



## National implementation scenario of ICT-DRV quality indicators for: AUSTRIA

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WP 5 ▫ del: 13 ▫ last update: 29<sup>th</sup> January 2015  
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### Indicator 1: A supporting and regulating legal and organisational framework

**Legal regulations** as well as the organisation of work provide the necessary framework for the implementation and, if applicable, recognition of CBT and SBT. This applies especially to the legal framework provided in the context of EC directive 2003/59 and, if necessary, further legal regulations having influence on the implementation of such training alongside regular work as a professional driver. Besides legal aspects also the work organisation provides the learner with the necessary time and framework to participate in CBT/SBT and with the necessary support to transfer newly gained abilities into practical work.

(1) In 2008, the „Bundesgesetzblatt BGBl II Nr. 139/2008“ (Federal Law Gazette) legally anchored the Directive 2003/59/EC in Austrian Law. The BGBl regulates the CPC qualification (initial and periodic training) in Austria, although the provincial governments of Austria's nine provinces have the responsibility to implement the Directive. As the directive does not make a reference to computer-based training and only includes a short notice on the use of simulators there are various “interpretations” and different approaches in place regarding the suitability of CBT and SBT in driver training in Europe. In Austria simulator-based training is currently not offered neither for the driver CPC nor for other driver trainings as there is no truck driving simulator available and therefore no legal framework is provided for SBT<sup>1</sup>. With regard to CBT one province in Austria (Tyrol) took the liberty of interpretation of the directive to accredit three e-learning modules for professional driver training within periodic CPC training. In the process of accreditation of this provider the Tyrolean provincial government got into contact with the Federal Ministry of Transport, Innovation and Technology (due to the fact that the directive neither allowed nor prohibits the use of CBT) in order to clarify the legal situation. The ministry reacted in 2010 with a decree (GZ: BMVIT-167.533/0025-II/ST5/2010) which states that: E-learning can only be used as a teaching method; if the identity of the professional driver can be assessed and if it can be ensured that the driver to be trained is doing the whole amount of hours of the module as otherwise the quality of the implementation of periodic training cannot be assured. It further recommends a combination of E-learning with blended (classroom) learning. Although one provider offering E-learning modules was accredited as provider for CPC the use of E-learning in professional driver training is still disputed in Austria. Although there is a national legal statement about the use of CBT for CPC training, there are no references made how to ensure quality within CBT (currently to ensure the identity of the driver and the time spent on the module are the quality standards), on attendance of CBT (e.g. to attend distance learning during working hours, alongside regular work or close to the workplace), or that employers have to provide the

There are basic rules available in Austria on the use of CBT within periodic training of the CPC. However, due to the legal uncertainty of using CBT in Directive 2003/59 currently no references are made in Austria to ensure quality in CBT, on attendance of CBT or that employers have to provide the necessary organisational framework for CBT. This could change once there is an official statement on CBT in Directive 2003/59.

<sup>1</sup> Due to the non-existence of SBT in Austria, this report does not make reference to SBT.

necessary organisational framework for CBT. Therefore, an amendment of the EU-Directive indicating whether CBT for professional drivers is acceptable and a definition of circumstances under which CBT has to be provided would be appreciated in Austria in order to reach legal certainty. This could also lead to an expansion of CBT programmes within professional driver training in future. However, this should not lead to an over-regulation and the choice whether to participate in CBT or traditional classroom training should remain to the driver. Hence besides the uncertainty whether CBT is valid as a training option within the professional driver CPC in Austria there are at least basic rules and standards available for using CBT in professional driver training.

(2) The Federal Ministry for Education and Women established "efit21 – digital education"<sup>2</sup> an initiative which is putting the focus on priorities in the application and use of new information and communication technologies in Austrian education facilities. The aims of efit21 are:

- *to enhance the quality: Through the use of ICT, the quality in teaching and learning should be increased. The main focus lies in the participation and the quality of the use of ICT.*
- *to train digital literacy: Young and adult students should learn the necessary digital skills for personal, professional, social and cultural success.*
- *to promote labour market success: ICT training in schools should give labour market relevant skills and education or job-related e-skills.*
- *to increase Efficiency: The use of ICT in the educational and cultural management should improve efficiency and promote sustainability in modern organisation.*

The considerations of the efit21 initiative are not only relevant for the general but also for vocational education and training in Austria. Therefore, the initiative could also be expanded to professional driver VET.

## Indicator 2: Comprehensive information and counselling

*There are information and counselling measures put in place in order to:*

- *inform end-users and decision-makers objectively about CBT and SBT,*
- *enable learners, employers and competent-bodies to decide if a CBT/SBT offer meets their requirements,*
- *enable learners and employers to decide if a the training format CBT/SBT is suitable for an individual learner and/or for a certain learning need,*
- *select and adapt courses to individual training needs of a learner and/or a company and*
- *provide learners and contact persons in their company with the necessary guidance and facilitation before, during and after the course attendance/ implementation.*

(1) Currently in Austria there is no comprehensive information and counselling system available on CBT. General information on the CPC is provided by the Federal Ministry of Transport, Innovation and Technology, the nine provincial governments, the Chamber of Commerce (Section Transport and Traffic) and the Chamber of Labour (Section Environment and Transport and expert committee of professional drivers). Services range from the provision of basic information, dates of CPC exams, list of questions for the initial qualification, information on periodic training and accredited training providers. Specific information about computer-based training is only provided on enquire in the province of Tyrol (where one E-learning provider was accredited) and at the Ministry of Transport, Innovation and Technology. Information on the E-learning modules accredited for periodic training is available at the provider (<http://www.easydriversexperts.at/de/>). However, currently there are no information

Currently no comprehensive information and counselling system on CBT is available in Austria. Existing information channels on CPC as well as existing ICT education initiatives could be used to establish such information and counselling points in Austria. However, to make this reality a reference on the use of CBT in the Directive would be necessary, so national authorities have legal certainty about CBT in the frame of CPC.

<sup>2</sup> <http://www.efit21.at/en/> [accessed 23.01.2015].

and counselling measures in place that

- *inform end-users and decision-makers objectively about CBT;*
- *enable learners, employers and competent-bodies to decide if a CBT offer meets their requirements;*
- *enable learners and employers to decide if a the training format CBT is suitable for an individual learner and/or for a certain learning need;*
- *select and adapt courses to individual training needs of a learner and/or a company and;*
- *provide learners and contact persons in their company with the necessary guidance and facilitation before, during and after the course attendance/ implementation.*

(2) The education portal for e-learning, E-government and Shared Services (<http://www.bildung.at/>) from the Federal Ministry of Education and Women which is part of the efit21-initiative, offers services around ICT in education. It

- *offers information on available and relevant services with regard to ICT;*
- *provides a content-catalogue of E-learning offers;*
- *is a platform for ICT education initiatives in Austria;*
- *offers Austrian-wide shared services;*
- *makes reference to European and International standards;*
- *and provides recommendations and specifications with regard to ICT.*

The portal addresses different target groups from general education, to higher and adult education and provides overviews on E-learning offers in the respective fields. The portal could be used to provide specific information on CBT in professional driver training. Furthermore, existing information services as provided by the federal and provincial governments and chambers could also be used to inform end-users and decision-makers objectively about CBT; to provide guidance services in decision making whether CBT meets the specific training requirements, is suitable for an individual learner or a company; and provide learners and contact persons in companies with the necessary guidance and facilitation before, during and after the course attendance/ implementation. However, this seems only feasible once CBT is recognised as a valid training method within CPC training (reference on CBT in Directive 2003/59/EC) and national legal frameworks are adapted to these ends.

### Indicator 3: Specifically trained trainers and tutors

*Trainers/ tutors facilitating technology-based training are – besides regular training for trainers and in professional topics – trained in a number of additional abilities that are based on the characteristics of the technology they are working with in its learning context. This includes among others specialised training:*

- *for simulator trainers in the characteristics of learning with the simulator/ simulation, individual and group coaching and debriefing, the design and selection of scenarios and the operation and application of the simulator, its various features and additional tools and*
- *for e-learning tutors in the characteristics of distance learning, e-tutoring, learner motivation and instruction, e-communication and coaching as well as interviewing and feedback techniques.*

(1) The Directive just states that for approved training institutes there must be regular staff training and adequate learning facilities. However, in terms of the professional abilities of the training staff no concrete guidelines are formulated in the directive. In the Austrian Bundesgesetzblatt regulating the implementation of directive 2003/59 certain occupations with

In Austria no specialised training for trainers of initial qualification and periodic training is available, only some minimum standards are defined. This is even more the case for computer-based training. There is an

a certain background are defined as adequate, this is a rather unsatisfactory solution because there is a lack of fixed guidelines which occupations can do so. It is considered counterproductive that one has not to bring a special qualification. Within Austria there is not even for all provinces clear, if experience must be proven, it is handled quite different in the provinces ("Länder"). Thus, there should be a nationally standardised procedure which requirements have to be met, so one can be approved and authorized to conduct trainings, according to the experts. In Austria the following trainers are allowed to conduct CPC trainings: a) Lecturers educating the apprenticeship "professional driver", b) Driving school instructors for C and D licenses; c) Persons that can prove sufficient knowledge of regulations in annex 1 of the Austrian Bundesgesetzblatt regulating the implementation of the directive in Austria, but they are not tested / regularly monitored, if they are able to conduct trainings for professional drivers. With regard to CBT tutors neither in the Directive nor in the Austrian legal framework a reference is made to their abilities and/or continuous training. According to the provincial government of Tyrol trainers in Tyrol have to proof their didactic and professional knowledge before they are accredited also when it comes to CBT. However, there are no specifications made that a CBT trainer should be trained in a number of additional abilities that are based on the characteristics of the technology they are working with in its learning context. This includes among others specialised training:

initiative in place to teach teachers how to use CBT in their daily teaching. The initiative could be opened-up to trainers of CBT in professional driver training in order to familiarise them with the technology they are working with.

(2) Since 1998, the e-LISA Summer Academy is a fixed part in the Austrian teacher training. Education and learning as core tasks of the school are the standard for all facilities and activities offered in the e-LISA academy (<http://www.e-lisa-academy.at>): So besides technical and pedagogical issues, the development of responsibility, self-determination, self-responsibility and solidarity are part of the courses offered. The services offered build an E-learning knowledge base for teacher training and support the everyday teaching. Course are designed, developed, written and evaluated by subject experts. From practice for practice. There are different courses offered:

- *e-basics: Consisting of 17 online courses with all information teachers need to have about Internet, computers and e-learning in the school. Especially suitable for Beginners.*
- *Cooperative online seminars: An intense learning experience in groups of up to twelve people. No travel expenses. Individual coaching. Effectively and sustainably with like-minded people on the learning platform Moodle.*
- *Course library: 70 online courses for the everyday teaching and for teacher training and development. Developed by experts from all over Austria.*

(3) The e-LISA academy could be opened up to trainers in the field of professional driver training to offer them specialised training in the characteristics of distance learning, e-tutoring, learner motivation and instruction, e-communication and coaching as well as interviewing and feedback techniques.

#### Indicator 4: Application of the learning outcomes approach

The learning outcomes approach with its implications on the quality of training is applied on SBT and CBT. SBT and CBT courses are described in terms of learning outcomes (knowledge, skills and competences) associated with a course, learning environments are adequate to achieve those learning outcomes and, if applicable, assessment takes all kinds of learning outcomes into account and applies appropriate assessment measures.

Furthermore the application of the learning outcomes approach allows the recognition of prior/ non- and informal learning and the recognition of learning outcomes acquired within those CBT/SBT courses in the framework of other (formal) learning outcomes based vocational education and training courses/ certificates.

(1) Since the directive is not learning outcomes oriented also the training courses in Austria do not reflect the knowledge, skills and competence that should be achieved through training. No information is available whether the three E-learning courses offered by the only accredited E-Learning provider in Austria are described in learning outcomes. However, it can be assumed that they are oriented towards the list of subjects provided in Annex I of Directive 2003/59 rather than learning outcomes. In Austria for IVET for professional drivers competence-oriented job descriptions are in place, however for CVET this does not apply. "In Austria, there is no uniform legal framework to regulate validation and recognition of non-formal and informal learning. The development of an explicit national strategy including all sectors on validation of non-formal and informal learning has started only recently [2013]. The marginal role of validation of non-formal and informal learning in Austria up to now may be explained by several factors:

- *a traditionally strong orientation of education and economic culture towards the initial vocational education and training sector;*
- *the dual system, which already incorporates a high amount of informal workplace learning (and, thus, there is no need for additional procedures to recognise this form of learning);*
- *and the focus of the Austrian system towards occupational profiles and activity descriptions and on formally acquired qualifications as proof of abilities and competences" (European Commission; Cedefop; ICF International 2014, p. 4)<sup>3</sup>.*

Although awareness for the importance of the recognition of non-/informal acquired skills has increased in the last years there is still no elaborated system in place for the recognition of non-/informal acquired knowledge, skills and competence and thus it is also not yet realized for professional drivers. On legislative level in recent years some steps were taken in order to validate non-/informal acquired skills and competence. The Vocational Training Act, for example, provides under certain conditions the possibility to participate in final apprenticeship exams, for those who have worked in a specific area for several years, also for those people, who did not or just partially participated in the dual system. According to the amendment Industrial Code 2002 it is possible to receive the right to carry out an industry, also without formal certificates, but a certificate of professional competence. Further for the "Berufsreifeprüfung" practical knowledge in professional life is equally valid to knowledge acquired in school. In the economy there are hardly any methods for identifying and recognising informally acquired skills in use, also companies are just marginally dealing with methodologies to recognise such skills. However, it is asserted by those experts interviewed,

Currently in Austria CPC courses are not described in learning outcomes. To implement a learning outcomes approach in professional driver's continuous training (the apprenticeship training for professional driver is learning outcome oriented) a reference to the application of the learning outcomes approach both in regular and computer-based training in the Directive would be necessary. This could also facilitate the recognition of non-formal and informal learning. However, this would require a legal framework which is currently under development and still very much in the beginning in Austria.

<sup>3</sup> European Commission; Cedefop; ICF International (2014). European inventory on validation of non-formal and informal learning 2014: country report Austria. [[http://libserver.cedefop.europa.eu/vetelib/2014/87047\\_AT.Pdf](http://libserver.cedefop.europa.eu/vetelib/2014/87047_AT.Pdf)].

that if there would be a method for accrediting non/informal acquired knowledge and skills this would be a big advantage for the sector. This procedure could improve the situation greatly and increase acceptance of professional drivers. However, there is not yet any measure in place that could be adapted to the field of professional driving.

(2) It would be appreciated if periodic training courses would be described in learning outcomes in the Directive. This would facilitate the process of pushing forward the learning outcomes approach within CVET for professional drivers in Austria. This should of course also apply to E-learning courses, this is expected to lead to greater quality as learning environments are adequate to achieve the defined learning outcomes and, if applicable, assessment takes all kinds of learning outcomes into account and applies appropriate assessment measures. Furthermore the application of the learning outcomes approach would facilitate the recognition of prior/ non- and informal learning and the recognition of learning outcomes acquired within CBT courses in the framework of other (formal) learning outcomes based vocational education and training courses/ certificates. Although a respective legal framework is still missing in Austria.

(3) To push the learning outcomes approach forward in professional driver training in Austria it would be necessary that a reference is made in the Directive and that in Annex 1 of the directive the periodic training modules are described in learning outcomes instead of a list of subjects.

#### Indicator 5: Provision of an added value to the learning process

*The application of computer- and simulator-based training has a clear added value for the learning process and/or the achievement of the aspired learning outcomes. Technology-based courses are therefore exclusively offered for the achievement of learning outcomes that can clearly benefit from the application of such learning approaches and/or that can be equally be achieved through classical as well as through technology-based training approaches.*

(1) In Austria five periodic training modules have to be completed by professional drivers every five years. Only three out of the five modules are offered as E-learning courses by Easy Driver Experts (the only accredited E-learning provider in Austria). This is the case because they perceived that Module 1 "Economic driving" and Module 2 "Load Security" can only be taught directly on the vehicle. The remaining three modules are Module 3 "Technique", Module 4 "Human Factors" and Module 5 "Work environment" are offered via E-learning. Hence, when the E-learning modules were developed, considerations were made which modules could benefit from the application of an E-learning approach.

Considerations on which periodic training modules could be conducted via E-learning and for which this kind of training is not suitable were made for the three periodic training courses available as E-learning in Austria.

#### Indicator 6: Sound and thorough instructional and technological interface design

*The design of CBT and SBT is based on instructional design considerations taking into account the aspired learning outcomes and the needs and characteristics of the learner. This leads to the development of learning environments providing best conditions to stimulate and facilitate learning. Pedagogy drives the choice of instructional technology, not the other way around.*

(1) In Austria currently only three out of five periodic training modules are available as E-learning courses. The E-learning modules were developed by an experienced Tyrolean developer (infoWERK) who develops E-Learning courses for pilots since many years. The courses are based on the experiences made with existing and practice-tested E-learning

For those E-learning courses available within periodic training for professional drivers, methodologies used and experiences made with E-learning for training for pilots were considered.

courses for pilots. Hence, it can be assumed that a sound and thorough instructional and technological interface design has been used for developing the E-learning modules that also proved to work in pilot training.

#### Indicator 7: Continuous evaluation and further development of CBT/SBT courses

*CBT/SBT courses are continuous subject for review, change, improvement and further development in order to adapt to changing needs and requirements and to the state-of-the-art of educational technology. Learning is the leading factor within all evaluation and development efforts.*

- (1) There is no information available whether the existing E-learning courses for periodic training in Austria are subject of continuous evaluation and further development.
- (2) Experts consulted recommend that E-learning courses should be subject for review, change, improvement and further development in order to adapt to changing needs and requirements and to the state-of-the-art of educational technology. However, this should be done when necessary and not too often as some kind of continuity of the courses should be prevented.
- (3) However, experts also stated that without reference in the Directive that continuous evaluation and further development of CBT courses for professional drivers is required, it is difficult to realise this indicator in Austria.

Continuous evaluation and further development of CBT courses for professional drivers is appreciated by Austrian stakeholders. However, without reference in the Directive they perceive that a realisation of this indicator in Austria will be not feasible.

#### Indicator 8: Research, sharing and networking on the realisation of SBT and CBT

*The implementation of SBT and CBT requires a continuous dialogue and close cooperation between education providers, developers of CBT and simulators as well as researchers, therefore, continuous sharing, networking and joined research activities are taking place in order to further work on the improvement of SBT and CBT.*

- (1) The E-learning modules available in Austria were developed in cooperation between two organisations: one experienced in the development of E-learning for pilots and the other experienced in the subject matter of professional driver training. As currently only three E-learning modules are available in Austria there is still room to further improve continuous sharing, networking and joined research activities in order to further work on the improvement of CBT.
- (3) However, there won't be commitment to work on CBT solutions within professional driver training as long as no reference is made to it in the Directive. Due to high development costs and uncertainty, if a newly developed CBT programme for professional drivers would be accredited by one of the provincial governments, it is unsure whether this indicator will be implemented in Austria as long as there is no legal certainty.

The existing E-learning modules were developed in cooperation between a developer experienced in developing E-learning solutions for pilots and a subject matter expert. However, without legal certainty it can be assumed that VET providers and developers will not invest in this kind of training.