



GLOBAL WIND
ORGANISATION

Watching over our workforce

GWO Annual Report 2020



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Chairman's Statement



Paul Robbins, Chairman
GWO Executive Committee,
Chief H&S Specialist, Vestas

It is my distinct pleasure to present to you the Global Wind Organisation 2020 Annual Report. The stories and analysis in these pages speak of a body that is accountable resilient, agile, and adaptive.

Almost no one has been insulated from the effects of COVID-19 and having taken my place as Chair in March 2020, the Pandemic has been the defining feature of my first year leading the GWO membership.

While we are by no means out of the woods, I would like to give thanks to my fellow members for their considerable effort and dedication these last twelve months. Every member has contributed time and resources to GWO in 2020, averaging 24 meetings and 36 hours per member company on various committees and project groups throughout the year.

Many of them have given several times more than the average. I am honoured and humbled to work with you all.

It is also important to extend further this gratitude to the work of my predecessors at GWO who helped put this organisation on such a stable footing that it is now able to invest for the future of safety in our industry

Our three-year strategy – Safety without Borders 2020-2022 – remains the core focus and we are reinvesting now to drive adoption of GWO standards around the world. It is our ambition to see the GWO-trained workforce reach 200,000 people by the end of next year; a bold aspiration but one we hold in sight as a genuine breakthrough which we are committed to achieving.

In my previous statement, I said goodbye to our colleague Karin Borg, formerly of Siemens Gamesa Renewable Energy who vacated her seat as Vice Chair of GWO in September. Neil Pickthall of SSE has now also departed from his role as Vice Chair of the Training Committee. He

has been a great Colleague and will be missed by all who have worked with him.

In the coming weeks, we will be announcing a new committee structure and I look forward to introducing you to a new group of talented people who will lead GWO towards its strategic goals.

Despite the obvious challenges of COVID-19, we look forward to 2021 and beyond with optimism. We believe in the work and our mission to create an injury free working environment in wind.

With renewable energy a beacon of growth amidst the stuttering global economy, it is imperative we watch over our workforce to ensure they are able to build our future energy industry safely and can return home to their families without incident.

CEO's statement



Jakob Lau Holst
CEO
Global Wind Organisation

2020 has proved the resilience of our industry, and of our training provider community.

Despite pandemic and lock-down, wind power installations as well as GWO safety training have increased year on year, the latter by +10%. By the end of 2020, we also passed a significant milestone with more than 100,000 people now holding a current GWO training (see page 7).

We enter 2021 ambitious and optimistic, maintaining the objectives and targets of our three-year strategy "Safety without Borders" as published in February 2020, with a high-level target to build a GWO trained workforce of 200,000 by the end of 2022.

2020 has paved the way for a paradigm shift towards digital solutions, including in our industry. How we choose to enable the use of new technology while ensuring satisfactory achievement of learning for safety will be a defining element of GWO's work for many years to come.

Our network has already stepped up to the plate. More than 50 GWO certified training providers had adopted digital delivery methods by the end of 2020, achieving efficiencies within the knowledge domain as preparation for practical exercises.

GWO is now increasingly in the business of delivering training itself, with courses targeting quality improvements for the benefit of the whole network. We created a virtual classroom of our own to provide Auditor Qualification Training in

2020 and this has now been delivered to dozens of auditors in all four corners of the world in an ongoing programme mandated by our Requirements for Training Providers and Certification Bodies.

Our growth strategy involves recruiting and engaging more global wind companies as members to drive global acceptance for GWO training, and to strengthen localised supply by onboarding more training providers.

During 2020 we welcomed new members and accepted 68 new training providers into the network.

In the coming year, we are establishing stronger presence in The Americas, China and Asia Pacific, to support our growth where opportunity for delivering value and safety to industry is greatest.

Chapter 1

Resilience in the Crisis

A sound recovery

Prior to the declaration of Covid19 as a Global Pandemic by the World Health Organisation on 11th March (week 11) GWO training volumes in Q1 were 10% higher than during the same period in 2019. In a turbulent year for everyone, the market recovered strongly from some historic challenges to end 2020 on a positive note. By 31st December, the GWO trained workforce numbered over 100,000 people.

Unsurprisingly the impact of the spring lockdown on global training activity was swift as countries acted to protect their populations. As we reported in our half year results, training activity dropped by as much as 86% at the height of lockdown and thus the recovery is all the more remarkable.

January 2020 was the network's busiest ever month with a new training high of 24,150 courses completed. Numbers of training courses fell sharply in March and

April but rebounded in June to 96% of the January total. Notably, June's total was 49% higher than the same month in the previous year. Through the remainder of 2020 course numbers were higher than equivalent months in 2019, but declined overall from the June high as can be expected due to the normal seasonality of the construction, installation and service cycle.

Few markets were untouched by the Pandemic (see our regional reports in Chapter 2 for more information) and GWO's busiest regions in Europe experienced some of the greatest falls.

Denmark, Belgium and the Netherlands all dropped by at least 15%. A minority around the world continued to train during the pandemic, some at full capacity, including markets such as Poland, Turkey and Taiwan. These trends are analysed further in Chapter 2.

Impact on Trained Workforce

The overall impact of the shortfall in training course availability in Q2 was not as significant as was expected at that point. The annual training total for 2020 exceeded 200,000 courses for the first time at 219,749:10% higher than 2019.

Despite the Q1 and Q2 lockdowns, by year end 2020 the total number of people with a valid GWO training record reached 100,052, a year on year rise of 12%. This demonstrates a high degree of resilience from the GWO training network and a continued appetite across the workforce despite the matrix of further lockdowns applied across the world during Q3 and Q4.

GWO's strategic objective is to increase the availability of GWO training in all global wind power markets and this was also supported during 2020. It is reassuring that in 2020 the portion of training

occurring outside of Europe continued its upward trend, rising to 24.5% of the global total (2019; 21%) . The Americas now account for almost 15% of GWO training and Asia Pacific just under 10% (see graphics on page 10).

Impact on Training Providers

The Pandemic's Spring lockdowns created a substantial backlog of training. With generally fewer lockdown restrictions during June and July the GWO Network made every effort to re-open safely when their local governments permitted. The numbers of completed courses rose quickly from Week 22 (+83%) and each week during June, as the network experienced a year on year rise of 34%. This is significant given Q3 is typically associated with a fall in training volumes as construction, installation and O&M activity pick up speed.

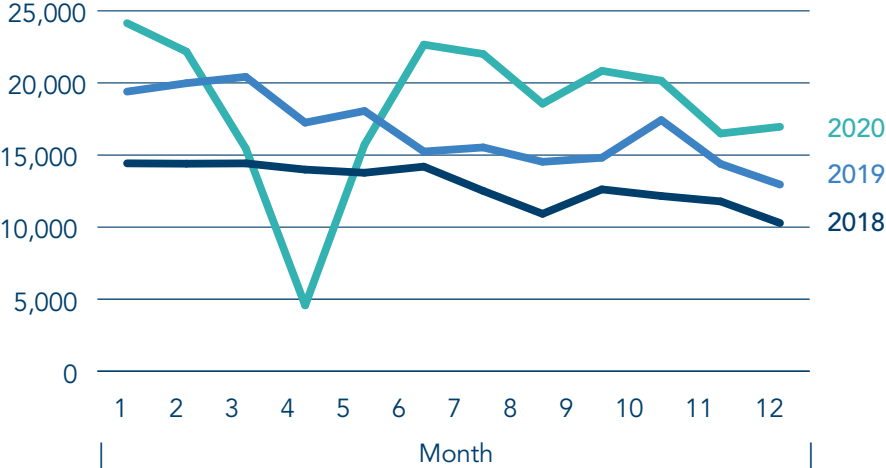
At this point we conducted a survey amongst the GWO network to under-



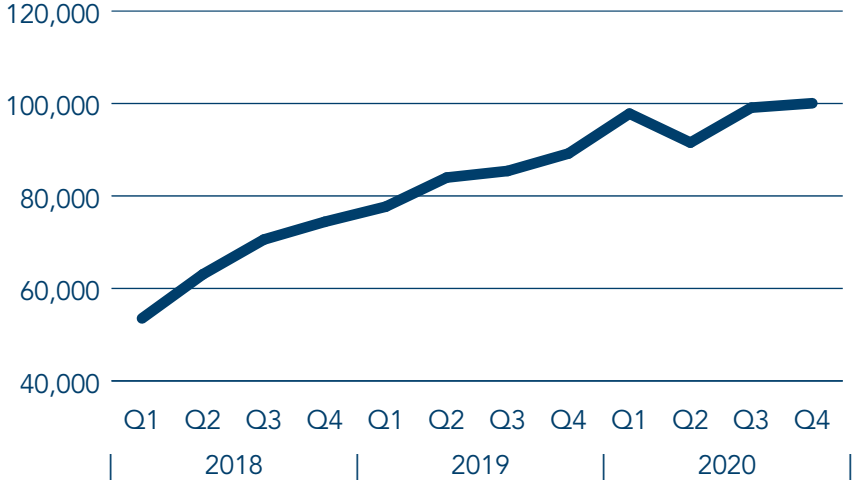
stand what likely volumes training providers expected in July-Sept 2020. The survey's forecast was largely confirmed, when during Q3 and Q4 training providers were significantly busier than the corresponding period in 2019. The graphic on page 7 across illustrates how by August, the training cancelled or postponed in lockdown was recovered. July

(+41%), August (+27%) and September (+40%) saw volumes consistently high, on a par with normal activity during the typical March/April peak. Training providers deserve particular credit for this trend, as many of them increased their opening hours and in some cases moved to a seven day working week to make up for lost time.

GWO courses completed



GWO trained workforce



Resilience without Compromise

In On 26 February 2020, Global Wind Organisation published a new long-term strategy to double the size of GWO Trained Workforce. 'Safety without Borders', and its associated work plan aligns with our members' mission to achieve an injury free working environment in wind, with the goal of building a GWO Trained Workforce to more than 200,000 people by the end of 2022. While this objective remains valid, our journey to achieving it was naturally rapidly reframed by the changing global situation that affects us still.

Like all organisations representing diverse stakeholders, GWO examined its role and a broadened duty to ensure the safety of people working in wind posed by the additional hazards of the pandemic, such as skills fade while training opportunities were less available. For this reason the mitigation of skills fade amongst the global workforce was prioritized over the adherence to previous training procedures.

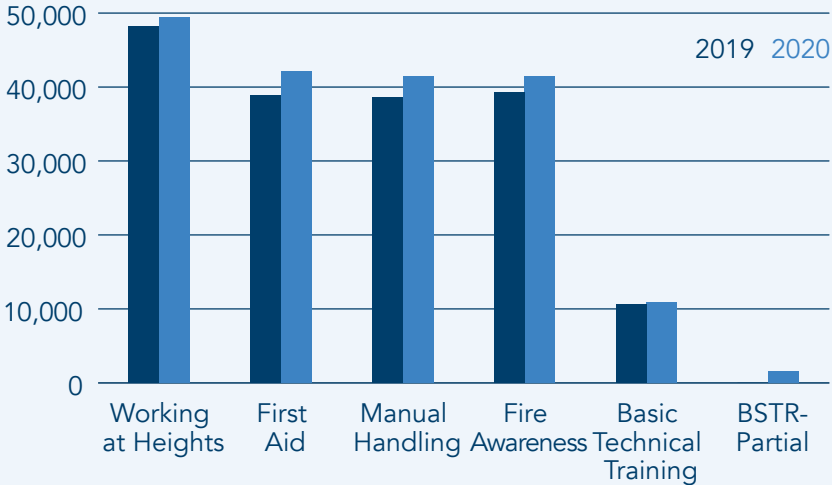
Responding to Member Needs

With the global fall in training availability in March and April the wind industry recognised that without GWO action many thousands of GWO trained technicians were likely to have no access to training. In response to the growing risk of skill fade, from 16 March, training requirements were adjusted to allow 60 days' flexibility beyond expiry to complete a refresher training. Training providers were also allowed an additional 30 days beyond their deadline for recertification, to support the GWO network's business continuity.

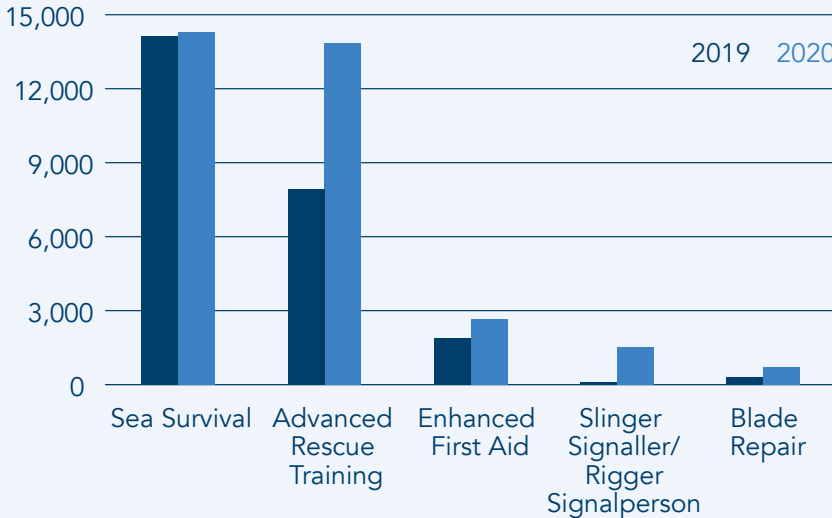
In tandem, GWO realised that some training practices were no longer compatible with specific WHO and governmental advice while other practices were in need of modification for training providers to deliver training during lockdown. On April 15th, GWO implemented governance updates in the Requirements for Training Providers and Certification Bodies allow-



Recommended Basic Safety & Technical Training



Task Specific Training



ing the delivery of training in a digital setting. This was swiftly followed by the Basic Safety Training Online Partial Refresher (BSTR-P), which offers a six-month validity period for participants so their knowledge and skills could be refreshed without the need to visit a centre.

The GWO framework relies on a market-driven response from training providers and a commitment from members and employers to use GWO training where appropriate. It is encouraging to see continued growth of all recommended basic safety and technical training standards and considerable increases in task specific training, notably Advanced Rescue which almost matches the BST Sea Survival module for numbers of courses completed in 2020 (see graphic). Meanwhile the addition of partial online courses in 2020 was a relative success. By year end 2020, 51 training providers were certified to deliver BSTR-P and some 1,484 courses were completed

to the new standard where participants might otherwise not have been able to do so. Internally this programme accelerated and enabled greater digitalization of training delivery and certification which was already part of GWO’s improvement programme. To this end and despite the Q2 training dip, the GWO trained workforce increased by 12% to 100,052 over the full year. This is in line with the International Energy Agency estimate of a global increase in wind capacity of 8% during the same period.

Refreshers hit 40 % of total

As the total number of GWO trained workers grows it is only natural that the proportion of previously trained workers in the population also increases. For those courses where a refresher and partial (R & P) training option is available, GWO tracks the proportion of returning trainees each year (see graphic on page 10). Since 2017 this percentage has increased by 11% to reach 38% globally in

2020. This pattern is not uniform across regions and there is a clear link to the relative maturity of the GWO standards in different regions. In EMEA, refresher courses accounted for 40% in 2020, up 5% from 2019. By comparison in Asia Pacific where total courses jumped 49% in this period the percentage of refresher courses fell slightly from 12 to 10% due to the influx of workers new to the wind sector and GWO training.

68 Training Provider Certifications

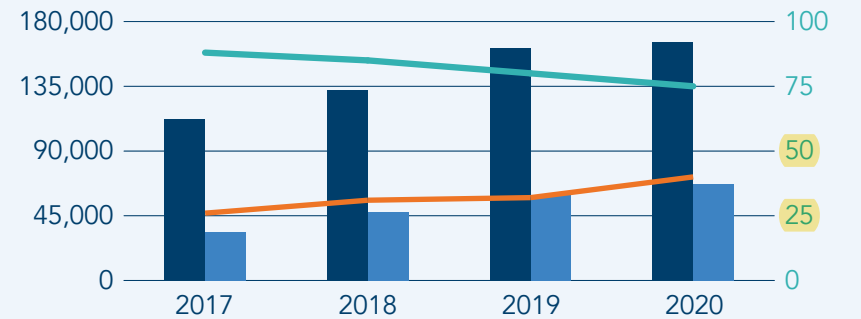
To facilitate the expansion in training numbers, the recruitment and accreditation of new training facilities and accreditation centres is vital. This is especially important in new markets and where GWO training standards are less well established. During 2020, 12 new authorised certification bodies were added to our list, while an additional 68 certified training providers opened in 23 countries

including, for the first time, Austria. This means the total number of training providers operating GWO standards stood at 383 at the turn of 2021 with expansion particularly strong in Spain (+12), USA (+9), UK (+6) and Australia (+6).

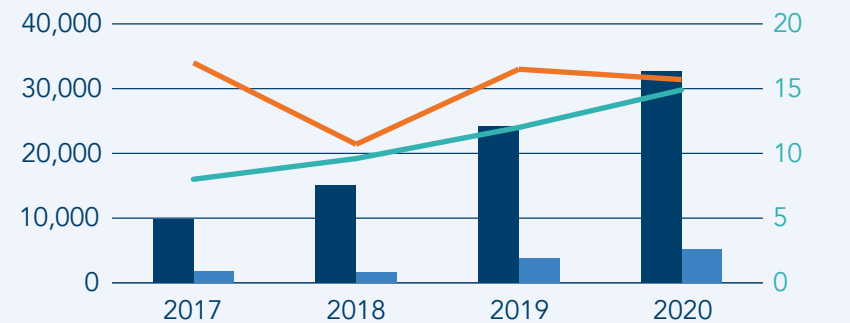
As for training providers the pandemic also brought challenges to certification bodies in their role of auditing training providers. To account for this GWO made two updates in 2020 to smooth the process of both audits in person and digital audits carried out remotely. First the requirement for a maximum number of participants observed by the auditor in an actual audit was relaxed to accommodate social distancing requirements. Additionally, the auditing of digital training was amended to facilitate already certified training providers to also provide additional training modules online.

Regions grow, Europe matures

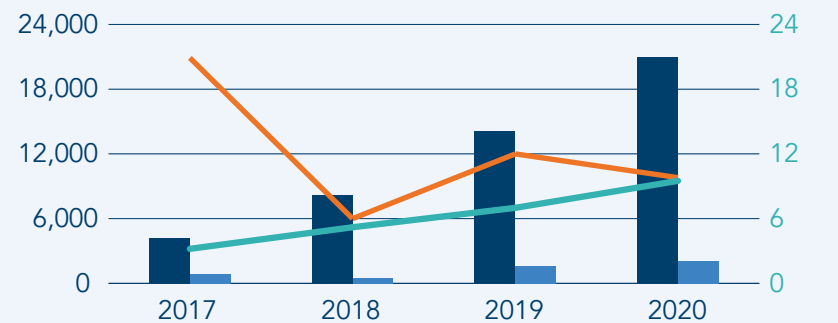
Europe/Middle East/Africa



The Americas



Asia / Pacific



■ All Courses ■ Region % of global training
■ Refreshers ■ Refresher % of regional total

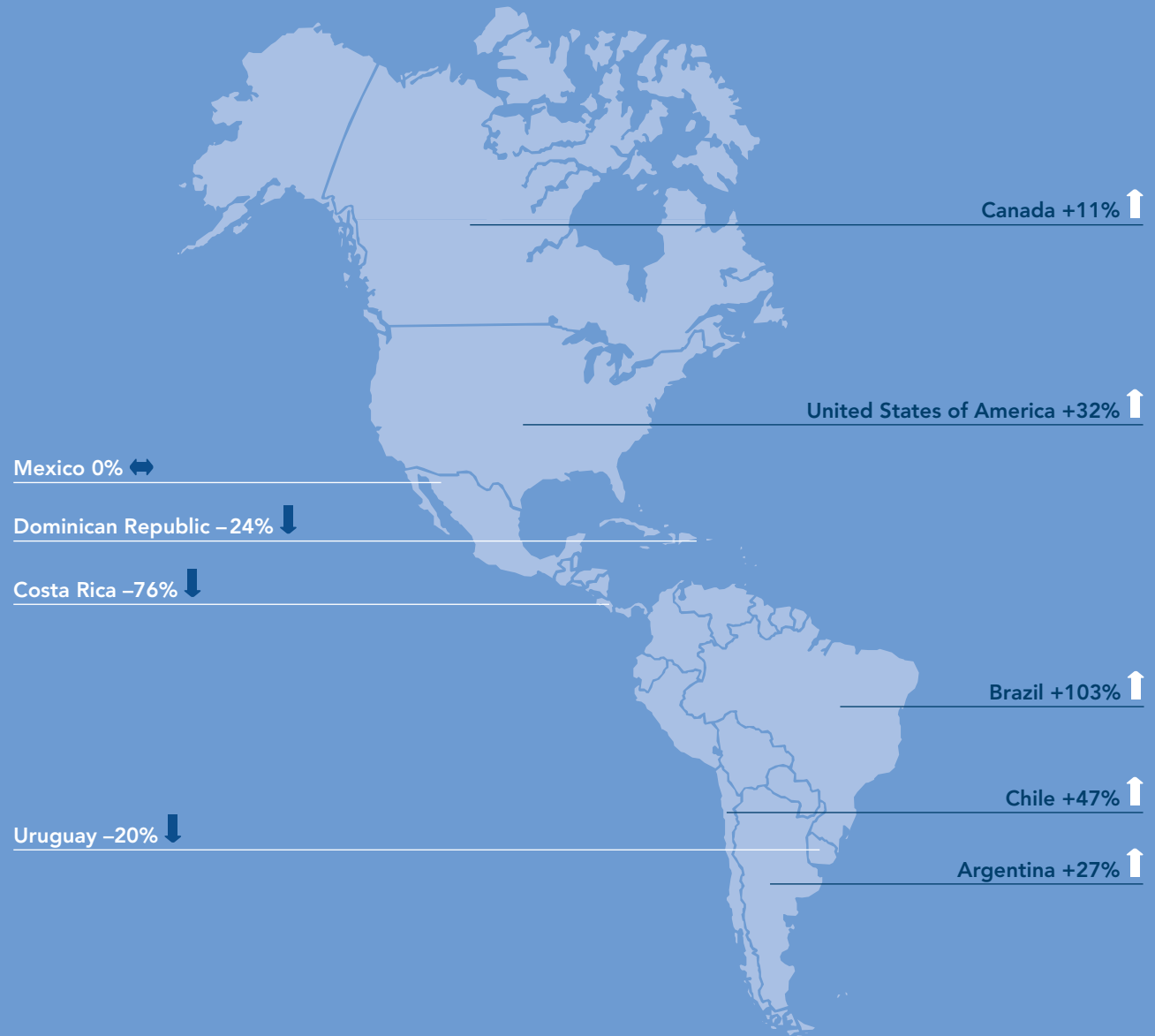
Chapter 2

Regional Report

The Americas

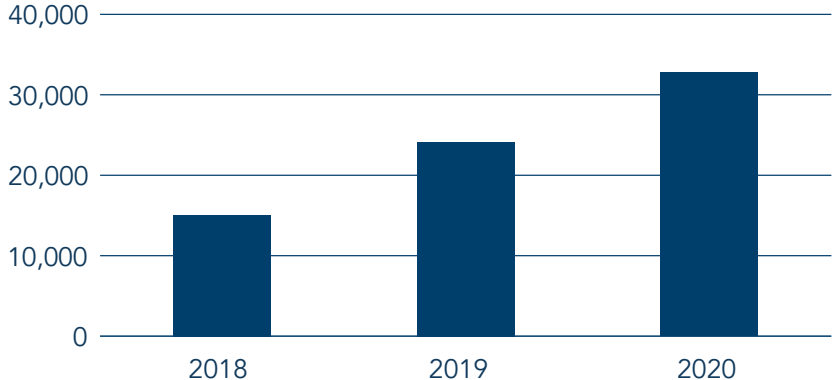
The Americas now account for 15% of GWO training. South American nations, led by Brazil, continued to be among the fastest growing providers of GWO training by volume at the end of 2020. Brazilian training providers more than doubled their activity (+103%), continuing their high levels of growth from 2019 when they overtook the USA for the first time. In North America, both the USA and Canada experienced growth in GWO training volumes, despite fluctuating and often challenging lockdown restrictions by state and federal authorities.

In North America, ten new training centres opened which contributed to a jump in the number of courses completed in the USA by +32% to over 9700. In Canada, the two sites providing GWO training showed a 13% growth across the year, completing 1129 modules. Mexico, a historically strong market for GWO training, also struggled during the pandemic but maintained training numbers overall compared to 2019.



Courses completed

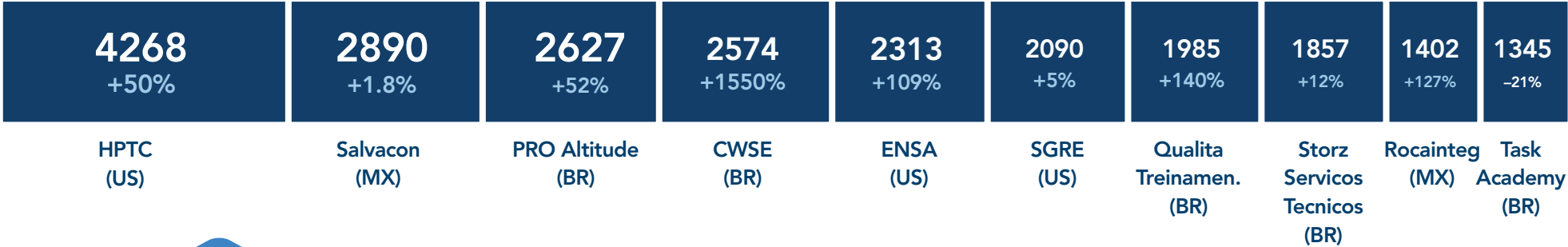
The Americas



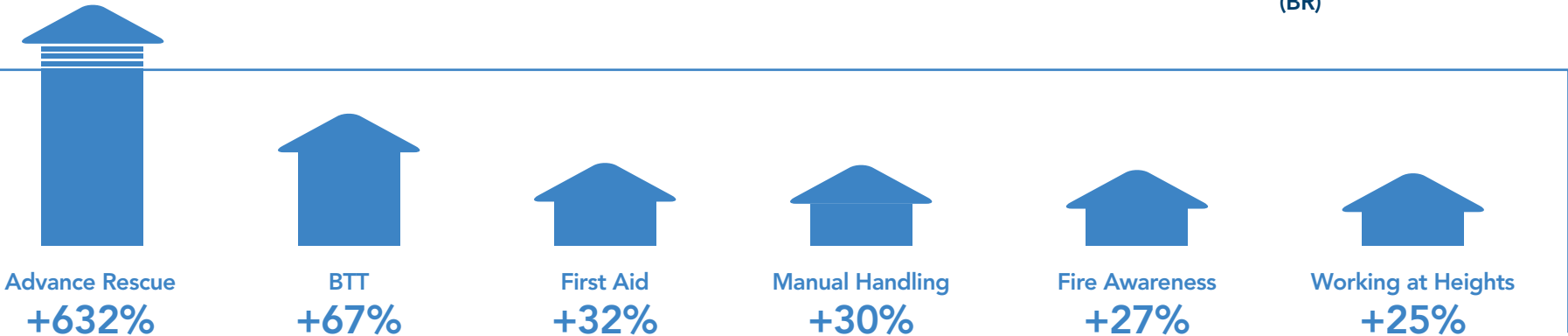
+36% more courses completed in 2020

32,750 (2019: 24,152)

Top 10 Training Providers



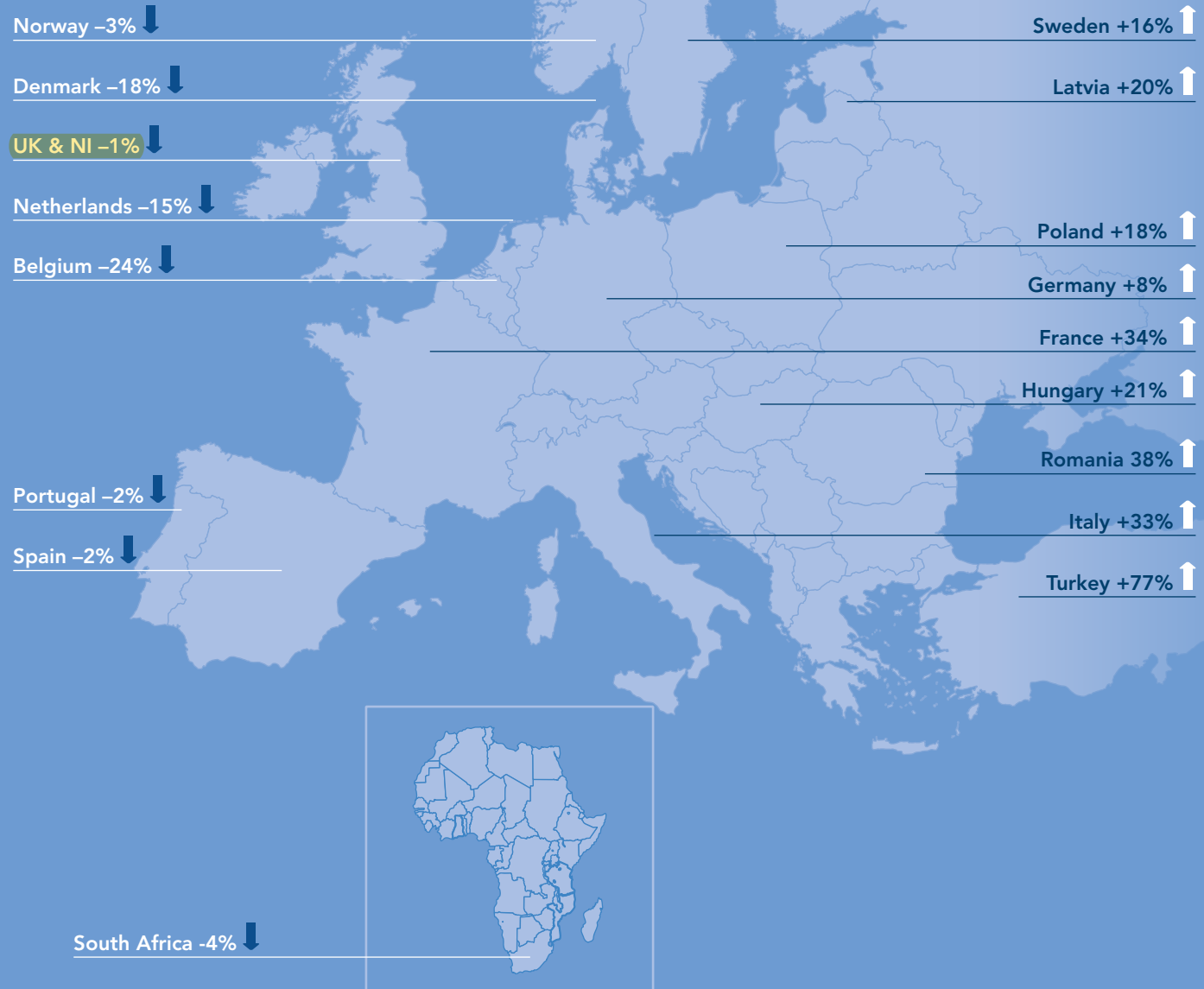
Risers



Europe/Middle East/Africa

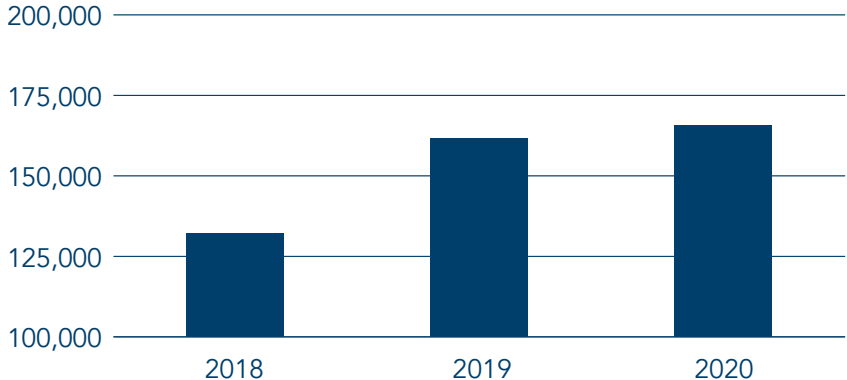
Lockdown affected training volumes in EMEA to a much greater degree than in the Americas or Asia Pacific. Overall, the EMEA training providers delivered 15% fewer courses in the first half of 2020 against the corresponding period in 2019. Despite a marked rebound in the second-half, total training was only 1% higher than 2019. South Africa is currently the only African country with certified training centres. There, the market experienced a 4% fall in volumes over the year.

Examining the EMEA numbers at a country level displays the matrix of impact on, and responses to, the pandemic occurring nationally. Reductions in training numbers in the two largest EMEA markets, **the United Kingdom (-1%)** and Spain (-2%) were less significant than those in some smaller markets, notably Denmark (-18%) Belgium (-24%) and the Netherlands (-15%).



Courses completed

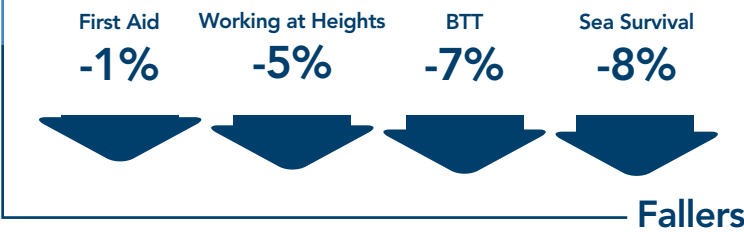
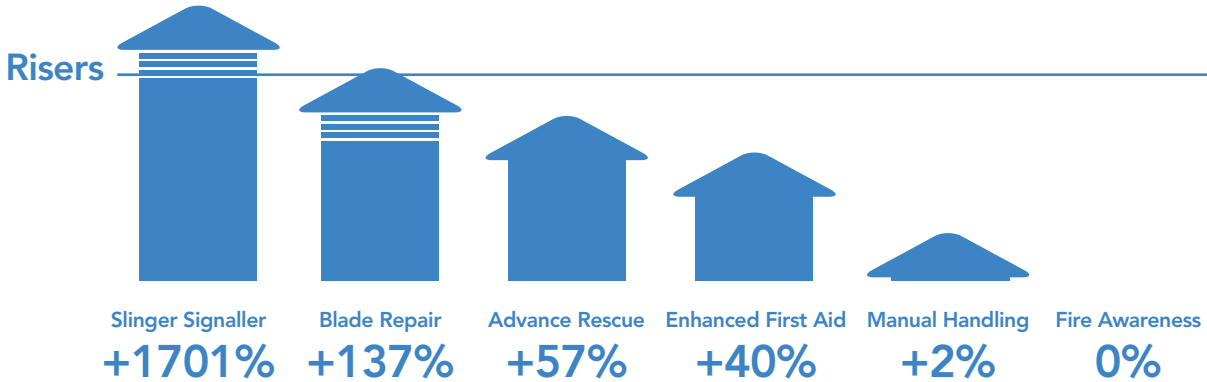
Europe / Middle East / Africa



+2% more courses completed in 2020

165,667 (2019: 161,709)

Top 10 Training Providers



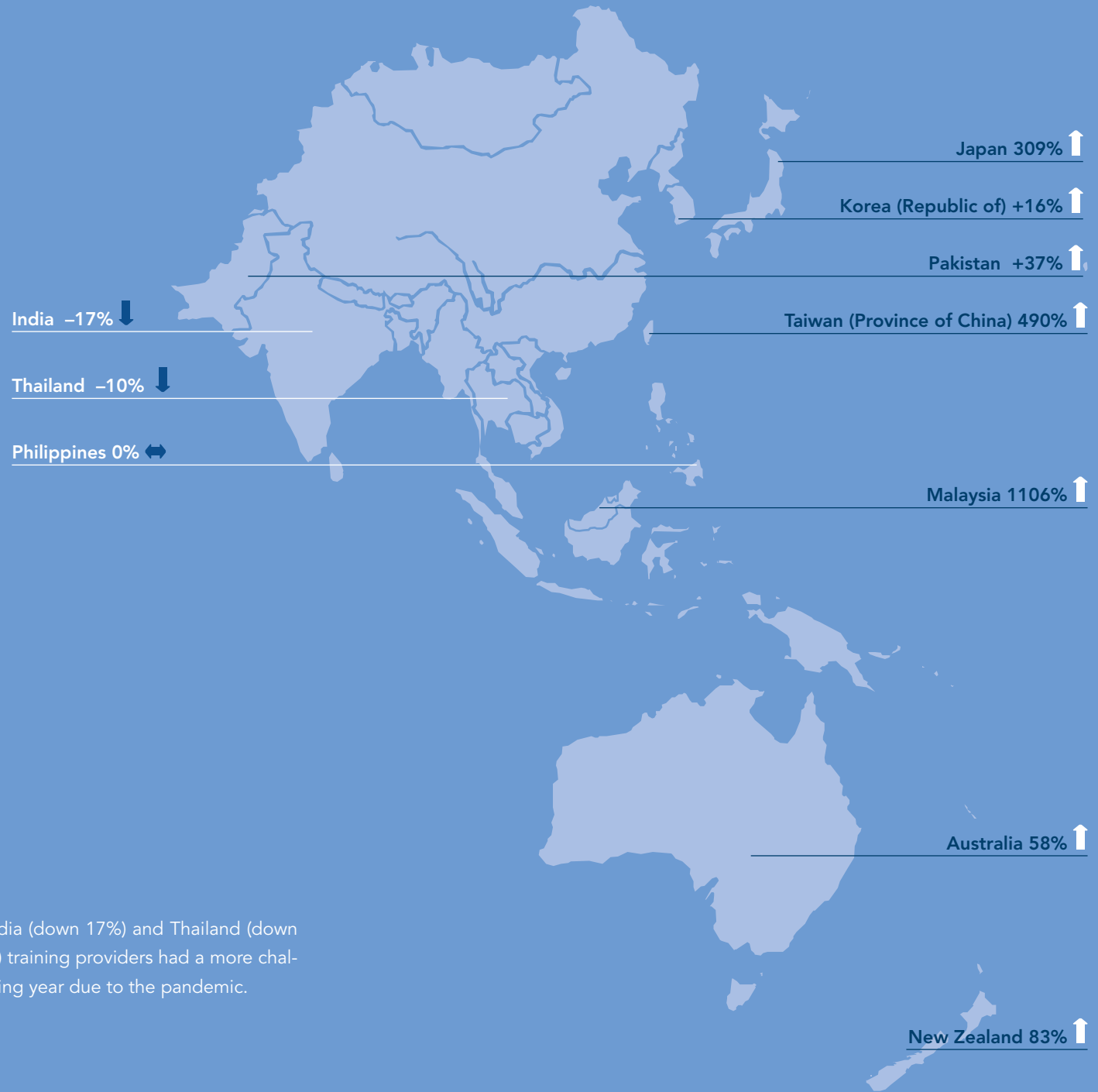
Asia / Pacific

Most markets in Asia Pacific are classified as 'emerging' by GWO, with the standards establishing themselves as new training centres open for business. However, the region now accounts for almost 10% of GWO training worldwide. (see page 10)

In 2020, new training centres opened in four countries in the region while the first Malaysian centre, which had opened in 2019, expanded its operations considerably during this year. For example in Taiwan (490%), Japan (309%), New Zealand (83%) and Australia (58%). More moderate growth rate in China masks the fact that over 1,500 more courses were delivered there in 2020 than in 2019.

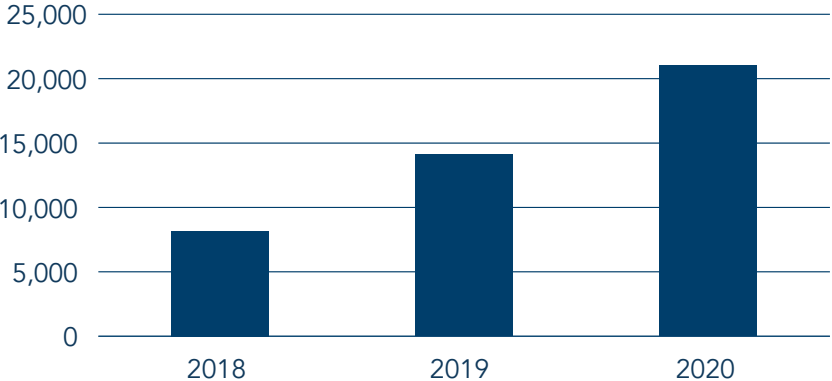
This overall positive growth picture is despite the different situations and responses to the pandemic of individual countries for example, in both New Zealand and Taiwan, training centres remained open throughout the year. Meanwhile,

in India (down 17%) and Thailand (down 10%) training providers had a more challenging year due to the pandemic.



Courses completed

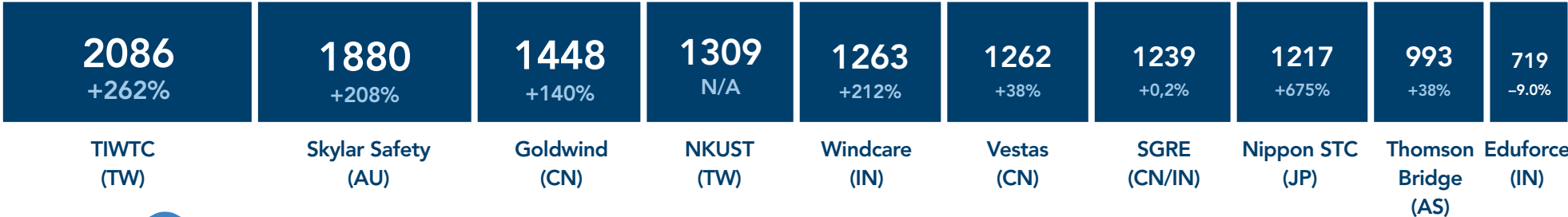
Asia / Pacific



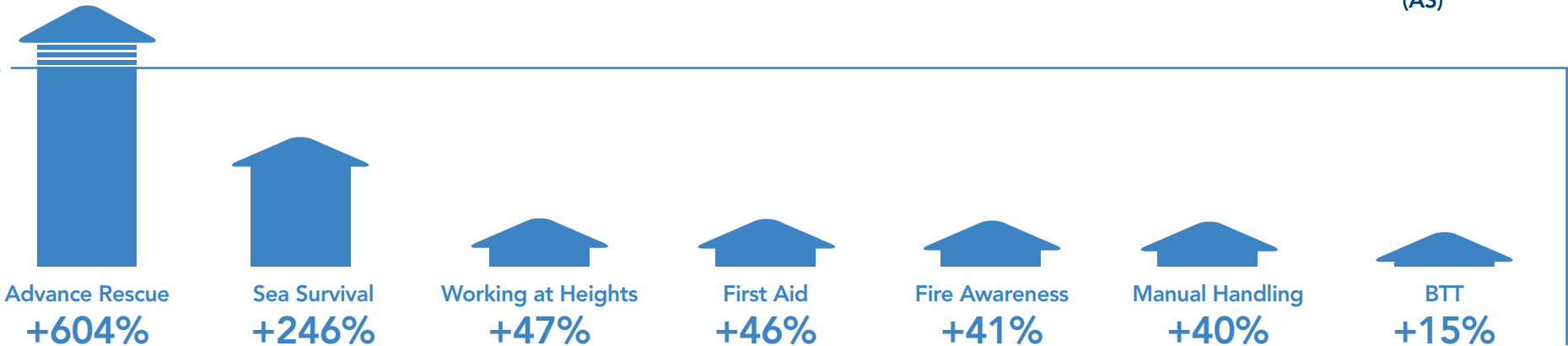
+25% more courses completed in 2020

21,004 (2019: 14,115)

Top 10 Training Providers



Risers



Focus on China



Qin Hayan
General Secretary of the Chinese Wind Energy Association (CWEA) and Director of China General Certification Center (CGC)

The expansion of wind energy in China is at an unprecedented scale. In a year of crisis for many China broke records by adding nearly 72GW of wind energy capacity despite the pandemic. As the largest training market in the Asia Pacific Region growth in GWO training courses was also strong (+54%) but national ambitions demand continued growth for GWO in China during 2021 and beyond.

A 2020 highlight for many in the wind energy sector was the signing of the Beijing Declaration in October by over 400 wind power companies. Signatories committed to install more than 50GW of new capacity annually in China from 2021 to 2025 with the ambition of China achieving carbon neutrality by 2060. Welcome news indeed, but this continued scaling up can only be achieved through having a high-quality trained workforce. Our members in China have

been concerned that not enough is being invested in workforce training to meet these needs and has been actively working with GWO in its objectives to expand the membership and reach of GWO in China so that global safety standards are embedded into China's wind power growth. For example, the GWO China Committee is committed to ensuring that the estimated 47,000 strong offshore workforce needed by China before 2024; is trained to the global GWO standard. Specifically in 2021, we are working to increase training providers numbers to 25 to facilitate the delivery of 15,000 GWO training modules.

The GWO China Committee works in close cooperation with the China Wind Energy Association in their mission to engage with government and enterprises to promote:

- Common GWO safety standards can be shared across the industry to the benefit of the whole sector thereby increasing skills and workplace flexibility.
- Localisation of GWO regulation and processes so that they are not only available in Chinese, but address the local safety and legislative requirements
- Expansion in numbers of certified auditors and training providers across the country to bring GWO closer to all in need.

The GWO China Committee has also found time to engage with Chinese GWO members to help define how the organisation can develop in the region. Not surprisingly it's been a busy year and we look forward to another exciting year.

Chapter 3

GWO Operations Report


GWO Help Centre

The GWO Network has grown exponentially since the body's formation in 2012. The introduction of WINDA in 2016 accelerated this growth, which has occurred in parallel with a focus on maintaining our governance system.

The resulting impact on GWO operations has also been significant. Investments in IT infrastructure have been made to support WINDA's growing user community who require greater functionality to manage the constantly increasing number of training records maintained on the site. In 2020, WINDA surpassed 700,000 records (up 25%) and will potentially reach one million during 2021.

The GWO Help Centre manages an ever-increasing volume of enquiries and activity has grown both from the network's organic activities – new training provider certifications, extensions, standards

2019	Enquiries count	3237	 +2607
2020	Enquiries count	5844	

2019	One-touch enquiries	61.1%	 +4.9%
2020	One-touch enquiries	66.0%	

2019	Satisfaction Rating	91.0%	 0.0%
2020	Satisfaction Rating	91.0%	



etc – but also from the impacts of the Covid-19 pandemic.

In the first half of 2020, the number of enquiries to the GWO Help Centre grew by 95%, averaging 26 per day. Enquiries arrive from over 40 countries where training providers are located, plus additional regions where the standards are establishing. Over the whole year, this resulted in an average of 112 inquiries per week. On a positive note, the number of enquiries that were solved with a single response from our customer service team rose from 61% in 2019, to 66% this year.

There was also positive news in 2020 in terms of satisfaction ratings from enquiries, where despite the increase in volume

the Help Centre maintained its high level (91%) of customer satisfaction. Naturally a period of uncertainty and change, such as the pandemic's onset, generated not only a high volume, but also new types of query. In this case the team was unable to solve as many enquiries as quickly as normal in the first half of 2020. In 2019, more than 90% of enquiries were solved within 24 hours.

The reason for this drop can be linked to several factors. Firstly, as identified the number of enquiries doubled with stakeholders requesting support in relation to multiple issues including:

- The development and implementation of the new WINDA platform

- Applications from participants Certification Bodies, employers and training providers for 60-day extension for expiring records during Covid-19 lockdown
- Supporting implementation of updated Requirements for Training Providers & Certification Bodies
- Help and advice on implementing BSTR-P
- The introduction of GWO Virtual Auditor Qualification Training
- Annual licensing fees

487 enquiries per month

112 enquiries average per week

16 enquiries per day

Training standards and governance

The GWO Secretariat annual work plan is built around three focus areas: Training Standards Development, Governance & Compliance, and Growth. Member organisations are supported by the Secretariat to deliver a wide range of projects including new and updated training standards, enhanced governance systems and strategic growth campaigns.

New training standards development

The GWO standards portfolio consists of ten courses with a further two in progress. The GWO Training Committee is hard at work developing two new training standards for release in 2021. The scoping phases for Control of Hazardous Energies (COHE) and Lift Training standards were initiated in Q4 2020 and working groups of subject matter experts have convened on a regular basis to develop these projects and bring the new standards to market.

Meanwhile, the group has instigated reviews of several existing training standards including Blade Repair, Basic Technical Training and the Sea Survival module of Basic Safety Training.

Updates on Governance:

Originally planned for release in Q4 2020, GWO fast tracked several digital options to support training providers and certification bodies as the Covid-19 lockdown intensified.

Versions 7 and 9 of the certification bodies and training provider requirements were published on 21st April. 'Digital delivery' is now a fourth setting alongside the three existing ones (fixed, mobile, onsite/field), meaning training providers with a valid certification could pursue new technologies as part of their facilities makeup. The ability to audit remotely was extended to 31st March 2021 in October 20.

Certification bodies are permitted to conduct remote audits, which was implemented as an interim measure until the end of 2020, with a view to establishing a permanent requirement in the near future. Remote auditing is not available for initial or extensions of existing certificates, but can be applied for stage one audits, surveillance audits, recertification and extensions to existing digital delivery.

Auditor Qualification Training

Following consultation with GWO members and a variety of other stakeholders from the wind turbine industry, GWO delivered version 7 of its Requirement for Certification Bodies in April 2020. GWO objectives are, as ever, to support common industry training standards for health and safety and must be followed by all certification bodies when auditing an independent training provider.

In light of the pandemic, certification processes were released online. For most auditors this process was essentially re-registration so resulted in few significant challenges as it was designed to key into auditor continuous improvement and active learning processes.

Auditor training was an essential part of this process and training session which had originally been planned for face to face were rescheduled as 10 online sessions during Q3 and Q4. The 46 online course attendees came from all GWO regions with all participants giving the day-long session a high or very high satisfaction rating. Further courses will continue through H2 2021 including in languages other than English.

Chapter 4

The GWO Worldwide Training
and Certification Network

The GWO Training Network

There were 383 GWO Certified Training Providers around the world by the end of 2020. 68 new training providers joined the network and enquiries from prospective providers remain strong despite the challenges of Covid-19.

North America

Owner operators and wind turbine manufacturers continue to increase their demand for GWO standard training in both the USA and Canada. The GWO North America Committee set ambitions to reach 16 sites and over 10,000 courses completed during 2020. Despite the pandemic this target was achieved with 10,902 courses completed. Meanwhile the number of sites reached 17 in total across three provinces and ten states.

Central and South America

Two new certifications in Argentina added to a fast-growing network across the continent. Brazil enjoyed a signifi-

cant rise in courses completed during 2020; more than doubling that of 2019 (11,583). While there were small falls in course numbers in Mexico, Uruguay, Costa Rica and the Dominican Republic; growth in Argentina and Chile supported Brazil in taking Central and South America to over 20,000 courses completed for the first time.

Asia/Pacific

Australian training provider sites increased substantially in 2020, with six new centres opening their doors. South Korea saw 2 new sites, India three, Taiwan one while a further four opened in China. As our regional review (see page 14) confirms, the Asia/Pacific region experienced widely varied impacts from the pandemic. Taiwanese training providers operated successfully through the lockdown, while India suffered a large fall during the early stages of the pandemic which flatten growth overall.

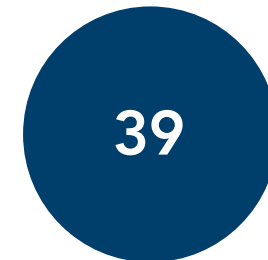
Europe, Middle East & Africa

In a normal year an increase of 39 new training providers across EMEA in 2020 would be suggestive of rapid growth in training courses undertaken; especially in Spain which saw 12 new training providers. While this is true in Austria, where its first training centre opened in 2020, in many countries new openings indicated market preparation or house-keeping in anticipation of market entry at a later point. For instance, only six of the new Spanish centres completed any GWO training in 2020. A similar pattern was visible with new market entrants in Germany, Poland, and the UK. South Africa remains the only country on the continent where GWO training is available. With a fall in courses completed and many centres closed for long periods, this market has experienced challenges, but remains a positive beacon for safety training as the industry develops.

New Training Providers



Asia / Pacific



Europe/Middle East/Africa

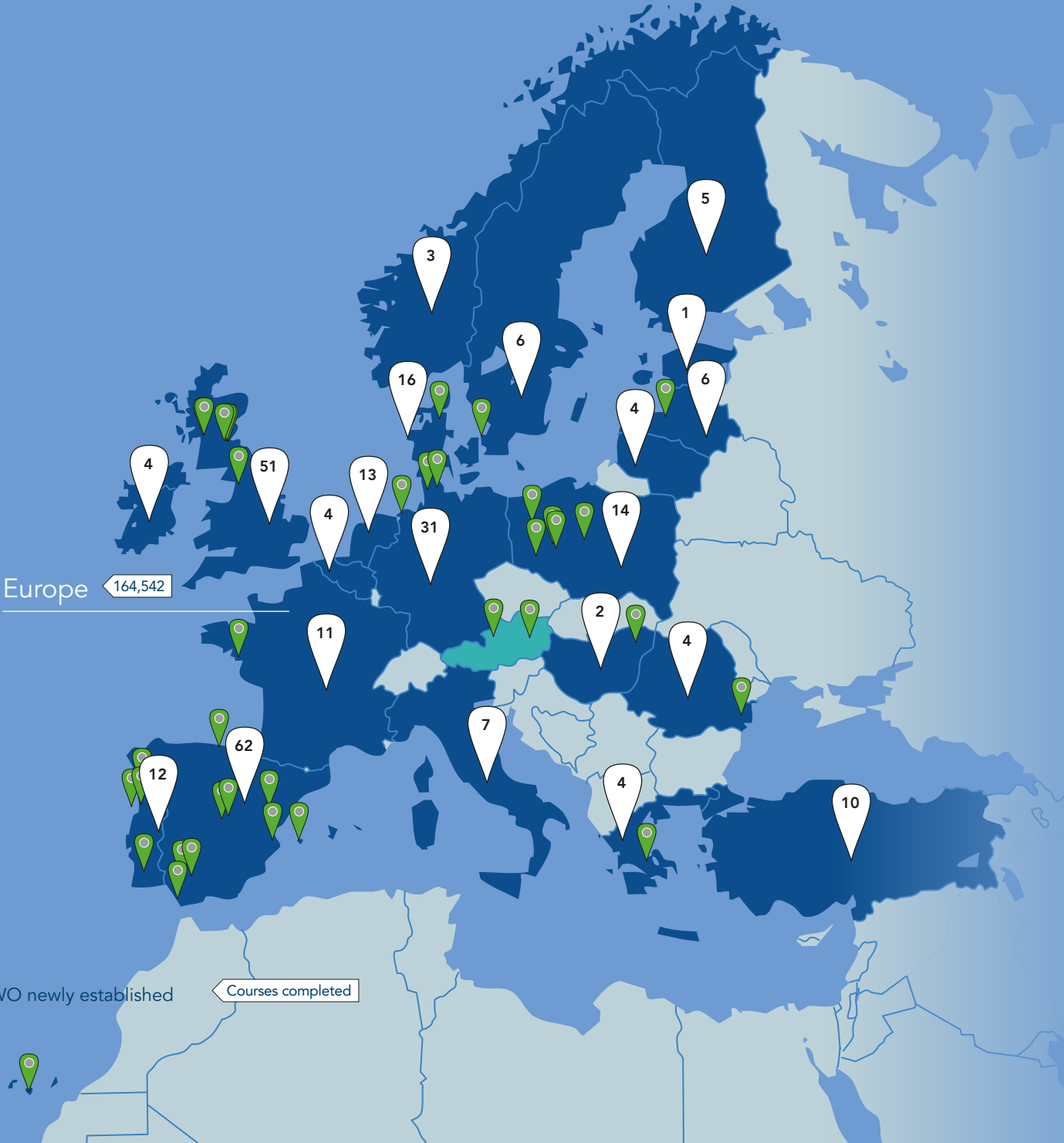
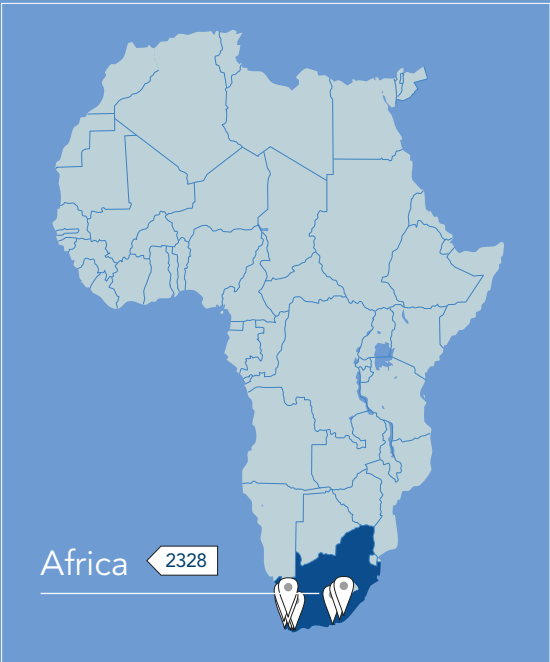


Americas

GWO Network: The Americas



GWO Network: Europe/Middle East/Africa



Newly certified site

Total sites

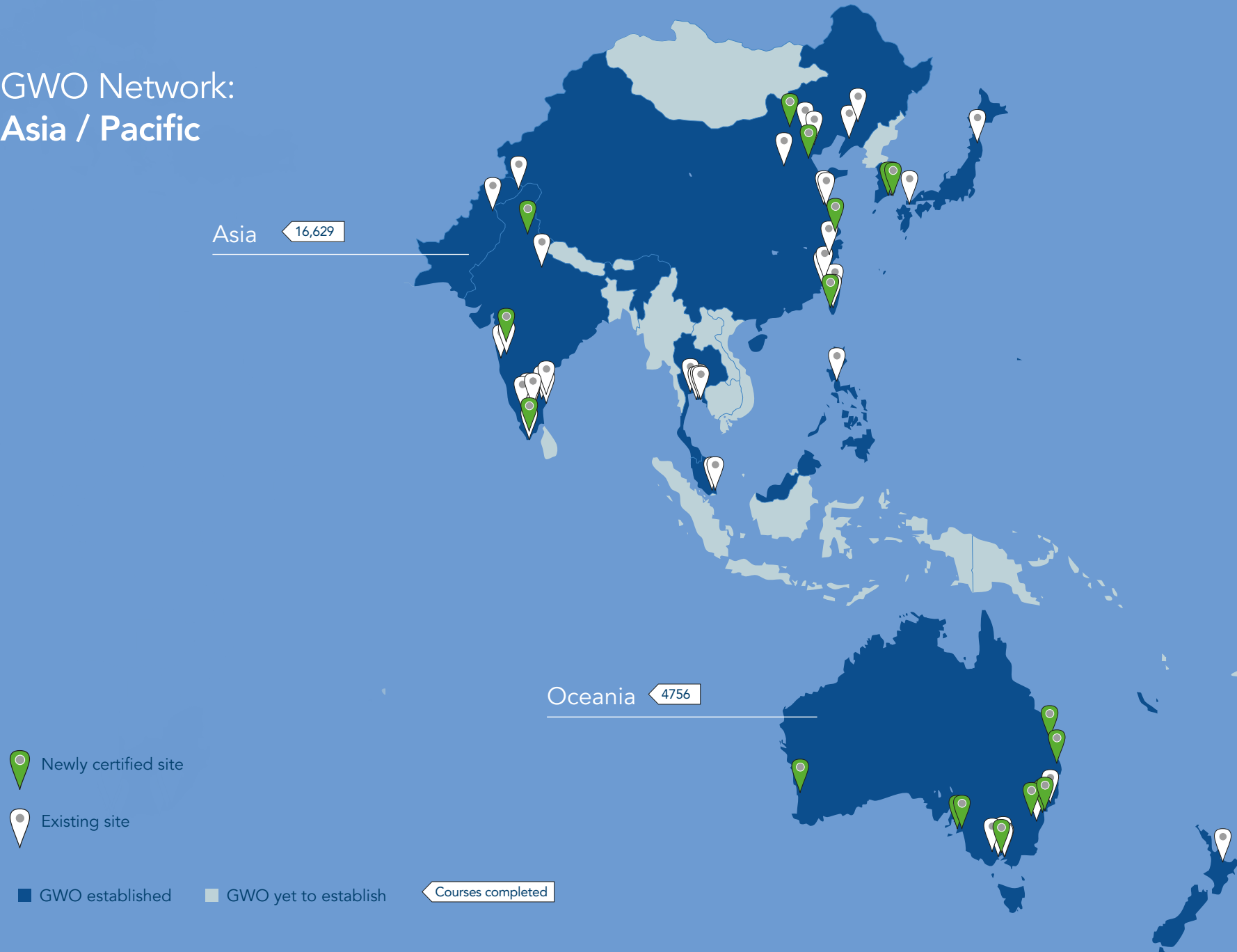
GWO established

GWO yet to establish

GWO newly established

Courses completed

GWO Network: Asia / Pacific



The GWO Worldwide Certification Network

A total of 12 new certification bodies joined the GWO worldwide network in 2020, bringing the network to 28 in total. This supports the GWO objective of having at least two assurance bodies in every market.

The addition of Lloyd's Register in Russia, where the training network was under represented is a positive sign for future delivery of GWO training in this important market in the coming years.

The Americas

Competition is strong across the Americas, with 8 certification bodies responsible for the certifications of 51 training sites in North, Central and South America. As awareness of the standards grows, it is anticipated that more local offices of global certification bodies will encourage their lead auditors to join the market.

New certification bodies 2020	Region	Country
TUV Hellas (TV Nord)	EMEA	Greece
Nippon Kaiji Kyokai (ClassNK)	Asia/Pacific	Japan
Bureau Veritas Australia	Asia/Pacific	Australia
Lloyd's Register Quality Assurance	EMEA	Russian Federation
Bureau Veritas New Zealand	Asia/Pacific	New Zealand
Intertek Industry Services Romania	EMEA	Romania
Lloyd's Register Quality Assurance USA	Americas	United States of America
TÜV Rheinland Taiwan	Asia/Pacific	Taiwan – Province of China
DNV GL Business Assurance Avaliações e CertificaçõesBrasil	Americas	Brazil
Nippon Kaiji Kyokai (ClassNK) Taipei Office	Asia/Pacific	Taiwan – Province of China
CERTOP	EMEA	Hungary
Bureau Veritas Bulgaria	EMEA	Bulgaria

Europe/Middle East/Africa

19 certification bodies are responsible for the current 279 certifications of GWO training providers in Europe and Africa. With a depth of experience from most of the main providers, GWO is supporting their work in maintaining good governance with the introduction of online Auditor Qualification Training courses. This is expected to increase the use of new

tools such as the opportunity to provide remote audits in the right circumstances.

Asia/Pacific

11 certification bodies are responsible for the current 53 certifications of GWO training providers in Asia/Pacific. Companies in China, India, South East Asia and Australia are demonstrating a strong commitment to the market and are re-

sponding to demand by engaging closely at a regional level with groups such as the GWO China Committee. Again, local provision of GWO AQT courses in the second half of 2020 provided a new market entry method for auditors, while helping maintain quality across the existing network.

Chapter 5

GWO Network Training Data
2020

	2018	2019	2020		2018	2019	2020		2018	2019	2020
EUROPE / MIDDLE EAST/ AFRICA				Reval Marine and Offshore Training	252	345	355	Deutsche Windtechnik Service	1024	784	693
Austria			328	Finland	475	534	541	GE Renewable Energy Learning Center	2	18	
Marischka			328	Cresto	78	113	82	German Wind Academy	1011	1579	365
Belgium	3376	5065	3840	Wind Controller	91	144	44	Hailo Wind Systems	225	281	147
Industrial Safety & Emergency Consult	1331	1501	1000	Wind Controller Oy	306	277	415	Heinemann Projektberatung	1341	2069	1981
RelyOn Nutec	2045	3489	2751	France	1586	1990	2471	ISC Training & Assembly	1607	2085	2263
Skilliant cvba		75	89	3M ITFH training Center Paris		32	3	O.S.T. Cuxhaven	1047	814	700
Denmark	15190	17259	14210	ACCSYS	185	260	337	OffTEC Base	1416	2197	1996
ALIMAK Group Denmark	54	24	11	ALPIC	69	65	88	PEPER energy	9	250	662
Amu-Vest	8	2	9	APAVE	2			PSA Sicherheitstechnik	13	21	
Global Wind Academy	60	880	922	BZEE Academy	120	65	36	PSA Zentrale	189	240	815
International Wind Academy Lolland	489	404	599	CEPS	219	215	465	RelyOn Nutec	5180	5264	4981
Maersk Training	5497	5131	3859	Cresto AB	214	418	500	RescOff	753	1029	1132
Maersk Training Svendborg		12	39	GRETA DU GARD		43	76	Rope Access Solutions	21	12	
MARTEC	649	450	414	GRETA du Maine	122	214	222	Seilpartner	355	93	125
MARTEC - Maritime and Polytechnic College	2			Institut de formation Socotec	259	237	303	SHE Solution Bergmann	3	58	23
MHI Vestasoffshore Wind		24	116	Justy Ingénierie Énergies	396	441	441	Siemens AG	499		
Nordjyllands Beredskab Uddannelsescenter	97	114	98	Germany	22009	22390	24383	Siemens Gamesa Renewable Energy	6	168	258
RelyOn Nutec	4493	4707	5193	3M - Capital Safety Training Center	4288	1956	3963	Skylotec - Germany	346	463	186
RESC Rednings og Sikkerhedscenter	226	363	161	3M - Capital Safety - Mobile Unit	20			Steady Climbing		13	149
Rescue Center Denmark	1452	1073	701	Aeroconcept Ingenieurgesellschaft	96	83	83	Triowind	42	55	23
Siemens Gamesa Renewable Energy	2151	3979	2019	Alpintec	707	809	539	Windhunter Academy	301	696	1404
Techcollege Composite			6	Blade Care			27	Greece	484	1292	1281
Uddannelsescenter Holstebro	12	93	63	BZEE Academy	14			ACTIVE POINT SA	82	401	635
Estonia	252	345	355	Deutsche WindGuard Offshore	1494	1353	1868	GEP	402	891	646

	2018	2019	2020		2018	2019	2020		2018	2019	2020
Hungary	379	496	600	Vinda LT	287	747	883	CSW TOTEM	492	371	195
Alpindustry WRS			44	Netherlands	7759	8575	7312	EUROPEAN WIND ACADEMY	2320	3151	3304
Siemens Gamesa Renewable Energy	379	496	556	Ascent Safety	544	476	592	Global Wind Consulting		15	93
Ireland	835	1126	1113	D.H.T.C.-Den Helder Training Centre	61	114	24	Global Wind Consulting		1	129
Access Rescue Consulting at Height	497	703	767	De Ruyter Training & Consultancy	32	78	109	HAWK	169	226	149
H&MV Engineering	28	51	22	Delta safety training	1580	1757	1357	HIGHWORK		40	499
Renewables Academy	310	337	296	Emergency Control Maritime Training	31	134	381	Mobile Windhunter			31
SEFtec NMCI Offshore		35	28	FMTC	3139	3773	3006	SWAT			20
Italy	1745	1617	2154	Industrieel Klimmen	309	547	438	Szkoła Morska w Gdyni	774	1054	1539
ASL Azienda Sicurezza Lavoro	174	181	442	Mennens Rotterdam	319	221	62	VULCAN Training & Consultancy	163	1602	2632
Form UP	141	126	108	Orange Access	116			Wertykal	457	932	1051
General electric international inc. Branch-it	21	90	50	R3B Safety & Rescue		38		Windhunter Academy	4048	4460	4336
IVPC Service	361	295	251	RelyOn Nutec	1082	911	785	Portugal	4209	6162	6011
O.T.I. SERVICE	375	299	305	Safe Site Valbeveiliging	7	8		Centrajuste - CEDROS	246	547	601
Padrone	355	337	663	STC-KNRM	437	486	545	CIFESP	99	94	76
PARCO DELLA VITA	318	289	335	Verticaal Transport Centrum	102	32	13	Codinfor - Consultoria & Formação	452	699	857
Latvia	1639	2235	2678	Norway	421	555	539	Factor Segurança	214	299	181
Baltic Offshore Training Centre SIA	897	1095	1441	Arcos		8	24	GRWind	111	206	125
IQTC Management	530	374	404	Cresto	362	227	249	GRWind Academy			18
Novikontas Maritime College	212	766	833	Energy Innovation			215	Jorge Lozano	548	355	425
Lithuania	1670	2272	2452	Westcon Løfteteknikk	59	320	51	Mário Sequeira Barroso Unip	674	784	351
Baltic Offshore Training Centre	301	814	540	Poland	9071	11852	14011	OnRope Unipessoal	1346	2846	3051
MB Globalus mokymai	970	707	721	3M Customer Technical Center			20	Outside Works	519	332	154
NOVIKONTAS		4	308	Akademia Morska w Szczecinie	648			TRANSGRUA			172
UAB Gridins Enterprise LT	112			ASSECURO			13	Romania	2671	3156	4342

	2018	2019	2020		2018	2019	2020		2018	2019	2020
S.C. WIND POWER ENERGY	1868	2274	2391	EASTAV BLADE REPAIR			30	SERVIGASA SPECIAL JOBS	48	13	
SC SOLO	803	881	1557	EASTAV Global	284	259	594	SGS ESPAÑOLA	244	25	
Vestas CEU Romania		1	394	EROM (Energías Renovables Operación)	2037	2729	1785	SGS TECNOS	113	351	153
South Africa	713	2398	2304	ESCUELA EUROPEA DE MAQUINARIA	251	236	346	SGS Tecnos			430
AID Renewables	337	731	391	Formacion de Rescate Profesional	1581	792	689	SGS Tecnos		123	145
Altitec South Africa		20	41	FORMA-T	3254	4123	5785	Siemens Gamesa Innovation & Technology	243	15	
High Angle cc		824	834	GE Wind Energy Albacete	2	90	153	Soluciones y Desarrollos de Ingeniería	18	131	61
SARETEC	239	400	231	GE Wind Energy Calahorra	17	348	392	TESICNOR	1838	2580	1876
Sp wind	137	423	807	GRAVITAT		37	68	TGM FORMACION-TRANSGRUMA	86	67	106
Spain	20437	26222	25795	GRUPO STIER XXI		7	61	Tindai Prevención y Seguridad	925	434	594
SST GLOBAL SOLUTION AND TRAINING	105	133	173	Hicom	347	1012		Total Health Safety Enviroment	326	560	1485
Academia de Enseñanza Newton Villalba		15	135	Ilunion Fuego Y Conduccion	39	9	1	Total Health Safety Environment - Sevilla		35	29
ACCÉS SEGURIDAD VERTICAL	2	4	40	Inaudita Formación y Consultoría	182	279	261	Total Health Safety Environment			11
Adventis Solutions Camara Decimavilla	556	1105	1377	INDACCESS		16	47	Trainek - Grupo Lider System	868	1263	545
AGUADO WIND SERVICES	156	805	307	INDRA Sistemas	198	316	271	Training Team Rescue	405	283	237
ALIMAK Group		69		INGETEAM POWER TECHNOLOGY	1568	1331	1064	TREBIKAL	48	24	41
ALTIUR FORMACIÓN Y PREVENCIÓN	640	1269	790	Instituto Valenciano de Segruidad en Altura			12	VERTICAL SAFETY		4	424
ASAKEN S.COOP.	173	326	297	LEVEL INSTRUKTA		24	466	Verticalia Serv. De Formacion y Consultoria	15		
Autoescuela Novel e Instituto Cefa, U.T.E.	66	350	37	Mucho Vertical Shop and Training			34	VESTAS EOLICA SAU		272	515
Conapro	921	1408	996	Norcap Noerte	102	98		Ynfiniti Enginieering Services - Spain	394	428	408
Cualtis Formacion			43	PREVinsa	1301	867	832	Sweden	2315	2645	3055
CUALTIS FORMACIÓN	75	116	48	PREVinsa Wind - Mobile unit	382	356	430	Aptum Fallskydd	64	66	15
CUALTIS FORMACIÓN - Madrid	54			PREVinsa Wind - Valencia - Cofrentes	8			C2 Vertical Safety			19
DEUTSCHE WINDTECHNIK	167	257	329	Seguridad Gallega Nosa Terra	388	522	628	C2 Vertical Safety	193	824	1091
E.P.E. Sociedad de Salvamento y Seguridad	10	7	9	Sela Safety		299	205	Cresto	425	583	935

	2018	2019	2020
Klätterteknik	80	167	
NUAB	76	119	298
Rope Access Sverige	909	361	396
Skylotec - Sweden	278	408	182
V.Pro	290	117	119
Turkey	3978	4033	7152
AVRASYA RÜZGAR TEKNOLOJİ MÜHEN.	344	355	276
Ekstrem İşler	462	895	1702
ERA	352	315	949
INTERCON İple Erişim ve Eğitim Hizmetleri		312	728
Kaya Training	126	4	114
Mira Endüstriyel Eğitim Danışmanlık	2360	773	1245
More Enerji San ve Tic Ltd Şti	170	603	356
OWLAQ Eğitim Danışmanlık A.Ş.		41	67
RUZGAR AKADEMI	164	735	1715
United Kingdom of GB & NI	31042	39490	39068
360 Safety & Training		130	444
Access Rescue Consulting at Height	1350	1896	1523
Advanced Blade Repair Services		119	1271
Advanced Industrial Solutions	6087	7694	9823
Ainscough Crane Hire	211	278	292
Altitec Academy		35	35

	2018	2019	2020
Arco Professional Safety Services	29	12	8
Ayrshire College		18	57
Belay Rope Access	949	1072	1130
Boston Energy Limited		65	247
Capital Safety Group (Northern Europe)	800	729	581
Checkmate Lifting & Safety	445	457	410
Clyde Training Solutions	236	501	250
Complete Training Solutions	3767	4572	4513
CWind Training	765	960	421
Dumfries and Galloway College			20
Fleetwood Offshore Survival Centre	454	793	364
Global Wind Technology			213
HFR Solutions CIC	451	345	472
HTL GROUP	15	37	3
Humberside Offshore Training Association	606	888	614
Maersk Training UK		6	241
Maersk Training UK Limited	2973	1434	1611
Maersk Training UK	1802	3632	3134
Martin Castle		167	254
Mistras Group	89	91	
MRS TRAINING AND RESCUE		2	12
MRS Training and Rescue	232	268	196

	2018	2019	2020
NRS Training Services		487	1031
Offshore Painting Services	1152	2690	2602
Petans	674	846	1038
Petrofac Facilities Management	1	8	
Prontoport	445	54	
RelyOn Nutec	1355	1068	1314
RelyOn Nutec Aberdeen			117
Renewable Strategy	21		12
Rescue Specialist			9
Rig Systems Limited	29	36	113
Safer at Work Limited	169	164	85
Safety Technology	80		
Safety Technology - UK - Raglan	567	375	458
Siemens Gamesa Renewable Energy Limited	807	1836	801
Taskmasters (UK) Limited	224	631	406
The heightec Group Limited	2029	1987	1544
The TTE Technical Training Group	4	34	10
Trauma and Resuscitation Services		351	373
Windhoist	1740	1917	876
Worley Academy	482	804	140

	2018	2019	2020		2018	2019	2020		2018	2019	2020
ASIA / PACIFIC											
Australia	1784	2563	4057								
Canberra Institute of Technology	195	325	309	Siemens Gamesa Renewable	834	1066	1174	Applus Korea	303	391	423
Federation University Australia		15	27	Star Wind Energy Academy (SWEA)		65		KIMFT			32
Fire and Safety Australia	858	590	576	Vestas	115	902	1262	Malaysia		16	193
RIGCOM			12	India	3320	5001	4139	MSTS Asia Sdn Bhd		16	193
Skylar Safety		609	1880	CORE India LLP			61	New Zealand	405	372	680
Thomson Bridge	472	719	993	EDUFORCE	321	788	719	Vertical Horizonz New Zealand Limited	405	372	680
Total Height Safety	81	141		EMSAFE FIRE SAFETY SOLUTIONS PVT		78	238	Pakistan	40	286	391
Wright Training	178	164	260	Karam Training & Consultancy	516	460	123	Albario Engineering	40	286	391
China	1206	3080	4673	Maersk Training India	557	711	212	Philippines	632	428	427
3M China Limited			4	RS Windtech Engineers		134	347	Consolidated Training Systems Inc.	632	428	427
ALIMAK Group Manufacturing (Shanghai) CO.	236	129	113	Siemens Gamesa Renewable		166	61	Taiwan – Province of China	18	575	3395
Envision Energy Co.		245	74	SPEED TEAM WIND TECH			280	National Kaohsiung University			1309
Fujian Offshore Wind		72	329	USHA FIRE SAFETY EQUIPMENT PVT	1380	1581	545	Taiwan International Windpower Training	18	575	2086
Goldwind offshore wind training center	21	601	1448	Vestas Wind Technology India Private Limited	546	679	290	Thailand	341	985	885
New Energy Vocational Training School			57	Windcare India Private Limited		404	1263	3M Thailand Limited		120	224
Shanghai Electric Wind Power Group			24	Japan	112	418	1709	Dacon Inspection Technologies Company	90	212	441
Shanghai Electric Wind Power Group			188	EOS Engineering & Service Co.	31	261	492	Pattaya International Safety Training Center	251	653	220
				Nippon Survival Training Center	81	157	1217				
				Korea	303	391	455				

About GWO

Global Wind Organisation is a non-profit body founded by leading wind turbine manufacturers and operators, to create a safer and more productive workforce.

GWO members strive for an injury free work environment in the wind turbine industry, setting common international standards for safety training and emergency procedures.

Disclaimer

All data in this report is correct as of 12th January 2021. Training provider courses completed calculations are made on the basis that all GWO training records must be uploaded within 10 working days of course completion.

Photos: Global Wind Organisation



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