



1 st Virtual Meeting for Epidemiology Network for West Eurasia Region, 9 June 2022

Summary on information sharing Survey on vaccination against Foot-and-Mouth Disease West Eurasia 2021-2022

Satenik Kharatyan
NC of EuFMD in Armenia
EPINET leader

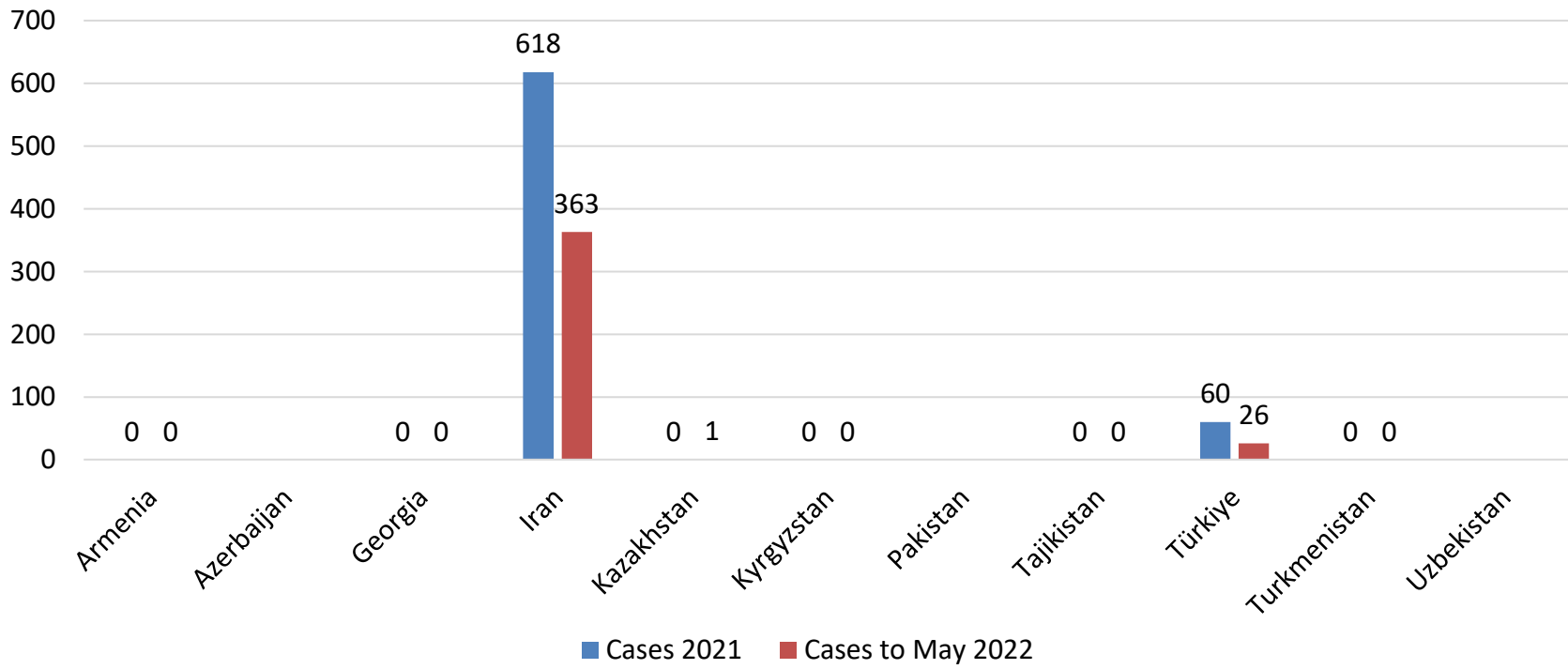


Vaccination questionnaires' context

- Responses from 8/11 countries
- Were there cases of FMD notified in 2021-2022 – 3/8 countries
- Which type (s) of FMD-virus were involved – A, O, Asia1 (Iran) & O (Türkiye and Kazakhstan)
- Which months of the year are most outbreaks are reported? – January and February (Iran); January (Kazakhstan) and March (Türkiye).



Number of cases of FMD 2021 & 2022





FMD National vaccination strategy

- Compulsory vaccination strategy
- 7/8 countries for cattle; 6/8 countries for SR; 1/8 country for swine
- Vaccination of SR in Kyrgyzstan is not carried out.

On request of owner 3 /8 for cattle, 3/7 for SR

- Vaccination campaign
 - 1 country 3x/yr (Iran)
 - 7 countries 2x/yr
 - Türkiye - 2x/year

7/8 countries for SR,

4 countries once/yr;

3 countries 2x/yr,

- Emergency vaccination (outbreak response)–
8/8 countries for LR and SR



Vaccination practicalities

Who vaccinates?

Owner	-
Local private vet	4
Local state vet	7
Vet from national state service	1

Who pay?

Owner all	1
State all	4
Cost sharing	3

Funds cover the production or purchase of vaccine

the national budget	8
international donors or projects	-



Composition of the vaccine used in each species (serotype, and strain)

Vaccine name	Aphtpasol, Aftovac, Aftocaxpur, Ronak, Razi, Turvac Oill (Tetravalan, Bialan)
Supplier	ARRIAH/Russia; Sholkovo/Russia, Agrovvet/Russia Vetal; Pasouk, Ronak, Bohringer Ingelhim, Razi Inst., Sap Inst.
Species applied	LR ; SR; Swine
3PD	6 PD ₅₀ ; ≥6 PD ₅₀
Strain (s)	A Iran 06; A SAU -2015/GVII; A Sea97 O PanAsia2; O Ind 2001 Asia 1 Sindh 08; Asia1 – Shamir



Have vaccine matching tests been conducted on samples

Country	2021	2022
Iran	1/ WRL Pirbright	
Tajikistan	1/Department of control over veterinary drugs	1
Türkiye	1/SAP Institute	1 /SAP Institute

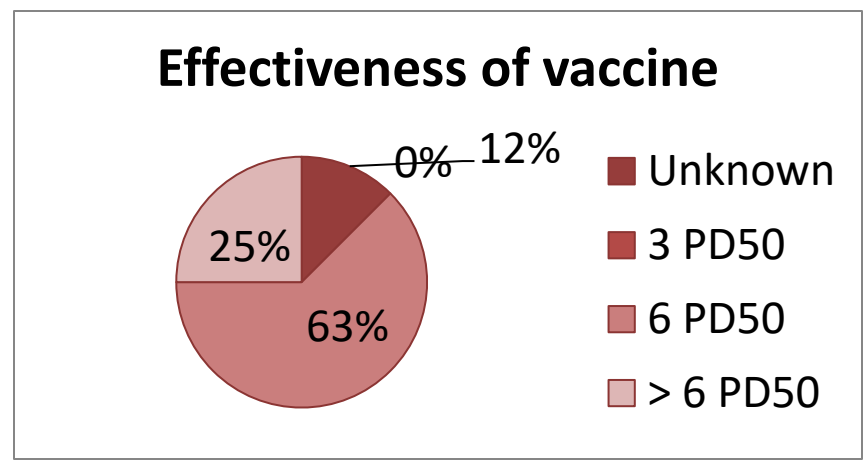
what are the vaccine strains with a R-value > 0.3

Iran	A; O

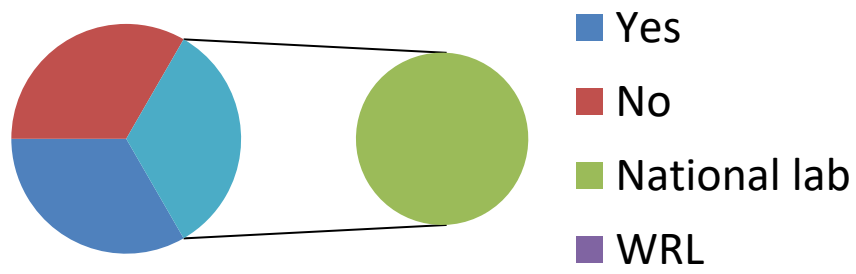


Effectiveness of the vaccine used for immunization

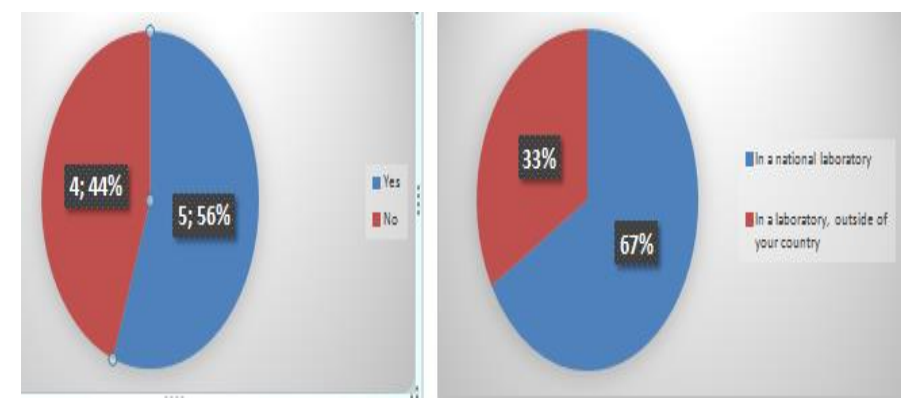
	ARM	AZE	GEO	IRN	KZK	KGZ	TAJ	TKM	TUR
Unknown							-		
3PD50									
6PD50	1		1		1	1		1	
> 6PD50				1					1



Test of the effectiveness of the vaccine before the use of the vaccine in mass...

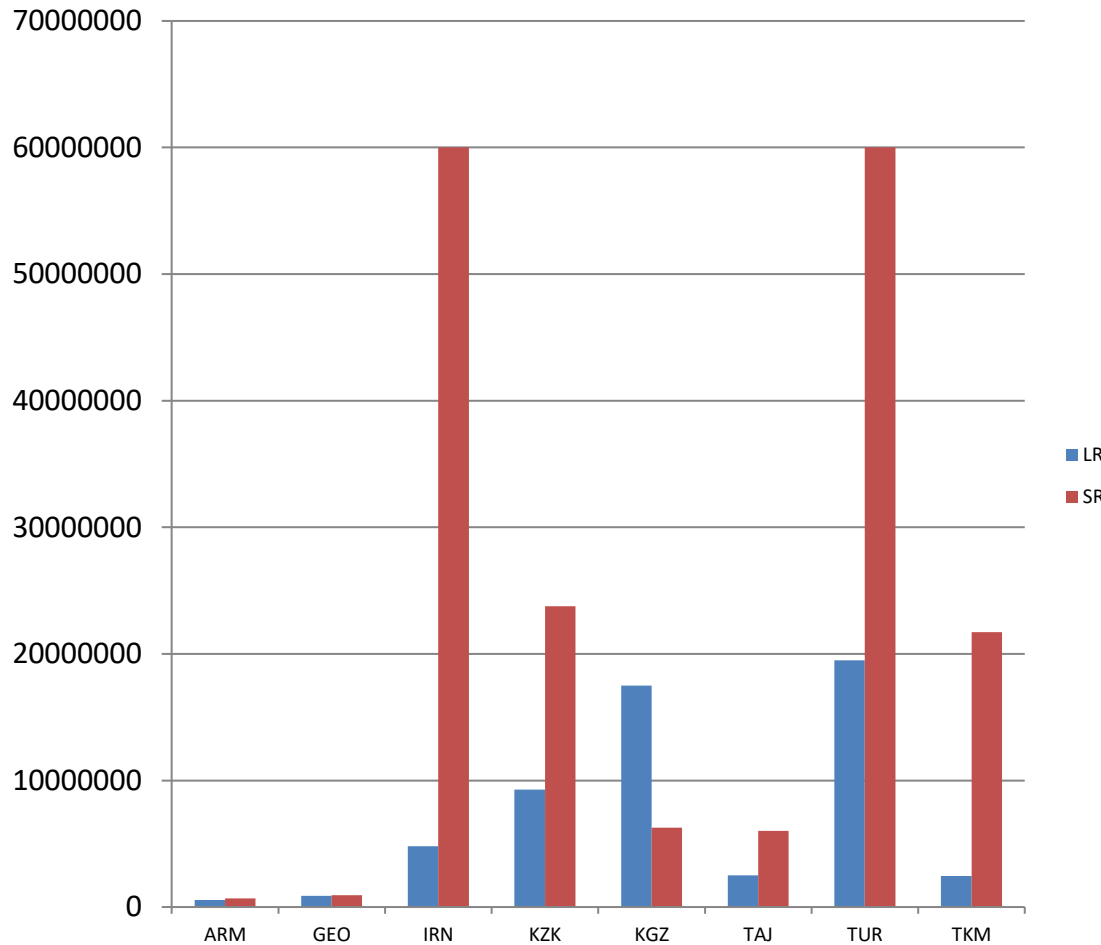


Result for 2019





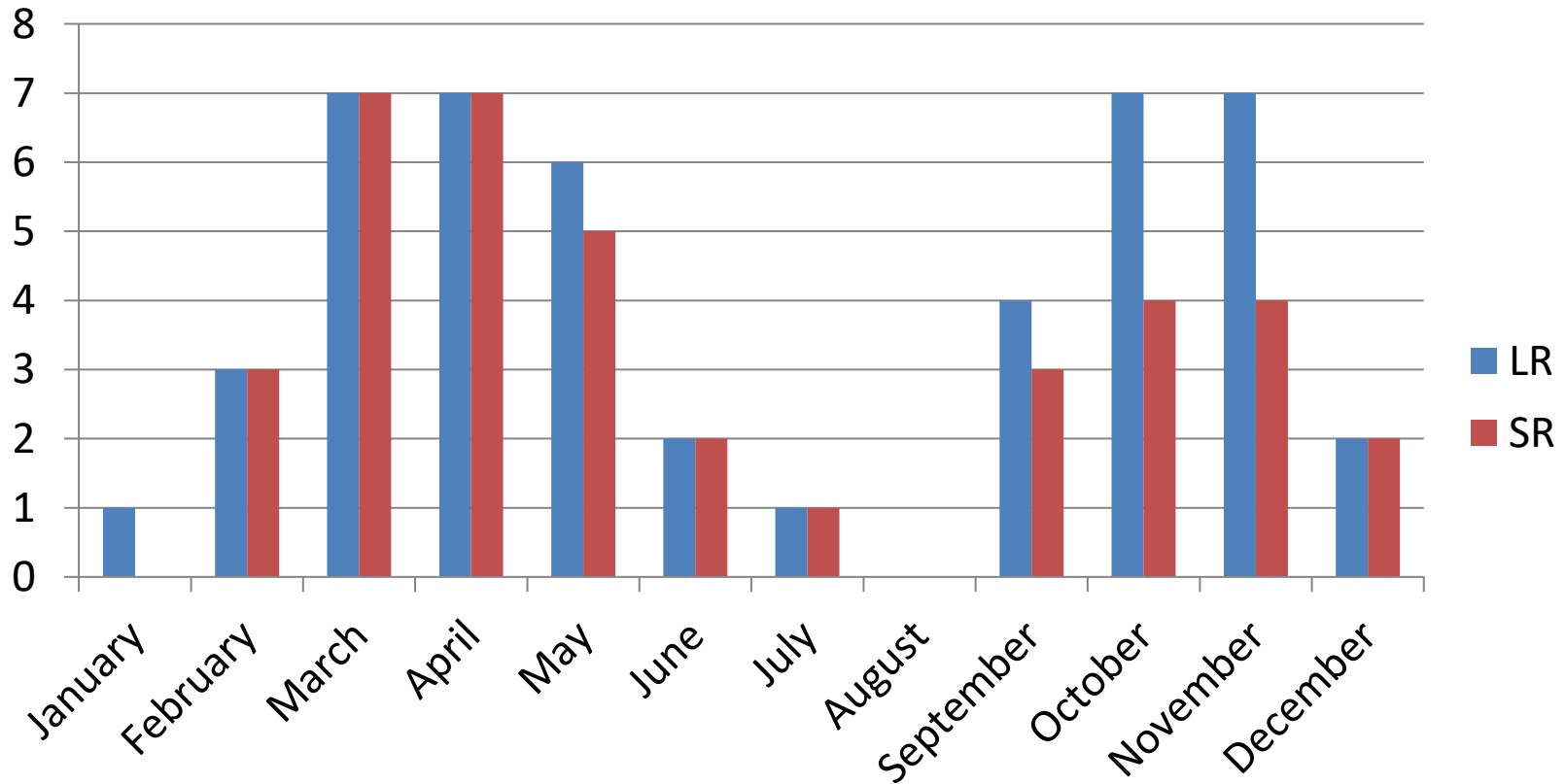
Animal population by species



	Other Animals	horses	camel	buffalo	swine
ARM					124440
IRN			200,000	220000	
KZK	3598251		267768		
KGZ				57204	29508
TAJ				26795	932
TUR				180000	
TKM					7300



Vaccination schedule/vaccination campaign for 2021 and 2022



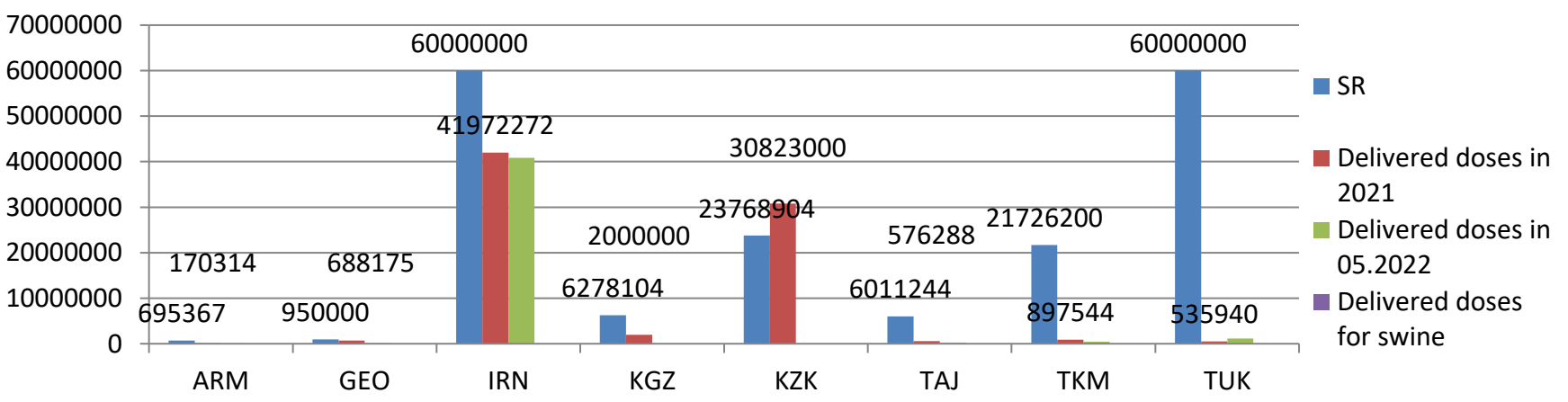
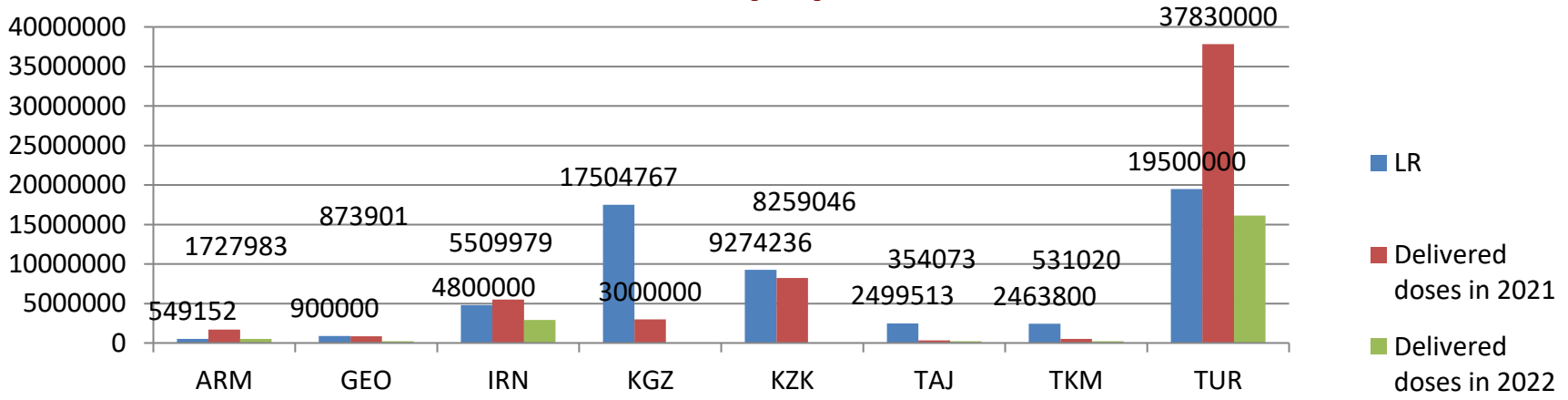


Number of doses delivered in 2021 and 2022

	Cattle		Small ruminants		Swine
	2021	2022	2021	2022	2021
ARM	1.727.983	533.333	170.314	65.621	
GEO	873.901	251.089	688.175	161.600	
IRN	5.509.979	2.942.009	41.972.272	40.869.778	
KZK	8.259.046	-	30.823.000	-	37.000
KGZ	3.000.000		2.000.000		
TAJ	354.073	222.665	576.288	296.832	
TUR	41.905.400 (tetravalent)	16.152.875	1.284.050 (bivalent)	1.136.600	
TKM	531.020	256.939	897.544	453.155	

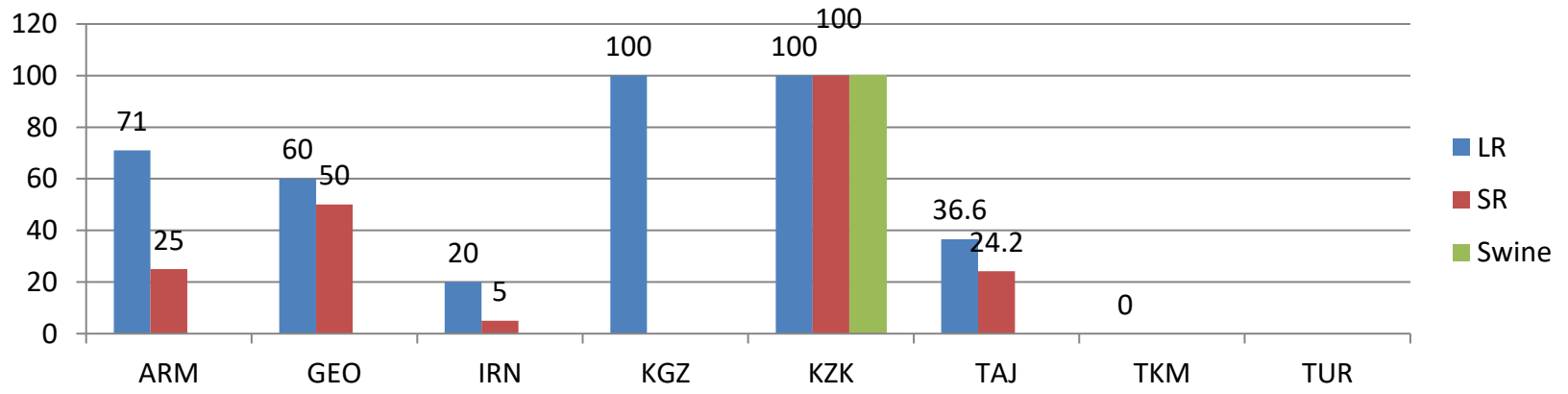


Number of doses delivered in 2021 and 2022 comparison with animal population

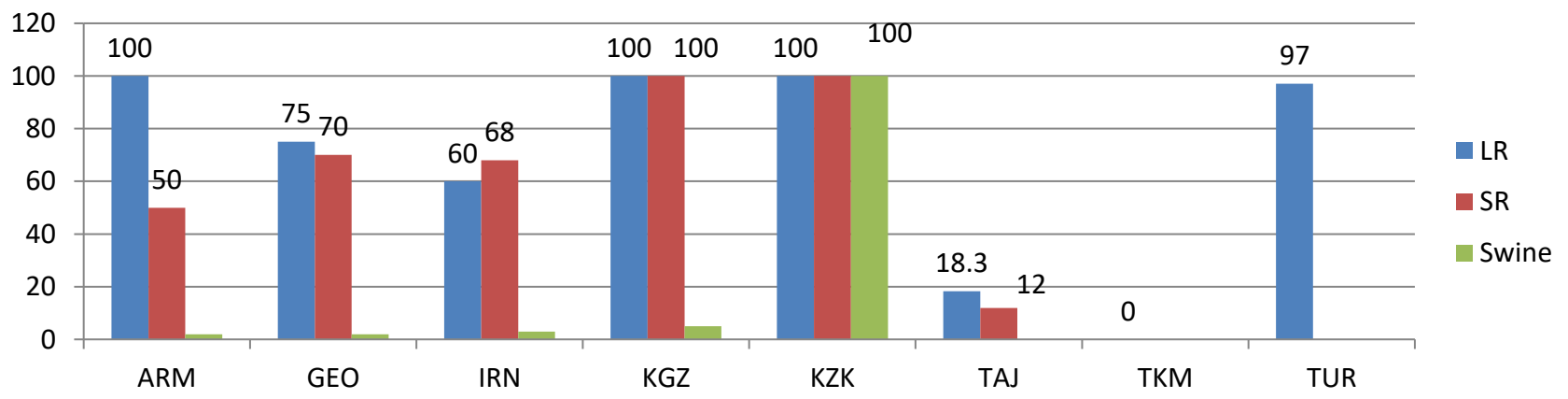




Approximate coverage (in %) of young animals by species in 2021 to achieve a full course of primary vaccination (=revaccination, booster vaccination), as advised by the vaccine producers

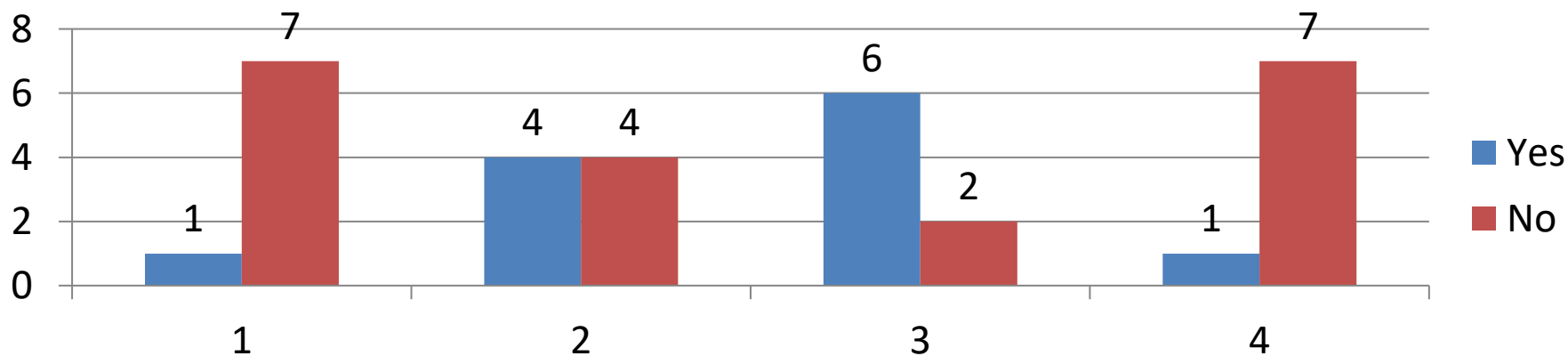


Approximate coverage of vaccination by species in 2021 (# doses applied during campaign vaccination (not including booster doses) divided by # of susceptible animals)





	Yes	No
Do you consider in your vaccination policy the schedule of your neighboring countries ?	1	7
Is there any difference in the vaccination policy applied in different parts of the country?	4	4
Do you have a method in place to determine vaccination program effectiveness?	6	2
Have there been FMD outbreaks in vaccinates (<30 days between vaccination and reported outbreak)	1	7





Diagnostic capacity reference laboratory used

	National	International	Name of lab(s)	Which methods are used?
ARM	V		Reference Laboratory for Especially Dangerous Pathogens of RVSPSCLS SNCO	ELISA, PCR
AZE				
GEO	V		Laboratory of Ministry of Agriculture	ELISA; PCR
IRN	V	V	Iran veterinary organization reference lab ; Pirpright	ELISA-S.N-PCR-sequencing
KZK	V		National Reference Laboratory for Veterinary	ELISA
KGZ	V		Center for Veterinary Diagnostics and Expertise in Bishkek and Osh	ELISA/PCR/CFR/LFD
PAK				
TAJ	V		National Center for Food Security Diagnostics	ELISA/PCR
TUR	V		ŞAP INSTITUTE	ELISA/ PCR
TKM	V		Central Veterinary Laboratories	PCR, ELISA
UZB				



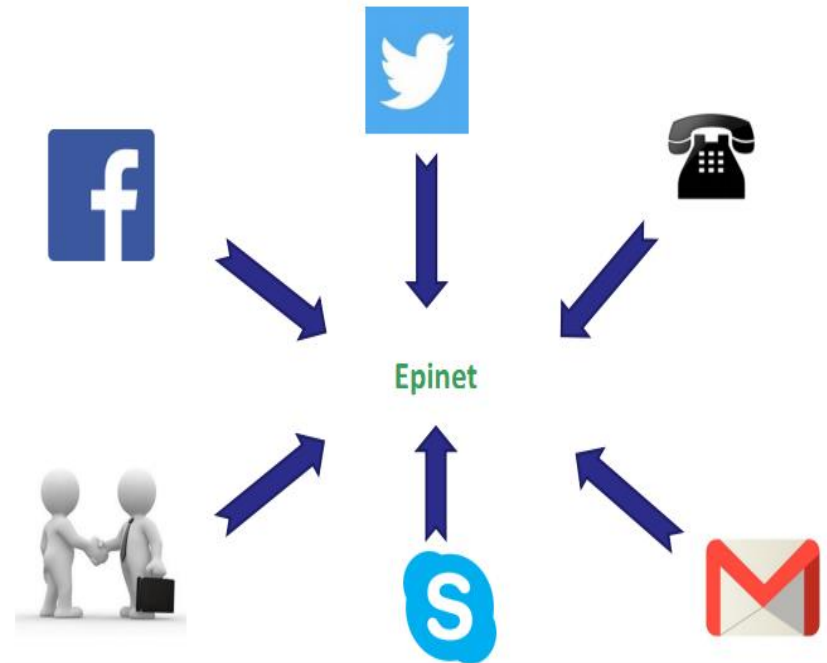
Is the vaccination program against FMD planned for 2022-2026.?

ARM	The same calendar, vaccine, and species as 2021.
AZE	-
GEO	The same calendar, vaccine, and species 2022 - 2026
IRN	Cattle: twice a year; Small ruminants: twice a year ; Vaccine type: trivalent vaccine, >6PD50 ; Vaccination campaign will implemented for full protection
KZK	The same calendar, vaccine, and species as 2021
KGZ	According to the plan of anti-epizootic measures for 2022, vaccination against foot-and-mouth disease of cattle is provided
PAK	
TAJ	Every year, an Action Plan for anti-epizootic measures is developed and approved, where it is planned to vaccinate FMD in cattle and SR, and according to this plan, vaccination is carried out
TUR	The same calendar, vaccine, and species as 2021.
TKM	The same schedule as in 2021 and the same cover species
UZB	



PCP stage in WEA

	current PCP stage	planning to progress next stage	Required support
ARM	PCP 2	PCP 3 – 2022-2023	Support on formulation and updating of OCP.
GEO	PCP 3	PCP 4 – 2022-2023 (At least in candidate region)	Simulation exercises, recommendation in implementation of OCP
IRN	PCP 2	PCP 3 – 2025	Yes, need support
KZK	PCP 5	-	N/A
KGZ	PCP 3	PCP 4 – 2023	Veterinary specialists need to be trained to complete applications for OIE approval of official programs and formal recognition by the OIE of disease statuses
TAJ	PCP 2	-	We are counting on funds from the State budget, and attracting investments from foreign donors in the fight against this especially dangerous disease. Other technical and advisory support is also needed.
TUR	PCP 2 ; PCP 4	PCP 3 -2024 (Anatolia); PCP 5 – 2027 (Thrace)	No need - We are pleased to share our knowledge and experience to West Eurasia nations.
TKM	PCP 1	PCP 2 – 2022-2023	Assistance from international experts in the development and preparation of a national strategic plan for FMD control



Thank you for your attention!

**Questions?
Suggestions!**