**FÉDÉRATION INTERNATIONALE DE GYMNASTIQUE**

2023 World Championships – Antwerp (BEL) Men's Technical Committee Report

By Mr. Arturs MICKEVICS, President Men's Technical Committee

1. PARTICIPATION IN QUALIFICATIONS

60 National Federations (NFs) participated↑

(Arrow ↑↓ shows numbers compared to the 2022 World Championships in Liverpool (GBR))

PARTICIPATION BY CONTINENTS
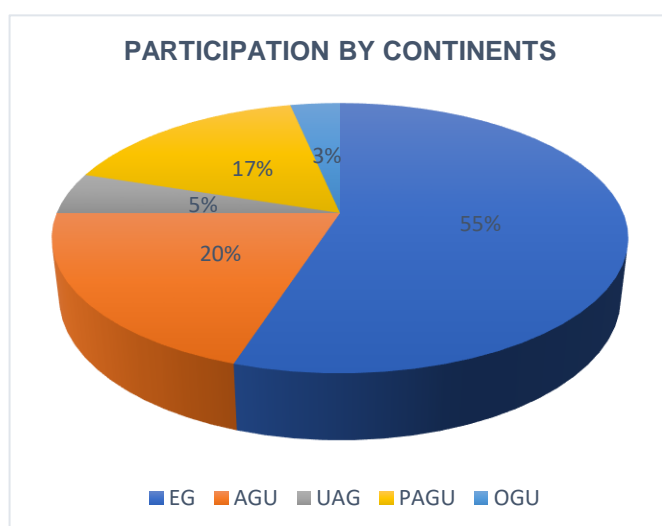
Continental union	NF	%
EG	*33↑ (29)*	*55,0*
AGU	*12↑ (11)*	*20,0*
UAG	*3=*	*5,0*
PAGU	*10=*	*16,67*
OGU	*2=*	*3,33*
	60↑ (55)	

From 60 participating NFs

24 competed as a Team

3 competed with 5 gymnasts.

1 competed with 4 gymnasts.

6 competed with 3 gymnasts.

13 competed with 2 gymnasts.

13 competed with 1 gymnast.

2. TOTAL 197 GYMNASTS PARTICIPATED *187 in Liverpool*

GYMNASTS PER APPARATUS:
Floor – 140↑ 132
Pommel Horse – 140↑ 138
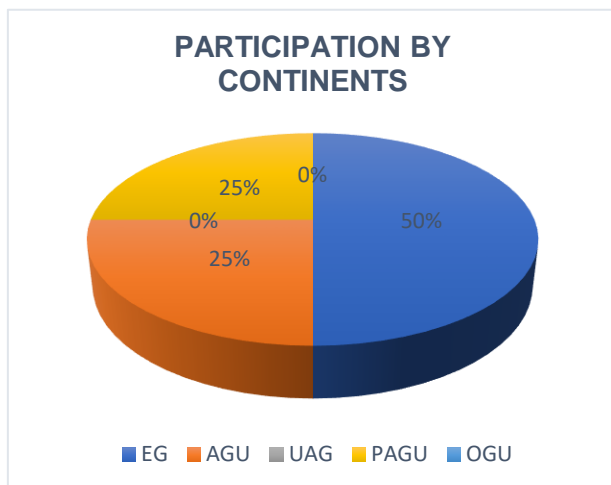*Rings – 137 128*
Vault – 30 (141) ↑27 (133)
Parallel Bars – 140↑ 139
High Bar – 141↑ 138

Continental union	№ of participants	%
EG	*116 ↑ 113*	*58,9*
AGU	*38 ↑ 35*	*19,3*
UAG	*8 ↑ 7*	*4,05*
PAGU	*28↑ 25*	*14,2*
OGU	*7=*	*3,55*
	197↑ 187	

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3. PARTICIPATION IN THE TEAM FINAL

PARTICIPATION BY CONTINENTS

Continental union	№ of teams	%
EG	4↑3	**50,0**
AGU	2↓3	**25,0**
UAG	**0**	**0**
PAGU	2=	**25,0**
OGU	**0**	**0**
	8	

4. COMPARISON CONTINENTS BY RANKING IN THE TEAM FINAL
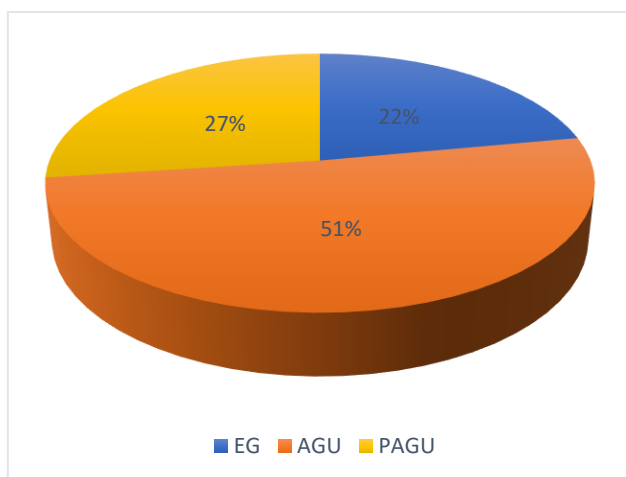
	EG	*AGU*	*PAGU*
1		*JPN (8)*	
2		*CHN (7)*	
3			*USA (6)*
4	*GBR (5)*		
5	*SUI (4)*		
6	*GER (3)*		
7			*CAN (2)*
8	*ITA (1)*		
$\overline{X}$	**3,25**	**7,5**	**4**

5. PARTICIPATION IN ALL-AROUND QUALIFICATIONS

91 athletes participated in All-Around Qualifications 86 in Liverpool.

PARTICIPATION BY CONTINENTS
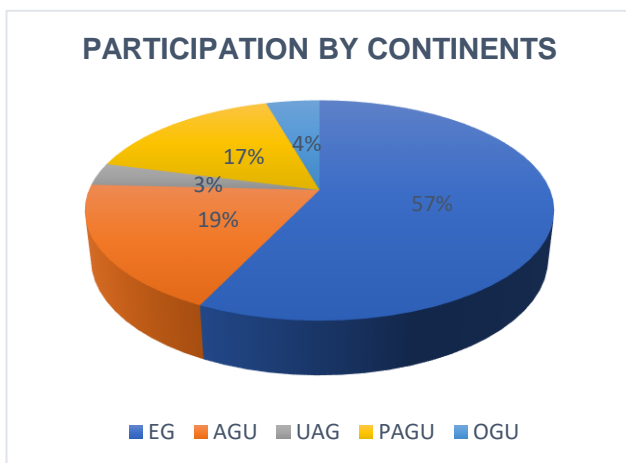
Continental union	№ of gymnasts	%
EG	52=	**57,1**
AGU	17 ↑15	**18,7**
UAG	3=	**3,3**
PAGU	15 ↑14	**16,5**
OGU	4↑2	**4,4**
	91↑86	

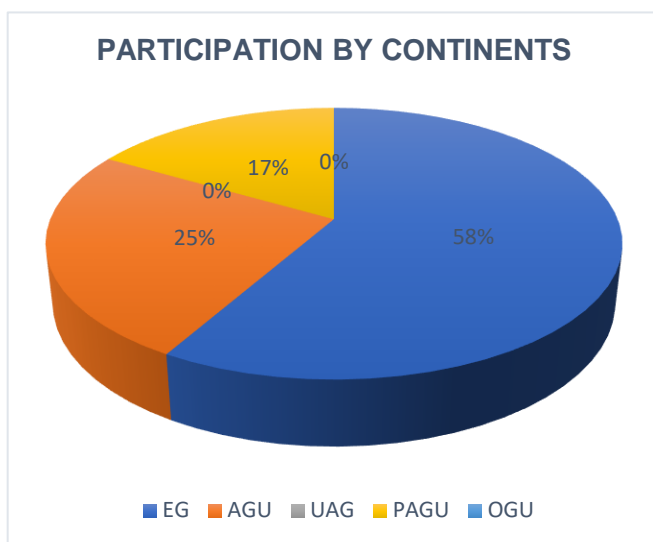# FÉDÉRATION INTERNATIONALE DE GYMNASTIQUE

6. PARTICIPATION IN ALL-AROUND FINAL
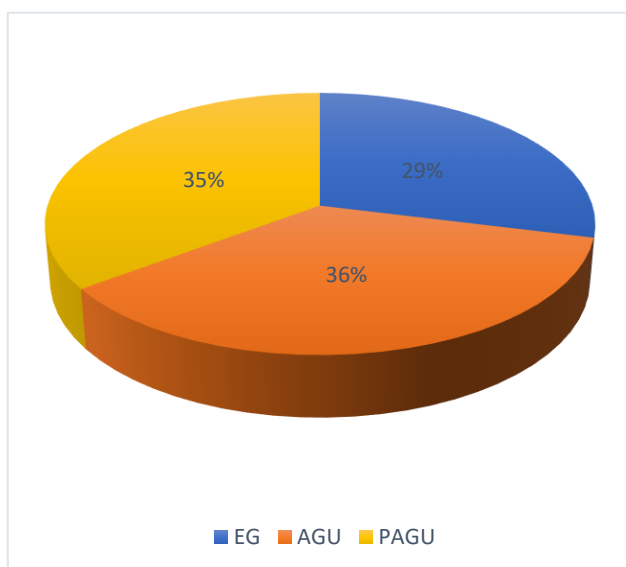
5 NF s competed with 2 gymnasts: GBR, ITA, JPN, SUI, USA
14 NF s competed with 1 gymnast: BEL, BRA, CAN, CHN, ESP, GER, HUN, ISR, KAZ,
*   KOR, NED, TUR, UKR, UZB*

Total NF s – 19 ↑17 in Liverpool.

PARTICIPATION BY CONTINENTS

Continental union	№ of the gymnasts	%
EG	14=	58,3
AGU	6 ↑5	25,0
UAG	0	0
PAGU	4 ↓5	16,7
OGU	0	0
	24	

7. COMPARISON CONTINENTS BY RANKING IN ALL-AROUND FINAL

	EG	AGU	PAGU
1		JPN (24)	
2	UKR (23)		
3			USA (22)
4		JPN (21)	
5		KAZ (20)	
6	ITA (19)		
7		CHN (18)	
8	SUI (17)		
9	GBR (16)		
10			BRA (15)
11	HUN (14)		
12			CAN (13)
13-24	9 NF (72)	2 NF (3)	1 NF (6)
$\overline{X}$	11,5	14,33	14

8. PARTICIPATION IN APPARATUS FINALS

3 NF competed in 4 finals: GBR, JPN, USA
2 NF s competed in 3 finals: ARM, CHN
*4 NF s competed in 2 finals: CAN, GER, KAZ, UKR*
12 NF s competed in 1 final: AUT, AZE, CRO, BRA, BUL, GRE, ITA, IRL, ISR, JOR, PHI, TPE.

Total NF s – 21↓ - 22 in Liverpool

9. MEDAL DISTRIBUTION BY PARTICIPATING NFs

NF	Gold	Silver	Bronze	Total
JPN	3	1	1	5
CHN	1	2	2	5
GER	1			1
GBR	1			1
IRL	1			1
ISR	1			1
USA		2	2	4
UKR		1	1	2
CRO		1		1
GRE		1		1
JOR			1	1
KAZ			1	1

10. MEDAL DISTRIBUTION BY CONTINENTS

	Gold	Silver	Bronze	Total
EG	4	3	1	8
AGU	4	3	5	12
PAGU	0	2	2	4

FÉDÉRATION INTERNATIONALE DE GYMNASTIQUE
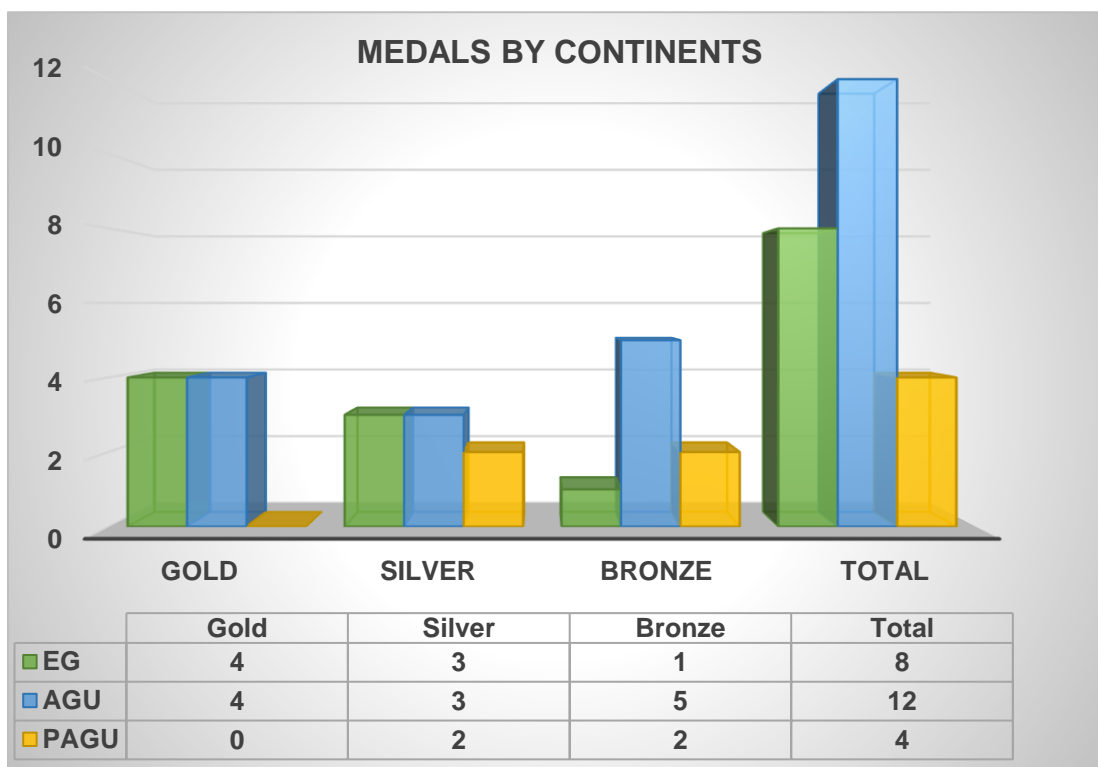
11. AGE OF THE GYMNASTS

Total 197 gymnasts competed.
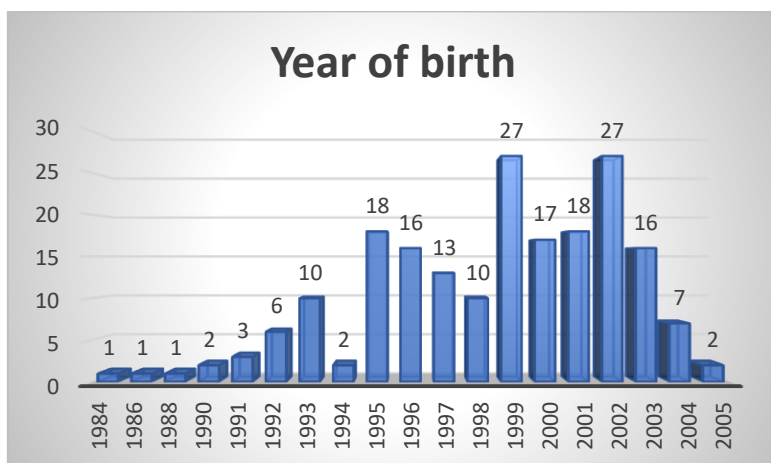
Year of birth

Youngest – Radomir STELMAKH UKR 18,1 y.o.
Oldest – Harutyun MERDINYAN ARM 39,1 y.o.

Average age – 24,8 y.o.

Year of birth	№ of gymnasts	%
1984	1	0,50
1986	1	0,50
1988	1	0,50
1990	2	1,01
1991	3	1,52
1992	6	3,04
1993	10	5,07
1994	2	1,01
1995	18	9,13
1996	16	8,12
1997	13	6,59
1998	10	5,07
1999	27	13,70
2000	17	8,62
2001	18	9,13
2002	27	13,70
2003	16	8,12
2004	7	3,55
2005	2	1,01

Total of 26 gymnasts won medals 28 in Liverpool.
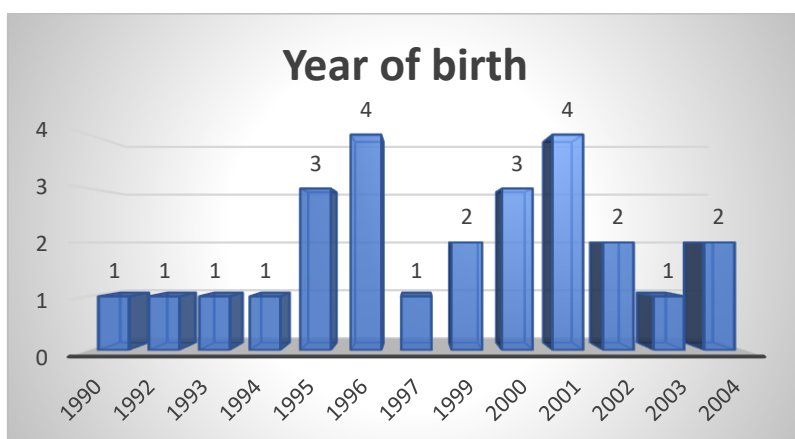
Year of birth

Year of birth	№ of gymnasts	%
1990	1	3,85
1992	1	3,85
1993	1	3,85
1994	1	3,85
1995	3	11,54
1996	4	15,38
1997	1	3,85
1999	2	7,69
2000	3	11,54
2001	4	15,58
2002	2	7,69
2003	1	3,85
2004	2	7,69

Youngest –Frederick RICHARD USA 19,4 y.o
Oldest – Eleftherios PETROUNIAS GRE 32,8 y. o.

Average age – 25,1 y.o.

12. LEVEL OF PERFORMANCE
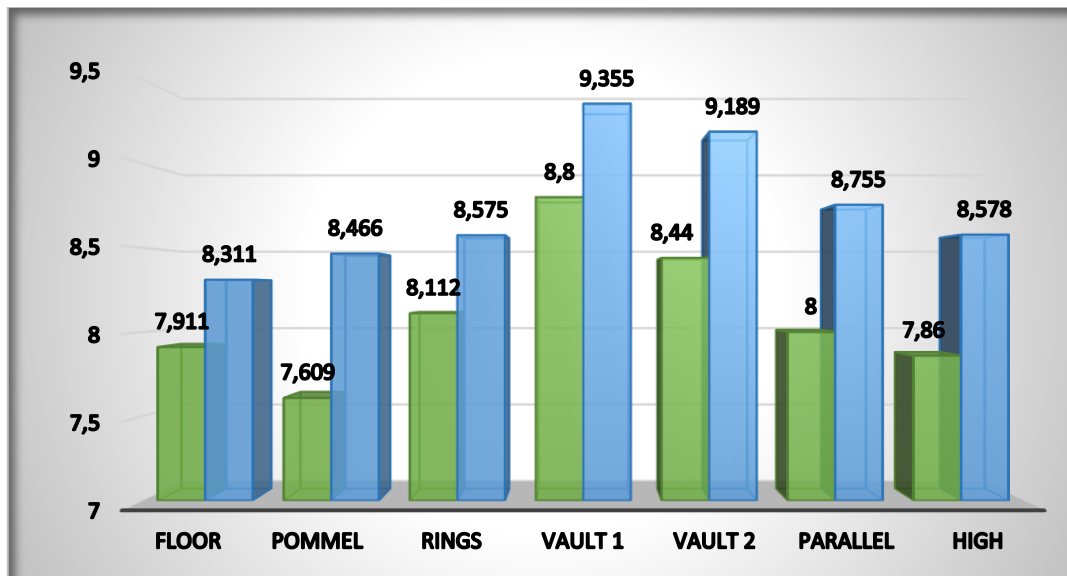
Comparison of average final score in Qualifications
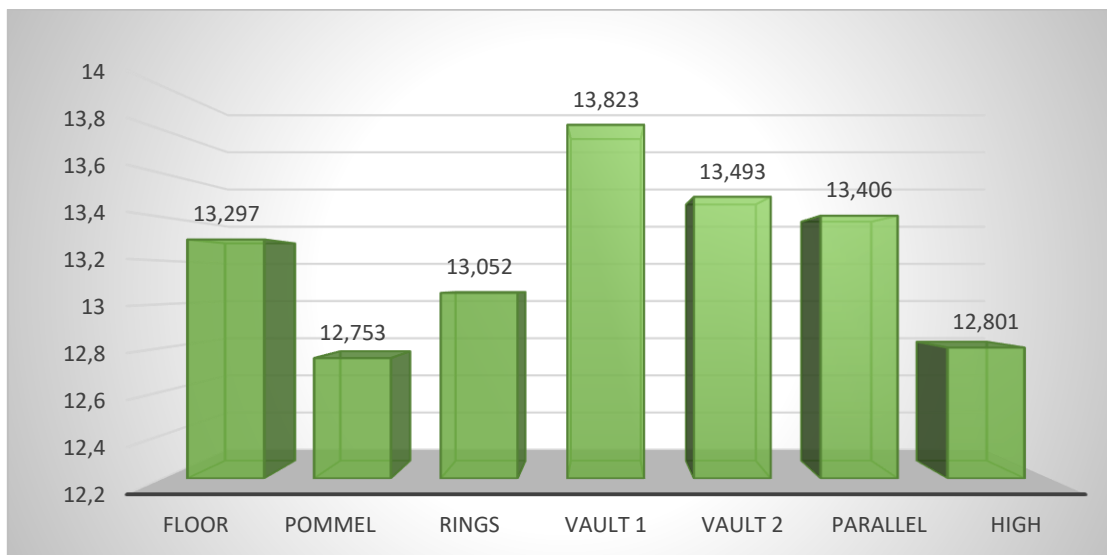
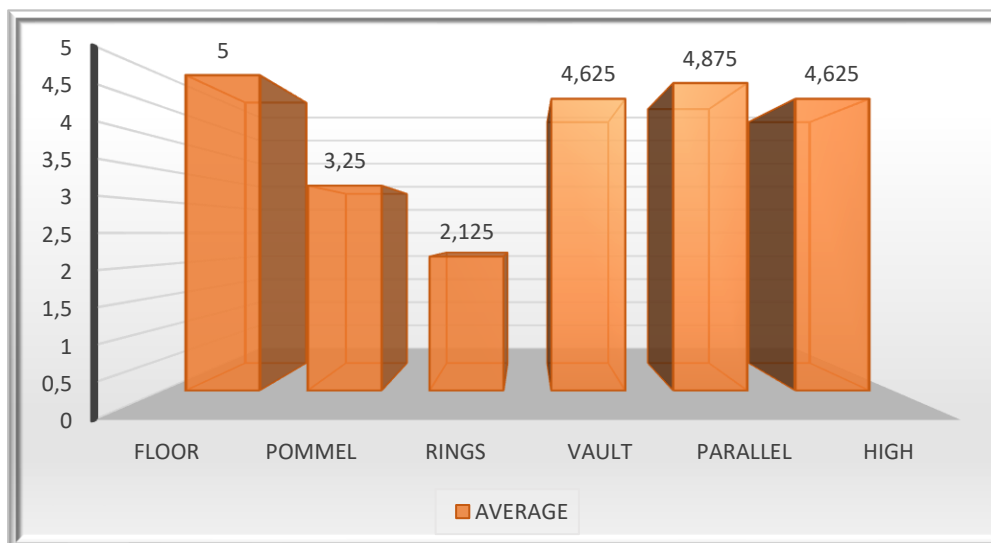*Comparison of average D score in Qualifications & Apparatus medalists'*
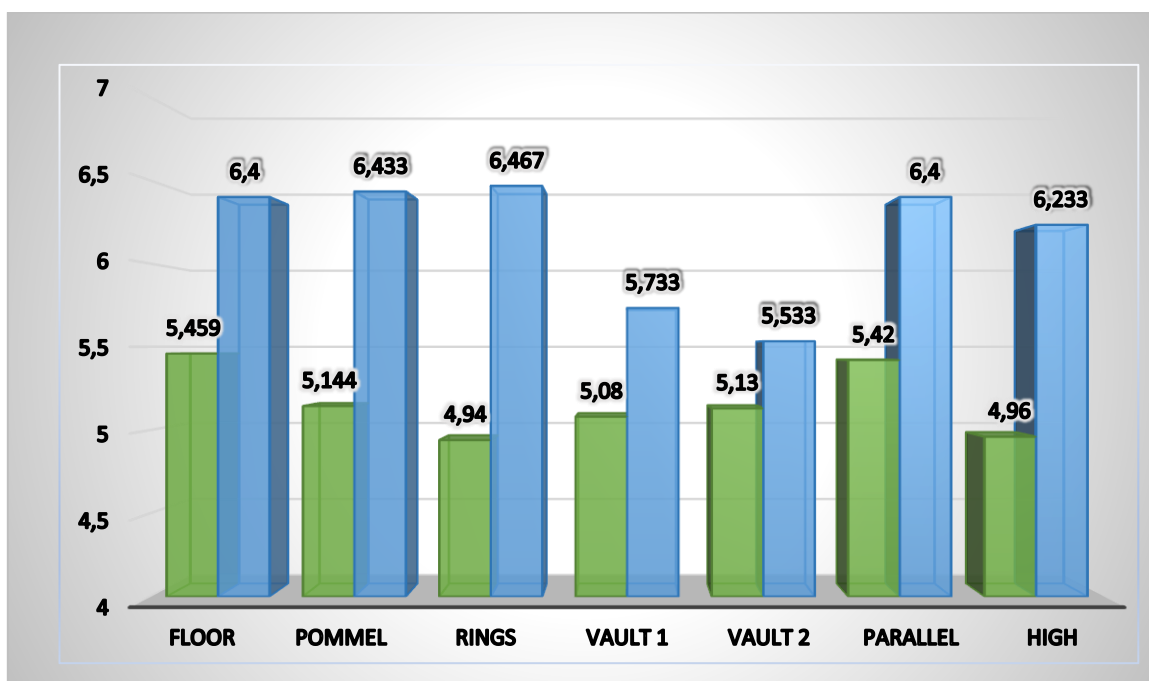
Comparison of average E score in Qualifications& Apparatus medalists'

*Top 8 gymnasts' average N of apparatuses performed during Qualifications.*

*Analyzing average number of apparatuses performed by top 8 gymnasts helps us clarify the "**indicator of specialty**" of a given apparatus, the level of its "remoteness" from all-around gymnastics. As we can see, Rings has the lowest number of performed apparatuses by top 8 gymnasts with an average 2.125 and no-one among all finalists performed 6 apparatuses during the Qualifications.*

The second most specialised apparatus is the Pommel Horse with an average of 3.250 performed apparatuses. Pommel Horse had 2 all-arounders among its finalists. The other apparatuses are to be considered with low indicator of specialty having an average in the range of 4-5 apparatuses. Floor has the highest number of performed apparatuses with an average of 5, the majority of finalists (5) performed all six apparatuses in the qualifications.

Difference between medalists & qualifications average scores
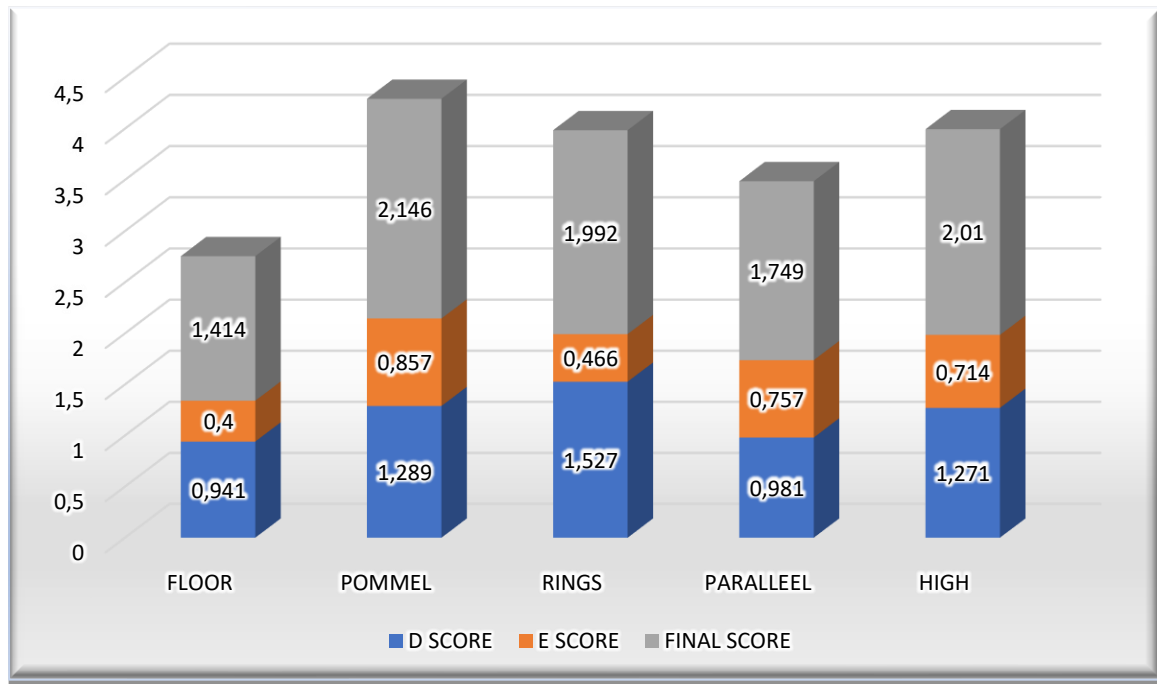
Floor is the apparatus with lowest difference in all three scores between medalists and an average gymnast. That puts floor to be the piece of apparatus that gymnasts on average perform well, thus ensuring denser contest for the final and higher diversity of athletes showing good results and winning medals. An average gymnast should increase E score for just 0.4 and D score for 0.941 in order to be in the medals.

Pommel horse and Rings on contrary are the apparatuses with noticeable separation between medalists and an average gymnast, those have much narrower group of gymnasts contesting for the medals. Pommel horse has the highest final score detachment, both D and E scores need to be way higher than that of an average performance in order to get a medal. Rings though do not get a large difference in E score (only 0.466 from average), thus meaning that an average gymnast performs rings relatively clean, though in order to be in the medals D score should be way higher 1.527 (which is the largest D score detachment among all apparatuses), only those clearly defined specialists can perform such a high D score and contest for the medals.

High bar is an apparatus which also requires substantial improvements of average scores to contest for the medals. D score though differs larger (1.271) from the average in qualification with E score difference (0.714).

Parallel bars offer the second most diverse competition for the medals after Floor with D score differing only (0.981) and E score (0.714). The D score differs almost the same as on floor, though medalists on parallel bars have essentially greater E score, which emphasises their performance level and proficiency above an average gymnast.

Statistics clearly shows that there is no apparatus where only one of the scores should be improved in order to content for the medals. Both E and D scores differ considerably from an average performance on <u>all</u> apparatuses.
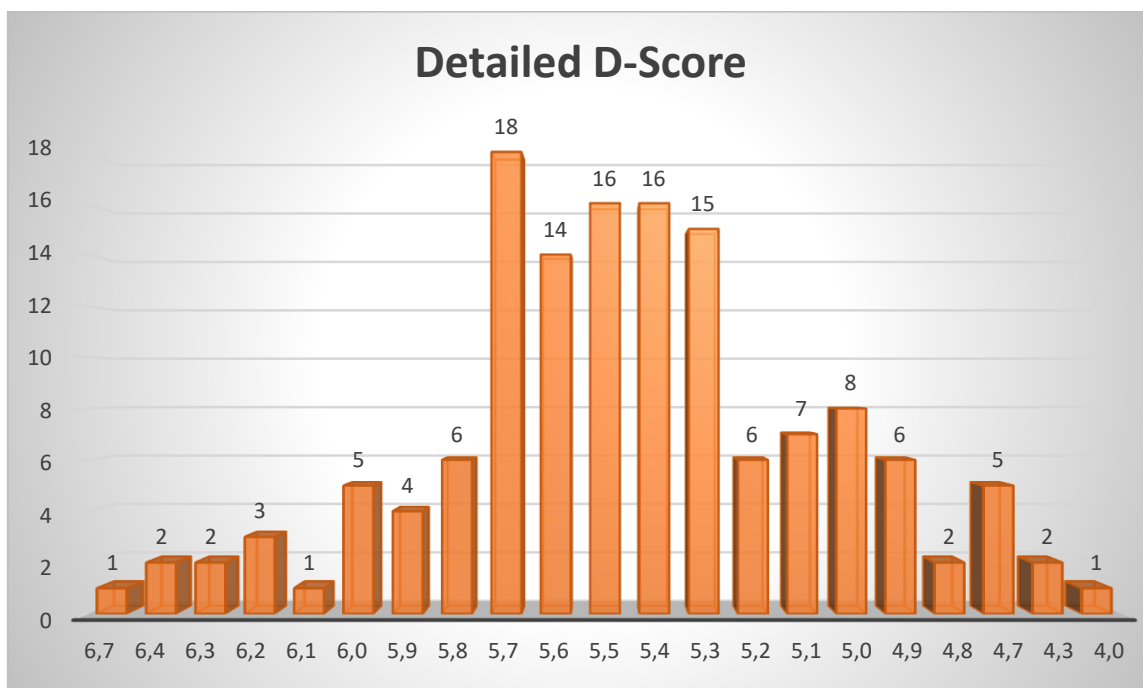
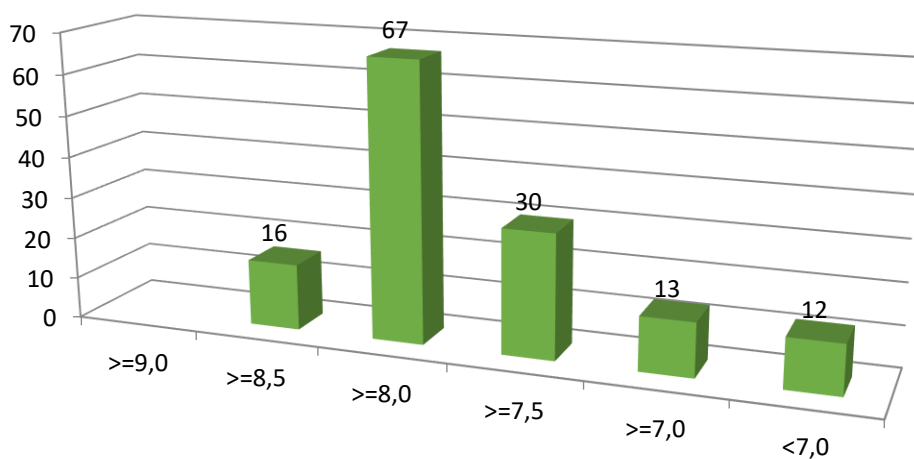### 13. FLOOR

In Qualifications 140 gymnasts competed
Highest score: 15,1 Artem DOLGOPYAT ISR
Highest D score: 6,7 Jake JARMAN GBR
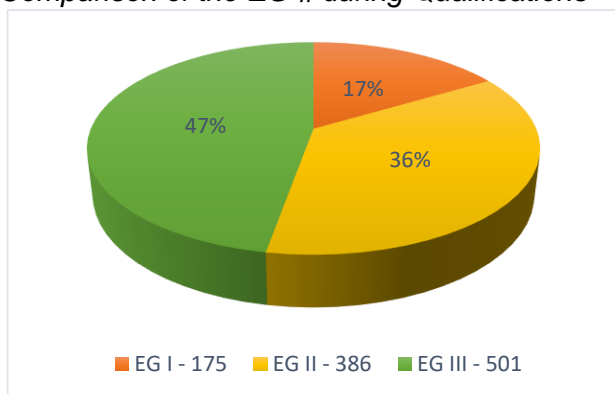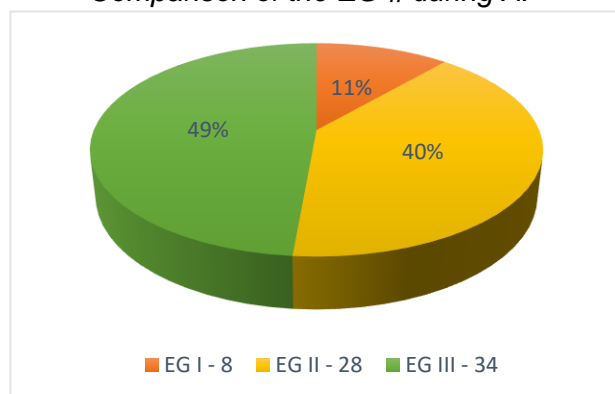*Highest E score: 8,933 Artur DAVTYAN ARM*
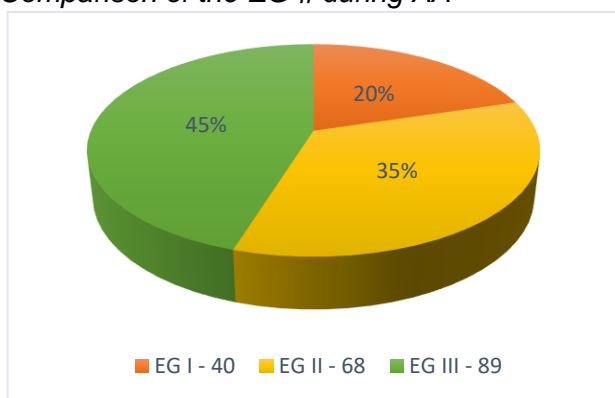

Detailed D-Score

Detailed E score

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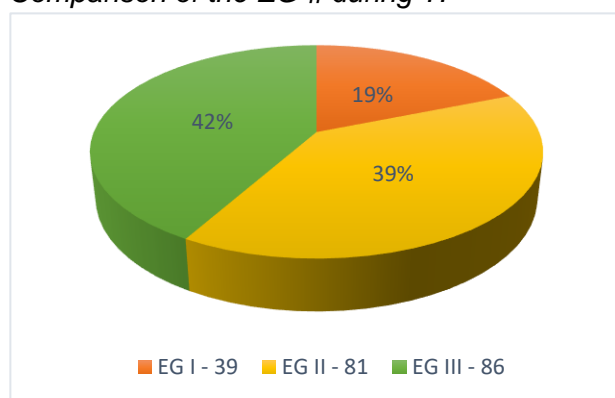*Exercise construction.*

Comparison of the EG # during Qualifications

17%	
47%	36%

■ EG I - 175   ■ EG II - 386   ■ EG III - 501

Comparison of the EG # during AF

11%	
49%	40%

■ EG I - 8   ■ EG II - 28   ■ EG III - 34

Comparison of the EG # during AA

20%	
45%	35%

■ EG I - 40   ■ EG II - 68   ■ EG III - 89

Comparison of the EG # during TF

19%	
42%	39%

■ EG I - 39   ■ EG II - 81   ■ EG III - 86

Dismount:

Performed during Qualifications

137   2   0   0   1

D +   C   B   A   No
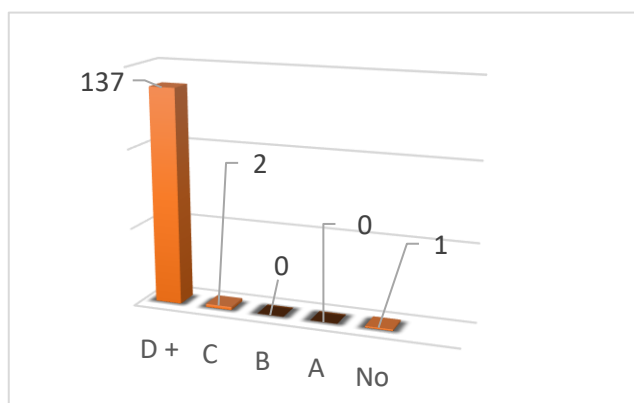
Connections

During Qualifications 130 times gymnasts performed a connection of 0.1,

Connection of 0.2 was performed 11 times.

Blocked scores:

2 times during Team Final

1 time during Apparatus Final

Inquiry:

3 times during Qualifications – accepted.

1 time during Team Final, JPN - accepted.

Falls:

23 times during Qualifications, 36 in Liverpool.

Line deductions (only during Qualifications):

0,1 – 51 times.

0,3 – 17 times.

14. POMMEL HORSE

In Qualifications 140 gymnasts competed

Highest score: 15,266 Max WHITLOCK GBR

Highest D score: 6,8 Max WHITLOCK GBR

Highest E score: 8,6 Harutyun MERDINYAN ARM, CHIBA Kenta JPN, Dmitrijs MICKEVICS LAT, LEE Chih Kai TPE
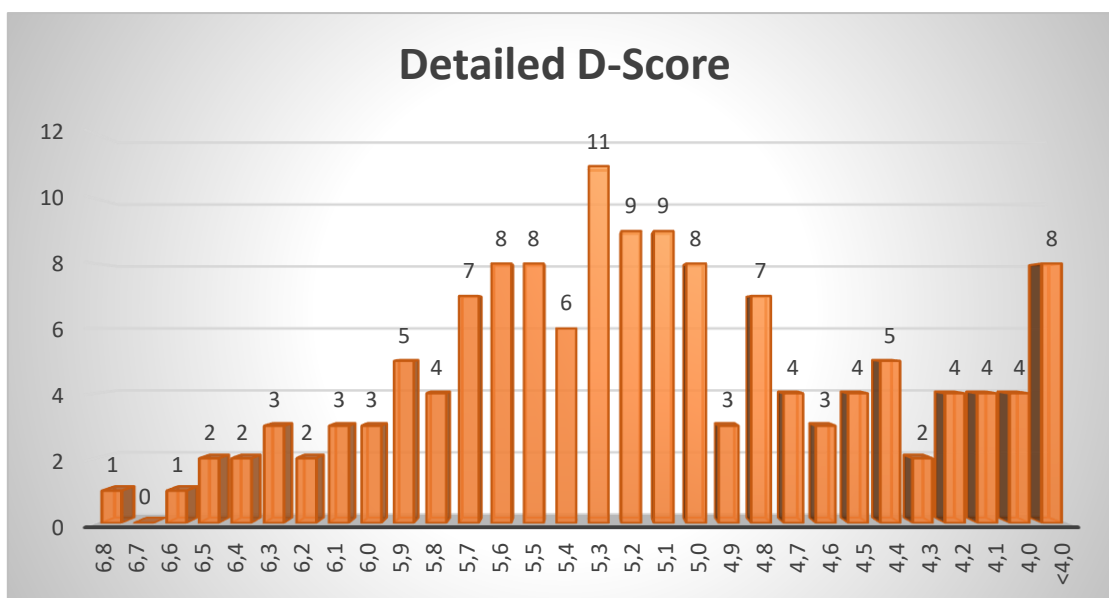
Detailed D-Score
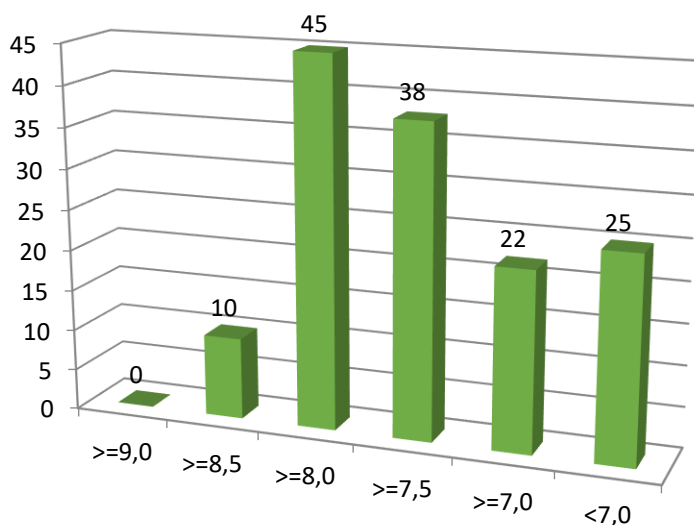
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Detailed E score

Exercise construction.

Comparison of the EG # during Qualifications

EG I - 115　EG II - 288　EG III - 392

Comparison of the EG # during AF

EG I - 8　EG II - 31　EG III - 31

Comparison of the EG # during AA

EG I - 25　EG II - 70　EG III - 66

Comparison of the EG # during TF

EG I - 25　EG II - 65　EG III - 71
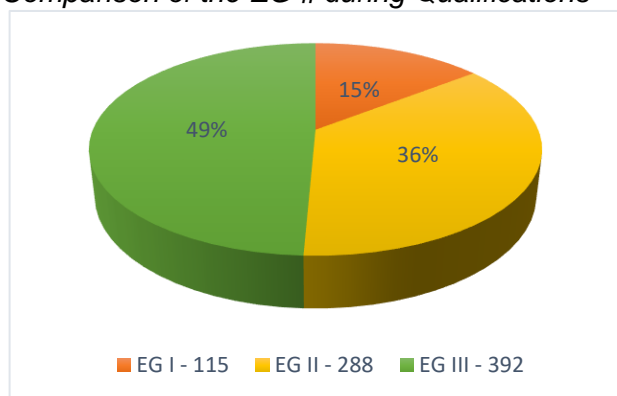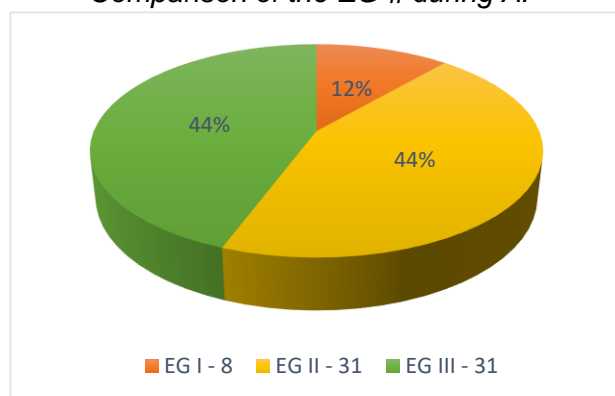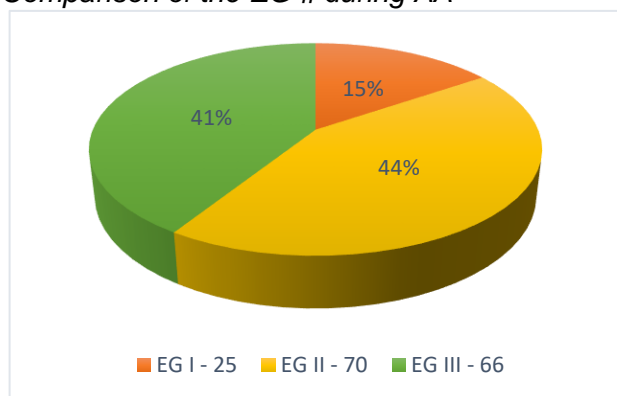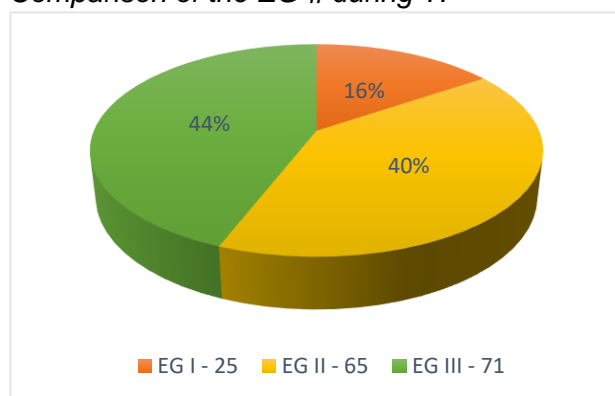
In comparison with Liverpool, gymnasts used more EG III and less EG I.

Main principal of CoP – to use only elements that gymnast can perform with a high degree of aesthetic and technical mastery. Composition of the exercises was revised by many gymnasts in accordance with this rule.

Dismount

Performed during Qualifications
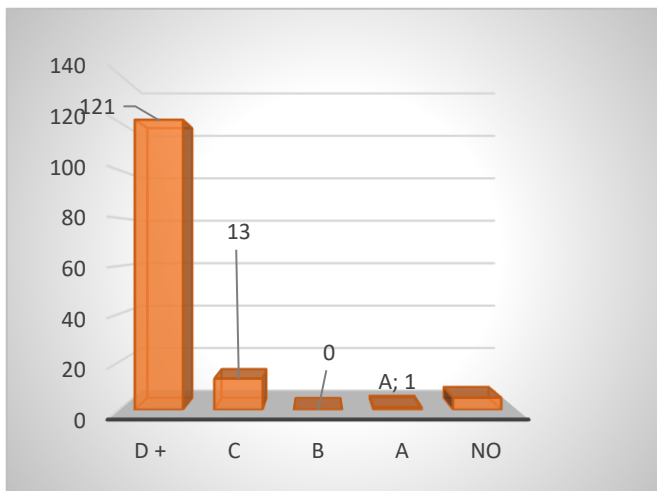
Blocked scores:

3 times during Qualifications

1 time during Team Final

Inquiry:

3 times during Qualifications, 2 – accepted, 1 rejected.

1 time during Team Final, 1 Time during All-Around Final - both rejected.

Falls:

29 times during Qualifications, 40 in Liverpool.

Main goals for the development of Pommel Horse:

Simplification of the judging process – one angular deviation deduction per element.

15. RINGS

In Qualifications, 137 gymnasts competed.

Highest score: 15,200 Yang LIU CHN

Highest D score: 6,5 Hao YOU CHN

Highest E score: 9,066 Patric SAMPAIO BRA
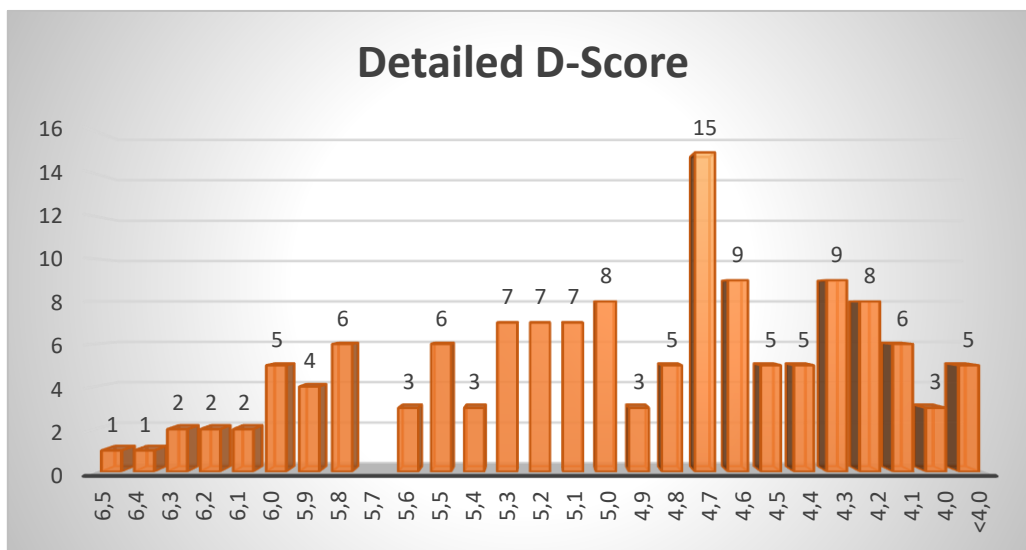
Detailed D-Score

Detailed E score
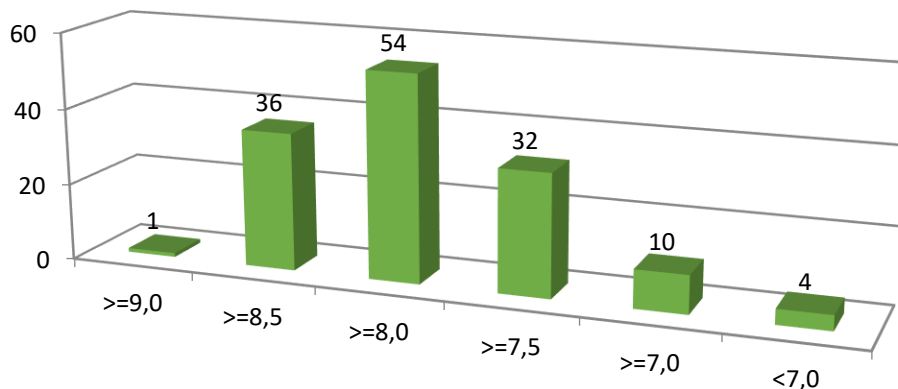
Exercise construction.

During Qualifications:

123 gymnasts performed uprise backward to handstand EG I ↑ 112 in Liverpool.

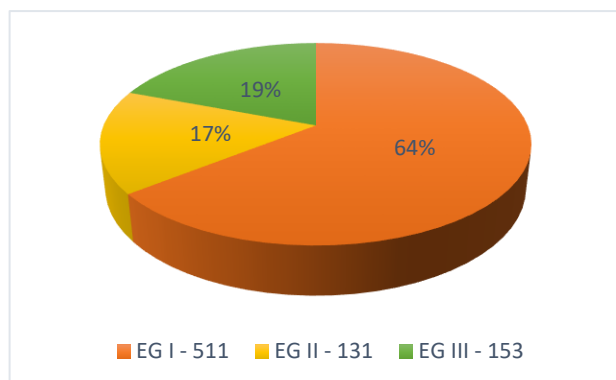*128 gymnasts performed Swing fwd with straight arms to handstand EG I ↑ 121 in Liverpool.*

129 ↑ 119 gymnasts performed Yamawaki and 127↑ 121 Jonasson elements EG I

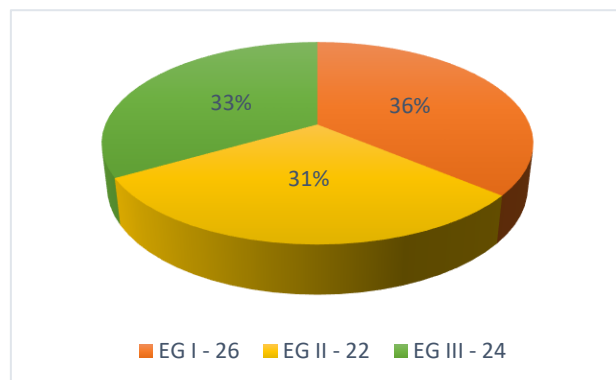*48 ↑ 43 gymnasts performed uprise backward to swallow EG III*
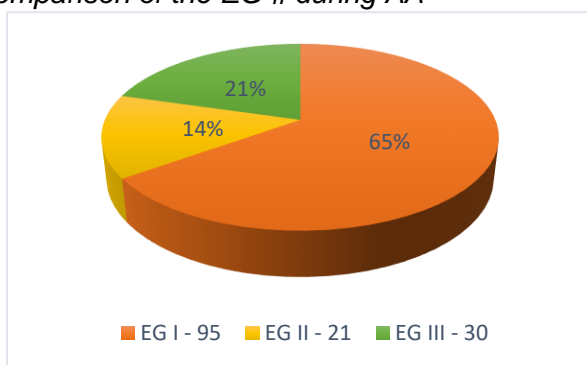
68 ↑ 63 gymnasts performed Double salto bwd with 2\1 EG IV

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Comparison of the EG # during Qualifications

EG I - 511 EG II - 131 EG III - 153

Comparison of the EG # during AF

EG I - 26 EG II - 22 EG III - 24

Comparison of the EG # during AA

EG I - 95 EG II - 21 EG III - 30

Comparison of the EG # during TF

EG I - 91 EG II - 38 EG III - 44
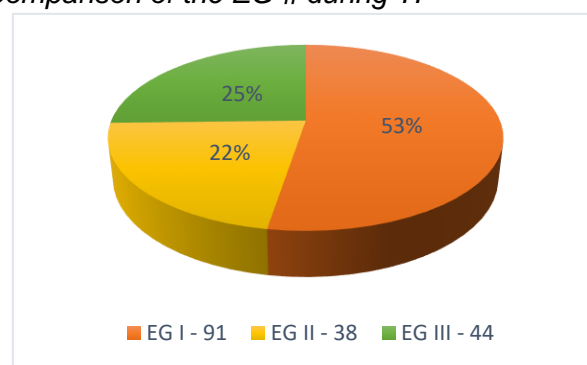
Dismount:

Performed during Qualifications
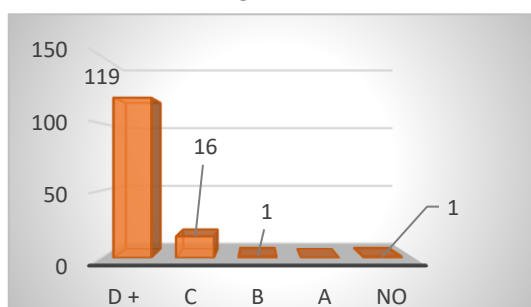
Performed during the ApparatusFinals
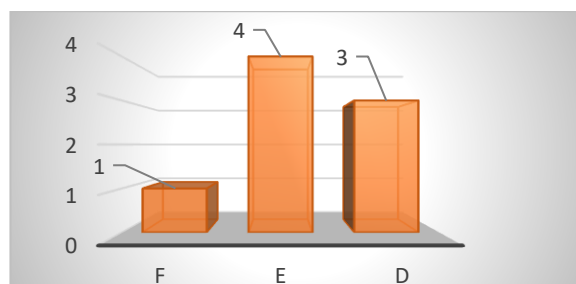
Blocked scores:

1 time during All-Around Final

1 time during Team Final

Inquiry:

3 times during Qualifications, 1 – accepted, 2 rejected.

1 time during Team Final – accepted.

Falls:

4 times during Qualifications, 11 in Liverpool.

15

16. VAULT

In Qualifications to All-Around &Team Finals, 141 gymnasts competed.
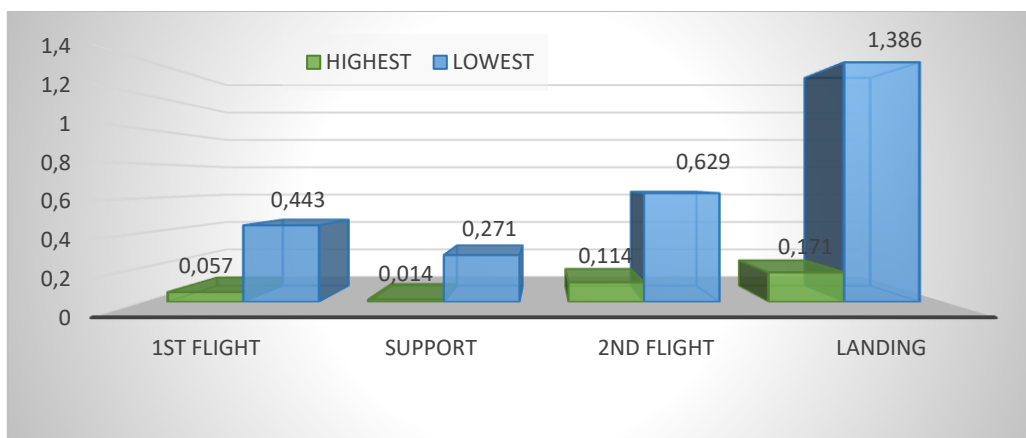*In Qualifications to Vault final, 30 gymnasts competed.*
Highest score: 15,033 Artur DAVTYAN ARM
Highest D score: 6,0 Jake JARMAN GBR, Wai Hung SHEK HKG, Asher HONG USA
Highest E score: 9,500 Arthur MARIANO BRA

E judges have to input deductions based on phases of the Vault executions

Comparison of highest/lowest deductions by Vault phases in Qualifications
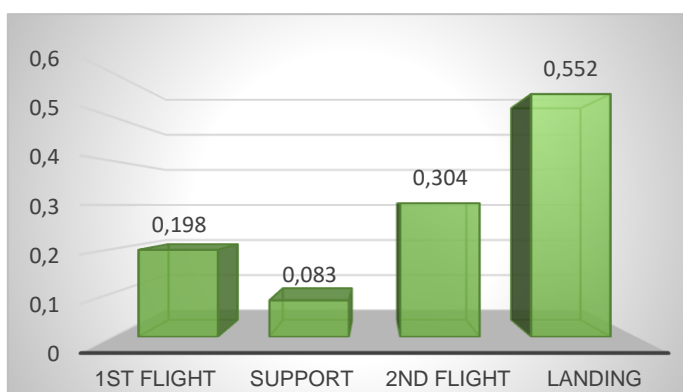

Best executions by phases
1st flight – Nicola BARTOLINI ITA
Support – Lukas DAUSER GER
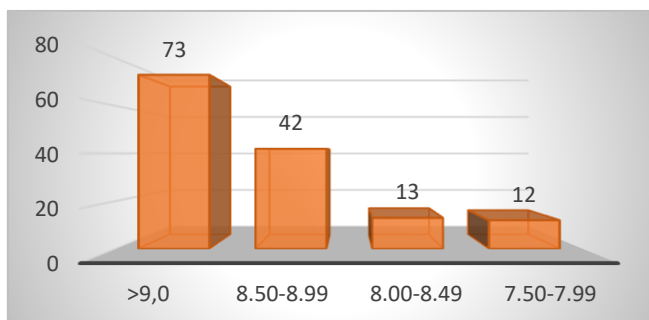*2nd flight – Arthur MARIANO BRA*
Landing – Ilia LIUBIMOV ISR

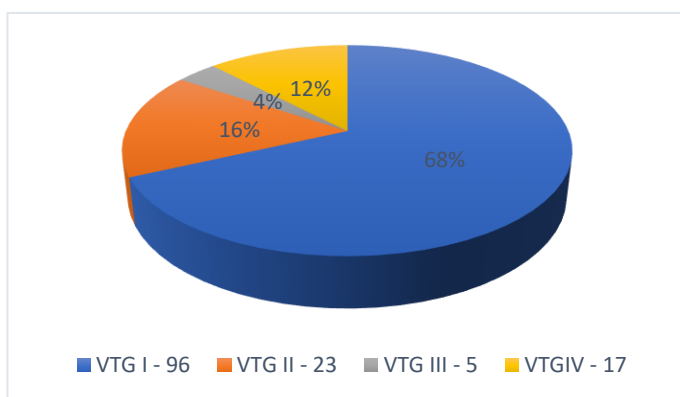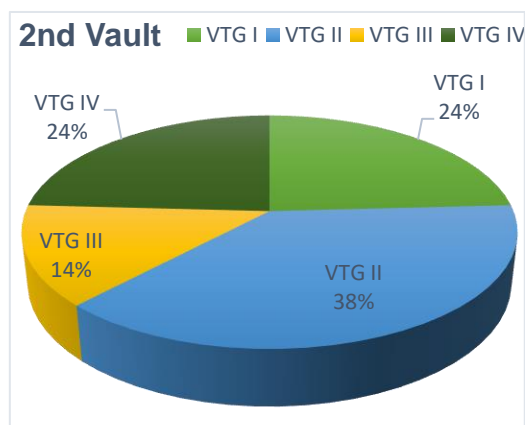**Average deductions by Vault phases in Qualifications (1st vault)**

Detailed E score

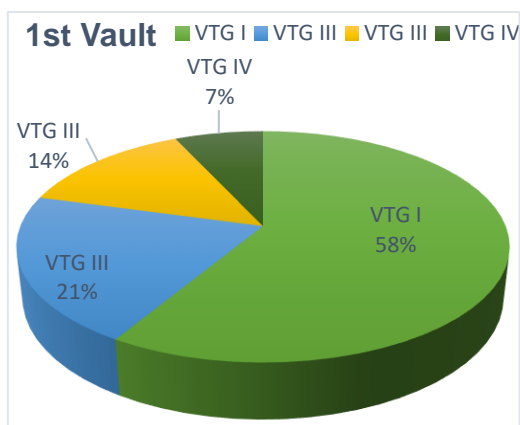**Comparison of the VTG # during Qualifications (1ˢᵗ vault)**

30 gymnasts performed 2 vaults from the following groups:

	1ˢᵗ Vault		2ⁿᵈ Vault	
Group 1	17	58,6%	7	24,15%
Group 2	6	20,7%	11	37,9%
Group 3	4	13,8%	4	13,8%
Group 4	2	6,9%	7	24,15%

Exercise construction.

Line deductions in Qualifications:
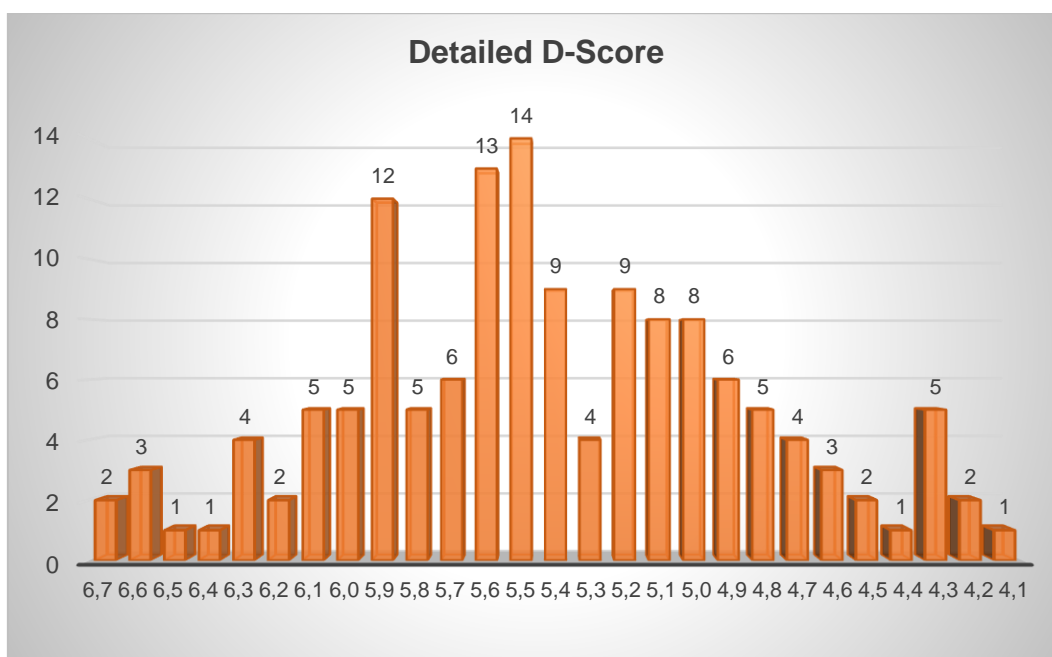*42 times – 0,1 and 15 times – 0,3*

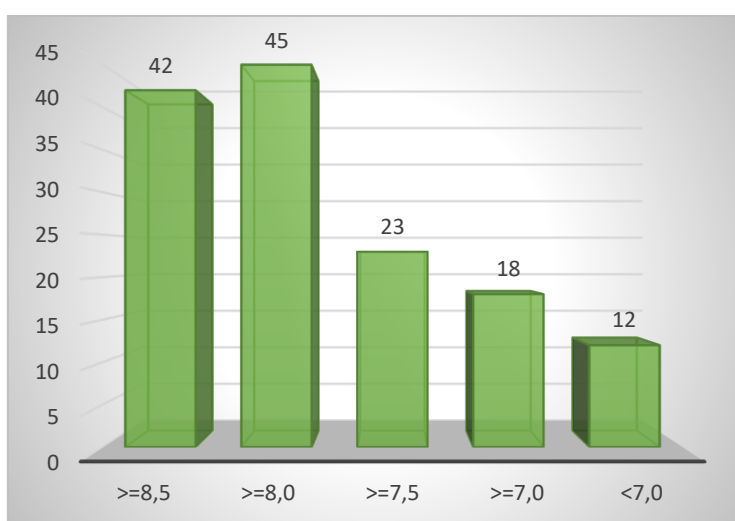## 17. PARALLEL BARS

In Qualifications, 140 gymnasts competed.

Highest score: 15,300 Lukas DAUSER GER

Highest D score: 6,7 YOU Hao CHN, Illia KOVTUN UKR
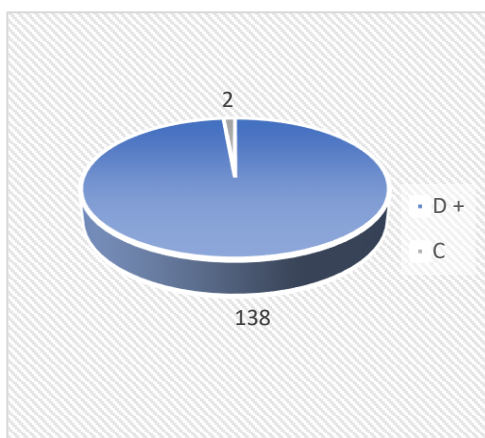
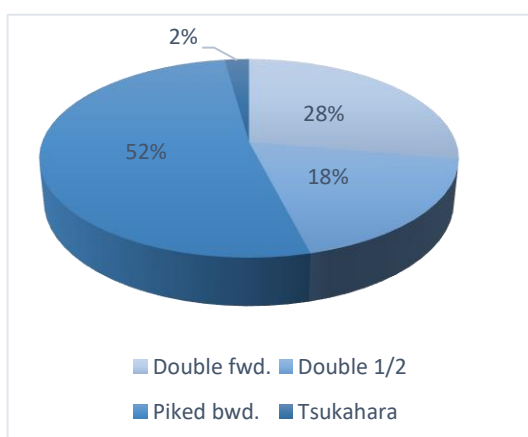*Highest E score: 8,866 Kaito SUGIMOTO JPN*

Detailed D-Score

Detailed E score

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Dismount:

Performed during Qualifications

75 ↓76 backward and 65 ↑60 forward dismounts were performed during Qualifications.

Double salto fwd. tuked 38↑33

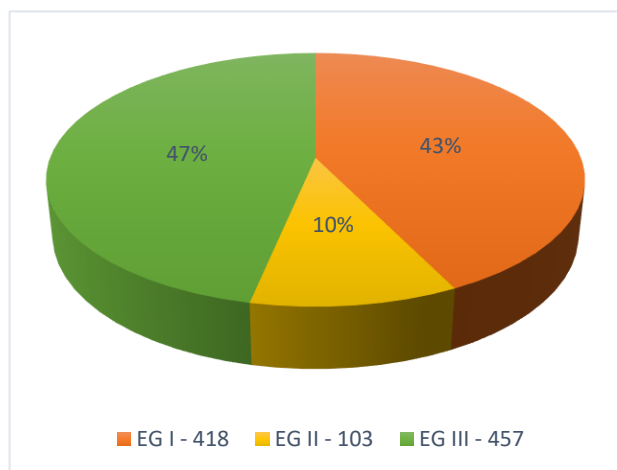*Double salto fwd. tuked with ½ t. 25↓27*

Double piked bwd. 71↓74
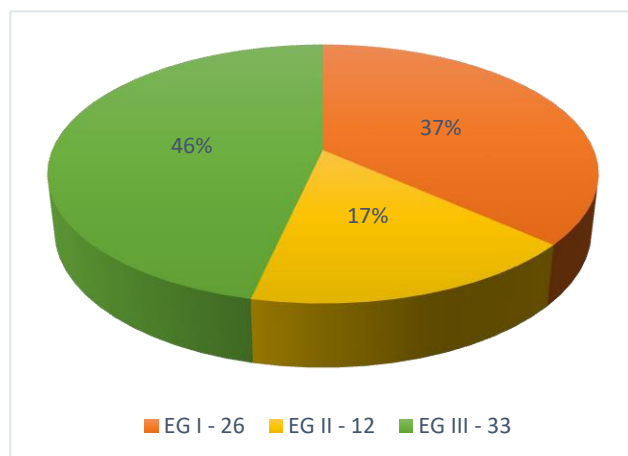
Double salto bwd. with 360 t. 3↑1

*During the Parallel Bars final Double salto forward with ½ turn were performed **5 times.***

Exercise construction.
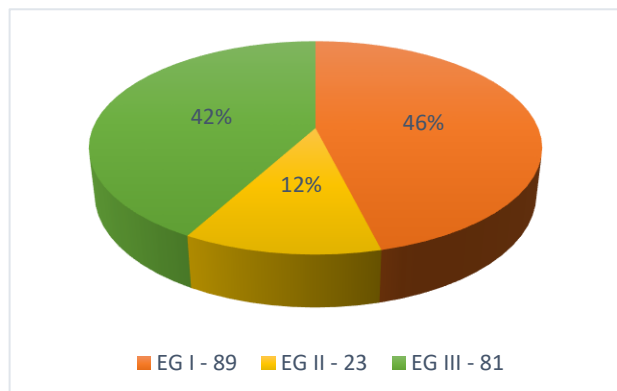
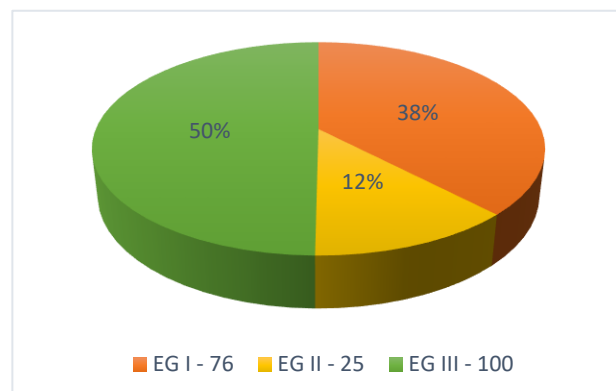*Comparison of the EG # during Qualifications*

Comparison of the EG # during AF

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Comparison of the EG # during AA

EG I - 89   EG II - 23   EG III - 81

Comparison of the EG # during TF

EG I - 76   EG II - 25   EG III - 100

Blocked scores:

2 times during Qualifications.

1 time during Team Final

Inquiry:

1 time during All-Around Final – rejected.

Falls:

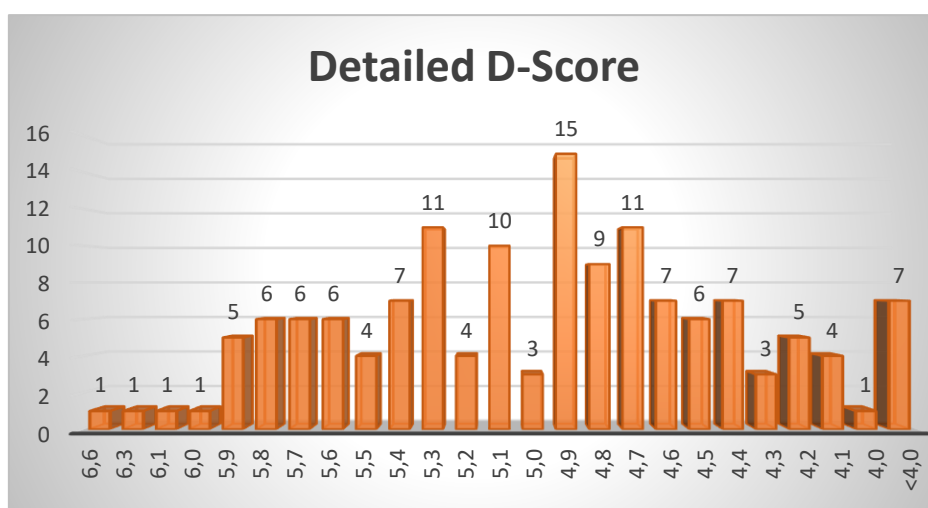*10 times during Qualifications, 23 in Liverpool.*

18. HORIZONTAL BAR

In Qualifications, 141 gymnasts competed.

Highest score: 15,000 Daiki HASHIMOTO JPN

Highest D score: 6,6 Daiki HASHIMOTO JPN

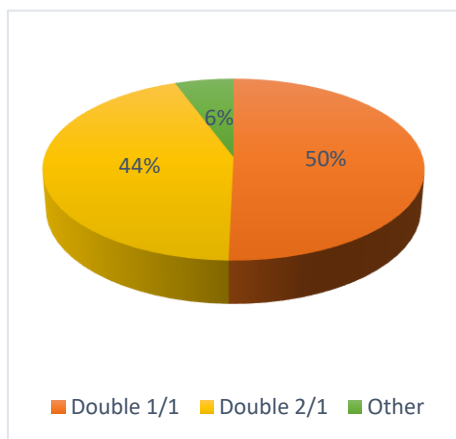*Highest E score: 8,866 Hamza HOSSAINI MAR*

Detailed E score
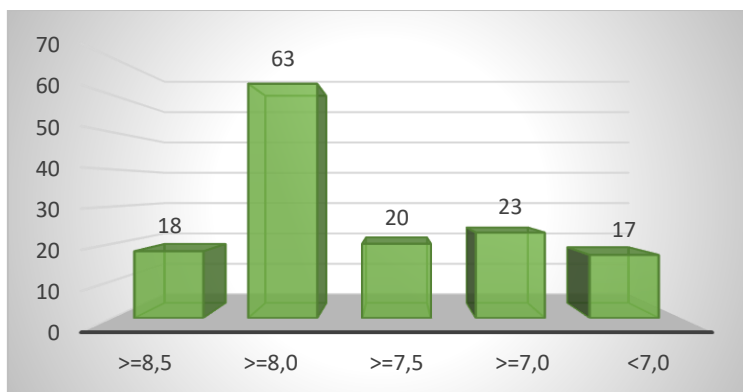
Dismount:

Performed during Qualifications

Double salto bwd straight with 1/1 – 71 ↓ *77*

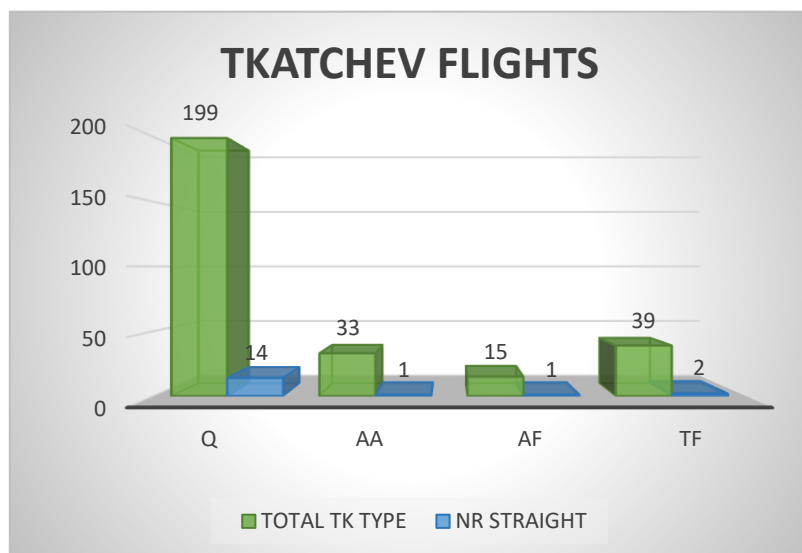*Double salto bwd straight with 2/1 – 62* ↑ *49*

Other – 8 including:

Triple bwd. F value – 1 ↓ *2*
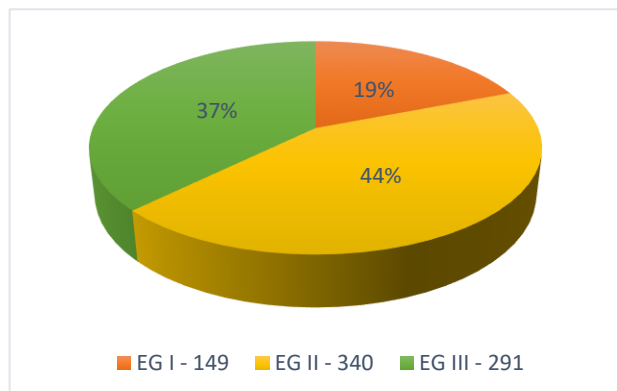
Triple bwd. piked G value – 1 =

Double salto bwd straight with 3/1 F value – 1 ↑

Exercise construction.

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Comparison of the EG # during Qualifications

19%
44%
37%

◼ EG I - 149 ◼ EG II - 340 ◼ EG III - 291

Comparison of the EG # during AF

15%
53%
32%

◼ EG I - 9 ◼ EG II - 31 ◼ EG III - 19

Comparison of the EG # during AA

21%
41%
38%

◼ EG I - 31 ◼ EG II - 63 ◼ EG III - 58

Comparison of the EG # during TF

18%
44%
38%

◼ EG I - 29 ◼ EG II - 71 ◼ EG III - 61
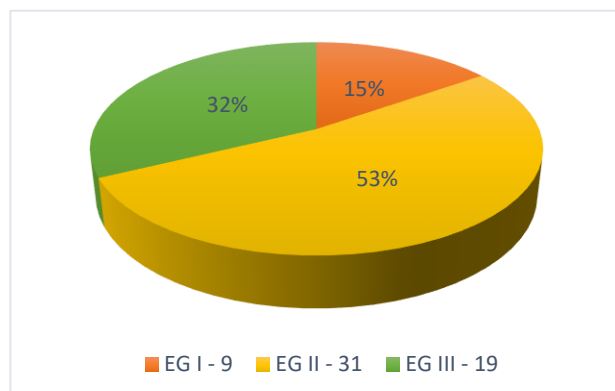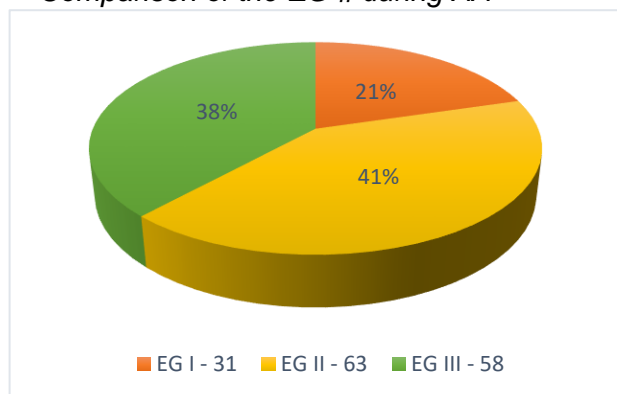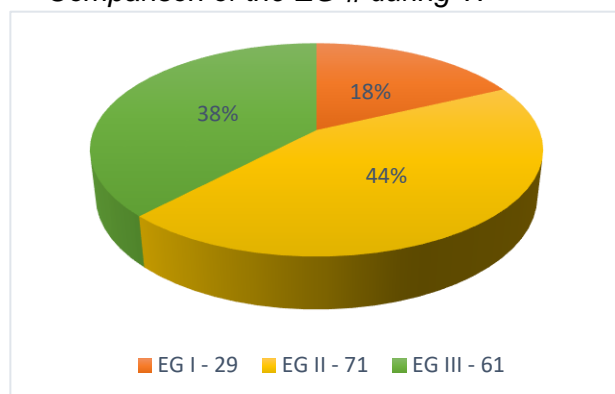
During Qualifications one gymnast received 3,0 penalties (Art.6.3 of MAG CoP) for "Short exercise"

Blocked scores:

1 time during Qualifications.

Inquiry:

6 times during Qualifications – 1 accepted, 5 rejected.

2 times during Team Final – both rejected.

1 time during Apparatus Final – accepted.

Falls:

38 times during Qualifications, 29 in Liverpool.

19. JUDGING ACTIVITIES

47 NFs were represented by 70 judges.

3 NFs were represented by 1 D: GEO, GRE, SVK.

9 NFs were represented by 1 D and 1 E judge: ALG, CRO, EGY, ESP, GBR, GER, ISR, NED, USA.

14 NFs were represented by 2 E judges: AUS, BEL, BRA, CAN, CHN, FRA, HUN, ITA, JPN, KOR, ROU, SUI, TUR, UKR.

21 NFs were represented by 1 E judge: ARG, AUT, AZE, CHI, COL, CYP, CZE, FIN, HKG, IRL, ISL, KAZ, LTU, MAR, MEX, NZL, POL, POR, SRB, SWE, TPE.
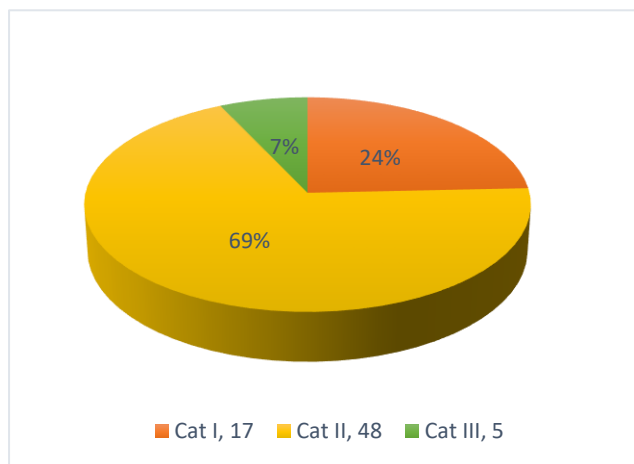
Judges' categories

Caterory I – 17 ↑ 13 , including 12 D

Category II – 48 ↓ 57

Category III – 5 ↓ 7

Legend: ■ Cat I, 17 ■ Cat II, 48 ■ Cat III, 5

An additional Superior Jury member has been appointed by the MTC. The Nomination of Alvaro SOUSA POR has been approved by the FIG EC.
The Apparatus Supervisor on VT has been replaced by a D1 judge. The Nomination of Liping HUANG CHN has been approved by the FIG EC.
The MTC had to replace a D judge on VT by a Reserve D judge.
E judges draw of lots took place before each phase of the competition.

Judges briefing

All relevant information was received from Members of the MTC. The judge's instructions for the D and E judges' panels were conducted separately. For the first time MTC had used interactive quiz for testing exercises evaluation during judges' instructions. Every judge was able to test themselves using their smartphone and straight after receive feedback and personal results (by points) for the testing. After each apparatus section Leader was announced and awarded by applause. Results of the tests gave the MTC necessary information about the method to test exercise evaluations.
President of Jury of Appeal Suat CELEN TUR was present for the draws.

Podium training

Podium Training for the competition was conducted in accordance with the Qualifications schedule. All D judges stayed for all subdivisions in the venue during podium training. The D panels evaluated all the routines that were shown by the gymnasts during the podium training. All controversial elements were immediately discussed with the coaches.

Competition

Generally, competition was well organized and managed by LOC. Schedule of subdivisions was conducted in order with timetable. In the warming up area all apparatus were placed on the podium, which is perfectly convenient for gymnasts. At the same time during competition, it was crowdy on FOP, especially Pommel horse & Rings area (small arena itself & Presentation podium next by). In addition I have received some complains after All-Around Final due to extra gymnasts did not leave FOP after helping teammates prepare apparatus. I strongly recommend regulating this condition more carefully for the future events.

During qualifications TUR team received additional one touch warming up on Parallel Bars due to apparatus technical issues.

The D Panels were very consistent and used the same criteria to evaluate the performances of all gymnasts. 23 inquires submitted, 13 was rejected. SJ used JSS to solve all enquire cases.

E judges work was evaluated by JEP program in all phases of the competition. MTC had conducted PCVR. Longest phase - Qualifications was consistent in evaluation from first until the last subdivision.

Round table

As usual the number of participants in the Meeting was at a very good level- coaches, judges, NF's officials were present from almost 40 NFs. In general audience supported suggested and published on FIG website draft of MAG CoP 2025 – 2028.
There were good discussions about the online competition as part of platform to test different and challenging formats of future events.

Live judging

SWISS TIMING provided small gadgets for live scoring, during the All-Around final not working judges volunteered to evaluate exercises in live using tools and equipment provided by SWISS TIMING. We have received results of PB & PH (only those apparatuses were taken) and have compared with competition results.
During Apparatus Finals all apparatuses (except VT) were judged by high level judges in live. Volunteers pointed that device itself and procedure of inputting is convenient to use.
Results are valuable and in general similar to official ranking.

*I am sure for successful developing of our sport the **LIVE JUDGING** is the best solution!*

20. CONCLUSION

It was a great pleasure to work with the LOC and the FIG Staff to organize such a successful and important World Championships!

I would like to congratulate all gymnasts and NFs teams which have received their tickets to Paris 2024 Olympic games!

I warmly thank MTC members, SJ members for their professional work as a team, all D and E judges for their confidence and professionalism.

Respectfully submitted,

Arturs MICKEVICS,
President FIG/MTC