

Current Education and Training Requirements with Laboratory Animals

Ismene Dontas, DVM, PhD

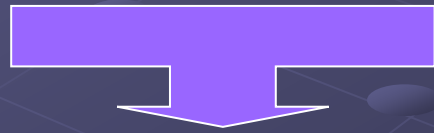
Professor Emeritus of Experimental Surgical Research
Laboratory for Research of the Musculoskeletal System
School of Medicine, N&K University of Athens, Greece
ETPLAS Executive Committee Member

Introduction

Theoretical education + Practical training
of
people in research with Laboratory Animals



different procedures / *different* countries



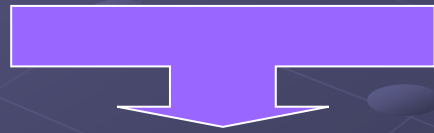
Quality Animal Welfare
Quality Science

Introduction

Theoretical education + Practical training
of
people in research with Laboratory Animals



same procedures / *different* countries



Harmonisation and Quality!

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications
- IV) Building an educational portfolio
- V) Reaching the highest degree

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications
- IV) Building an educational portfolio
- V) Reaching the highest degree

What the Directive 2010/63/EU demands

Article 23

Competence of personnel

1. Member States shall ensure that each breeder, supplier and user has sufficient staff on site.
2. The staff shall be adequately educated and trained before they perform any of the following functions:
 - (a) carrying out procedures on animals;
 - (b) designing procedures and projects;
 - (c) taking care of animals; or
 - (d) killing animals.

<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:276:0033:0079:en:PDF>

What the Directive 2010/63/EU demands

Article 23

Competence of personnel

Persons carrying out the functions referred to in point (b) shall have received instruction in a scientific discipline relevant to the work being undertaken and shall have species-specific knowledge.

Staff carrying out functions referred to in points (a), (c) or (d) shall be supervised in the performance of their tasks until they have demonstrated the requisite competence.

Member States shall ensure, through authorisation or by other means, that the requirements laid down in this paragraph are fulfilled.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:276:0033:0079:en:PDF>

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications
- IV) Building an educational portfolio
- V) Reaching the highest degree

Expert Working Group European Commission



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
ENVIRONMENT
Directorate D - Water, Marine Environment & Chemicals
ENV.D.3 – Chemicals, Biocides & Nanomaterials
Acting Head of Unit

Brussels, 31 JAN, 2012
ENVD3/MH/et/Ares (2012) 1093 78

INVITATION TO EXPERTS
TO PARTICIPATE IN THE FIRST EXPERT
WORKING GROUP (EWG) ON EDUCATION AND TRAINING

To facilitate the implementation and transposition of Directive 2010/63/EU on the protection of animals used for scientific purposes, The European Commission has the pleasure of inviting you to the following meeting:

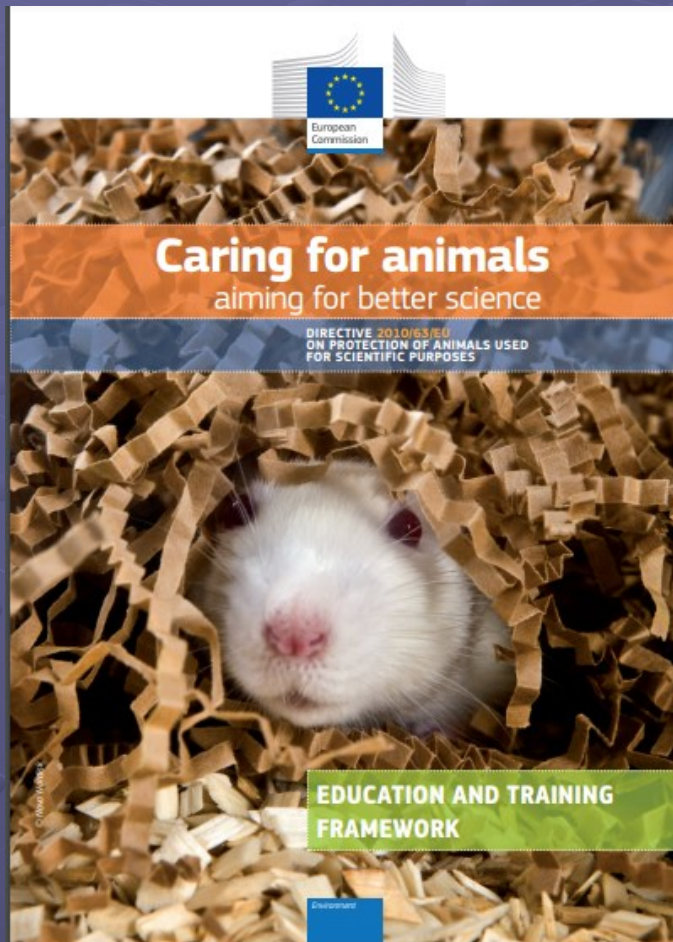
**An Expert Working Group (EWG) on Education and Training within the context of
Directive 2010/63/EU Article 23(4)**

The meeting will be held on 22 and 23 February 2012 at the Directorate General Environment premises, Avenue de Beaulieu 5, Brussels, 1160 (Metro Beaulieu) **ROOM 0C** from 09:30 on 22 February and will adjourn at 17:00 on 23 February.

Expert Working Group European Commission

- Aim: To develop minimum educational guidelines for the 4 functions, for their
- Education & Training
- Assessment of Competence
- Continuing Professional Development (CPD)

Education & Training Framework Document



National Competent Authorities for the implementation of Directive 2010/63/EU on the protection of animals used for scientific purposes

A working document on the development of a common education and training framework to fulfil the requirements under the Directive

- Replacing consensus document of 18-19 September 2013 -

Brussels, 19-20 February 2014

The Commission established an Expert Working Group (EWG) to develop a common education and training framework for the EU to fulfil the requirements under Articles 23, and 24 of Directive 2010/63/EU on the protection of animals used for scientific purposes. All Member States and main stakeholder organisations were invited to nominate experts to participate in the work. The EWG met on 22 - 23 February and 19-20 September 2012, and 3-4 July 2013.

The objectives of the EWG were to develop a common framework to facilitate meeting the requirements for competence of all those involved in use and care of animals for scientific purposes and free movement of personnel.

This document is the result of the work of the EWG meetings (including those on Project Evaluation/Retrospective Assessment¹ and Inspection and Enforcement²), discussions with the Member States as well as legal input from the Commission. It was endorsed by the National Competent Authorities for the implementation of Directive 2010/63/EU at their meeting of 19-20 February 2014 with the exception of Appendix V³.

<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

Education & Training Framework Document

The table of contents:

Legal background - Article 23 of Directive 2010/63/EU	4
The education and training framework objectives and structure	4
The Educational Process under Directive 2010/63/EU	5
<i>Understanding Article 23(2) requirements</i>	6
<i>The process</i>	6
Academic qualifications for functions (a), (b), (c) and (d)	7
<u>PART A</u>	
Modular Training and Learning Outcomes	9
<i>Quality criteria for a training module</i>	9
<i>Terminology used</i>	10
<i>Specialisation for species</i>	10
<i>Exemptions to Modular Training for functions (a), (b), (c) and (d)</i>	11
<i>Training Modules with the respective Learning Outcomes</i>	12
Assessment of Learning Outcomes	12
<i>Assessment/pass-fail criteria</i>	12

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications (Functions a, b, c, d)
- IV) Building an educational portfolio
- V) Reaching the highest degree

Education & Training Framework Document

Academic qualifications for functions (a), (b), (c) and (d)

With the focus on competence, on the basis of training modules which fulfil the agreed quality criteria and are assessed in a consistent manner, passing successfully the required modules infers a level of schooling and maturity sufficient for these functions.

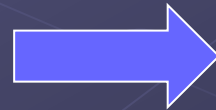
Functions (a), (c) and (d) should not require any specific educational qualifications.

Individuals responsible for designing procedures and projects under function (b) should normally hold an academic degree or equivalent in an appropriate scientific discipline. This will be important to ensure such individuals are able to apply the Three Rs effectively in the design of the procedures and projects and make appropriate ethical and scientific judgments.

<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

Starting qualifications (Functions a, c, d)

- **NO** starting qualifications:
no high-school diploma
no Bachelor's, DVM, MD, ... degree
- **IF** one attends courses (theory + skills)
AND passes the exams:



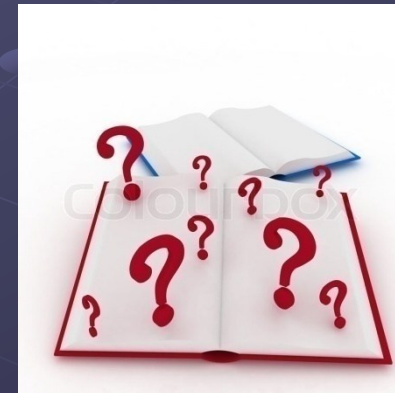
they are “qualified” to work as F a, c, d

Starting qualifications (Function b)

- Academic degree
or
- “Equivalent in an appropriate scientific discipline”

Course certificate?

Years of work/experience?



Education & Training Framework Document

Appendix I

Modules and the related Learning Outcomes

Part 1: Modular structure

This document is intended to provide guidance to Member States and all those involved in the care and use of animals under 2010/63/EU on the minimum recommended training requirements under EU Directive 2010/63/EU (Article 23 and Annex V). It is intended to

Based on the British Modular teaching system

Modules: “Core, Function-Specific, Additional”

Terminology used

The training should be based on a modular structure. The modules fall into different categories

- compulsory to all functions as stated in Article 23(2) (including National Legislation Module);
- required only for (a) specific function(s);
- additional modules for facilitating learning specialised skills as well as lifelong learning, (e.g. Surgery Module).

Part 3: Modules

The following numbering has been used for the modules in order to allow insertion of new modules as these are developed:

- 1 – 19 - Core and Function Specific Modules for functions under Article 23
- 20 – 29 - Task and Additional skill related modules
- 30 and above - Other Additional modules

Core Modules

Core Modules - Functions A, B, C & D

1	National legislation
2	Ethics, animal welfare and the Three Rs (level 1)
3.1	Basic and appropriate biology – species specific (theory)
4	Animal care, health and management – species specific (theory)
5	Recognition of pain, suffering and distress - species specific
6.1	Humane methods of killing (theory)

Function A Specific Modules

Function Specific (Prerequisite) Modules - Function A

3.2	Basic and appropriate biology – species specific (practical)
7	Minimally invasive procedures without anaesthesia – species specific (theory)
8	Minimally invasive procedures without anaesthesia – species specific (skills)

Function B Specific Modules

Function Specific (Prerequisite) Modules - Function B

7	Minimally invasive procedures without anaesthesia – species specific (theory)
9	Ethics, animal welfare and the Three Rs (level 2)
10	Design of procedures and projects (level 1)
11	Design of procedures and projects (level 2)

Function C Specific Module

Function Specific (Prerequisite) Modules - Function C

3.2	Basic and appropriate biology – species specific (practical)
------------	--------------------------------------------------------------

Function D Specific Modules

Function Specific (Prerequisite) Modules - Function D

3.2	Basic and appropriate biology – species specific (practical)
6.2	Humane methods of killing (skills)
Alternatively	
6.3	Stand-alone Module for Function D (only)

Functions A, B and C

+

12

Severity Assessment Framework

is being added in the Revision of the E&T Framework

Additional Modules

Additional Task Specific Modules

20	Anaesthesia for minor procedures
21	Advanced anaesthesia for surgical or prolonged procedures
22	Principles of surgery
23	Advanced animal husbandry, care and enrichment practices
24	Designated Veterinarian
25	Project Evaluator

Other Additional Modules

50	Introduction to the local environment (establishment) for persons taking specific roles under the Directive
51	Information provision and retrieval

Education & Training Framework Document



European
Commission

Understanding Article 23(2) requirements



- *"The staff shall be **adequately educated and trained before** they perform any of the following functions..."*
- *When there is a likelihood of causing pain, suffering, distress or lasting harm, training should be completed prior to working under supervision.*
- *If this is not the case, the training could start by working under supervision and with the responsibility remaining with the supervisor.*

Education & Training Framework Document



European
Commission

Understanding Article 23(2) requirements



- "The staff shall be **adequately educated and trained before** they perform any of the following functions..."
- *When there is a likelihood of causing pain, suffering, distress or lasting harm, training should be completed prior to working under supervision.*
- *If this is not the case, the training could start by working under supervision and with the responsibility remaining with the supervisor.*

Education & Training Framework Document



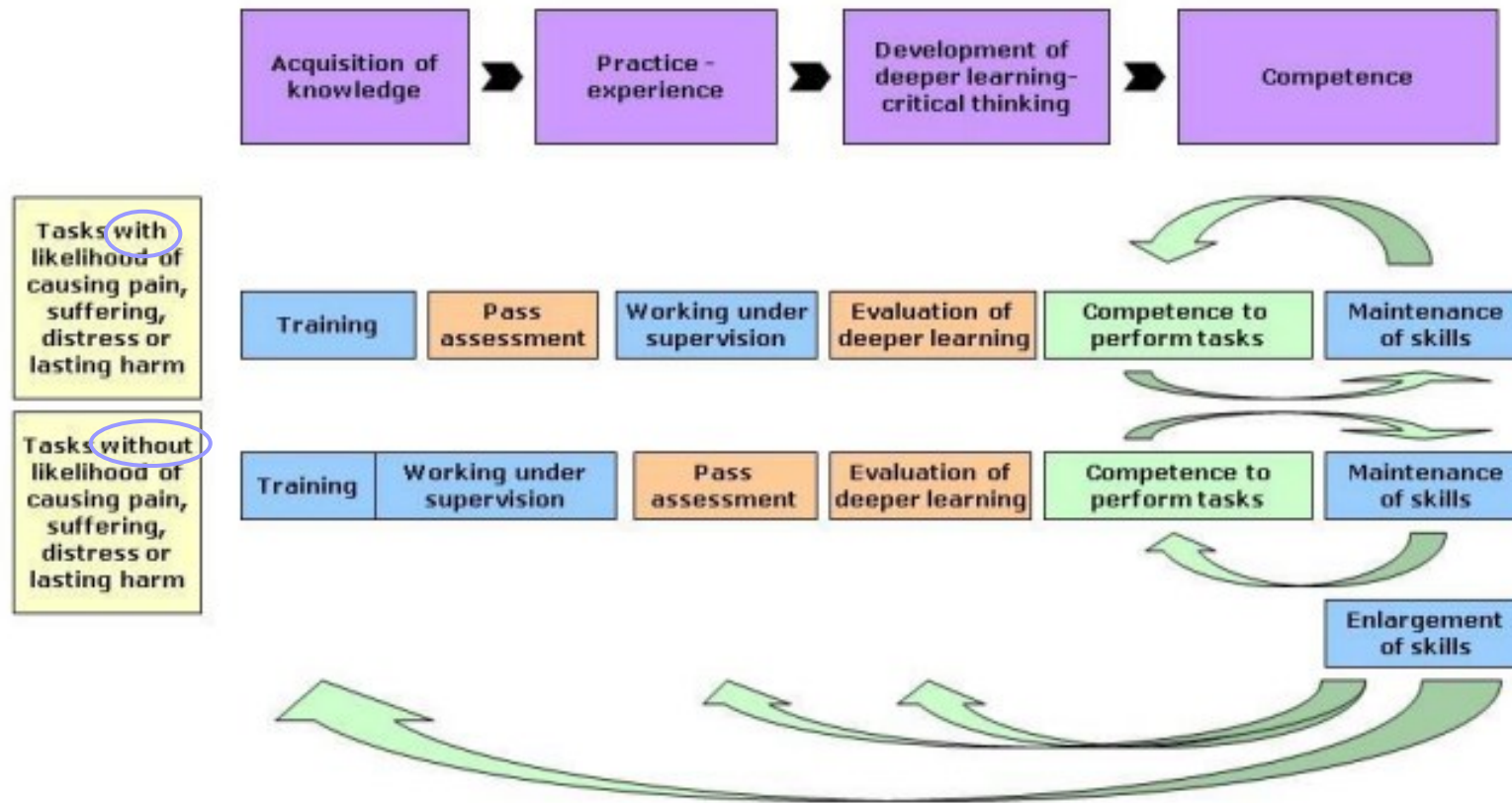
European
Commission

Understanding Article 23(2) requirements



- "The staff shall be **adequately educated and trained before** they perform any of the following functions..."
- When there is a likelihood of causing pain, suffering, distress or lasting harm, training should be completed prior to working under supervision.
- If this is not the case, the training could start by working under supervision and with the responsibility remaining with the supervisor.

EDUCATIONAL LEARNING PROCESS UNDER DIRECTIVE 2010/63/EU



<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

Example Module + Learning Outcomes

Module 5: Recognition of pain, suffering and distress – species specific [Core]

This module prepares individuals to be able to identify normal condition and behaviour of experimental animals and enable them to differentiate between a normal animal and one which is showing signs of pain, suffering or distress which could be a result of factors including environment, husbandry or the effect of experimental protocols. It will also provide information regarding severity classifications, cumulative severity and the use of humane endpoints.

Learning Outcomes

Trainees should be able to:

- 5.1. Recognise normal or desirable behaviour and appearance of the individuals in the context of species, environment and physiological status.
- 5.2. Recognise abnormal behaviour and signs of discomfort, pain, suffering, or distress, as well as signs of positive well-being and principles of how pain, suffering and distress can be managed.
- 5.3. Discuss factors to be considered and methods available for assessing and recording the welfare of animals e.g. score sheets.
- 5.4. Describe what a humane end point is. Identify criteria to be used to set humane endpoints. Define action to be taken when a humane endpoint is reached and consider possible options for refining methods to finish at an earlier endpoint.
- 5.5. Describe the severity classifications included in the Directive and give examples of each category; explain cumulative severity and the effect this may have on the severity classification.
- 5.6. Describe the circumstances when anaesthesia or analgesia may be necessary to minimise pain, suffering, distress or lasting harm

Examples of Assessment Criteria

Check for updates

Working Party Report

Assessable learning outcomes for the EU Education and Training Framework core and Function A specific modules: Report of an ETPLAS WORKING Group

Ismene A Dontas¹, Kenneth Applebee², Martje Fentener van Vlissingen³, Viola Galligioni⁴, Katerina Marinou⁵, Kathy Ryder⁶, Johannes Schenkel⁷, Jan-Bas Prins^{8,9}, Anne-Dominique Degryse¹⁰ and David I Lewis¹¹

LAL Laboratory Animals Limited

Laboratory Animals
2021, Vol. 55(3) 215–232
© The Author(s) 2020

Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0023677220968589
journals.sagepub.com/home/lan

SAGE

Learning Outcomes: the trainees should be able to:

Learning Outcome 5.1

Recognize normal or desirable appearance and behaviour^a of the individuals, as well as signs of positive well-being^b, in the context of species, environment and physiological status.

Assessment criteria pertaining to LO 5.1:

The candidate should have retained the information that they have been taught and be able to:

1. Recognize the normal appearance and behaviour of relevant species in a research environment;
2. Recall defined signs of positive well-being appropriate to the species.

Learning Outcome 5.2

Recognize abnormal behaviour and signs of discomfort, pain, suffering or distress^c, and principles of how pain, suffering and distress can be managed.

Assessment criteria pertaining to LO 5.2:

The candidate should have retained the information that they have been taught and be able to:

1. Recognize abnormal behaviour and defined signs of discomfort, pain, suffering or distress of relevant species in a research environment;
2. Identify the advantages of using defined welfare terms and name at least one relevant source;
3. Identify examples of how pain, suffering and/or distress can be prevented or managed.

^aChange of sequence from original E&T Framework document because this is the logical sequence of monitoring.

^bAddition to original E&T Framework document, moved from LO 5.2, because it is required to know what is normal before recognizing what is abnormal.

^cThe words 'as well as signs of positive well-being' in the original E&T Framework document have been moved to LO 5.1.



Example of a Training Record

Name: _____ Date Commenced: _____ Signature _____ Initials ____/____/____

1. Record of Module Training

Module	Core / Function- specific / Additional	Species	Training Provider	Date of Training (Start)	Date of Training (End)	Confirmed by (Name/title/signature)

Form No.:

Issue Date:

Training → Competence

Training → Competence

Training alone
does not
deliver
Competence

Example of a Competence Record

2.Procedures/Skills

Procedure	Species	Trainee under supervision				Competence Achieved			Trainer Status Achieved		
		Date	Level of supervision	Trainee (initials)	Trainer (initials)	Date	Trainee (initials)	Trainer (initials)	Date	Trainee (initials)	Trainer (initials)

- 4 – Supervisor present when the procedure takes place providing direct supervision and advice
- 3 – Supervisor aware when procedures are taking place and available for rapid intervention if required (i.e. in the vicinity of the procedure)
- 2 – Supervisor aware when procedures are taking place and available to attend to provide advice if required (i.e. in the vicinity of the establishment)
- 1 – Supervisor aware when procedures are taking place and available for discussion to provide advice if necessary (e.g. by telephone)
- 0 – No supervision required

Form No.:

Issue Date:

Knowledge → Critical Thinking

(Knowledge)

- **Describe** common post-surgical complications and their causes

(Critical Thinking)

- **Interpret** common post-surgical complications and conclude their causes

Assessment choices: Give delegates a list of pathologies, so that they can identify those caused by common post-surgical complications and the delegates must draw a conclusion as to the cause.

<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

Knowledge → Critical Thinking

(Knowledge)

- **Describe** common post-surgical complications and their causes

(Critical Thinking)

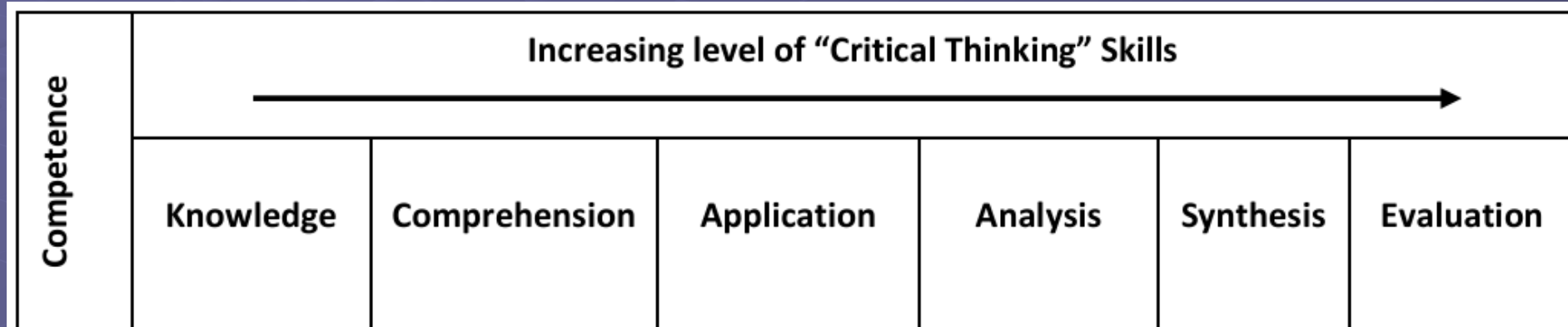
- **Interpret** common post-surgical complications and conclude their causes

Assessment choices: Give delegates a list of pathologies, so that they can identify those caused by common post-surgical complications and the delegates must draw a conclusion as to the cause.

<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>



The educational process



- Course Organisers are encouraged to promote students' critical thinking rather than just their recalling facts or mimicking actions

- *Anderson & Krathwohl (eds) A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. 2001 New York: Addison-Wesley. London: Longman*

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications
- IV) Building an educational portfolio
- V) Reaching the highest degree

Building an educational portfolio

- High school / Courses
- Under-graduate University degree (BSc, MD, DVM)
- CPD: Courses, Seminars, Congresses
- Post-graduate University degree (MSc, PhD)
- CPD (**Life-Long Learning / LLL**): Courses, ...

Continuing Professional Development

felasa

Federation of European Laboratory Animal Science Associations

Guidelines for Continuing Education for Persons Involved in Animal Experiments – Recommendations of a FELASA Working Group

Summary

Continuing Professional Development (CPD) is a prerequisite for many professional medical and scientific disciplines but less common for those involved in laboratory animal work.

felasa

Federation of European Laboratory Animal Science Associations

Working Group Members

David Smith, LASA (UK) Convenor

Alain Dorier, AFSTAL (France)

Rüdiger Hack, GV-SOLAS (Germany)

Mats Sjöquist, ScandLAS (Scandinavia)

Beatrice De Smet, BCLAS

Corresponding Member (Belgium)

Walter Zeller, SGV (Switzerland)

Joana Visa, SECAL (Spain)

Bob Ruane, Corresponding Member (UK)

Jürgen Weiss, Corresponding Member

(Germany)

https://felasa.eu/Portals/1/Guidelines/Smith_2010_FELASA_Continuing_Education.pdf?ver=pE1sc7TlodGkaxv_qe7qlw%3d%3d/

Continuing Professional Development

- 1) People working with animals should have and maintain the state of the art knowledge and skills.
- 2) Continuing Professional Development should be available and organised in a flexible way.
- 3) CPD should commence when a person starts working with animals and continue through their working career.
- 4) The system should be based on the award of credits over a certain period of time.
- 5) There should be a process for review and endorsement of CPD activities which are for inclusion in a CPD program. Up to 50% of credits can be achieved from activities which are recognised by the institution.
- 6) Operation of the CPD scheme should be reviewed.
- 7) Communication between countries should be encouraged by the organisation of joint courses.

https://felasa.eu/Portals/1/Guidelines/Smith_2010_FELASA_Continuing_Education.pdf?ver=pE1sc7TlodGkaxv_qe7qlw%3d%3d/

Continuing Professional Development

Education

Attendance at endorsed:

- Lectures 1 credit per hour
- Meetings 1 credit per hour
- Workshops 1 credit per hour
- Conferences 1 credit per hour

Teaching (at endorsed courses, first time only)

- Undergraduate or other training lectures 1 credit per hour
- Post graduate lectures 1 credit per hour
- Training courses 1 credit per hour
- Supervising PhD etc. 5 credits per year per student

Research presentation

- Plenary lecture 5 credits
- Invited lecture 5 credits
- Poster/oral presentation 2 credits
- Organising conference 5 credits

Publishing

- Refereed article 5 credits first author or main author, 2 credits other authors
- Chapter in book 10 credits
- Review 10 credits
- Editorial 5 credits
- Referee paper or grant 1 credit per paper or grant

https://felasa.eu/Portals/1/Guidelines/Smith_2010_FELASA_Continuing_Education.pdf?ver=pE1sc7TlodGkaxv_qe7qlw%3d%3d/

Outline of presentation

- I) What the Directive 2010/63/EU demands
- II) What the EC recommends
- III) Starting qualifications
- IV) Building an educational portfolio
- V) Reaching the highest degree





Training recommendations for Vets

Working Party Report



ESLAV/ECLAM/LAVA/EVERI recommendations for the roles, responsibilities and training of the laboratory animal veterinarian and the designated veterinarian under Directive 2010/63/EU

Laboratory Animals
2015, Vol. 49(2) 89-99
© The Author(s) 2014
Reprints and permissions:
sagepub.co.uk/
journalsPermissions.nav
DOI: 10.1177/0023677214557717
la.sagepub.com



G M Poirier¹, C Bergmann², D G Denais-Lalieve³, I A Dontas⁴,
N Dudoignon⁵, H Ehall⁶, J M Fentener van Vlissingen⁷,
M Fornasier⁸, R Kalman⁹, A Hansen¹⁰, S Schueller¹¹,
P Vergara¹², R Weilenmann¹³, J Wilson¹⁴ and A-D Degryse³

**European Society of Laboratory Animal Veterinarians
European College of Laboratory Animal Medicine
Laboratory Animal Veterinary Association
European Veterinarians in Education, Research and Industry**

Two distinct Veterinary roles

- Laboratory Animal Veterinarian (LAV)

Current postgraduate training framework and opportunities to LAVs

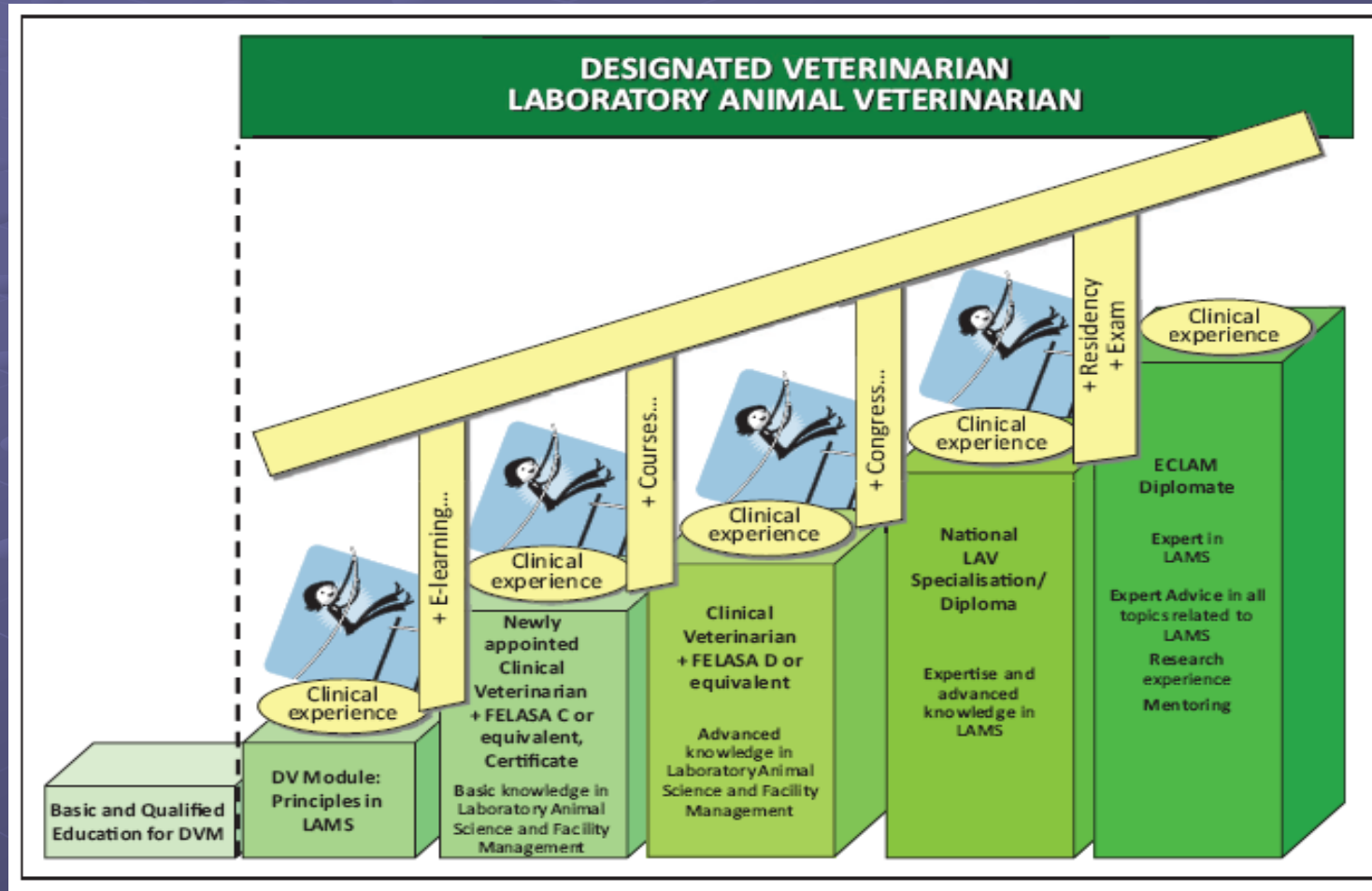
A number of training and education opportunities leading to postgraduate qualifications for LAVs exist in Europe. These opportunities are recognized at the European and/or the National level, such as Masters, Certificates and Diplomas (Table 6).¹¹ They are distinguished by their syllabus, the depth and breadth of the knowledge and skills that are gained (e.g. range of species, range of animal models), the duration of their training period, their degree of formality in the delivery

- Designated Veterinarian (DV)

Training leading to minimum core competences for the DV should be taken prior to, or when this is not possible, within a year of taking up a role as a DV. A modular approach to this training would be beneficial because it would enable a degree of customization in function of the minimum core competences needed, and because it would facilitate accessibility prior to starting an assignment as a DV.

Poirier et al., Lab Animals 2015;49:89-99

Levels of Education for Vets



Poirier et al., Lab Animals 2015;49:89-99

Roles of a Veterinarian

- Scientific advice (on LA welfare, health, animal models)
- Scientific participation (research studies, anaesthesia, surgery)
- Administrative (committees, manage personnel)
- Teaching (researchers, personnel)
- ...

Module 24: Designated Veterinarian

Module 24: Designated Veterinarian [Additional Task Specific Module]

This module provides basic guidance and information for the veterinarian at the entry Designated Veterinarian (DV) level. As applies to all veterinarians, DVs are expected to develop and enhance their skills through continuing professional development, and for the DV, specific courses relevant to their area of work are available in various Member States. Other training opportunities could be developed as needed for veterinarians to complete their expertise as DV, depending on the programme of the establishment (e.g. involvement in training/supervision/assessment; media communication on responsible use of animals in science; species-specific husbandry and veterinary care).

This module focuses on the principles of veterinary management of animal health and welfare for animals maintained, bred and/or used for scientific purposes ensuring that the DV understands the role of the vet in the research environment according to professional obligations, in addition to the description of the role in the Directive.

There may be elements of training that can be exempted on the basis of a gap-analysis of the individual's previous educational background and experience.

<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

FELASA E&T Accreditation Board

- Accredits LAS Courses by a quality assurance system
- Previous “FELASA Categories” A,B,C,D
- New Function Courses A,B,C,D
- LAS Specialists Courses
- Designated Veterinarian Courses

<https://felasa.eu/education-training>

FELASA E&T Accreditation Board

- Issued “Recommendations” for current or future LAS Course Organizers on how to accredit their Courses, based on the requirements of the Directive 2010/63/EU and the E&T Framework document


<https://journals.sagepub.com/doi/10.1177/0023677218788105>

<https://www.ncbi.nlm.nih.gov/pubmed/30041570>


Working Party Report

LAL Laboratory Animals Limited


Laboratory Animals
2018, Vol. 53(2) 137–147
© The Author(s) 2018



Article reuse guidelines:
sagepub.com/journals-
permissions
DOI: 10.1177/0023677218788105
journals.sagepub.com/home/lan



FELASA accreditation of education and training courses in laboratory animal science according to the Directive 2010/63/EU

Marcel Gyger¹ , Manuel Berdoy², Ismene Dontas³, Martine Kolf-Clauw⁴, Ana Isabel Santos⁵ and Mats Sjöquist⁶

Abstract
This document describes how the Federation of European Laboratory Animal Science Associations (FELASA) accreditation addresses both the Directive 2010/63/EU and the related European Commission guidance document.

Comparison of FELASA Categories and the Functions identified in Directive 2010/63/EU

Table 2. Comparison of the Federation of European Laboratory Animal Science Associations (FELASA) Categories and the Functions identified in Directive 2010/63/EU.

FELASA Category	Task	Directive EU Function
A	Persons taking care of animals	C (may include D)
B	Persons carrying out animal experiments	A (may include C/D)
C	Persons responsible for directing animal experiments	B (may include A/C/D)
D	Specialists in LAS	Refer to Articles 24, 25, 26
-	Persons killing animals	D

<https://journals.sagepub.com/doi/pdf/10.1177/0023677218788105>

FELASA Accredited Courses

Courses accredited under the FELASA "Functions" system"

Functions Modules Species	Country City	Institution Course Language	Course Organiser Contact Details	Felasa ID Approval Yr
A n.a. M, R, ZF	 Germany Mainz	Univ Mainz German	J Baumgart/J Steidle las_education@uni-mainz.de	F031/10 2017
A + B + C + D 20, 21, 22, 23 M, R	 Greece Athens	Univ of Athens English	I Dontas lasfunctionscourse@gmail.com	F056/16 2016
A + B + C + D 20, 21, 22, 23 M, R, ZF	 Greece Crete	Univ of Crete English	G. Garinis	F051/15 2015
A + B 20, 21, 22 n.a.	 Hungary Szeged	Univ of Szeged English	J. Kaszaki kaszaki.jozsef@med.u-szeged.hu	005/14F
A + B + C + D 6.2, 10, 20, 22 M, R, F	 India Chennai	TANUVAS English	S Ramesh lamdcchs@tanuvas.org.in	F052/15 2015
A + C + D n.a. Cephalopods	 Italy Naples	CephRes English	G Fiorito	F062/18 2018
A + C + D n.a. M, R	 Italy Rome	Fondazione Santa-Lucia Italian	C Riviello cristina.riviello@cnr.it	F023/09 2016
A + C + D n.a. M, R	 Italy Terramo	IZSAM Italian	S D'Albenzio formazione@izs.it	F061/19 2019
A + B n.a. M, R	 Netherlands Amsterdam	Amsterdam UMC English	cursuspdk@amsterdamumc.nl	071/22F 2022

<https://felasa.eu/education-training/course-listings>

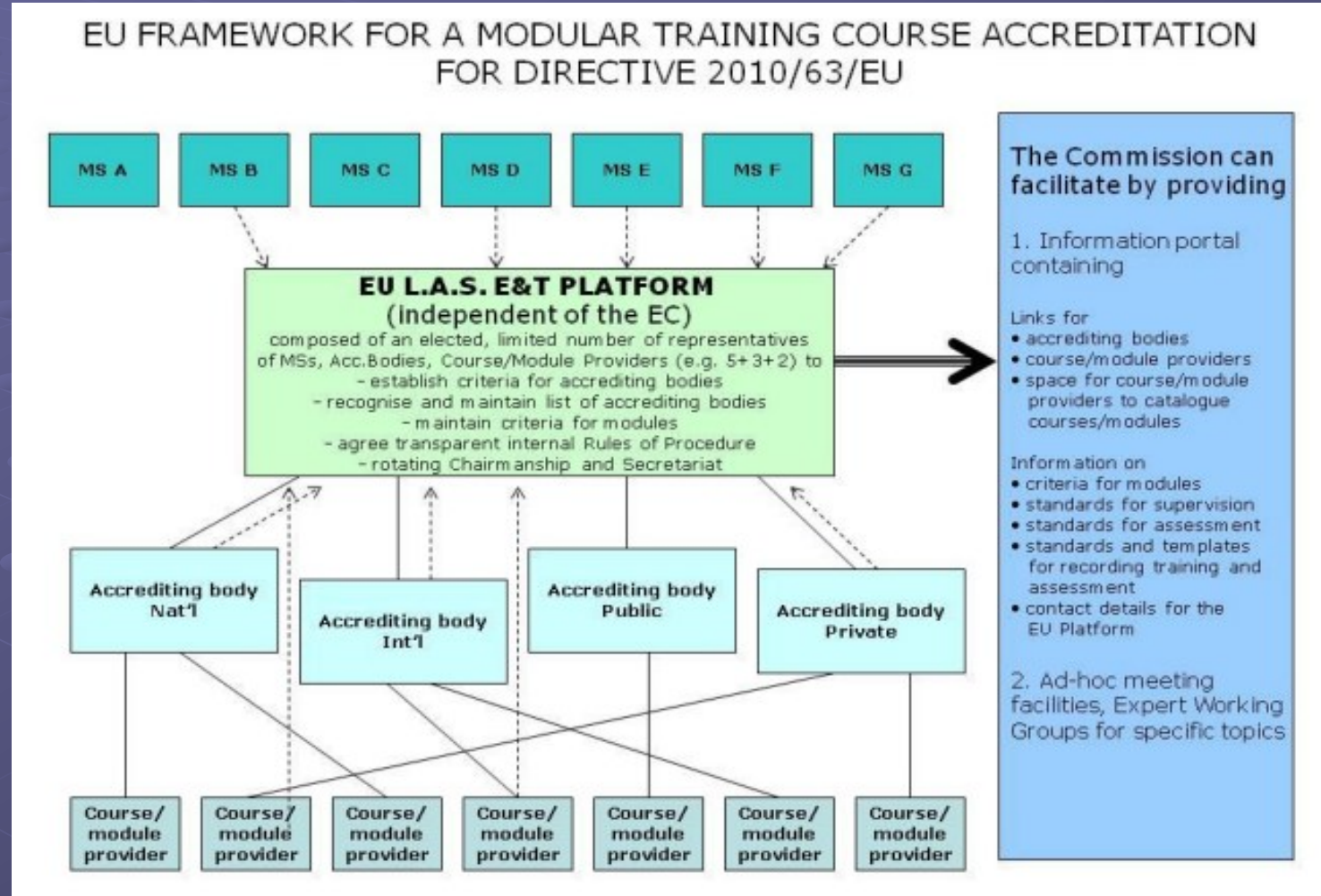
What course / where to train

- Selection based on Function and Species
- Modules may be completed separately / at different locations / countries

Modularity and Mobility: Cohesive courses are accredited. As reminder, the accreditation scheme does not accredit people. Therefore mobility will not be hampered in the sense that a person can start his/her training in one place and complete it in another. The CO of each accredited course will deliver a FELASA certificate relating exclusively to the attended part.

<https://journals.sagepub.com/doi/pdf/10.1177/0023677218788105>

What course / where to train



<https://op.europa.eu/en/publication-detail/-/publication/fca9ae7f-2554-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-282223752>

The E&T Platform for LAS

- Education & Training Platform for Laboratory Animal Science (ETPLAS)
- To provide a forum for exchanging information on LAS Education & Training
- To provide course organisers with the necessary information to establish training courses
- To provide the user community with information on available training courses

<https://etplas.eu/>

What course / where to train



Courses



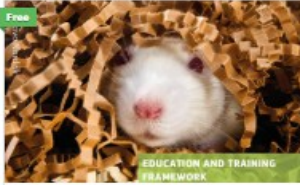
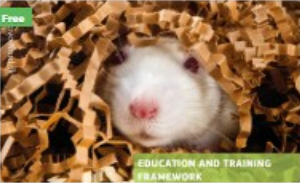
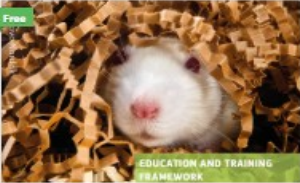

Name ▲	Country ◆	Institution ◆	
Care and use of laboratory animals: mice, rats, zebrafish	Greece	University of Crete	Know More ▶
LAS EU Functions Course	Greece	Laboratory for Research of the Musculoskeletal System, National and Kapodistrian University of Athens, KAT Hospital	Know More ▶

<https://courses.etplas.eu/en>

What course / where to train

EU-Function modules

(for information on estimated course duration consult [here](#))

 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-10: Design of procedures and projects – level 1</p> <p>Enroll Now</p>	 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-11: Design of procedures and projects – level 2</p> <p>Enroll Now</p>	 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-12: The severity assessment framework</p> <p>Enroll Now</p>
 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-25: Project evaluation</p> <p>Enroll Now</p>	 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-52: Searching for (existing) non-animal alternatives</p> <p>Enroll Now</p>	 <p>Free</p> <p>EDUCATION AND TRAINING FRAMEWORK</p> <p>EU-60: Developing in vitro methods and approaches for scientific and regulatory use</p> <p>Enroll Now</p>

Other e-learning courses

Free



Systematic Reviews of Animal Studies (2024)

Enroll Now

<https://etplas.eu/en/eu-modules/courses>



The screenshot shows the ETPLAS website interface. At the top, there is a navigation bar with 'Home', 'Resources', 'Education Guidance', 'News', 'About', and 'Contact'. Below this is a grid of 24 blue tiles, each representing an EU module. Each tile contains an icon, the module number, the title, and an 'Enroll Now' button. The modules are arranged in a grid that is 4 rows high and 3 columns wide. The first row contains EU Module 2 (Scales icon), EU Module 3.1 (Chicken icon), and EU Module 3.1 (Pig icon). The second row contains three EU Module 3.1 tiles (Sheep icon, Pig icon, Dog icon). The third row contains EU Module 3.1 (Sheep icon), EU Module 5 (Chicken icon), and EU Module 5 (Dog icon). The fourth row contains EU Module 5 (Sheep icon), EU Module 5 (Dog icon), and EU Module 5 (Pig icon). The fifth row contains EU Module 5 (Sheep icon), EU Module 9 (Scales icon), and EU Module 10 (Graph icon). The sixth row contains EU Module 11 (Graph icon), EU Module 12 (Checklist icon), and EU Module 25 (Checklist icon). The seventh row contains EU Module 52 (Test tubes icon) and EU Module 60 (Petri dish icon).

Module	Hours
EU-2 - Ethics, animal welfare and the Three Rs" (level 1)	2
EU 9 - Ethics, animal welfare and the Three Rs" (level 2)	3
EU-3.1 - Basic and appropriate biology – species specific (Mouse)	2
EU-3.1 - Basic and appropriate biology – species specific (Rat)	3
EU-3.1 - Basic and appropriate biology – species specific (Zebrafish)	6
EU-3.1 - Basic and appropriate biology – species specific (Pigs)	2
EU-3.1 - Basic and appropriate biology – species specific (Domestic Fowl)	2
EU-3.1 - Basic and appropriate biology – species specific (Ruminants)	3
EU-5 - Recognition of pain, suffering and distress – species specific (Mouse)	2
EU-5 - Recognition of pain, suffering and distress – species specific (Rat)	2
EU-5 - Recognition of pain, suffering and distress – species specific (Zebrafish)	4
EU-5 - Recognition of pain, suffering and distress – species specific (Pigs)	1,5
EU-5 - Recognition of pain, suffering and distress – species specific (Domestic Fowl)	2
EU-5 - Recognition of pain, suffering and distress – species specific (Ruminants)	2
EU-10 – Design of procedures and projects, level 1	4
EU-11 – Design of procedures and projects, level 2	3
EU-12 – The Severity Assessment Framework	7
EU-24 - Designated Veterinarian	11
EU-25 – Project Evaluation	4
EU-26 - Inspectors	6
EU-27 - Competence Assessor	7
EU-52 – Searching for (existing) non-animal alternatives	4
EU-60 – Developing in vitro methods and approaches for scientific and regulatory use	5

EU12-1 How the severity of scientific procedures is classified

100% COMPLETE

Knowledge check

What are procedures?

What is the difference between continuous use and re-use?

Lesson 5 of 11

What is the difference between continuous use and re-use?

What is re-use? Is a multistep procedure re-use?

<https://learn.etplas.eu/lessons/eu-12-1-how-the-severity-of-scientific-procedures-is-classified/>



Anaesthesia...



...followed by surgery to implant monitoring devices...



...followed by administration of a test compound and measurement of its effects using the monitoring devices...



...finally, the animal is killed humanely at the end of the procedure and tissues removed for examination.

Explore “Flipped” learning

- Lecture material (ppt, links) given **before** the lecture
- Students familiarize themselves with the material **before** meeting the Lecturers
- Lecture time is used in interactive discussion and problem-based learning

*Enhancing medical education with gallery walk, **flipped classroom**, and VARK.*

M. Babaie et al.

J Educ Health Promot. 2026;15:94. doi: 10.4103/jehp.jehp_1345_25

*Using a **flipped classroom** teaching and learning approach to promote scientific literacy skill development and retention.*

E.B.K. Brendel et al.

FEBS Open Bio. 2025 doi: 10.1002/2211-5463.13938

“In a nutshell”

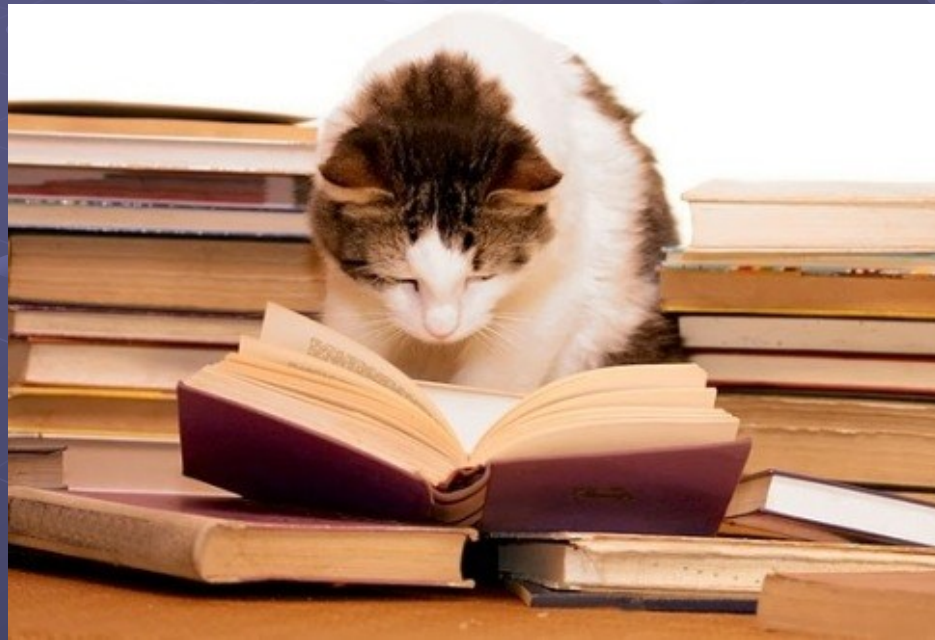
According to the Directive 2010/63/EU and the EC Framework document:

- Anyone can start a career in LAS
- Anyone that is educated/trained in LAS and passes exams successfully can work as a Function A, C or D person
- A person aiming to design procedures & projects should normally have a degree before being educated/trained in Function B Modules

“In a nutshell”

- CPD / LLL is necessary for all functions
- Additional LAS education/training ranges from weeks to years for all functions
- Veterinarians need LAS education/training additionally to their DVM studies, in order to work as a DV or LAV
- The ultimate achievement for DVMs is to reach Diplomate status

Thank you for your attention



Questions: idontas@med.uoa.gr