



UNION EUROPÉENNE DES MÉDECINS SPÉCIALISTES
EUROPEAN UNION OF MEDICAL SPECIALISTS

Association internationale sans but lucratif International non-profit organisation

RUE DE L'INDUSTRIE, 24
BE- 1040 BRUSSELS

www.uems.eu

T +32 2 649 51 64

F +32 2 640 37 30

info@uems.eu



European Training Requirements in the Specialty of Thoracic Surgery

Prof dr Toni Lerut
Prof dr Dirk Van Raemdonck

On behalf of the UEMS Section of Thoracic Surgery

Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
3. What does the ETR require from trainees?
4. What does the ETR require from trainers?
5. What does the ETR require from training institutions?

Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
3. What does the ETR require from trainees?
4. What does the ETR require from trainers?
5. What does the ETR require from training institutions?

A short history: from European Board to UEMS Section of Thoracic Surgery



1996 → 2004 → 2013 → 2025

1996 — EACTS, ESTS and ESCVS establish the European Board of Thoracic and Cardiovascular Surgeons (EBTCS).

Purpose: common high standards and mutual recognition across Europe.

2004 — UEMS Section of Cardio-Thoracic Surgery established; thoracic surgery represented through divisions and a unified board.

2013 — a dedicated [UEMS Section of Thoracic Surgery](#) is created; the European Board of Thoracic Surgery (EBTS) issues the FEBTS certificate.

Why do we need harmonization in thoracic surgery: a view from above by the European Union of Medical Specialists

Toni Lerut^{1,2}, Dirk Van Raemdonck^{1,2}, Gilbert Massard^{3,4}

J Thorac Dis. 2021 Mar;13(3):2021-2028. doi: 10.21037/jtd.2019.01.49.



The 2013 survey exposed major variation

Variation was the driver for European harmonisation

Training duration: 5–10 years

Exposure to pure thoracic surgery: 2–5 years

CCST issued by different authorities: professional body, university, ministries

Required first-surgeon operations: from none to 1,000

Thoracic Surgery was already recognised as a mono-specialty in 13 EU Member States — sufficient for UEMS Section status.

Training
5–10 y

Thoracic exposure
2–5 y

1st surgeon cases
0–1,000

A short history: from European Board to UEMS Section of Thoracic Surgery



1996 → 2004 → 2013 → 2025

1996 — EACTS, ESTS and ESCVS establish the European Board of Thoracic and Cardiovascular Surgeons (EBTCS).

Purpose: common high standards and mutual recognition across Europe.

2004 — UEMS Section of Cardio-Thoracic Surgery established; thoracic surgery represented through divisions and a unified board.

2013 — a dedicated UEMS Section of Thoracic Surgery is created; the European Board of Thoracic Surgery (EBTS) issues the FEBTS certificate.

2025 — the Unified Board of Thoracic Surgery (UEBTS) is founded in collaboration with EACTS & ESTS



EACTS
EUROPEAN ASSOCIATION FOR
CARDIO-THORACIC SURGERY

+



+



ESTS European Society of Thoracic Surgeons

Unified European Board of Thoracic Surgery

Gilbert Massard

Stephen Clark

EBTS

EBCTS



Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
3. What does the ETR require from trainees?
4. What does the ETR require from trainers?
5. What does the ETR require from training institutions?

How the 2026 ETR was developed?



An iterative, delegate-driven and formally reviewed process





Members

☐ Armenia

☐ Austria

☐ Belgium

☐ Bulgaria

☐ Croatia

☐ Cyprus

☐ Czech Republic

☐ Denmark

☐ Estonia

☐ Finland

☐ Georgia

☐ Germany

☐ Greece

☐ Hungary

☐ Italy

☐ Ireland

☐ Luxemburg

☐ Norway

☐ Poland

☐ Portugal

☐ Slovakia

☐ Slovenia

☐ Spain

☐ Sweden

☐ Switzerland

☐ The Netherlands

☐ Turkey

☐ UK

☐ Ukraine

☐ EACTS representative observer

☐ ESTS representative observer

☐ EJD representative

The ETR changes the emphasis: from time to competence

European reference, implemented alongside national requirements



Competency-based rather than time-based alone

Knowledge + technical skills + professional attitudes + workplace performance

Assessment is linked to progressive entrustment

National regulatory requirements remain applicable

The ETR is a living document: regular review, at least every five years

Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
- 3. What does the ETR require from trainees?**
4. What does the ETR require from trainers?
5. What does the ETR require from training institutions?

I - Training requirements for trainees: the architecture

From knowledge and skills to independent practice

Knowledge

Syllabus
26 modules

Skills

Practical & clinical
procedures

Professionalism

CanMEDS
7 roles

Entrustment

EPAs + assessment
+ portfolio

(100 major thoracic
surgical interventions)

Thoracic surgery training in Europe—the perspective of a trainee

Anna Elisabeth Frick¹, Gilbert Massard²

J Thorac Dis. 2017 Apr;9(Suppl 3):S218-S222. doi: 10.21037/jtd.2017.03.138

Syllabus: defining the European knowledge base



A harmonised core, with specialised areas depending on training opportunities

The harmonised syllabus describes theoretical knowledge plus practical and clinical skills for FEBTS-level training.

Built through a Delphi process involving ESTS, ERS thoracic surgery and EACTS participants.

Three broad sections: generalities; diseases & disorders; procedures.

Core content common to thoracic units is mandatory.

Specialised areas — paediatric surgery, oesophageal surgery, lung transplantation — may be optional depending on local opportunities.

A harmonized European training syllabus for thoracic surgery: report from the ESTS-ERS task force[†]

Gilbert Massard^{a,*}, Nathalie Tabin^b, Sharon Mitchell^b, Hasan Batirel^c, Alessandro Brunelli^d, Stefano Elia^e,
Anna Frick^f, Martin Huertgen^g, Antoon Lerut^f, Laureano Molins^h, Kostas Papagiannopoulos^d, Dragan Subotic^{ij},
Paul van Schil^k, Gonzalo Varela^l and Dirk van Raemdonck^f

Eur J Cardiothorac Surg. 2018 Aug 1;54(2):214-220. doi: 10.1093/ejcts/ezy206.

Syllabus for Thoracic Surgery

- 26 modules
- Optional modules:
 - Pediatric thoracic surgery
 - Lung Transplantation + ECLS
 - Oesophageal Surgery
- Not included:
 - Cardiac surgery
- Basic knowledge still expected



EACTS
EUROPEAN ASSOCIATION FOR
CARDIO THORACIC SURGERY



ESTS European Society of Thoracic Surgeons

Unified European
Board of
Thoracic Surgery



Harmonized European Training Syllabus for Thoracic Surgery

Module 1 Basic Principles MANDATORY

1. Thoracic morphology as applied in GTS

- 1.1 Embryology of thoracic organs
- 1.2 Histology of thoracic organs
- 1.3 Surgical anatomy of the chest
- 1.4 Radiological anatomy of the chest
- 1.5 Endoscopic anatomy of airways and upper GI

2. Thoracic Physiology as applied in GTS

- 2.1 Dynamics of chest wall, pleural space and diaphragm
- 2.2 Ventilation
- 2.3 Gas exchange
- 2.4 Central regulation of breathing
- 2.5 Respiratory acid---base balance
- 2.6 Swallowing and aspiration
- 2.7 Cardiopulmonary circulation
- 2.8 Haemostasis and coagulation

3. Essentials in pharmacology applied to GTS

- 3.1 Anticoagulants and antiplatelets
- 3.2 Local anaesthetics and analgesics
- 3.3 Anti---infectious treatments
- 3.4 Steroids
- 3.5 Anti---cancer treatments for thoracic malignancies
- 3.6 Bronchodilators
- 3.7 Immunosuppressive drugs
- 3.8 Antimyasthenic drugs
- 3.9 Blood---derived products
- 3.10 Diuretics
- 3.11 Inotropes
- 3.12 Antiarrhythmics
- 3.13 Antihypertensive drugs
- 3.14 Inhaled gas therapy (oxygen etc)

Curriculum: translating the syllabus into training

Structured progression and increasing responsibility

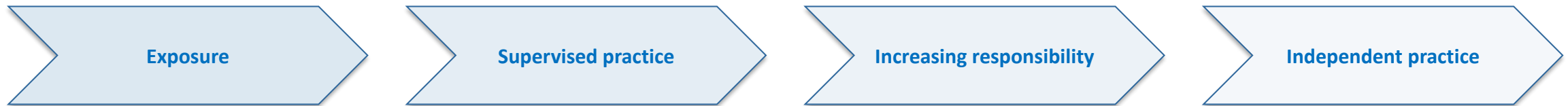
The curriculum should describe contents and aims for each year of training.

Rotations should cover the main areas of Thoracic Surgery.

Responsibility should increase progressively with clinical and surgical experience.

Protected time for study and tuition is required.

Ongoing scholarly activity: teaching, journal clubs, research conferences and morbidity & mortality discussion.



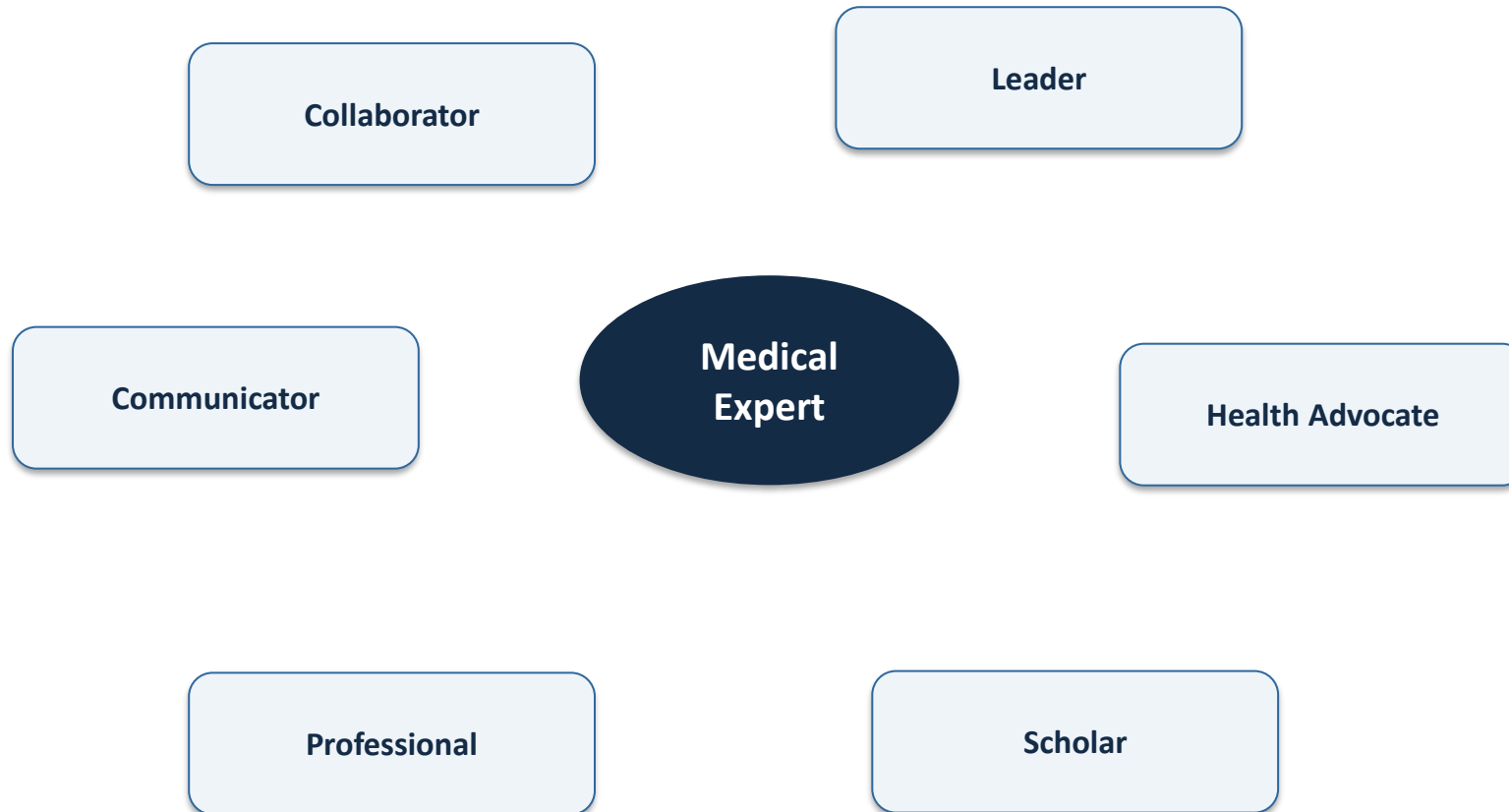
Training curriculum for European thoracic surgeons: a joint initiative of the European Society of Thoracic Surgeons and the European Respiratory Society

Gilbert Massard^{a,*}, Nathalie Tabin^b, Lars Konge^c, Anna Elisabeth Frick^d, Hasan Batirel^e,
Alessandro Brunelli ^f, Stefano Elia^g, Martin Huertgen ^h, Laureano Molins ⁱ, Kostas Papagiannopoulos^f,
Dragan Subotic^j, Paul van Schil^k, Gonzalo Varela ^l and Dirk van Raemdonck ^m

Eur J Cardiothorac Surg. 2020;57(3):418-421. doi:10.1093/ejcts/ezz361.

CanMEDS: the non-technical dimension

Seven overlapping roles around the Medical Expert



EPAs: making competence observable in practice



Eight EPAs — five core, three optional advanced tracks

Core:

- EPA 1 — Oncological lung pathology
- EPA 2 — Non-oncological lung pathology
- EPA 3 — Mediastinal pathology
- EPA 4 — Chest wall pathology
- EPA 5 — Diaphragmatic pathology

Optional:

- EPA 6 — Lung transplantation
- EPA 7 — Upper GI/oesophageal
- EPA 8 — Paediatric thoracic pathology

Entrustment levels

- 1 Observe / assist
- 2 Direct supervision
- 3 Distant supervision
- 4 Independent
- 5. Supervisor

Assessment: evidence, not just case numbers



Portfolio + logbook + workplace-based assessment + board examination

Training Portfolio: CV, operative logbook, previous posts, publications, presentations and courses.

Logbook entries are regularly inspected and signed by the trainer.

EPAs are supported by repeated workplace observations across patients and clinical contexts.

The ETR requires **at least 100 major thoracic operations as first operating surgeon**, including open and video-assisted major procedures.

European Board examination complements training assessment.

Level 1 MUEBTS

Membership
MCQ's

Level 2 FUEBTS

Fellowship
OSCE

A common exit examination for thoracic surgery in Europe—the Unified European Board of Thoracic Surgery

Gilbert Massard^{a,b,c,*}, Maninder Kalkat^d, Richard Milton^e, Nuria Novoa^f, Toni Lerut ^g, Yvonne Hurst^h,
Dirk van Raemdonck ⁱ and Stephen Clark ^j

Eur J Cardiothorac Surg. 2025 Mar 28;67(4):ezaf040. doi: 10.1093/ejcts/ezaf040.

Fellowship examination – Budapest, 24th May 2025



Debriefing examiners



The advantages of European accreditation in thoracic surgery

Dirk Van Raemdonck^{1,2^}, Toni Lerut^{1,2}, Gilbert Massard^{3,4}

AME Surg J 2023;3:38¹ doi: 10.21037/asj-22-4



Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
3. What does the ETR require from trainees?
- 4. What does the ETR require from trainers?**
5. What does the ETR require from training institutions?

II - Training requirements for trainers

A trainer is a clinician, educator and assessor

Certified Thoracic Surgeon — preferably (U)EBTS-certified or equivalent UEMS-recognised certification.

Continuing professional development plus clinical, teaching and administrative skills.

Training in educational methods: learning needs, teaching objectives and trainee assessment.

Evidence of scholarly activity: research, publications and scientific meetings.

Set realistic objectives, supervise day-to-day work and document progress at the end of rotations.

Faculty should have protected educational capacity and be large enough for clinical, educational and research supervision.

Structure of General Thoracic Surgery in Europe
By
The EACTS/ESTS Working Group on Structures in Thoracic Surgery

Chairmen:

Walter Klepetko*, Torkel H.J. Aberg, Antoon E.M.R. Lerut

Project coordination:

Tomasz Grodzki, Jean-Francois Velly, William S. Walker

With contributions from:

C. Ahren, A. Arsovski, I. Bellenis, S. Bequiri, R.G. Berrisford, D. Branscheid, J. Bibicic, A. Csekeö, I. Drescik, J. Dussek, J. Erzen, F. Furmanik, M.T. Godinho, P. Goldstraw, G. Gotti, S. Halezeroglu, J. Hamzik, S. Harustiak, J. Hasse, P. Hartl, P. Hostrup, T. Horvat, N. Ilic, K. Jeyasingham, A.P. Kappetein, L. Kecskes, T. Laisaar, L. Lampl, Ph. Levasseur, G. Maggi, G. Magnanelli, G. Massard, K. Moghissi, T. Molnar, Ph.H. Noirhomme, T. Orlowski, P. Pafko, A. Petricevic, J.L. Pujol, E.M. van Raemdonck, G. Ramos Seisdedos, H.B. Ris, J. Salo, P. van Schil, R.A. Schmid, A. Thorpe, H. Toomes, A. Varela, G. Varela, F. Venuta, V.M.sa Vieira, W. Weder, J.M. Wihlm, P. Zannini

Eur J Cardiothorac Surg. 2001 Oct;20(4):663-8. doi: 10.1016/s1010-7940(01)00942-3.

Five questions addressed by the ETR



1. Why was a UEMS Section of Thoracic Surgery needed?
2. How was the 2026 ETR developed and reviewed?
3. What does the ETR require from trainees?
4. What does the ETR require from trainers?
5. What does the ETR require from training institutions?

III - Training institutions: the environment must support training

Case mix, staff, infrastructure, education and quality management

High-specialisation units: university affiliation or equivalent multidisciplinary level; qualified head with ≥ 5 years as a thoracic surgeon.

Full-length high-specialisation programme: sufficient case variety and mentors; minimum 300 major procedures/year is specified.

Dedicated staff and institutional resources; participation in the ESTS Database is expected for standard units.

Access to open, endoscopic and minimally invasive surgery, ICU and relevant diagnostic/support services.

Educational infrastructure: research facilities, simulation; high-specialisation units must have simulation lab facilities.

Quality management: defined educational responsibilities, evaluation and mechanisms for continuous improvement.

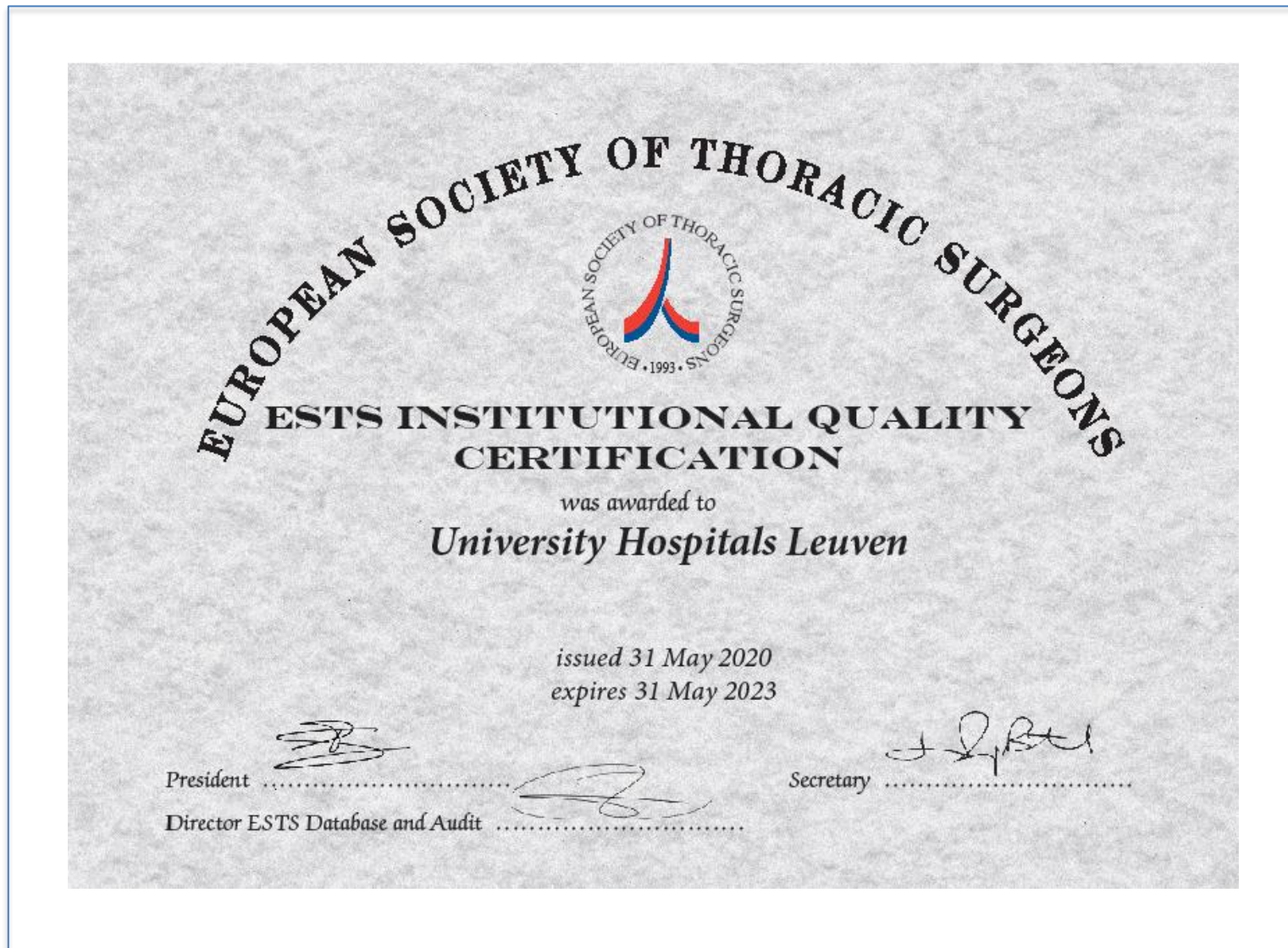
European guidelines on structure and qualification of general thoracic surgery

Chairs: Alessandro Brunelli^{a,*} and Pierre Emmanuel Falcoz^b

Panel: Thomas D'Amico^c, Henrik Hansen^d, Eric Lim^e, Gilbert Massard^b, Thomas W. Rice^f, Gaetano Rocco^g,
Pascal Thomas^h, Dirk Van Raemdonckⁱ, Miguel Congregado^j, Herbert Decaluweⁱ, Tomasz Grodzki^k,
Toni Lerutⁱ, Thomas Molnar^l, Michele Salati^m, Marco Scarciⁿ, Paul Van Schil^o, Gonzalo Varela^p,
Federico Venuta^q, Franca Melfi^r, Cengiz Gebitekin^s, Jaroslaw Kuzdzal^t, Gunda Leschber^u, Isabelle Opitz^v,
Kostas Papagiannopoulos^a, Alec Patterson^w, Enrico Ruffini^x, Walter Klepetko^y and Alper Toker^z

Eur J Cardiothorac Surg. 2014 May;45(5):779-86. doi: 10.1093/ejcts/ezu016.

Accreditation of training institutions in collaboration with scientific societies



The ETR in one framework

A coherent system from European standards to patient care



**European
harmonisation**

**Syllabus &
Curriculum**

**CanMEDS &
Competencies**

**EPAs &
Assessment**

**Qualified
Trainers**

**Accredited
Institutions**

**Safe,
competent
Thoracic
Surgeons**