

### EMERGING MARKETS: Covid-19 Vaccination Strategies and Challenges

Our Covid-19 vaccination table includes updated information on the immunization strategies selected EMs are pursuing and the challenges they face. Please do not hesitate to contact us if you want to discuss any of the countries mentioned in more detail.

Please click on 'View PDF' below to see the table.

Client Portal >>

Macro Research +44 20 7186 8894 Macro@teneo.com

© 2021 Teneo. All rights reserved. This material was produced by Teneo for use solely by the recipient. This communication is intended as general background research and is not intended to constitute advice on any particular commercial investment or trade matter or issue and should not be relied upon for such purposes. The views expressed here represent opinions as of this date and are subject to change without notice. The information has been obtained from sources believed to be reliable but no guarantees can be given as to its accuracy, completeness or reliability. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic or otherwise, without the prior consent of Teneo.



### **Emerging Markets Covid-19 Vaccination Strategies and Challenges**

#### **HIGHLIGHTS**

#### Vaccine roll-out

- **Argentina**'s government has acknowledged significant differences in the pace of the vaccine roll-out between different provinces; this explains why the number of jabs administered remains well below the total amount of doses delivered.
- In **Chile**, with almost 20% of the population having received at least one dose of a Covid-19 vaccine, the administration of second doses will begin at scale from 3 March.
- Greece has vaccinated 9.2% of its population, slightly above the EU average, and expects this to more than double by the end of March.
- In **Indonesia**, the vaccination rate has nearly doubled at the end of February; assuming a steady supply, vaccination centers seem to be the primary challenges, although that may include cold-chain issues as the program expands.
- In the Philippines, vaccinations started on 1 March using China's Sinovac vaccine for around 600,000 doses; however, vaccine skepticism remains high, especially for Sinovac 18% of Filipinos are willing to get vaccinated, and only 13% trust Chinese vaccines.
- In **Turkey**, delivery delays threaten the country's vaccination program; meanwhile, Turkey lacks sufficient vaccines to provide a required second dose to all who have received a first one.
- Ghana, Cote d'Ivoire, Nigeria, Kenya, Angola, Senegal, Rwanda, and other countries in sub-Saharan Africa have started to receive their first batches of the AstraZeneca vaccine supplied via the COVAX initiative. Rwanda also received a batch of the logistically more demanding Pfizer-BioNTech vaccine as one of only two countries in the region (the other being Cabo Verde).

#### Vaccine procurement

- **Colombia**'s government hopes to accelerate its slow-to-start vaccine roll-out in the next two weeks with the arrival of 2mn Sinovac doses by 7 March.
- Amid rising Covid-19 infections, the **Czech Republic** is considering procurement of Russia's Sputnik V vaccines and is asking other countries to donate vaccines.
- The growing pace of vaccination in Hungary is associated with the availability of China's Sinopharm and Sputnik V vaccines, in addition to supplies via the joint EU procurement mechanism; due to sharply rising infection rates, the government is focusing on vaccinating more people with first doses instead of saving vaccines for the second jab.
- On 3 March, interim results from clinical trials for **India's** Covaxin vaccine suggest an efficacy rate of 81%, which could help to reduce public skepticism towards this vaccine among Indians (and Brazilians).
- **Mexico** appears to have overcome early supply bottlenecks and now expects a significant ramp-up in vaccine deliveries over March; even with 23.6mn doses arriving this month, the original aim of covering 12% of the population by the end of March looks unachievable.
- In **South Africa**, a limited, trial-based roll-out of the J&J vaccine targeting health workers started on 17 February after the authorities pivoted from the AZ to the J&J vaccine over efficacy concerns against variant B.1.351 (501Y.V2).

#### Vaccine hesitancy

- Vaccine hesitancy in **Peru** decreased significantly from January to February; 59% of the public now say they are prepared to take a vaccine versus 48% a month previously.
- In **Russia**, a Levada Center poll in February shows that 62% of the population are not willing to be immunized with Sputnik V, with young people showing less willingness than other age groups.

#### Infections and new variants

 Poland is experiencing a surge in infections associated with the spread of the B.1.1.7 variant first identified in the UK; despite relatively good vaccination progress compared to most EU peers, the government is considering potential vaccine supplies from China.

#### Vaccine diplomacy

• China is prioritizing foreign vaccine shipments over domestic supply. China lags far behind the US, UK, and EU, with only 3.5% of the country vaccinated by 28 February, but aims to reach 40%, or 560mn people, by the end of June.



#### Rating of countries' vaccine roll-out (as of 4 March 2020):

Between 0% and 1% of the total population have received at least one Covid-19 vaccine dose Between 1% and 10% of the total population have received at least one Covid-19 vaccine dose More than 10% of the total population have received at least one Covid-19 vaccine dose

	Vaccination strategy	Current state of vaccine roll-out	Procurement
Israel	Initially targeted at health care workers and those over 60, Israel is now targeting youth 16-18 and adults over 40.	Israel has the highest vaccination rate in the world. More than 8mn doses have been administered (96% of population), of which more than 4.81mn are second dose (55.6% of population)	<b>Pfizer</b> – Israel is administering the Pfizer vaccine, in exchange for giving Pfizer extensive patient data. <b>Moderna</b> – Israel plans to vaccinate about 130,000 Palestinian workers with the Moderna vaccine.
UAE	Priorities vary by Emirate, but they generally emphasize the elderly, the medically compromised and health care and frontline workers.	As of 27 Feb, about 6mn shots have been administered – more than 60% of total population. Dubai has emphasized the Pfizer vaccine, Abu Dhabi the Sinopharm vaccine.	Sinopharm and Pfizer/BioNTech are the two approved vaccines.
Chile	Target to vaccinate 5mn people (ca. 26% of population) by end-Q1/2021 and 15mn people (80% of population) by end H1/2021. Medical workers first to receive vaccinations, to be followed by elderly in care homes; over 65s; key workers in public bureaucracy; people with other co- morbidities.	Pfizer vaccinations started in late Dec but mass campaign using Sinovac vaccine started 3 Feb. 3.59mn people (18.8% of population) vaccinated as of 3 Mar; second dose roll-out to commence 3 Mar.	Pfizer – agreement for 10mn doses; Sinovac – agreement for 60mn doses over three years; AstraZeneca (AZ) – agreement for 14.4mn doses. COVAX – agreement for 8mn doses. Local regulatory approval for J&J vaccine reported to be imminent following US FDA emergency approval. Talks ongoing with Russia's Gamaleya Institute (Sputnik V).
Greece	Currently vaccinating people aged 60-64 and 75+, as well as health workers. Next groups to receive the vaccine will be 70-74 and around 200,000 Greeks in high-risk category. More than 700,000 appointments have already been booked for Mar and, according to projections, Greece is on course for 70% immunity by November.	As of 3 Mar, Greece had vaccinated 991,409 people (9.2% of population), which is roughly one point above the EU average. Of those vaccinated so far, 348,191 have received both doses. The average daily vaccination rate over the previous week was 27,483. Greek authorities expect to surpass 1.5mn vaccinations by end Mar.	Greece is bound to the EU's procurement process and is using the Pfizer, AZ and Moderna jabs. By end Mar, it expects to have received 1.4mn total from Pfizer, 740,000 from AZ (only for under 65s) and 240,000 from Moderna.
Poland	Vaccination carried out in four stages (0-3). Most medical and administrative staff in healthcare have been vaccinated (stage 0). As of early Mar, vaccination focuses on residents and employees of care homes, teachers, elderly aged 60+; uniformed services (stage 1).	Vaccination started on 27 Dec. As of 3 Mar, 2.25mn residents (5.9% of population) have received a first jab and 1.2mn (3.1% of population) got both shots. Target – 3mn fully vaccinated residents in Q1.	Procurement exclusively via the EU. Expected delivery of 6.7mn doses from <b>AZ</b> (1.2mn), <b>Moderna</b> (744,000), <b>Pfizer</b> (4.8mn) in Q1. The government is considering procurement of China's <b>Sinopharm</b> vaccine. Overall, around 100mn doses contracted. As of 3 Mar, 4.5mn doses delivered.
Hungary	Most of medical staff and care home residents/staff have been vaccinated. Vaccination of the elderly aged 60+ years, uniformed services, public servants and people aged 18-59 years with chronic illnesses are the main targets groups now. Government starting to prioritize giving first vaccination shots (instead of saving vaccines for the second shot) due to the rising Covid-19 cases	Vaccination started on 26 Dec. As of 3 Mar, 758,037 people (7.8% of population) have received a first jab and 253,368 (2.6%) got both shots. The pace of vaccination is accelerating due to the availability of the China's Sinopharm and Russia's Sputnik V vaccines.	Procurement contracts and deliveries as of 2 Mar via the EU's joint mechanism: AZ – 6.5mn doses (244.300 delivered) Moderna – 1.7mn doses (80,400 delivered) Pfizer – 10.9mn doses (888,405 delivered) CureVac – 500,000 doses J&J – 2.2mn doses National-level procurement: Sputnik V – 2mn doses (325,600 delivered)
			<b>Sinopharm</b> – 5mn doses (550,000 delivered)

	Vaccination strategy	Current state of vaccine roll-out	Procurement
Turkey	Vaccination program divided into four stages, starting with medical personnel, pharmacy workers and the elderly; followed by security forces, teachers, those working in food industry, over 50 age group, those with chronic illness and rest of adult population.	Vaccine roll-out started on 13 Jan with China's Sinovac. As of 1 Mar, 6,966,509 people (8.3% of population) have received a first dose – of whom 1,789,741 (2.17% of population) have received two doses. Government currently has insufficient vaccine supplies to provide a second dose to those who have received the first one.	Sinovac – approved by regulator and roll- out started; agreement for 50mn doses, of which 13mn had been delivered by 1 Mar, but unclear when further deliveries will arrive. Pfizer/BioNTech – agreement for purchase of 4.5mn doses, delivery due end March. Turkey has not joined COVAX.
Singapore	Currently, healthcare and frontline workers nominated by their employers are eligible for vaccination. Appointment slots are being rolled out for seniors above 70 years old. Subsequent priority groups will be notified by mail.	As of 1 Mar, 525,039 people have been vaccinated (8.97% of population), with 207,324 of them (3.5%) having received the second dose. Moderna vaccinations will start in March.	Government has concluded agreements with three suppliers, with undisclosed quantities: <b>Pfizer</b> , <b>Moderna</b> and <b>Arcturus</b> .
Czech Republic	Priority is given to frontline medical staff, followed by care home residents and employees; elderly (first over 80s, then over 65s); people with chronic illnesses; rescue workers.	Vaccination started on 27 Dec. As of 3 Mar, 455,510 people (4.2% of population) have received a first jab and 246,513 (2.3%) got both shots. The number of vaccinations averaged around 100,000 per week in the second half of Feb.	So far, procurement conducted exclusively via the EU. <b>Pfizer and Moderna</b> – 12mn doses (440,000 due in Feb) <b>AZ</b> – 3mn doses (130,000 due in Feb) <b>J&amp;J</b> – 2mn doses <b>CureVac</b> – 1mn doses. As of 3 Mar, 89% of immunizations carried out with Pfizer- BioNTech vaccine. The government is considering procurement of Russia's <b>Sputnik V</b> vaccine.
China	Chinese authorities have prioritized vaccine diplomacy over domestic supply but aim to vaccinate 49% of population, or 560mn people, by the end of June.	As of 28 Feb, 52.5mn doses have been administered – 3.65% of population.	Government has approved four domestic vaccines; Sinopharm Beijing, Sinopharm Wuhan, CanSino Biologics, and Sinovac Biotech.
Russia	Vaccination available to all citizens. Immunization target: 68.6mn people (20mn in Q1). Priority groups: 1) medical staff, teachers/lecturers, residents and staff of care institutions, citizens with chronic illnesses; 2) uniformed services, transport and energy sector employees, volunteers; service workers; 3) civil servants, students, people subject to conscription.	Vaccination started in early Dec. Ministry of Health estimates that around 4.0mn citizens (2.7% of total population) have received the first dose as of 26 Feb.	Russia relies solely on its own <b>Sputnik V</b> vaccine. Two more domestic vaccines - <b>EpiVac</b> and <b>CoviVac</b> have been approved by the country's regulators, but their production volumes are low. As of 20 Feb, around 11.1mn doses (mostly <b>Sputnik V</b> ) have been produced.
Brazil	Phase 1: health workers; indigenous communities in demarcated territories; over 60s in care institutions; over 75s. Phase 2: 60-74s seniors. Phase 3: persons with comorbidities. Phase 4: education workers, homeless population, security and rescue forces, others.	Around 6.5mn people received the first dose of immunization while other 2mn already received both. In total, around 4% of Brazil's total population have been immunized (8.5mn).	<ul> <li>AZ – 12.9mn doses expected to be delivered to the federal government in Mar, 100.4mn by July, 210.4mn by yearend.</li> <li>CoronaVac – 2.7mn doses expected to be distributed in early Mar by São Paulo state health institute Butantan.</li> <li>Sputnik V – emergency use rejected but local production in course. Health Ministry announce purchase of 10mn doses.</li> <li>India's Covaxin – purchase of 20mn doses but Brazil's health regulator approval yet to come.</li> <li>COVAX – minimum 10% of population quota (42mn) doses. WHO to provide 10-14mn doses that will be distributed from mid-Feb to June.</li> </ul>

	Vaccination strategy	Current state of vaccine roll-out	Procurement
Argentina	Health sector personnel first in line for vaccine, to be followed in descending order by over 70s; over 60s; security personnel; vulnerable and at-risk in 18-59 age range; education sector; and strategic or vulnerable groups (e.g. prisoners).	Sputnik V vaccinations started on 29 Dec. As of 28 Feb, 1.73mn doses have been distributed around the country, though only 1.04mn of these have been administered. 2.25% of the population have received at least one dose of a Covid-19 vaccine.	Sputnik V – approved by regulator and roll-out started; agreement for 30mn doses, deliveries significantly behind schedule. AZ– approved by regulator; first delivery of 580,000 doses manufactured in India now in-country. Contract for 23.6mn doses. Sinopharm – 1mn doses arrived late-Feb; distribution pending. COVAX – original agreement for 9mn doses downgraded to 2.2mn doses; expected to arrive Mar/Apr.
Saudi Arabia	Phase 1 of roll-out will prioritize those over 65, and phase 2 those over 50.	Vaccinations reportedly started in Dec. The roll-out appears to have slowed after fewer than 2% of the population was vaccinated.	<b>Pfizer-BioNTech</b> – only vaccine officially approved for administration; <b>Sputnik V</b> – government has secured an unknown number of doses.
Mexico	Frontline medical workers first in line followed by the over 60s by age cohort; plan to vaccinate all this sector by end-April. Plan is to vaccinate up to 35% of population by June. Plan likely subject to alteration given slow start and supply difficulties.	Vaccinations started 24 Dec. Roll-out stalled mid-Jan to mid-Feb but has since resumed with new vaccines from wider array of suppliers. 2.45mn doses so far administered as of 28 Feb, with 1.9% of population having received at least one dose.	AZ – agreement for 77.4mn doses, with 870,000 delivered in Feb. Pfizer – 34mn doses ordered, 4.1mn of which to arrive in March. CanSino – 35mn doses agreed. Sputnik V – agreement for 24mn doses, though only 200,000 doses have arrived so far. Covax – 51.5mn doses agreed with first deliveries totaling 1.6mn doses expected Mar; Sinovac – 1mn doses arrived in Feb with additional 3mn expected in Mar.
India	Even as the vaccination of 30mn frontline health, sanitation and security personnel continues, the second phase – involving those above 60 and those above 45 with comorbidities - began from 1 Mar.	Vaccine roll-out started on 16 Jan. As of 2 Mar, 15.62mn people have been vaccinated – 1.13% of total population. Only 2.7mn have received the second jab – 0.2% of population. Government aims to vaccinate 300mn people by end-Aug. At this slow rate, it would take three years to vaccinate the initial target group.	Two vaccines have received emergency approval: <b>AZ</b> vaccine (known in India as Covishield), and India-produced <b>Covaxin</b> . Four more vaccines – including Russia's <b>Sputnik V</b> – could be available soon. Phase 3 trials of Sputnik V are conducted in India.
Indonesia	Frontline healthcare workers estimated at 1.3mn will be first, followed by security personnel, then teachers of 17mn; working age 15 – 59 will be vaccinated ahead of the elderly. Vaccines procured by central government and distributed; free, not mandatory.	Second phase of vaccination has started, focusing on the elderly and the active workforce. As of 3 Mar, 3.02mn (1.11% of population) have been vaccinated. Production of additional doses domestically are also commencing; private sector importation has been approved.	Sinovac – 125mn doses; Novavax – 50mn doses; COVAX initiative – 50mn doses; AZ – 50mn doses
Peru	Phase 1 to focus on medical and other frontline emergency personnel, including election staff (given proximity of national elections). Phase 2 to focus on over 60s, those with co-morbidities, and indigenous population. Caretaker government wants 10mn people vaccinated by 28 July when handover to new government is scheduled.	Vaccinations using Sinopharm vaccine started 9 Feb. As of 1 Mar, 291,264 doses have been administered accounting for 0.88% of population. Nov 2020 political crisis interrupted procurement process but caretaker government has accelerated negotiations in recent weeks.	Sinopharm – contract for 38mn doses, 1mn of which have arrived. AZ – agreement for 14.4mn doses to arrive in Sep. Pfizer-BioNTech – agreement for 20mn doses, 25% of which to arrive by June. Covax – agreement for 13.2mn doses but timing of arrival unclear. Ongoing talks with J&J (5mn doses), Russia's Gamaleya Institute (for 10mn Sputnik V doses), and CureVac.

	Vaccination strategy	Current state of vaccine roll-out	Procurement
Colombia	Plan is to vaccinate 68% of the population (34mn people) by end-2021. Medical personnel first in line, to be followed by elderly and clinically vulnerable. Target is to vaccinate 6.5mn people by end-April, and 26mn by end-July. Roll-out will be based on network of 3,000 vaccination centers.	Vaccination campaign started on 17 Feb following arrival of first batch of 50,000 Pfizer vaccines on 15 Feb. As of 3 Mar, 169,619 doses administered (0.33% of population). Government remains under fire for slow start to vaccination campaign.	<ul> <li>Pfizer – obtained regulatory approval early Jan; agreement for 10mn doses, of which 1.7mn to arrive by early March;</li> <li>AZ – 10mn doses agreed; delivery to start Feb;</li> <li>J&amp;J – agreement for 9mn doses;</li> <li>Sinovac – agreement for 2.5mn doses.</li> <li>Moderna – agreement for 10mn doses but arrival not expected until mid-2021.</li> <li>COVAX – agreement for 20mn doses.</li> </ul>
Egypt	Medical staff treating Covid-19 patients are being vaccinated. Will move on to vulnerable populations.	Vaccinations of medical staff began in late Jan, but numbers are low and staff is resistant to non-Western vaccines.	COVAX – agreement for 20mn doses of AZ vaccine. Sinopharm – agreement for 40mn doses; 350,000 reportedly received. Pfizer – contracts reportedly signed for 20mn AZ – agreement for 30mn doses Sputnik V – 25mn have been secured.
Kenya	Kenya hopes to inoculate about 20% of population in 2021. Priority to be given to frontline medical workers, essential workers (police, teachers, students), workers in hospitality sector, people with comorbidities and those aged 50+.	First COVAX vaccine doses arrived 2 Mar. Plans to vaccinate 1.25mn people by Jun; 16mn (about 30% of population) by year-end.	Kenya seems heavily reliant on <b>COVAX</b> . Additional vaccines expected from <b>AZ</b> , <b>Pfizer, J&amp;J</b> and African Union's African Vaccine Acquisition Task Team ( <b>AVATT</b> ).
South Korea	First doses will be distributed to medical workers and elderly. Government has signed preapproval agreements for enough doses to vaccinate entire population.	Vaccinations of frontline workers and vulnerable populations began on 26 Feb, with AZ vaccine distributed to medical workers and under-65 residents of long-term care facilities. As of 3 Mar, 87,428 doses have been administered – 0.17% of population. Distribution of Pfizer doses received from COVAX to medical workers began on 27 Feb. Delays in delivery of vaccines could mean a slower pace in the first quarter.	Government was slow to conclude purchasing agreements, believing it could wait due to low case numbers. AZ: 20mn doses; Pfizer-BioNTech: 20mn doses; Moderna: 40mn doses; Janssen: 6mn doses; COVAX: 20mn doses.
Malaysia	Frontline medical workers, police and army officials will be prioritized in vaccine roll-out to run from March to April. The second phase from April to August will involve senior citizens, high-risk groups with co-morbidities and the disabled.	Pfizer-BioNtech vaccines have arrived and the initial symbolic vaccinations have been given with the public vaccination to start on 5 Mar.	AZ – 6.4mn doses via COVAX facility and another 6.4mn contracted directly; Pfizer- BioNTech – 25mn doses secured. Final negotiations with China's Sinovac for 14mn doses, CanSino Biologics Inc. for 3.5mn, and Russia's Sputnik V for 6.4mn.
Nigeria	Vaccination targets: 40% of population in 2021, 70% by end-2022. Healthcare personnel; people over 50; people with underlying health conditions to be prioritized. Most heavily affected states will be prioritized in allocation of doses.	First batch (3.9mn doses) of AZ vaccine supplied by COVAX arrived 2 Mar; start of vaccination campaign imminent.	20% of vaccines supposed to be supplied through the <b>COVAX</b> initiative. Government expects total of 58mn vaccine doses from COVAX (16mn) and the African Vaccine Acquisition Task Team (AVATT, 42mn). Government also expressed interest in procuring <b>Sputnik V</b> and/or <b>Sinovac/Sinopharm</b> vaccines.
Pakistan	Those above 65 and frontline workers being vaccinated first. Only 180,000 of the country's 8mn people above 65 have registered for the vaccination, making it only 2.25% of the population.	0.5mn doses of China's <b>Sinopharm</b> arrived on 1 Feb. Roll-out of <b>AZ</b> vaccine could start in March. 2.8mn AZ doses from COVAX are to roll in. 17.1mn doses to come in by Jun.	Emergency use permission given to <b>AZ</b> , <b>Sinopharm</b> and <b>CanSino</b> . Both Chinese vaccines currently undergoing clinical trials. Four more vaccines in the pipeline.

	Vaccination strategy	Current state of vaccine roll-out	Procurement
Philippines	Vaccine roll-out will prioritize healthcare workers; workers in education, social welfare agencies; law enforcement and military personnel; the poor; senior citizens; other vulnerable population.	Vaccinations started on 1 Mar using China's Sinovac for around 600,000 doses. Some Pfizer vaccines may arrive in March/April. Bulk of vaccinations will be using AZ and Sinovac, but only in the second quarter.	Sinovac will donate 600,000 vaccines in late February. 2.6mn doses of AZ procured for Q2 delivery; Pfizer- BioNTech in Q1/2021. Local governments are procuring on their own. Other vaccines such as Moderna and Novavax are being negotiated and could be available by Jun or Jul.
South Africa	Ambitious plans to vaccinate 40mn South Africans in 2021. Phase 1: ca. 1.2mn frontline health workers; Phase 2: ca. 16mn essential workers, people in institutions (care homes), people above 60, people with comorbidities; Phase 3: ca. 22.5mn remaining adult population.	Limited, trial-based roll-out started on 17 Feb after South Africa pivoted from AZ to J&J vaccine over vaccine efficacy concerns against variant B.1.351 (501Y.V2).	Procurement lagging but up to 50mn doses in pipeline. <b>Covax</b> – 12mn vaccine doses <b>AZ</b> – 1.5mn, use suspended <b>J&amp;J</b> – 11mn (2.8mn expected in Q2) <b>Pfizer</b> – 20mn (starting Q2) <b>African Vaccine Acquisition Task Team</b> – ca. 12mn
Taiwan	First phase (1mn people): health care personnel; essential workers; nursing home staff; military; social welfare workers.	Vaccinations expected to begin in Mar.	20mn doses ordered: <b>AZ</b> – 10mn doses and 5mn additional AZ doses expected through <b>COVAX</b> . <b>Moderna</b> – 5mn doses, but delivery dates are unclear.
Thailand	In the first phase, the priority will be the elderly, frontline healthcare and social workers and those with co-morbidities. The second phase will focus on provinces with the highest Covid incidences.	Sinovac vaccinations started on 1 Mar and will continue with about 2.2mn doses until domestic bulk production of licensed AZ vaccine becomes available by Apr.	Sinovac – 2mn AZ – 61mn (imported and local joint venture)

© 2021 Teneo. All rights reserved. This material was produced by Teneo for use solely by the recipient. This communication is intended as general background research and is not intended to constitute advice on any particular commercial investment or trade matter or issue and should not be relied upon for such purposes. The views expressed here represent opinions as of this date and are subject to change without notice. The information has been obtained from sources believed to be reliable but no guarantees can be given as to its accuracy, completeness or reliability. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic or otherwise, without the prior consent of Teneo.