



Foto Hory BG Klinik Hamburg

Vergleichbarkeit und Anerkennungsmöglichkeit normaler/erweiterter Erste-Hilfe-Kurse von DGUV und GWO

Comparison and mutual Acceptance of training standards for basic/enhanced first aid of DGUV and GWO

**Dr. Gerhard Kraus – Mitglied Arbeitsgruppen GWO and DGUV
member working groups of GWO and DGUV**

Personal Introduction and Fields of Activities

Gerhard Kraus, MD, PhD

Specialist in occupational and environmental medicine

Previous BGETEM, dept. prevention head of field occupational medicine

Prior Member of Department First Aid (DGUV Fachbereich Erste Hilfe)

Head of prior project DGUV REH-Offshore (*Enhanced First Aid in Offshore Wind*)
Current review process and revision to „Ersthelfer Windenergie“

Member of working groups GWO *basic and enhanced first aid* (BST, EFA) *current review process*

German statutory accident insurance



Erste Hilfe in Offshore-Windparks

(Stand: 12. Dezember 2016)



GLOBAL WIND ORGANISATION

TRAINING STANDARD

Enhanced First Aid (EFA)

(Onshore/Offshore)

Abbreviations / Explanations

DGUV - „*Deutsche Gesetzliche Unfallversicherung*“
- german statutory accident insurance
- allowed by law to set national rules and standards

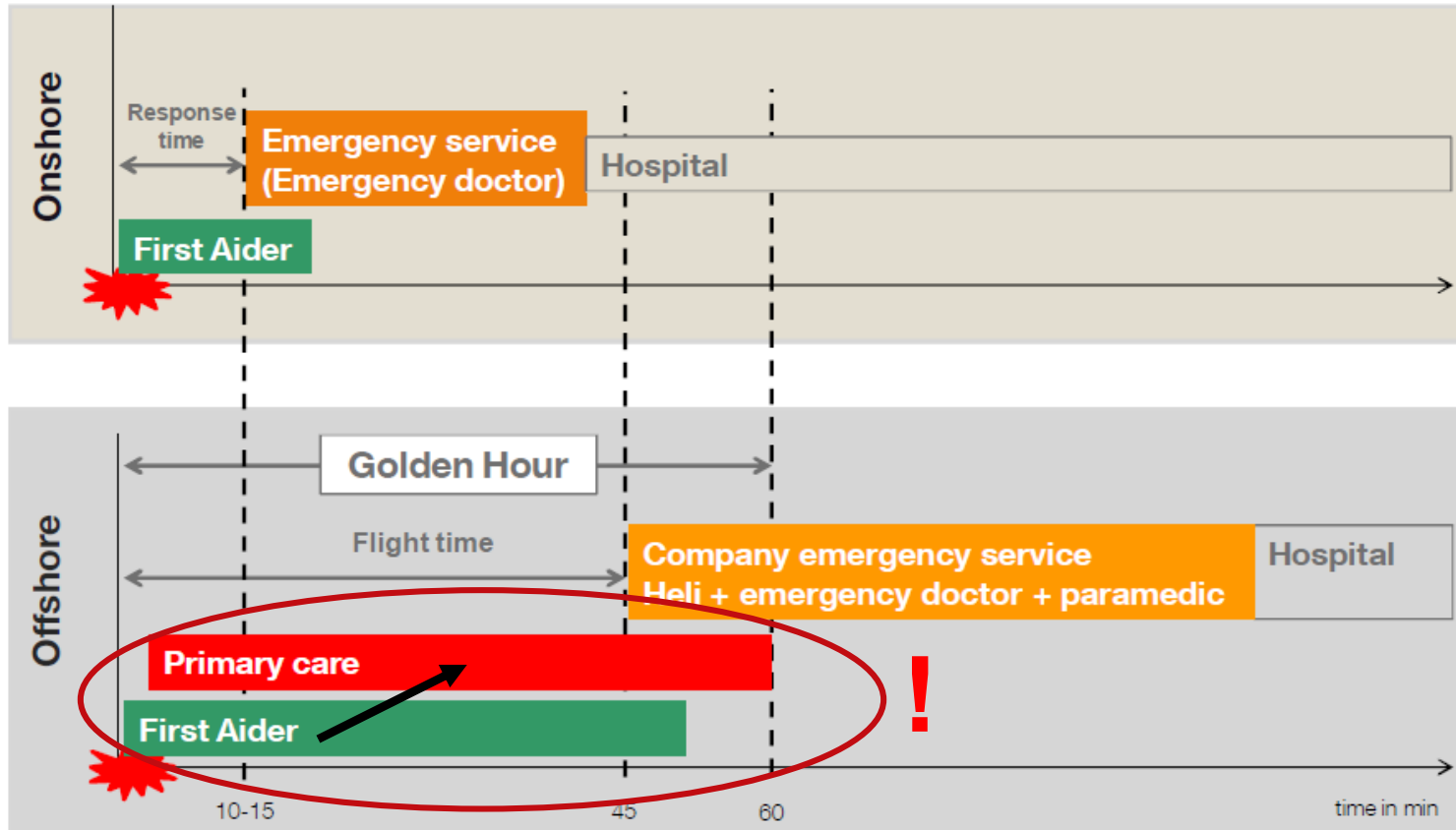
GWO - „*Global Wind Organisation*“
- a non-profit international body founded by leading wind turbine manufacturers and operators
- releasing training standards
- certifiing training providers

First Aid Standards (Abbreviations):

	DGUV	/	GWO
Basic:	betrieblicher Ersthelfer (EH)	/	First Aider (FA)
Basic further training:	EH-Fortbildung (EH-F)	/	FA Refresher (FA-R)
Enhanced:	Ersthelfer Wind Energie (EH offshore/-WE)	/	Enhanced FA (EFA)
Enhanced Refresher:	EH-W-Refresher (EH-WE-R)	/	EFA-Refresher (EFA-R)

Starting Point 2011/2012

LIFE - THREATENING ACCIDENT CHALLENGES THE TEAMS AT THE OFFSHORE WIND FARM GLOBAL TECH I IN GERMANY

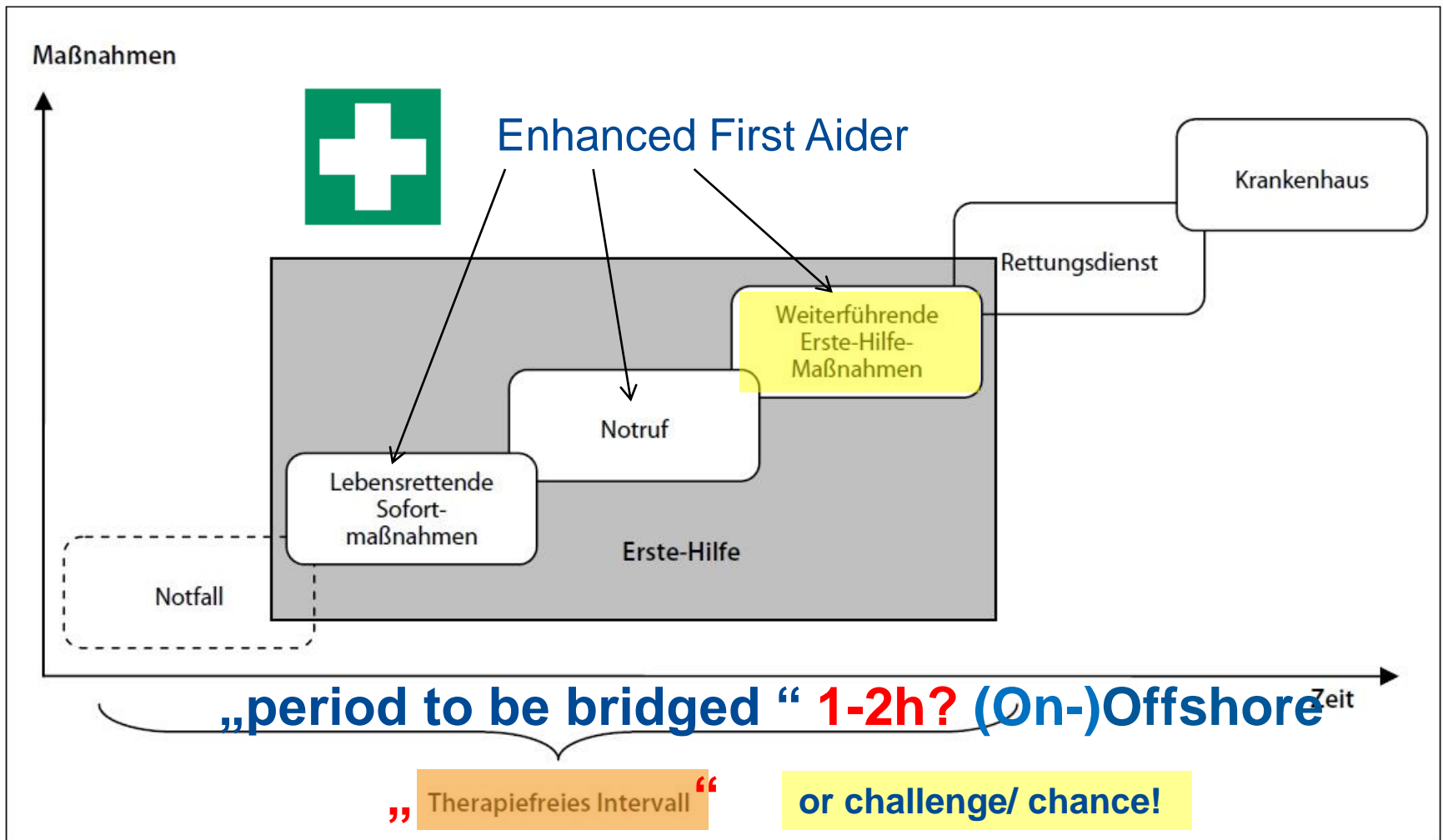


Because today's world needs tomorrow's solutions.

4

Origin: D. Schreiber

Rescue Chain – First Aid Measures on-site by Enhanced First Aid



Schema der Rettungskette (modifiziert nach GORGAß & AHNEFELD)
 nach Köhler M.C. (2006) Qualität von Erste-Hilfe-Maßnahmen bei Notfallpatienten

Framework Conditions and Parameters in Wind Energy Plants

Kind and Frequency of Emergencies:

- not only number of **occupational accidents** (rel. less often)
- but **adverse circumstances** (weather, sea) and
- in individual cases **severe injuries** (**worst case**) are to be taken into account as well as
- (more often sub-) **acute illnesses**.

For all entrepreneurs must take care for immediate first aid.

Time till external rescue specialists arrives:

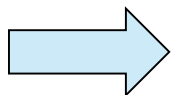
minutes
onshore



hours
mountains/ offshore



days
ship on sea



Comparable circumstances as in mountains / airplanes / oil gas / shipping / military

Accidents and Emergencies

Occupational Accidents

Body temperature reduction

Fall from heights

Nearly **drowning**

Injuries as

- **burning**

- **electrical accident**

- **intoxication**

less often

Acute Illnesses

sea- / divers- illness

Mental illness

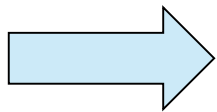
not work-related, e.g.

Internistic diseases

(acute or degenerative)

MSD

more often



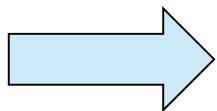
Detailed analysis of occ.-accident-data more detailed in ROW-research „Rettungskette Offshore Wind“

Risk Assessment – Basis for Prevention and First Aid

For all measures concerning rescue + first aid (FA) entrepreneurs need predictive FA-organisation on basis of risk assessment (prescribed in german ArbSchutzGesetz)! dependent on **different profiles of work according to kind / location / situation of work** i. e.

- transport per ship, helicopter
- living on ship / transform - / residential- / platforms
- building (locating / erecting) and operating wind mills
- activities: build / bring into service / maintain / repair

Activities in on-/offshore Wind Industry generally reveal higher risks! But they must be differentiated, because are varying dangerous. Thus different FA is necessary.



Risk Assessment – First Aid Measures

DGUV-REH-Offshore 1. version 2016 as an example

Degree of Risk	high e.g. (De-)commissioning work Large component replacement New installation work	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Rescue service equipment EmPmed Teleconsultation	Rescue service equipment EmPmed Teleconsultation	Emergency medical equipment Emergency physician on O/WF (especially for particularly hazardous work tasks)
	heightened e.g. Working on rotors Working at great heights Working on cranes Working under stress	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Rescue service equipment EmPmed Teleconsultation	Rescue service equipment EmPmed Teleconsultation
	medium e.g. Scheduled work Maintenance work Installation work	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Rescue service equipment EmPmed Teleconsultation	Rescue service equipment EmPmed Teleconsultation
	low e.g. Normal inspection work Operation monitoring	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Mobile rescue backpack O-FA* Teleconsultation	Rescue service equipment EmPmed Teleconsultation
		≤ 3	4-10	11-24	25-100	>100
Persons Working Offshore						

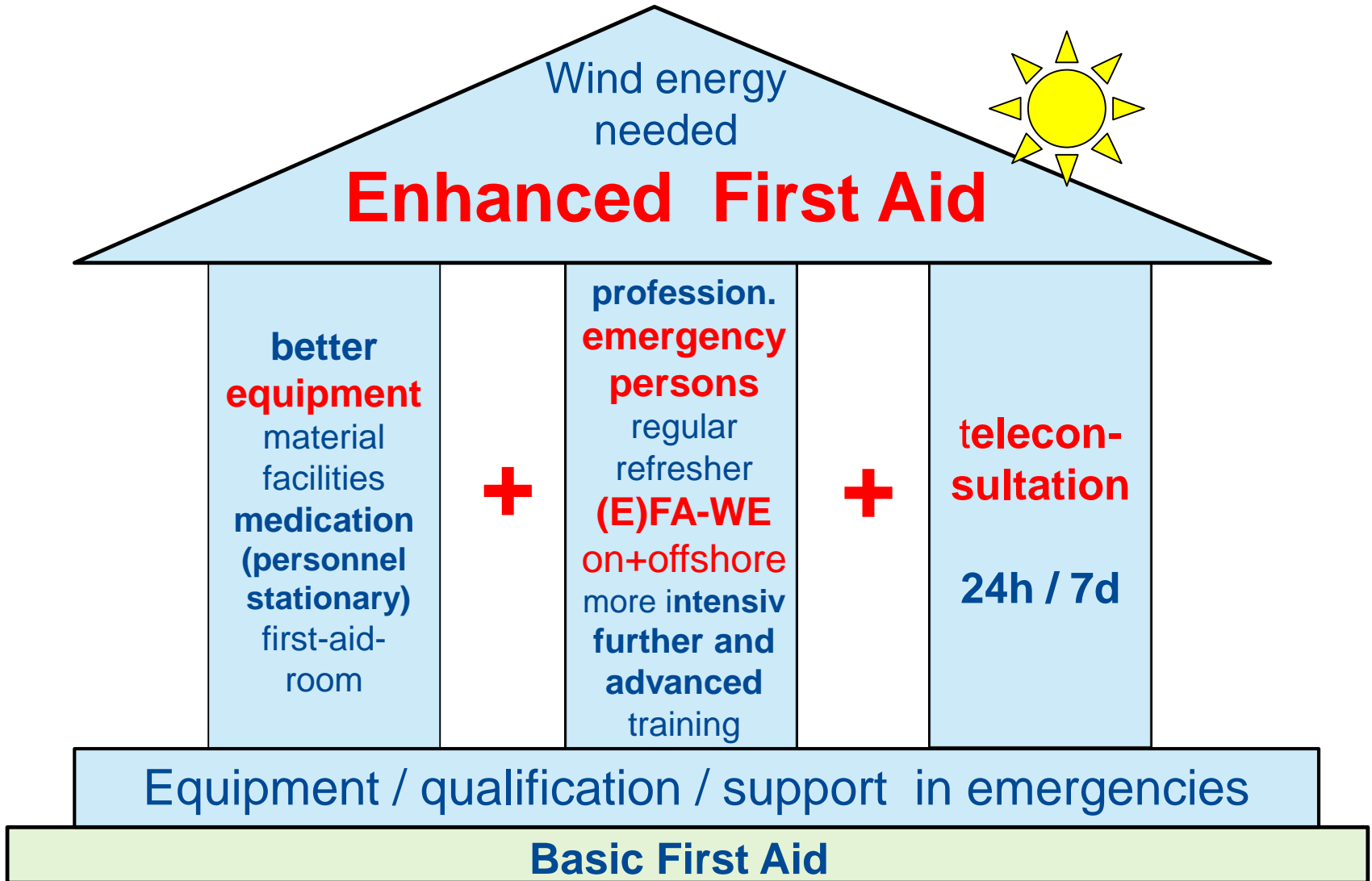
Abbreviations: EmPmed: Emergency Paramedic (RettAss: Rettungsassistent or NotSan: Notfallsanitäter in German) O-FA: Offshore first aider

Motives and Principles of (DGUV and GWO) Enhanced First Aid Wind Energy

- Avoid deterioration and bad permanent outcome of
 - severe occupational accidents (i. e. polytrauma)
 - acute illnesses
- **Don't „leave alone the first aider“!**
- Including especially „worst cases“
- ⇒ enhanced **FA-Measures** to
 - stop bleeding
 - maintain the airways
 - immobilisation
 - emergency medication /managing pain
- principles: **suitable / safely / unharmful**
affordable / reasonable
- FA-qualification related to risk assessment

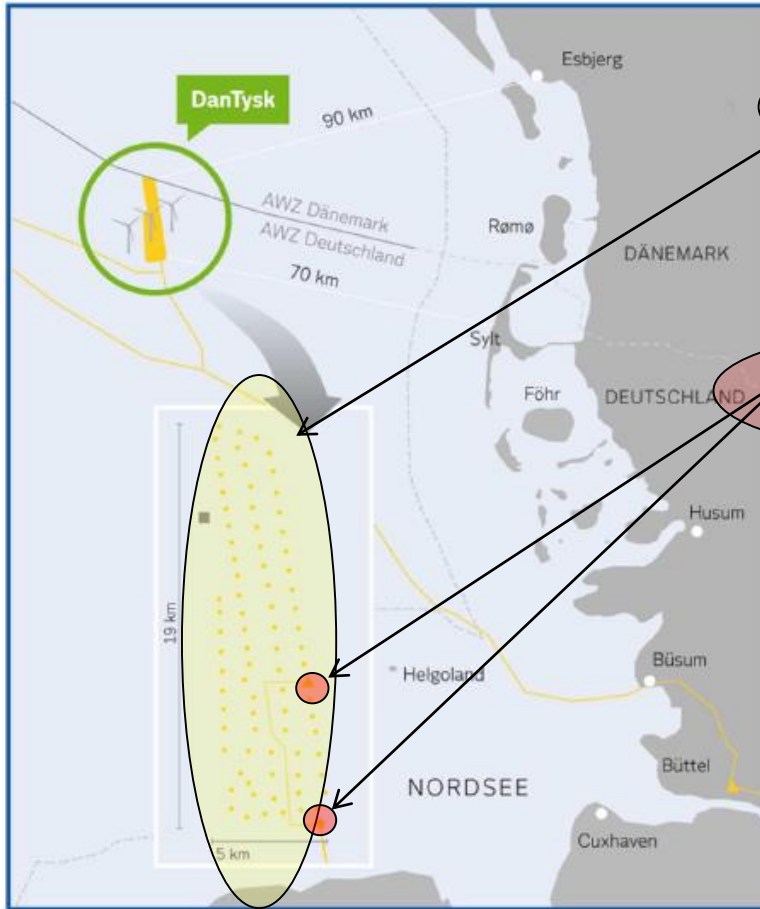
***BG maxim: „Mit allen geeigneten Mitteln...“
„nach dem Stand von Wissenschaft und Technik“***

FA Basic Concept WE



On-site Personnel and First Aid Organisation

DanTysk Offshore Windpark as example



(teams with 2/3!
wind turbines persons)

→ („Ersthelfer offshore“ Eh-O) **EFA**

Ersthelfer Windenergie EH-WE

platforms (with many persons)
as support base:

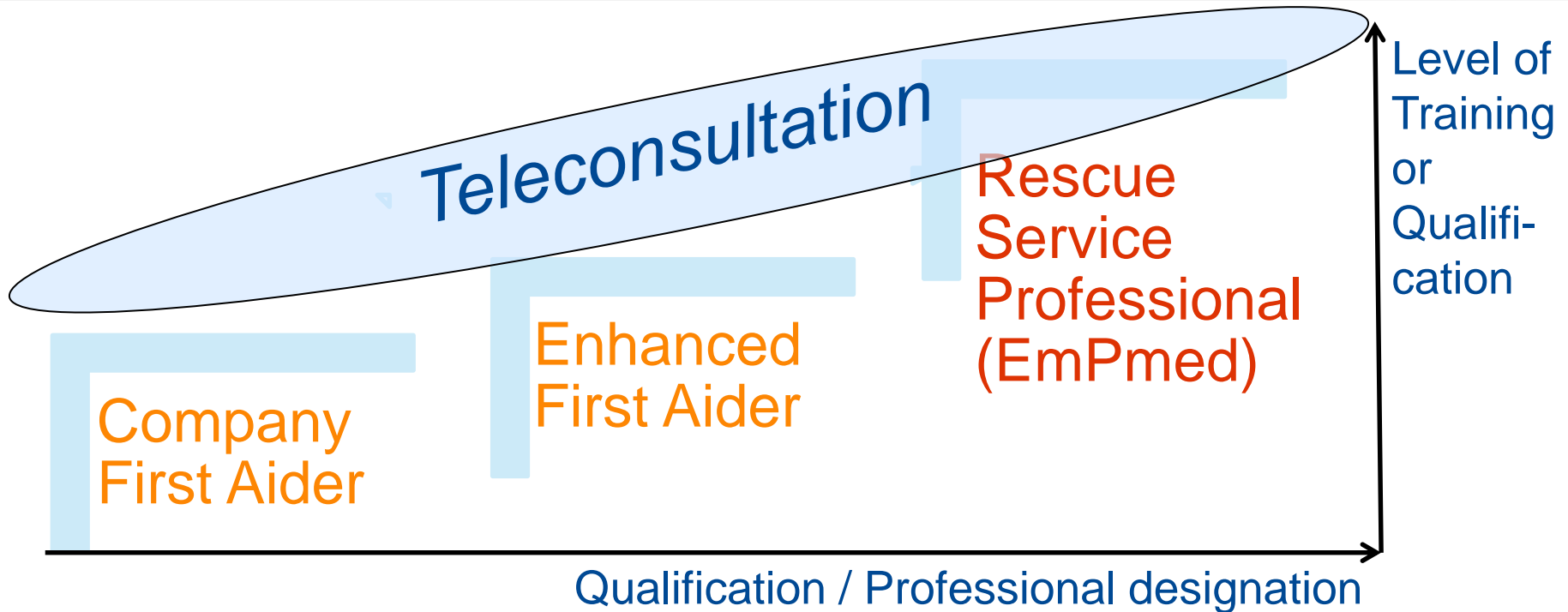
→ **Rescue Service Specialists**

Paramedics

appropriate FA- organisation
and facilities

incl. medication

Benefit of Teleconsultation for all parties involved



Teleconsultation with all parties involved
by emergency-call physician via telemedicine,
offering advice, monitoring and
support of enhanced First Aid measures

More Opportunities of Teleconsultation

Teleconsultation

by the **Emergency-Call Physician** with approval for the use of emergency medication after diagnosis and indication of treatment

Rescue service
Professional
(EmPmed)

Enhanced
First Aider

Enhanced first aid, possible use of analgesics / personal medication, tourniquet, intensive supraglottic airway management

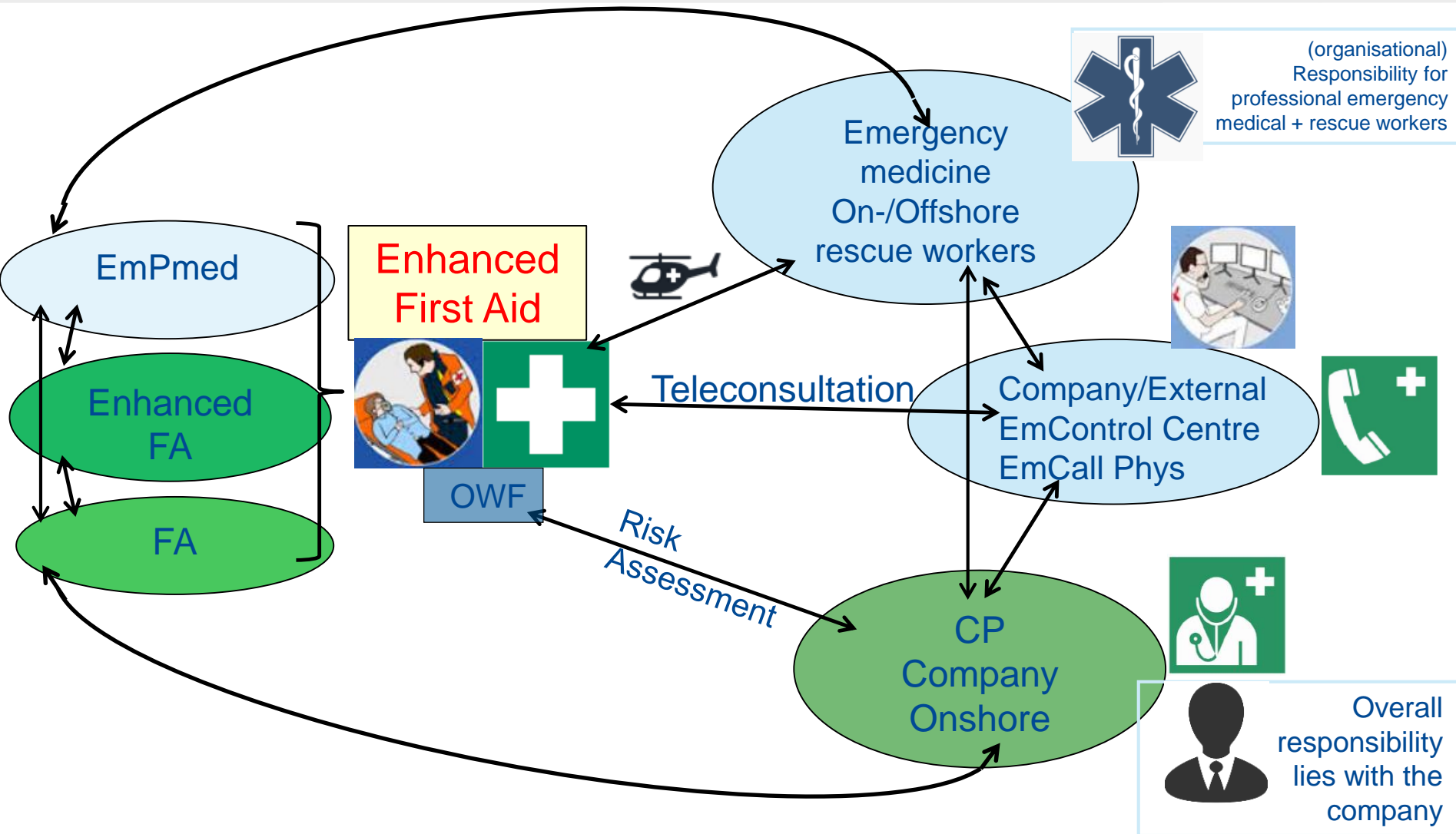
Professional first aid or emergency assistance
In an emergency:
The use of medication following Emergency-call physician approval

Company
First Aider

Simple first aid, no medication

„Enhanced First Aid“ in wind energy branch

Cooperation and Coordination



Preliminary evaluation

- Suitable, risk-adapted first aid measures are necessary
- are an important basis in the rescue-chain
- improve the probability of survival in severe cases
- are essential for a better outcome
- EFA under continuous training (refresher courses) feel subjective more skilled und stable in emergency cases
- First aid measures are more reliable by skilled laymen
- Further scientific evaluation in ROW-research will show effects

Need and Benefits of Adaptation and mutual Recognition

course participants

time burden of doubling, similar courses can then be reduced, unnecessary administrative and legal inquiries avoided and the courses even better accepted

participating companies

can avoid to check the qualification requirements or even send the employees to similar courses again. This saves annoyance, frustration of the employees and time and costs.

training providers

transparency of the course contents and issuing certificates are facilitated

supervisory institutions, internal / external consultants of



companies find clear guidelines and recommendations in the internationally adapted courses

Core Training Standard (to be aligned and compared) (Inter-)national *Assessment Framework*

National Risk Assessment

Teleconsultation

**Enhanced
First Aid
Training
Standard**
- aims
- items
- duration

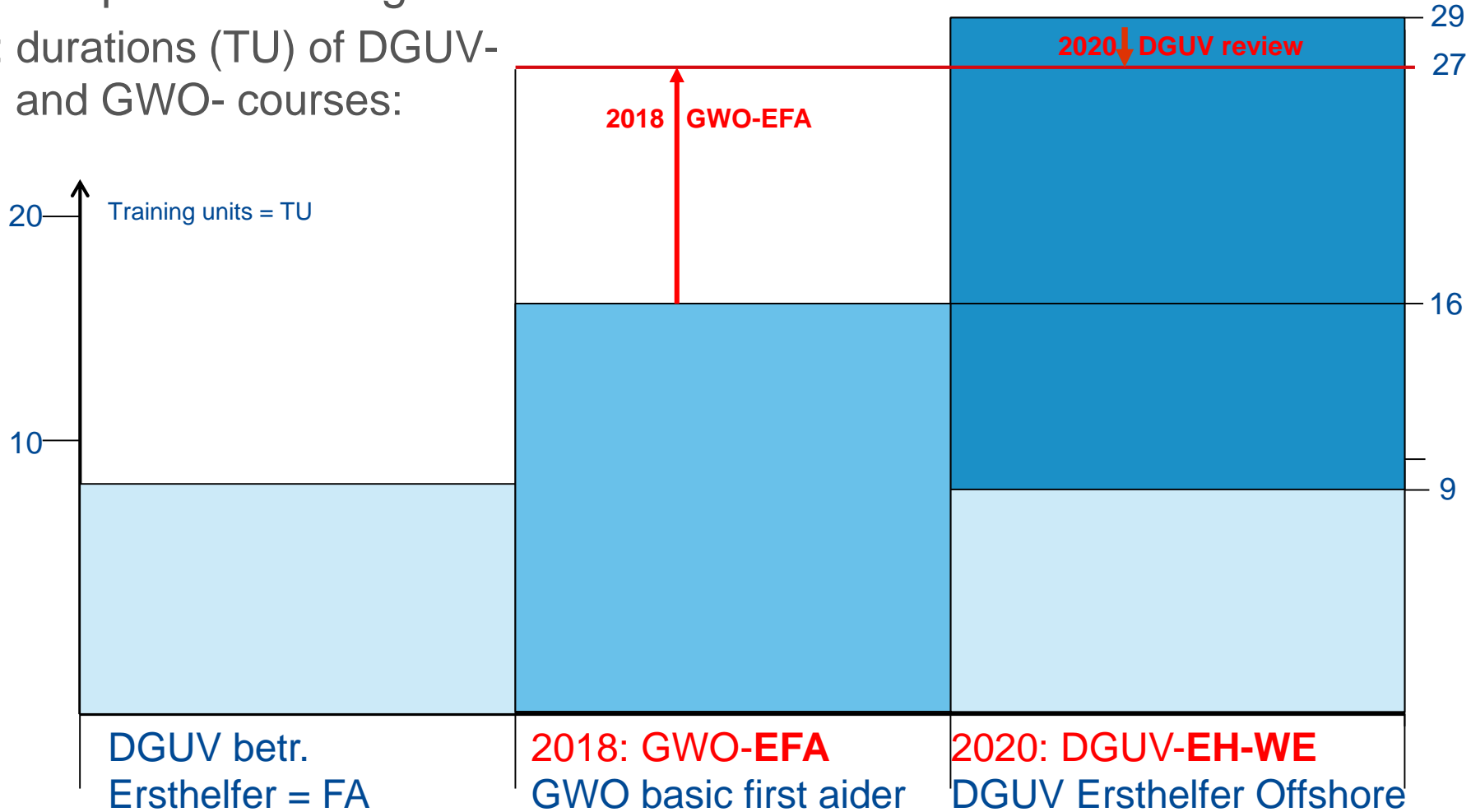
GW 

DGUV

Medication/special devices

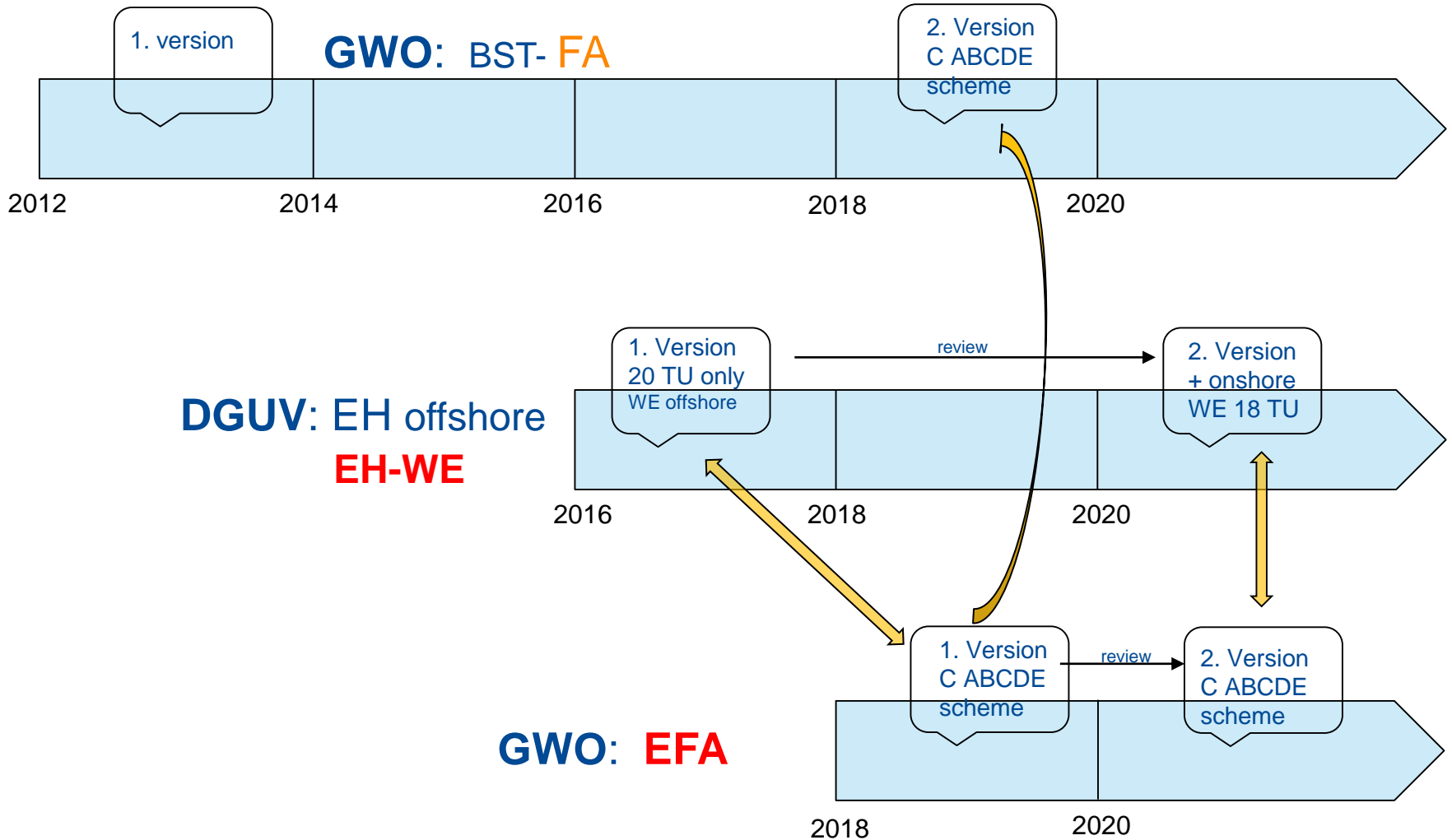
harmonization of FA-trainings for Wind Energy right from the start 2012 till now in 2020 for **EFA**

Different (inter-)national qualifications of First Aiders (=FA) should be compared and aligned because of economic and functional reasons.

eg: durations (TU) of DGUV- and GWO- courses:



Publications of first aid standards for Wind energy (WE) Chronical sequence and mutual alignment



DGUV and GWO EFA alignment

GWO Enhanced First Aid = EFA / DGUV Erste Hilfe Special Wind Energie = EH-WE

Recently changed by DGUV coordinated with those of GWO:

Not only offshore wind farms, but also onshore in remote areas

Duration DGUV EH-WE add on module now 18 TU (prior 20)

Combined 3 days EH-WE course now 27 TU (prior 29, GWO 26,2)

Refresher course: repetition (1 day=9 TU) every 2 years (18 TU)
(prior 4,5 yearly)

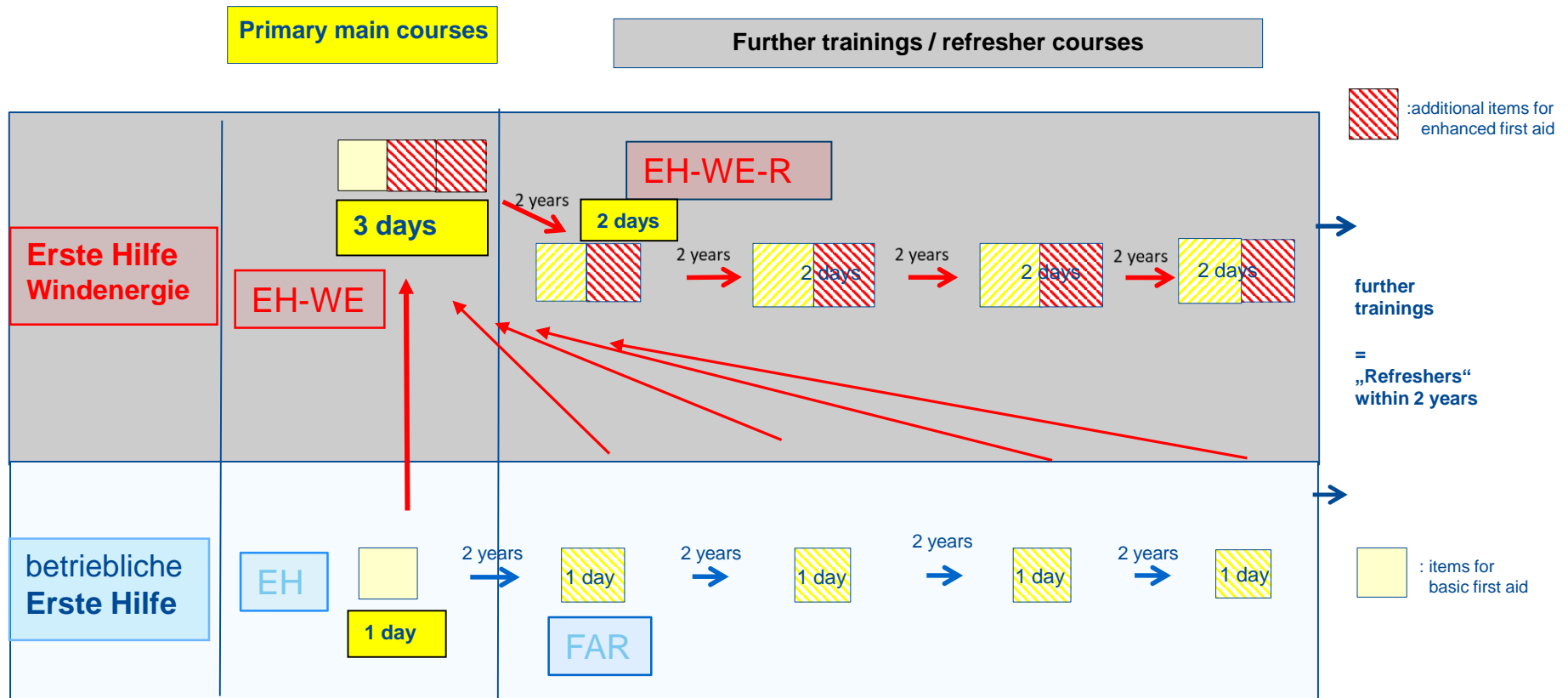
Planned new Refresher standard EH-WE-R in new publication

→“DGUV-I 204-...”, issue 04-2020?

“First Aid in On- and Offshore Wind Farms”

DGUV-I has higher level than prior (DGUVFB-EH) recommendation

Procedure of Basic and Enhanced First Aid Training: DGUV Primary main and further training courses

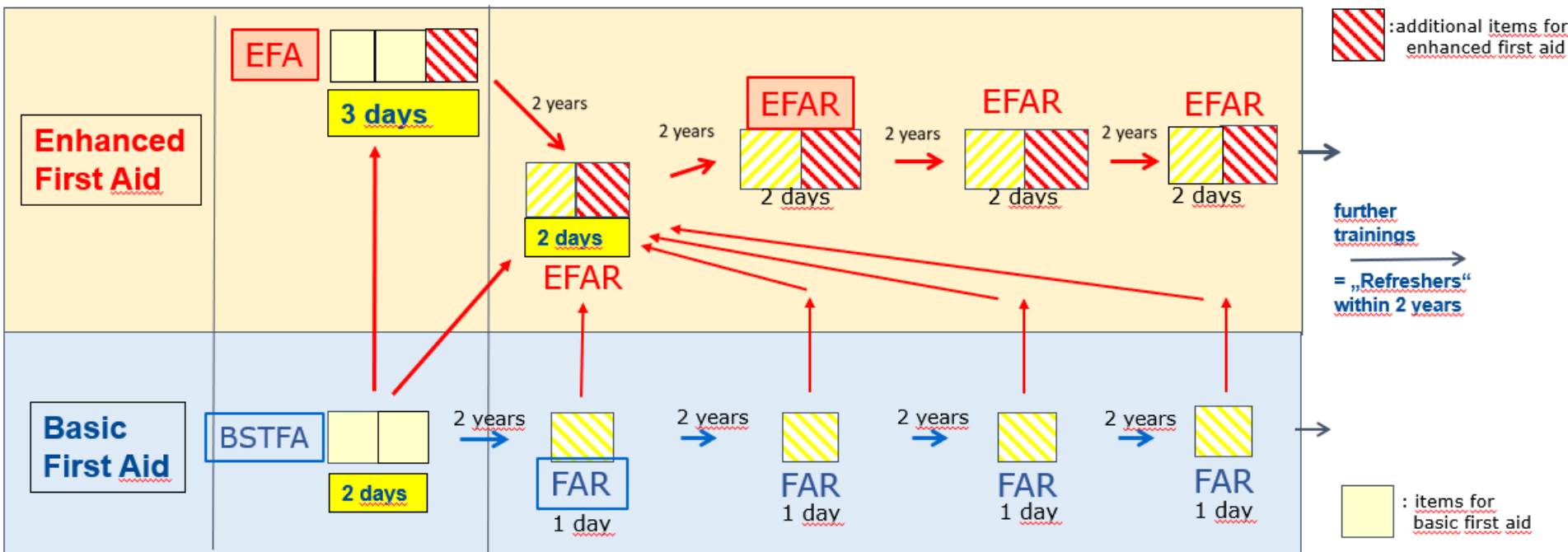


Procedure of **Basic** and **Enhanced** First Aid Training: Main and further training elements



Primary main courses

Further trainings / refresher courses



Overview EFA / EFA-R

course duration DGUV / GWO

DGUV - Standard
describing point of view

GWO - Standard
describing point of view

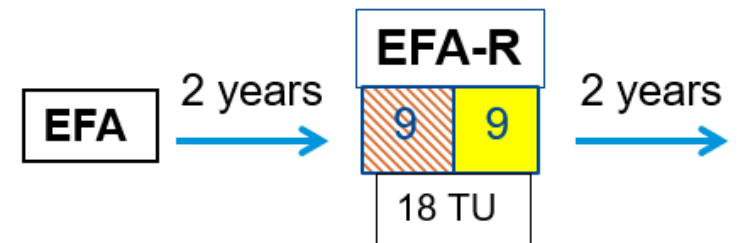
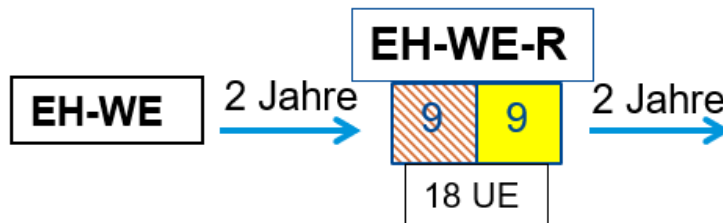
example „separate course“

example „combined course“

EH-WE
EFA



EH-WE-R
EFA-R



Overview of special training courses in Enhanced First Aid by DGUV and GWO

Institution	Course name	Abbreviation (suffix)	Procedure	Duration (days)	Duration (TU)	Total duration (min / h)
DGUV	Ersthelfer WE	EH-WE (add seperately)	1 d <u>train.</u> then 2 d <u>spec. train</u>	1+2=3	9 <u>train</u> +18 <u>spec.train</u> = 27	1215 / 20,25
DGUV	Ersthelfer WE	EH-WE (combined)	Furth. + <u>spec. train. comb.</u> 3 d	3	27	1215 / 20,25
DGUV	Ersthelfer WE	EH-WE (via FAR)	2 d <u>spec. train.</u> after 1 d <u>furth. t.</u>	1+2=3	9 <u>furth. train.</u> + 18 <u>spec</u> = 27	1215 / 20,25
GWO	Enhanced First Aid	EFA (combined)	2 d <u>train.</u> + 1 d <u>spec. comb.</u> 3 d	2+1=3	ca. 26,2	1180 / 19,66
GWO	Enhanced First Aid	EFA (via EFAR)	1 d FAR + 2d <u>spec combined EFAR</u>	1+2=3	ca. 27	1220 / 20,33
DGUV	EH-WE Refresher	EH-WE-R	1 d <u>basic furth. t.</u> + 1 d <u>EH special</u>	1+1=2	9 <u>furth. train.</u> + 9 <u>spec</u> = 18	810 / 13,5
GWO	EFAR Refresher	EFAR	1 d FAR +1 d <u>spec EFA furth. train.</u>	1+1=2	9 <u>furth. train.</u> + 9 <u>spec</u> =17,8	800 / 13,3

Abbrev.: train. / t. = training / furth. = further / d = day / spec. = special

Comparison DGUV/GWO EFA courses

Comparable (Core)

- entire duration basic course + enhanced items
- learning objectives and contents

Equal importance of or emphasis on (framework)

- risk assessment as a basis
- inclusion of teleconsultation
- scenario-based, practical exercises
- recommended drills and training on site in between
- regular in-depth refresher courses

Aims

- ensure acquired knowledge
- skills and behaviour

Differences in certification

- DGUV as the German Statutory Accident Insurance by law publishes and supervises - only FA training and further training
- but not other special FA qualifications.
controls training providers - only in Germany - but not abroad.

<u>Inst.</u>	<u>kind</u>	<u>denomination</u>	<u>repetitions</u>	<u>regulations</u>	<u>control</u>
DGUV	Grund-	Ausbildung	→ lfd. Fortbildungen	<u>mandatory only</u>	<u>in D</u>
GWO	<u>basic</u>	<u>training</u>	→ <u>further trainings</u>	international	<u>internat.</u>
DGUV	Spezielle	Weiterbildung	→ lfd. Refresher	<u>recommended</u>	<u>internat.</u>
GWO	<u>special</u>	Enhanced Training	→ <u>continous</u> Refresher	international	Internat.

- GWO as an international NGO-institution is publishing training standards and controlling their training providers worldwide.

Possible mutual recognition

Summary

After completion of the special further training courses GWO-EFA or GWO-EFAR and DGUV-EH-WE or DGUV-EH-WE-R a mutual recognition with participation certificates according to the DGUV and GWO criteria is possible.

This enables course graduates to work both in Germany as EH-WE and internationally as GWO-EFA.

EFA-Courses - attestations

Location	Kind	Successfully completed course	Possible <u>qualification certificates</u>
D	Basic <u>course</u>	GWO-BFA	GWO-BFA + DGUV-EH
		DGUV-EH	DGUV-EH
<u>abroad</u>		GWO-BFA	GWO-BFA
D	Basic <u>repetition</u>	GWO-FAR	GWO-FAR, -BFA + DGUV-EH, -EH-FB
		DGUV-EH-FB	DGUV-EH, -EH-FB
<u>abroad</u>		GWO-FAR	GWO-FAR,-BFA
D	Enhanced <u>course</u>	GWO-EFA, GWO-EFAR* + DGUV-EH-WE	GWO-BFA, -EFA + DGUV-EH, -EH-WE
<u>abroad</u>		GWO-EFA, GWO-EFAR* + DGUV-EH-WE	GWO-BFA, -EFA + DGUV-EH-WE
D	Enhanced <u>refresher</u>	GWO-EFAR, DGUV-EH-WE-R	GWO-BFA, -EFAR + DGUV-EH-FB, -EH-WE-R
<u>abroad</u>		GWO-EFAR	GWO-BFA, -EFAR + DGUV-EH-WE-R

* = for the first time

Certification of both qualifications

Proposal of DGUV-attestation for EFA(R)/EH-WE(R)



Vorname _____ Name _____ geb. am: _____

hat erfolgreich an einem Kombinationskurs bestehend aus

- einer Erste-Hilfe-Ausbildung* für betriebliche Ersthelfende (9 UE)
 - einer Erste-Hilfe-Fortbildung für betriebliche Ersthelfende (9 UE)
- *Die Teilnahme an der Ausbildung in betrieblicher Erster Hilfe gilt als Schulung in Erster Hilfe gemäß § 19 Fahrerlaubnis-Verordnung (FeV).

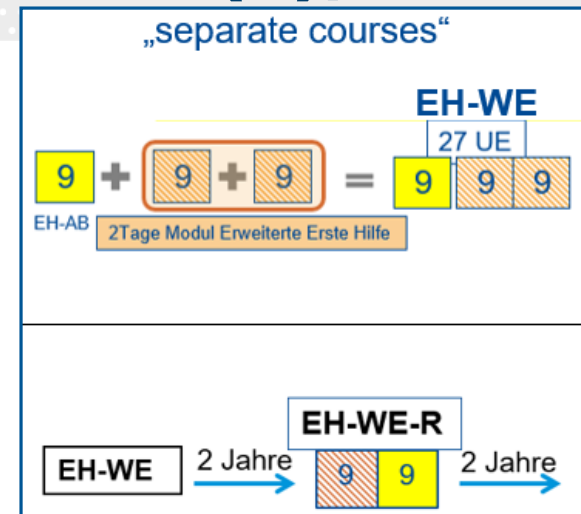
Registriernummer der Schulung: _____
Teilnehmerunterlagen ausgehändigt: Ja Nein

und

- einer Erste-Hilfe-Weiterbildung für Ersthelfende-Windenergie (18 UE)
- einem Erste-Hilfe-Refresher-Training für Ersthelfende-Windenergie (9 UE)

teilgenommen.

* Original DGUV
proposal - draft



vom (Datum) _____ bis (Datum) _____
unter der Leitung von _____

Wir sind eine nach den Vorgaben der Global Wind Organisations (GWO) zertifizierte Ausbildungsstelle sind. Daher gilt:

Die Teilnahme an einer Aus- bzw. Fortbildung für betriebliche Ersthelfende in Kombination mit einer Weiterbildungsmaßnahme für Ersthelfende-Windenergie, insgesamt 27 UE, gilt als Qualifizierung in Enhanced First Aid gemäß GWO. Die Teilnahme an einer Aus- bzw. Fortbildung für betriebliche Ersthelfende in Kombination mit einem Erste-Hilfe-Refresher-Training für Ersthelfende-Windenergie, insgesamt 18 UE, gilt als Enhanced First Aid Refresher gemäß GWO.



_____, den _____
Ort Datum

Unterschrift der Lehrkraft

Name der ermächtigten Stelle: _____

Kennziffer der ermächtigten Stelle gemäß § 26 DGUV Vorschrift 1: _____

WINDA-ID der GWO: _____

Thank you!



Foto:
Rodegro

mail: dr.ge.kraus@gmail.com