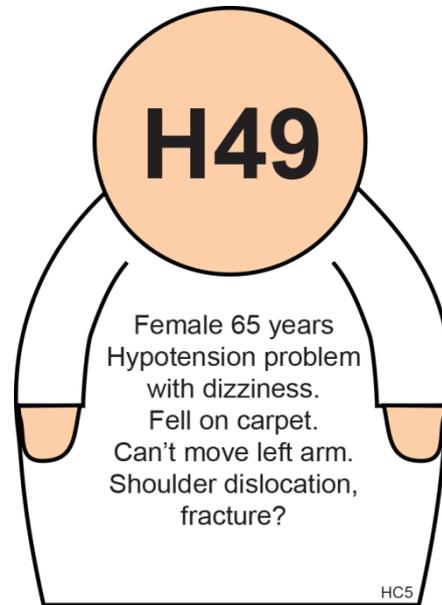


7	SURGERY DEPARTMENT
External fixation + wound excision.	
	Time: 2 hours
POST OP	ICU
Observation, analgesia.	
Time: 3 hours	Time:



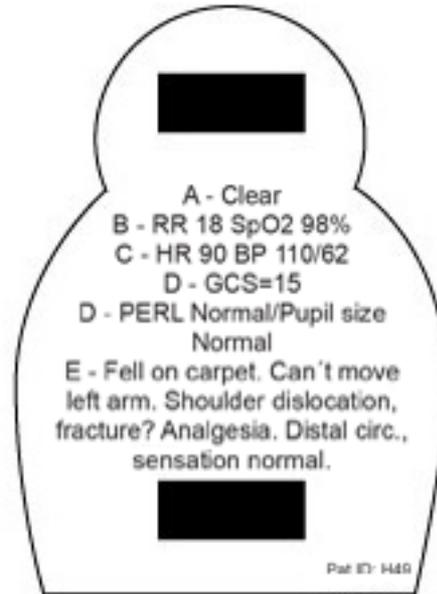


In-hospital patientbank Emergency department





In-hospital patientbank Emergency department



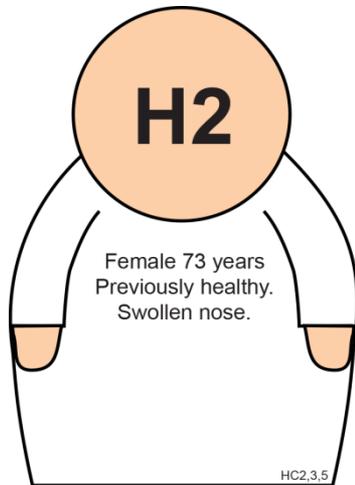
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with the PHTLS/ATLS/TNCC®



In-hospital patientbank Emergency department



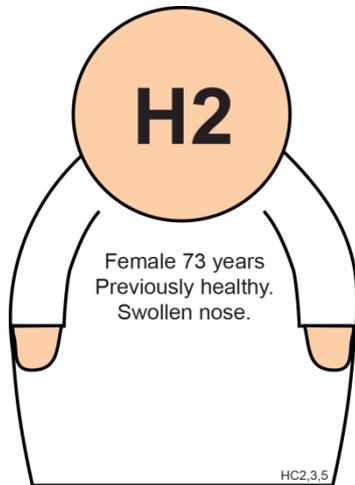
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QUESTIONS AND ANSWERS IN-HOSPITAL PATIENTS H1-H50 EMERGENCY DEPARTMENT									
Patient	CT/X-ray finding	CT/X-ray intervention	CT/X-ray time	Surgery	Surgery time	Post-op	Post-op time	ICU	ICU time
H1	Not applicable.								
H2	CT Nose fracture	To surgery	20 min	Reposition, general anesthesia.	30 min	Observation, analgesia	4 hours		
H3	CT Tumor metastasis is compressing lumbar spine	Second opinion neurosurgeon: to surgery	20 min	Decompressing lumbar spine, general anesthesia.	4 hours	Observation, analgesia	18 hours		
H4	X-ray No finding	Elastic support bandage to physiotherapist.	10 min						
H5	CT No pathological finding		20 min						
H6	X-ray No finding	Elastic support bandage to physiotherapist.	10 min						
H7								Cardiac ICU	1 week
H8	Not applicable.								
H9	CT Pelvospondylit	To rheumatological ward	20 min						
H10	CT No pathological finding		20 min						
H11	X-ray Normal.	Elastic support bandage, home	10 min						
H12	Not applicable.								
H13	Not applicable.								
H14	X-ray Non-displaced radius fracture	Cast, home.	10 min						



In-hospital patientbank Emergency department



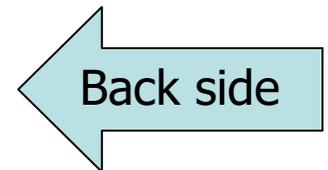
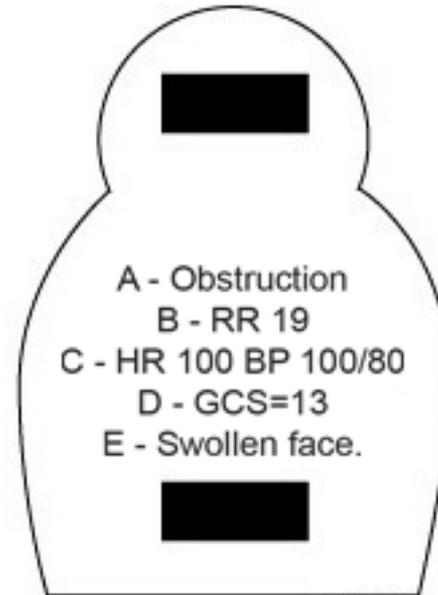
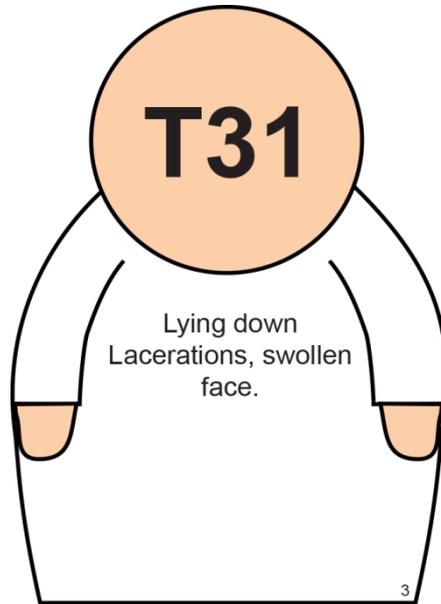
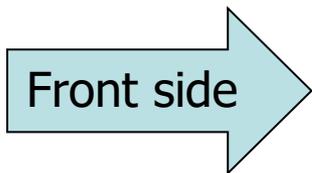
**EVALUATION
IN-HOSPITAL PATIENTS
H1-H100 EMERGENCY DEPARTMENT**

Patient	Home (HC1)	Home, return to ED in 8 hours (HC2)	Admitted to ward (HC3)	Admitted to ICU/Postop/ Cardias ICU (HC4)	Remains on ED (HC5)
H1	OK	OK	Overutilised	Overutilised	Overutilised
H2	Health risk	OK	OK	Overutilised	OK
H3	Health risk	OK	OK	Overutilised	Overutilised
H4	Health risk	OK	Overutilised	Overutilised	Overutilised
H5	Health risk	OK	OK	Overutilised	OK
H6	Health risk	OK	Overutilised	Overutilised	Overutilised
H7	Health risk	Health risk	OK	OK	Overutilised
H8	Health risk	Health risk	OK	Overutilised	Overutilised
H9	Health risk	Health risk	OK	Overutilised	OK
H10	Health risk	OK	Overutilised	Overutilised	Overutilised



Trigger victim bank

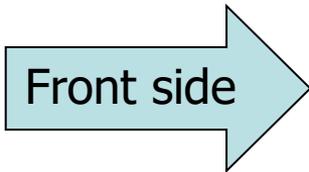
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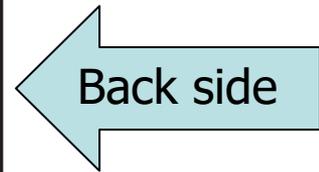
Trigger victim bank

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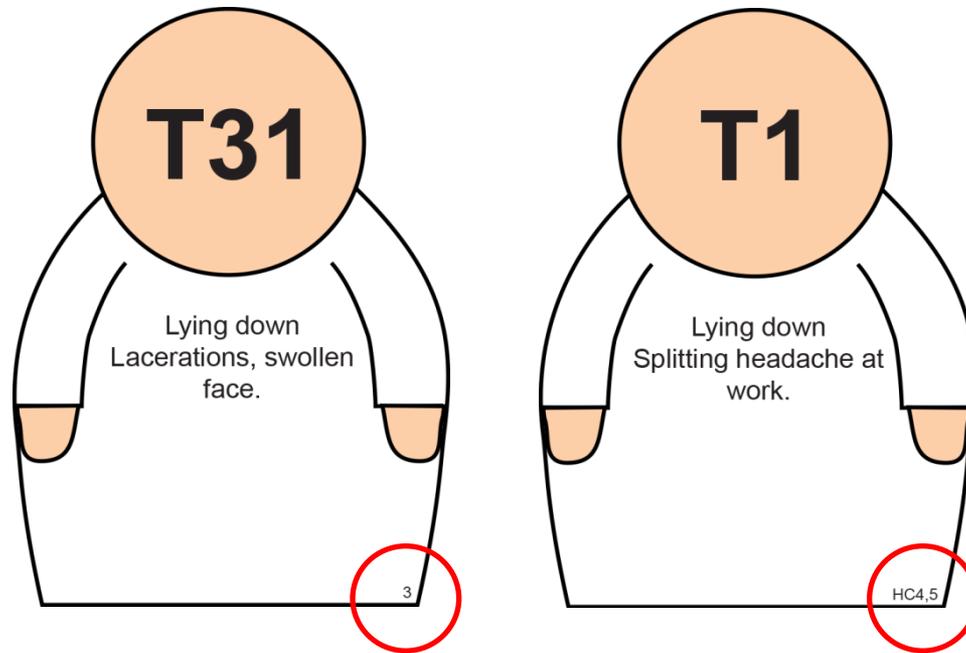
T31	EMERGENCY DEPARTMENT
Male 60 years Hypertension, calcium antagonist..	
Finding / Intervention	
Airway: Obstruction / Intubation	
Breathing: Breath Sounds Normal SpO2 95% / Secure airway and breathing, ventilation.	
Circulation: CRT<2 Temp 37,6 /IV Fluid.	
Disability: PERL Normal/ size Normal Moving extremities x 4 /	
Exposure: Swollen face. /	
ED: 20 min	CT/X-ray: 25 min

T31	SURGERY DEPARTMENT
Fixation Le Fort I + II + III, reconstruction of mouth and nose.	
	Time: 6 hours
POST OP	ICU
	Ventilator
Time:	Time: 1 week





Trigger victim bank





Validation of ETS training material

- Developments made together with ETS faculties, Senior instructors, subject matter experts
- All training packages are tested and validated
- Must be approved by the ETS Competence Center before named Emergo Train System



Photos from exercises using the Emergo Train System...





Photos from exercises using the Emergo Train System...





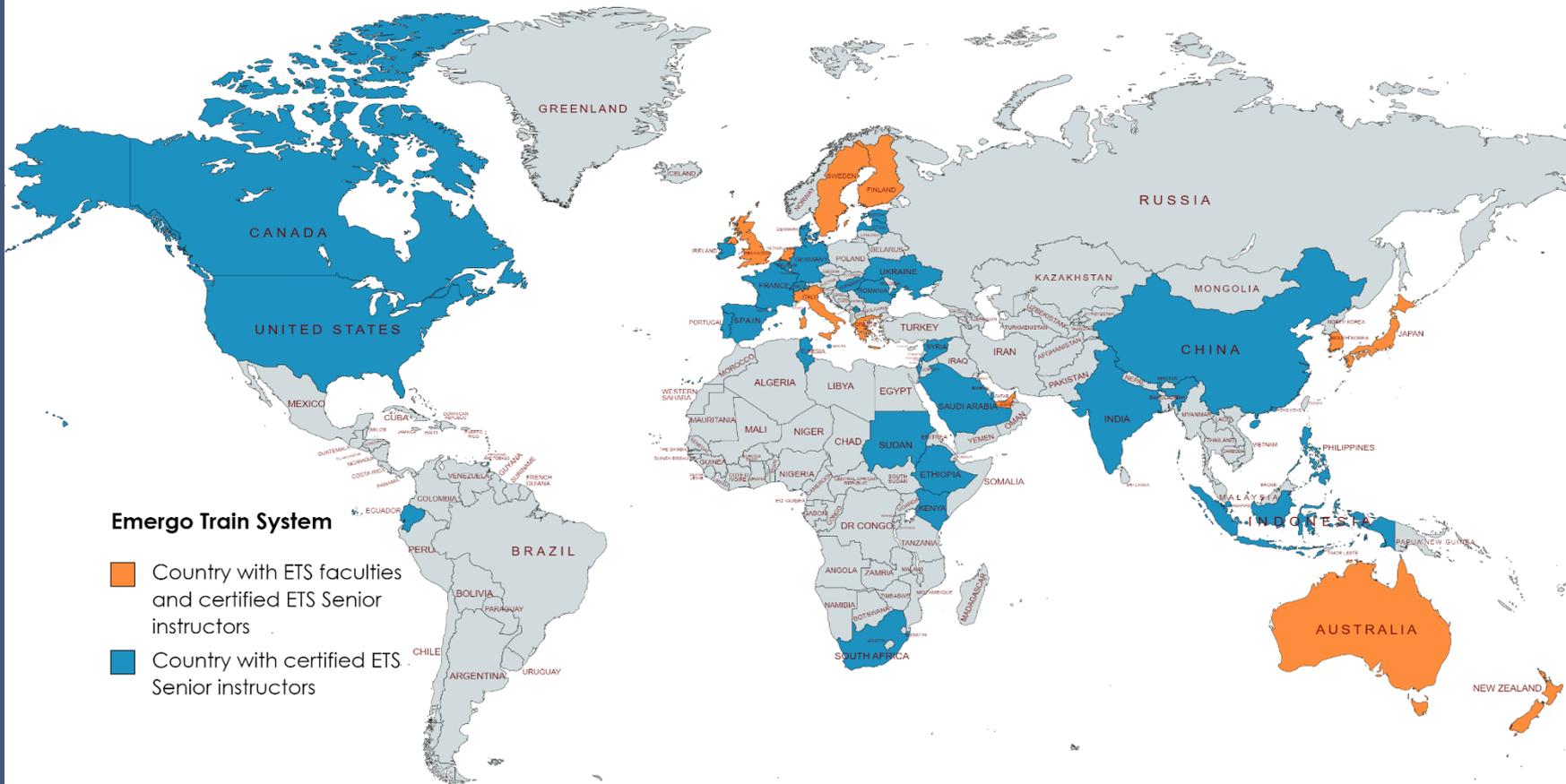
Photos from exercises using the Emergo Train System





ETS Educator faculties

Total number of certified ETS Senior instructors are 2 673* from 44 nationalities

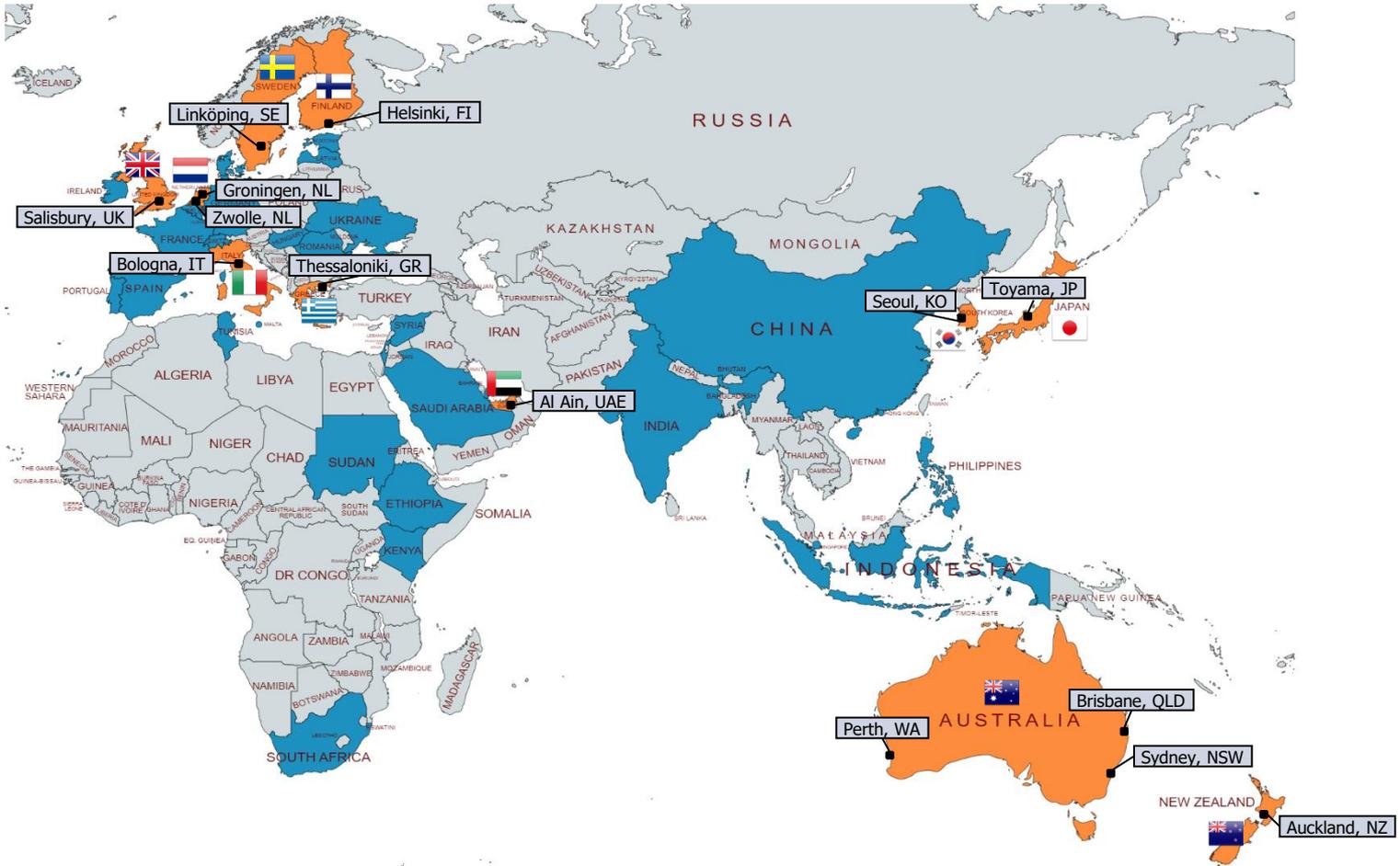


* Numbers of December 2022



ETS Educator faculties

Total number of certified ETS Educators are 132*
in 14 Educator faculties



* Numbers of December 2022