INTERNATIONAL SKATING UNION

ISU ANTI-DOPING PROGRAM

SEASON 2024-25

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Testing

Overview of the season

During the 2024-2025 season, a total of **2'200 samples** were collected from **925 skaters** representing **52 different nationalities**. The gender distribution was close to the equity with 1097 women versus 1084 men (Figure 1).

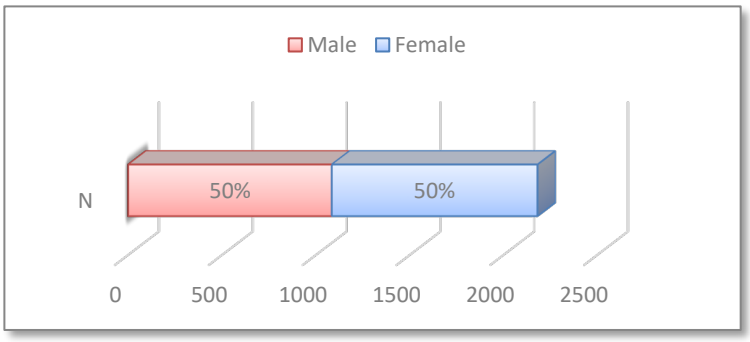


Figure 1 *– Gender distribution*

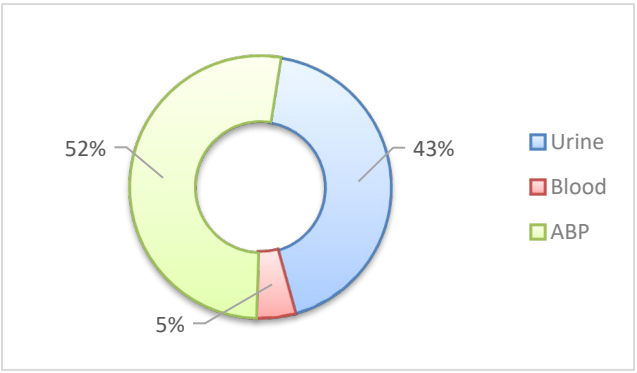


Figure 2 *– Sample type distribution*

An examination of the distribution of sample types reveals that **the majority are urine and blood ABP samples**, with approximately half of the total number of samples falling into these two categories. The third category is represented by the serum samples (Figure 2).

It is noteworthy that when considering all sample matrices, **the distribution of samples collected in and out of competition is clearly biased toward the latter category,** as illustrated in Figure 3. This bias can be attributed to the fact that a substantial proportion of the blood ABP samples collected during **major ABP missions are classified as out-of-competition samples.** This is because several missions typically yield between 150 and 200 samples each, which contributes to a significant number of out-of-competition samples.

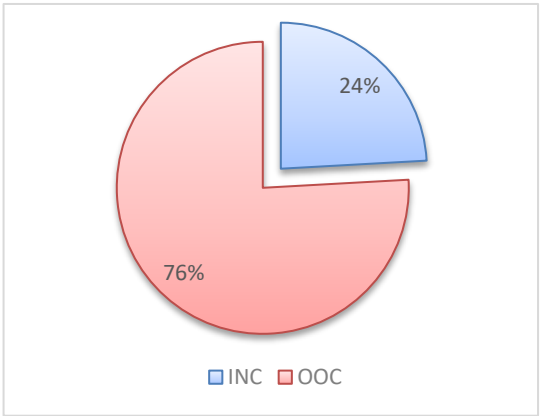


Figure 3 *– Out versus In-competition sample collection*

The collection of Out vs and In-Competition samples is discussed in more detail later in this report.

Evolution across the seasons

The practice of collecting samples exhibited a robust recovery following the pandemic and has persisted at a high level for a period of four consecutive seasons. Following the 2023/24 peak of 2'350 samples, totals underwent a slight decrease to 2'182 in 2024/25 yet remained significantly higher than the 2020/21 baseline. This finding suggests **the presence of a stable and resilient testing program (**Figure 4).

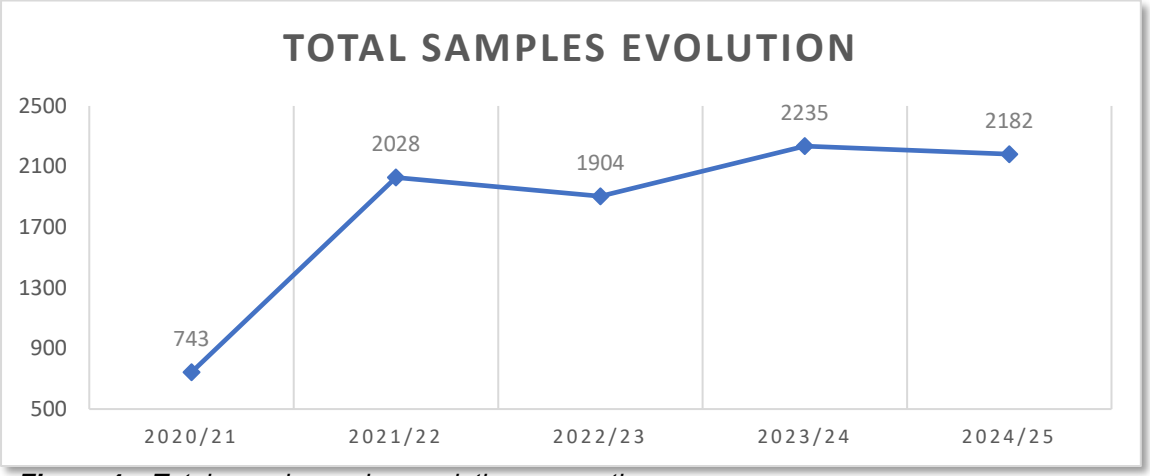


***Figure 4** – Total sample number evolution across the seasons*

Speed skating dominated the sample volume, reaching its zenith in the 2022/23 period and sustaining its dominance through the 2024/25 season. **Short Track** has demonstrated a pattern of robust and consistent growth, surpassing pre-pandemic benchmarks in the previous two seasons. **Figure skating** has been demonstrating a gradual yet consistent upward trend. **Synchronized skating** remains a minor discipline, with approximately 12–13 samples collected annually since the 2021–2022 season (see Figure 5).

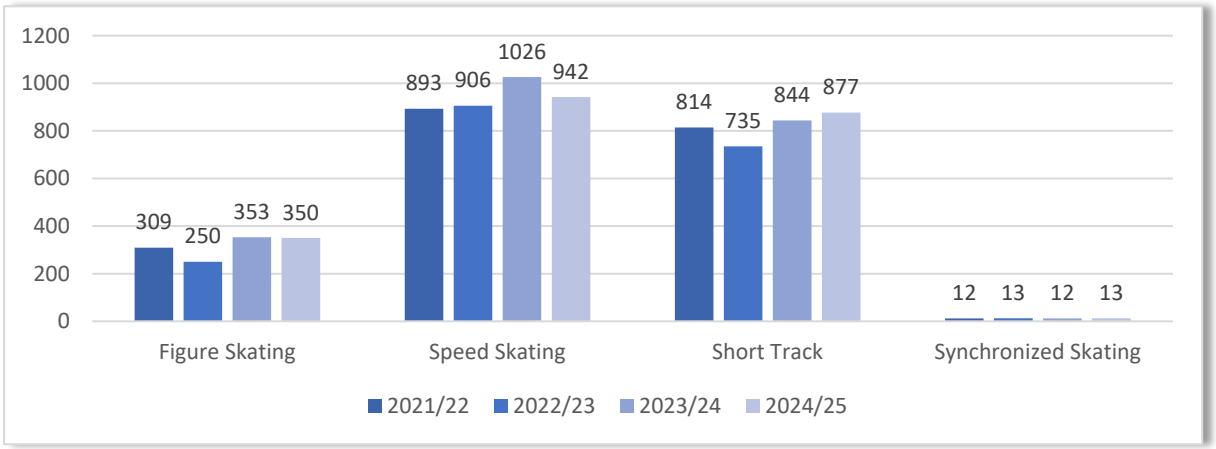


***Figure 5** – Evolution of sample collection among disciplines*

Urine samples – season 2024-25

This chart shows the distribution of the **943 urine samples** collected in 2024/25 across the four skating disciplines. **Speed Skating** represents the largest share (41%), followed by **Short Track** (34%) and **Figure Skating** (24%). **Synchronized Skating** remains marginal, with just 1% of the total.).

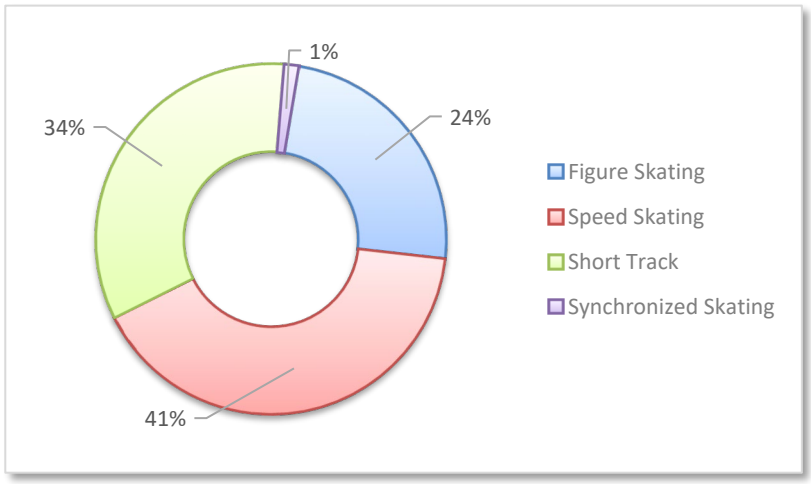
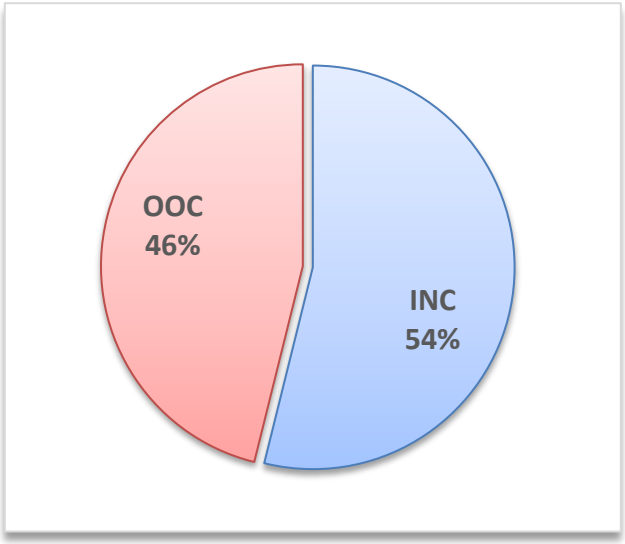


Figure 6 *– Urine samples distribution across disciplines*

Figure 7 *– Urine samples Out versus In-competition collection*



When considering **only urine samples**, a higher proportion of in-competition compared to out-of-competition sample collection is highlighted (Figure 7). This phenomenon stands in contrast to the distribution across all sample types, where out-of-competition samples tend to have a larger share, a consequence of ABP missions. The emphasis on in-competition testing underscores its importance for real-time monitoring during events. Nevertheless, a comparison of the current season's proportions with those of the previous season **reveals an improvement in balance, with the current proportion standing at 54%, in contrast to the previous season's 64%.**

Urine samples – evolution across seasons and disciplines

Speed skating shows stability in out-of-competition sample collection over the seasons, while a **notable increase** in the number of OOC urine samples is observed in **Figure Skating** and, to **a lesser extent**, in **Short Track**, as illustrated in Figure 8.

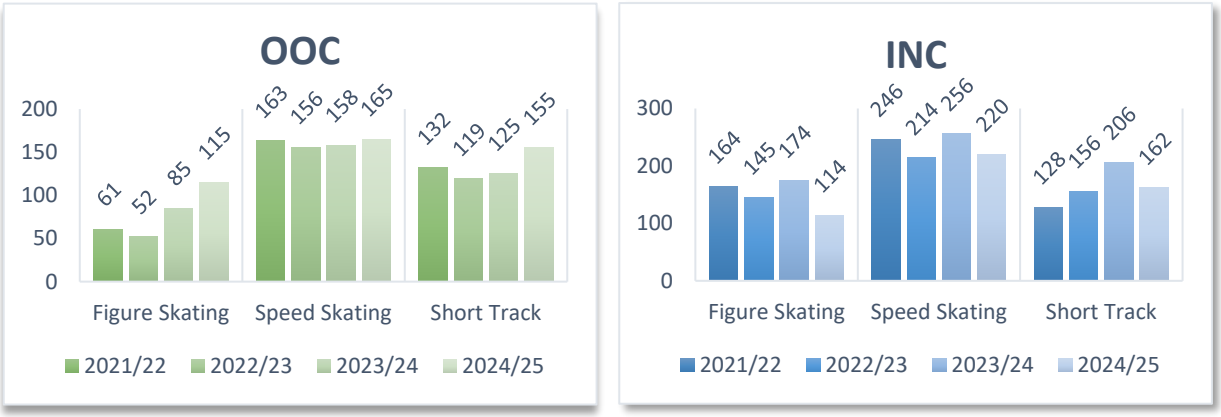
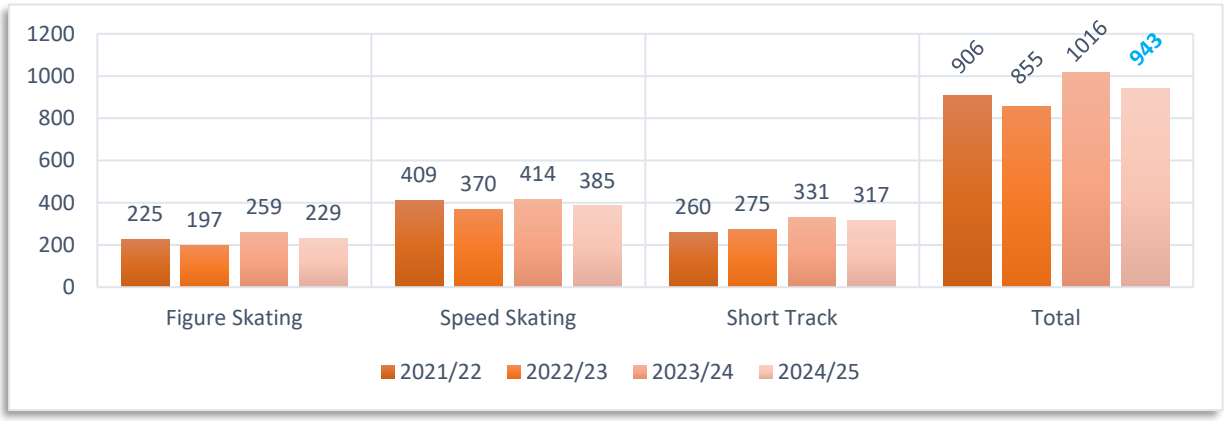


Figure 8 *– OOC and INC urine samples across seasons and disciplines*

Conversely, for **In-competition** urine samples, the number of samples collected shows a general **downward trend**.

Figure 9 *– Total urine samples across seasons and disciplines*



Athlete Biological Passport – season 2024-25

The following chart shows the distribution of the **1'133 Blood Athlete Biological Passport (ABP)** samples collected during the 2024/25 season across the skating disciplines. **Speed skating** and **short track** are equally represented. This distribution reflects the varying demands, participation levels, and endurance requirements of these disciplines.

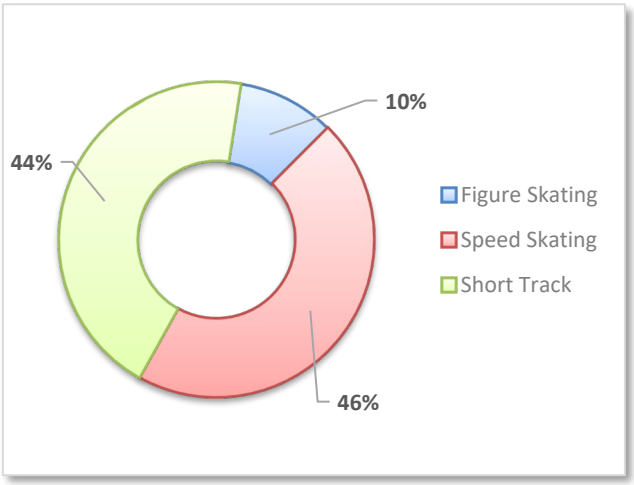


***Figure 10** – ABP samples distribution across disciplines*

The following pie chart (figure 11) shows the distribution of doping tests conducted in two key categories: pre-competition (PREC) and out-of-competition (OOC). The larger portion of the chart represents pre-competition tests, representing the ABP missions conducted before events (712 samples). During this season, ABP missions were conducted in Montreal (Short Track World Tour), Bormio (Junior World Cup Short Track), Tomaszow Mazowiecki (Junior Speed Skating World Cup) and Calgary (World Cup Speed Skating). The smaller section represents out-of-competition tests, highlighting the importance of year-round monitoring to catch potential doping activities outside of the competitive period.

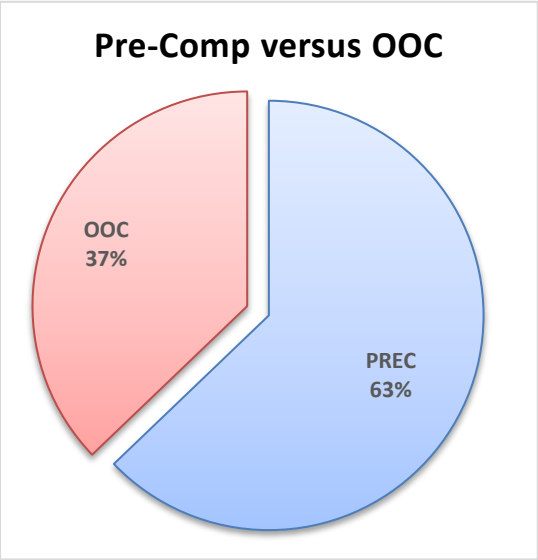


***Figure 11** – ABP samples Out- versus Pre-competition collection*

This approach reflects a comprehensive effort to maintain fair play both during competition preparation and in athletes' off-seasons.

Athlete Biological Passport – evolution across seasons and disciplines

A slight decrease in pre-competition ABP sample collection is observed in Speed Skating where it is the opposite for Short Track. In addition, **the significant increase for all disciplines** continues in out-of-competition sample collection (figure 12).

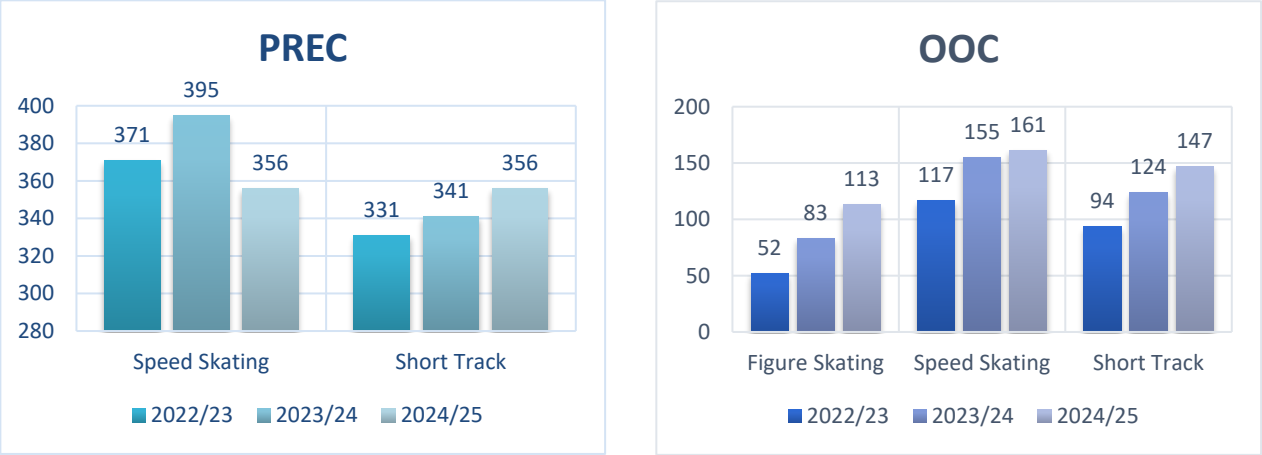


***Figure 12** – PREC and OOC ABP samples across seasons and disciplines*

Overall, season 2024-25 shows again higher ABP sample collection in every discipline compared to last season, resulting in **the highest ABP sample number of the four past seasons** (figure 13). This illustrates the constant effort to perform target testing using both indirect and direct methods in a **complementary way.**

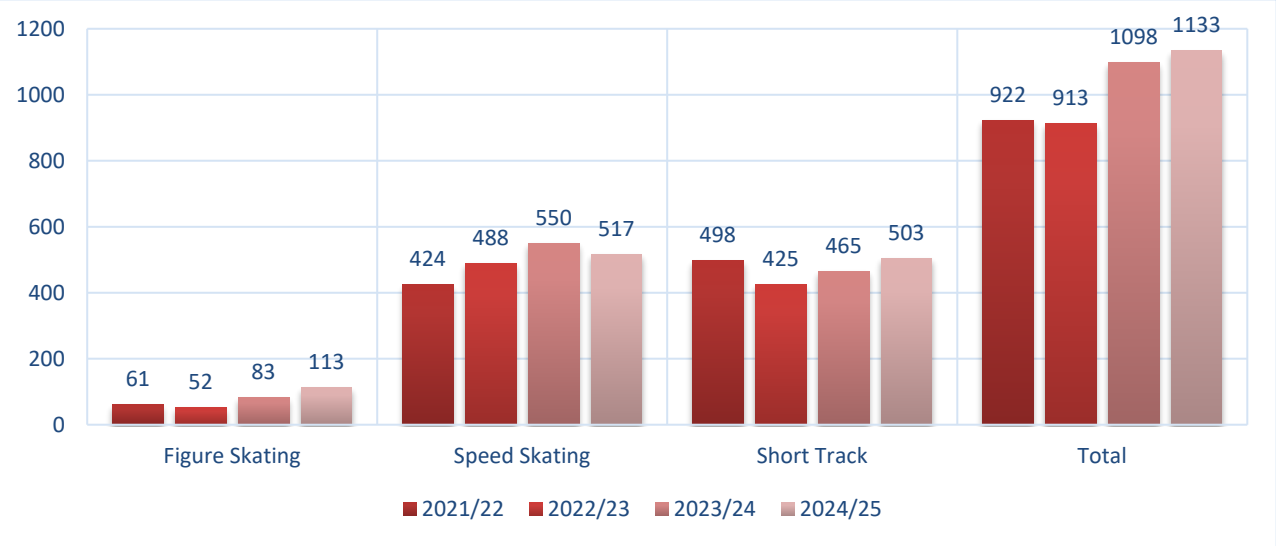


***Figure 13** – Total ABP samples across seasons and disciplines*

Serum Samples – Season 2024-25

The following chart (figure 14) provides a breakdown of the **104 serum samples** collected during the 2024/25 season, showing the distribution across the skating disciplines. This season **Short Track represents more than half of the total samples**. Speed Skating follows with a notable share, while Figure Skating contributes a smaller proportion. The distribution is very similar to the one shown by the ABP samples (figure 10).

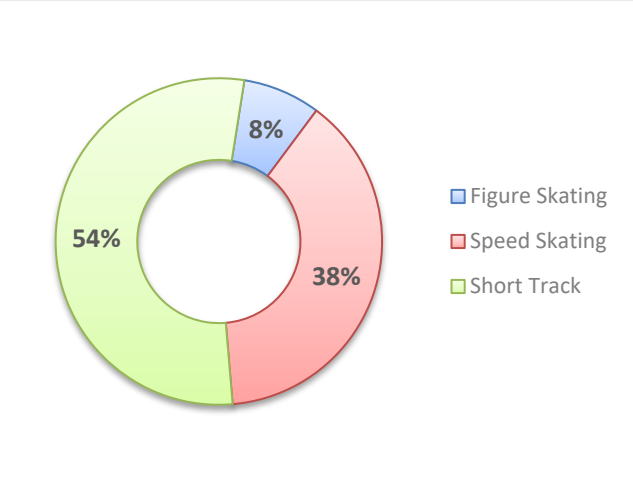


***Figure 14** – Serum samples distribution across disciplines*

These serum samples were used for various specific analyses. The repartition is clearly different compared to last season where endocrine analyses were conducted mainly for a pilot project conducted with the ITA. This season, **the great majority of serum samples were analyzed for Blood Steroid Profiles**. It is important to be aware that more than one analysis could be performed on the same serum sample.

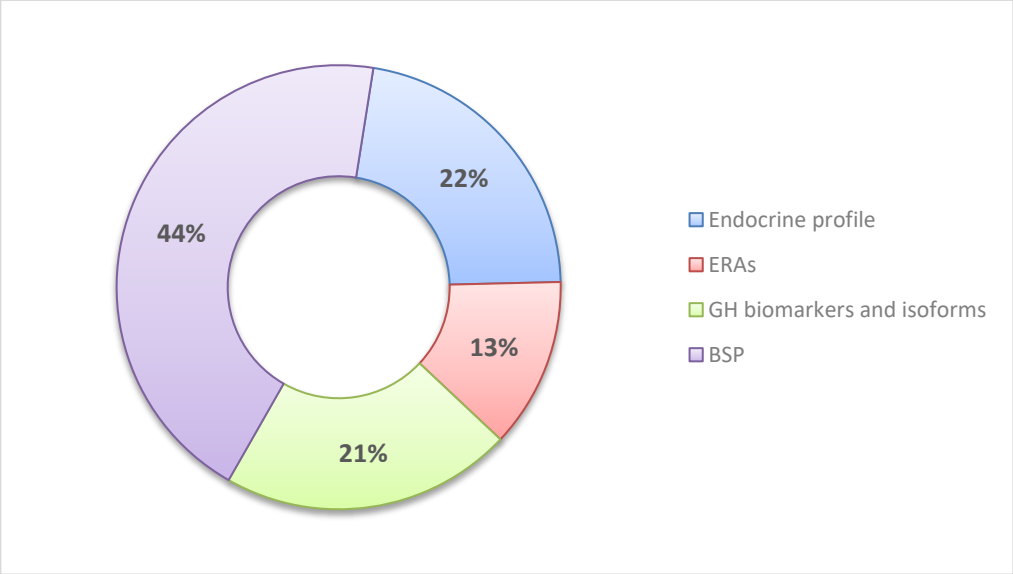
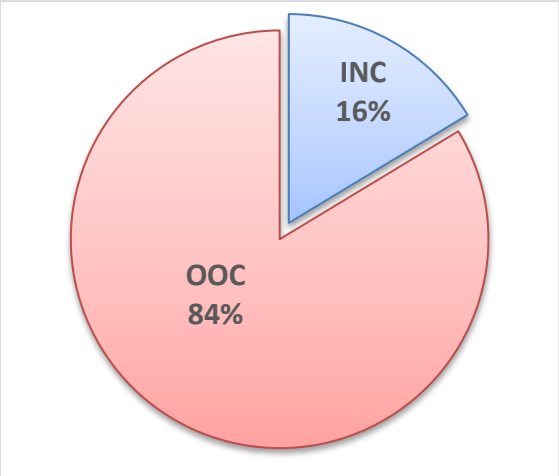


***Figure 15** – Distribution of the specific analyses performed on the serum samples*



A significant majority of the serum samples were taken **out-of-competition**, however, few of them were taken in competition for specific targeting (figure 16).

Figure 16 *– Serum samples Out- versus In-competition collection*

Serum samples – evolution across seasons and disciplines

No significant difference appears across the season for serum sample collection (figure 17). Nevertheless, a slight decrease was observed, contrary to expectations, and this is due to the fact that the endocrine profile did not continue its development as intensively after the project conducted on this module last season.

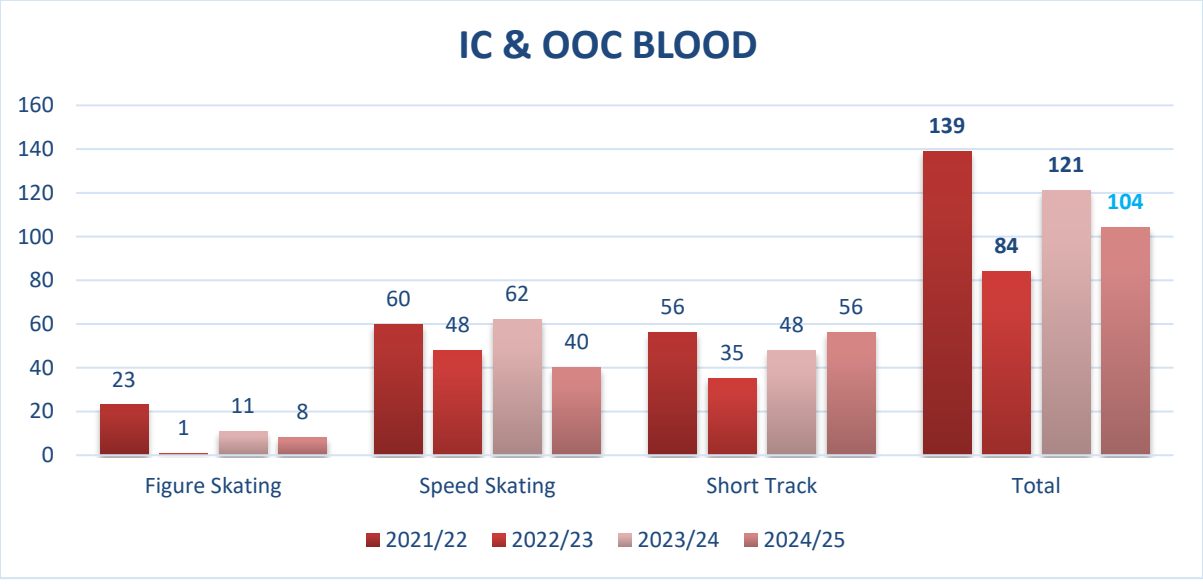


Figure 17 *– Serum samples across disciplines and seasons*

Re-analyses 2025

In order to protect the clean Skaters by ensuring that new information or intelligence is utilized well beyond the time of testing, the ISU has implemented, almost 10 years ago, a "Samples Long Term Storage and Reanalyze Policy".

Basically, all samples taken under the ISU Testing Authority may be stored for a period up to 10 years and may be re-analysed at any time within this period upon decision of the ISU or WADA according to the WADA international standards.

After this last season, **around 25 samples** stored in long term, were re-analysed. Among them, more than 75% were urines samples and around 45% of the samples were coming from Speed Skating events (figure 18).

The analyses that were conducted were distributed between **ERAs** (Erythropoiesis-Stimulating Agents), **HIF stabilizers** (Hypoxia-Inducible Factor stabilizers), **SARMs** Selective Androgen Receptor Modulators), and **long-term metabolites**. For most of these analyses, the sensitivity of the methods has been greatly improved within the accredited laboratories

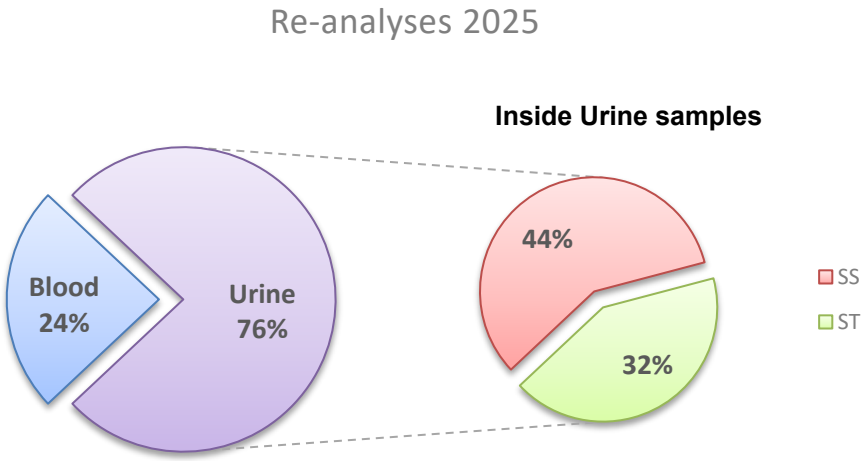


Figure 18 *– Repartition of the re-analyzed samples between blood and urine and across disciplines (in urine samples).*

Additional analyses – ERAs

Performing analyses for ERAs to detect use of EPO is crucial across all disciplines, as these substances can be used not only to enhance endurance performance but also to aid recovery and support heavy training loads. Additionally, these tests are mandated by the Technical Document for Sport Specific Analysis (TDSSA), with Minimum Levels of Analysis (MLA) applying to samples from all skating disciplines.

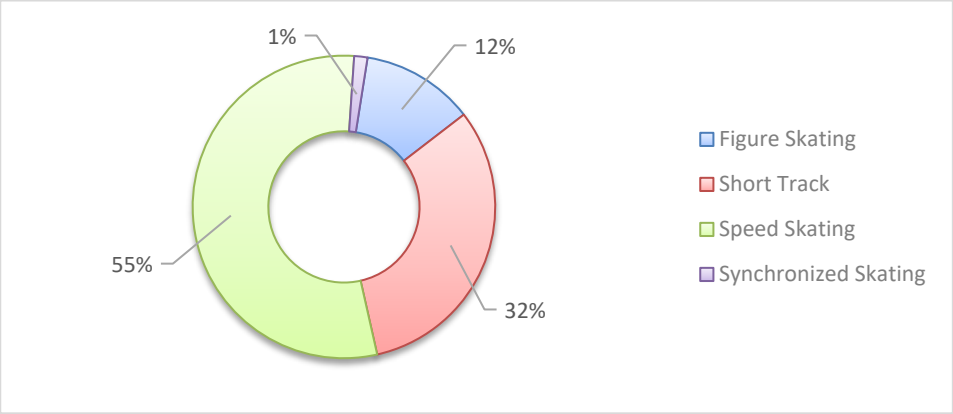


***Figure 19**: distribution of analyses by disciplines*

During the 2024-25 season, 141 ERAs analyses were conducted, primarily on urine samples, the preferred matrix for this type of testing (90% in urine versus 10% in serum). Most tests were carried out in Speed Skating, the discipline considered at higher risk for EPO use (figure 19).

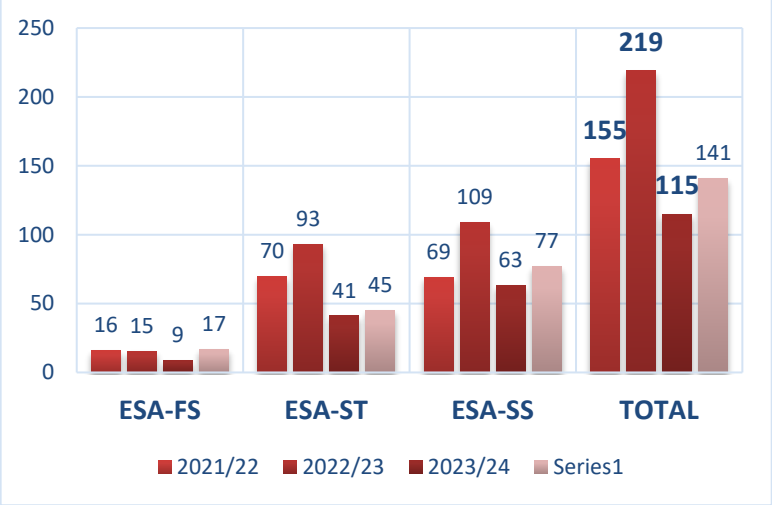


***Figure 20:** distribution of ERAs analyses across discipline and season*

Examining the evolution of ERAs analyses across disciplines and seasons, we see that the upward trend observed over the past three seasons was interrupted in the 2023-24 season, but an increase appears again in the last season. This shift is the result of a more targeted and intelligent testing strategy, gradually replacing the previous systematic approach (figure 20).

Additional analyses – GH and GHRF

Until recently, Human Growth Hormone (hGH) misuse was primarily detected through direct methods, such as the GH Isoform test or GHRF/GHRH measurements. However, the detection window for these methods is very short, typically lasting only 12 to 24 hours. Additionally, **GH testing is not mandatory** under the Technical Document for Sport Specific Analysis (TDSSA), as the focus has shifted toward the longitudinal detection of GH via the new Endocrine Module (indirect testing). This shift likely explains the reduction in GH analyses observed in recent seasons (figure 21). But a slight increase is observed in last season in line with less endocrine samples taken. Conversely, **GHRF testing remains mandatory across all skating disciplines**, as required by the TDSSA, and has been steadily increasing, particularly in Short Track and Speed Skating (figure 22).

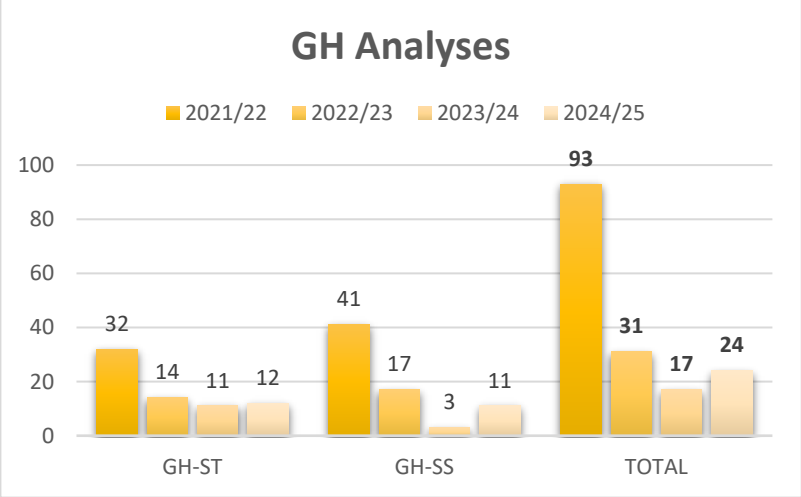


Figure 21: *GH analyses across discipline and season*

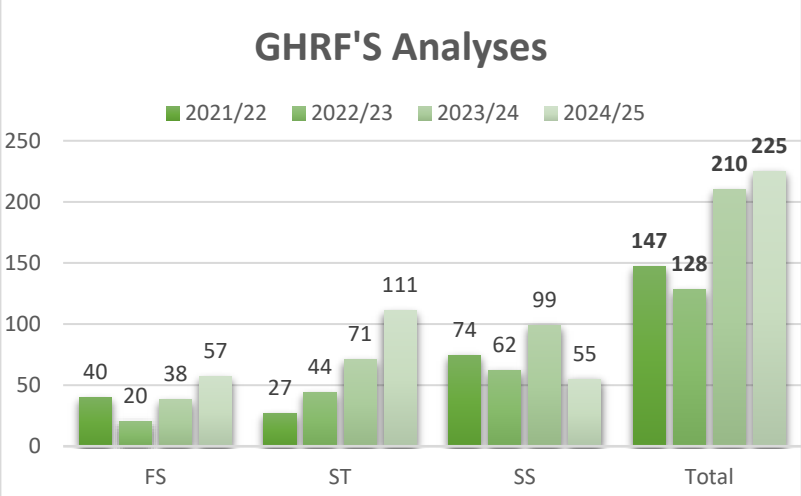


Figure 22: *GHRF analyses across discipline and season*

RTP – TP season 2025/26

The objective of our risk assessment is to accurately determine which skaters should be included in our Testing Pool (TP) and Registered Testing Pool (RTP). For the upcoming season, both the RTP and the TP have been slightly increased because we entered now the Olympic season (see Figure 23).

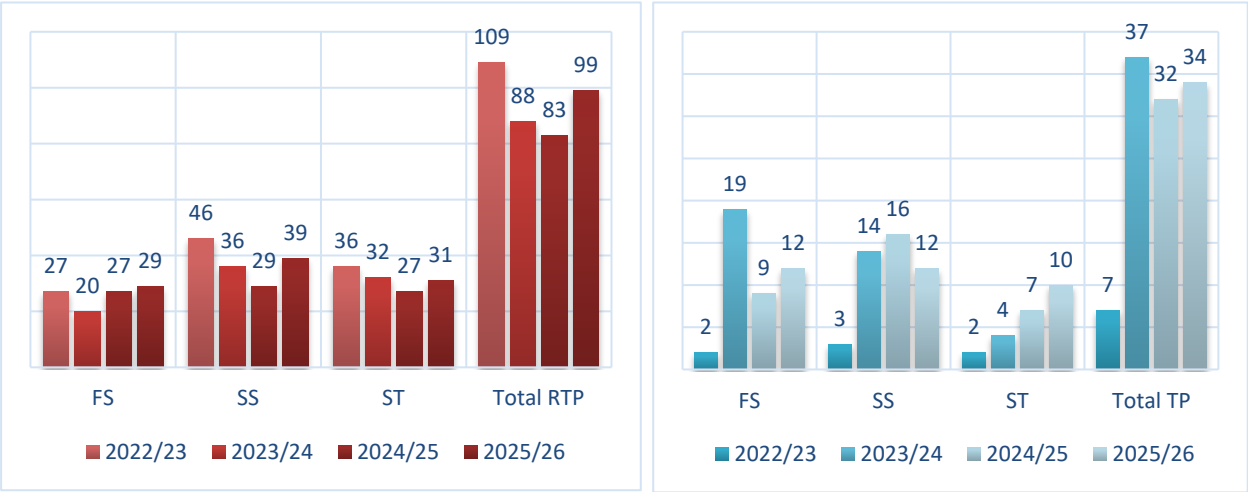


***Figure 23** – Evolution of RTP (red) and TP (blue) numbers across seasons and disciplines*

Consequently, the following graph shows the **actual increase in the total number** of skaters included in our testing pools (TP and RTP merged) to a total of 133 skaters to start the next 2025/26 season (figure 24), with skaters being added or removed from TPs during the season.

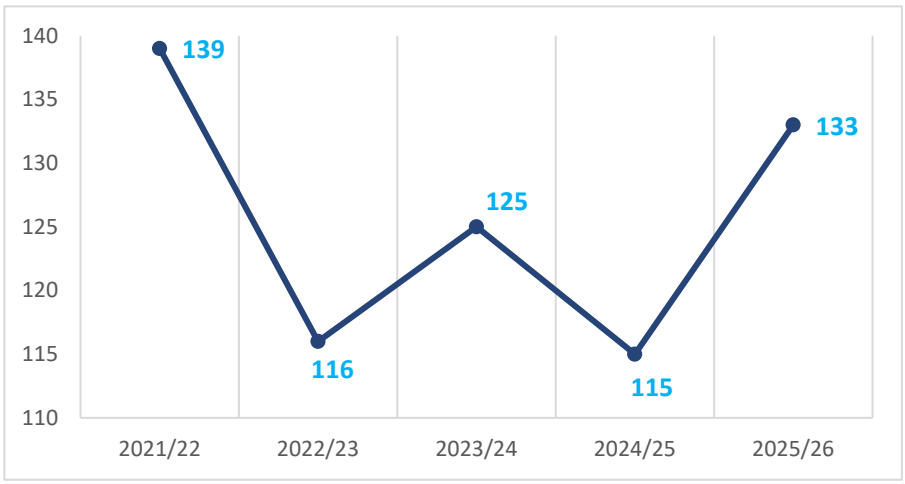


***Figure 24** – Evolution of total number of skaters in our testing pools (TP + RTP)*

Therapeutic Use Exemptions

Therapeutic Use Exemptions (TUE) numbers are higher than last season (30%) with a total of 30 active TUEs during season 2024/25. 90% of them have been **approved directly by the ISU** TUE Committee, and the rest have been granted by the skater's NADO and recognized by ISU (figure 25).

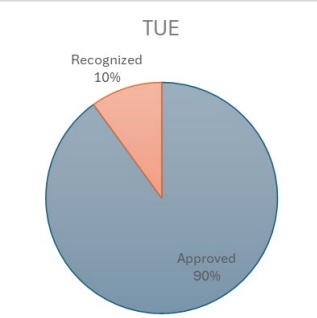


***Figure 25** – Recognized by ISU versus approved by ISU TUEs*

Comparatively to last season, most of the TUEs were issued for treatments from the S6 WADA class, namely *Stimulants,* to threat Attention-Deficit/Hyperactivity Disorder (ADHD, figure 26).

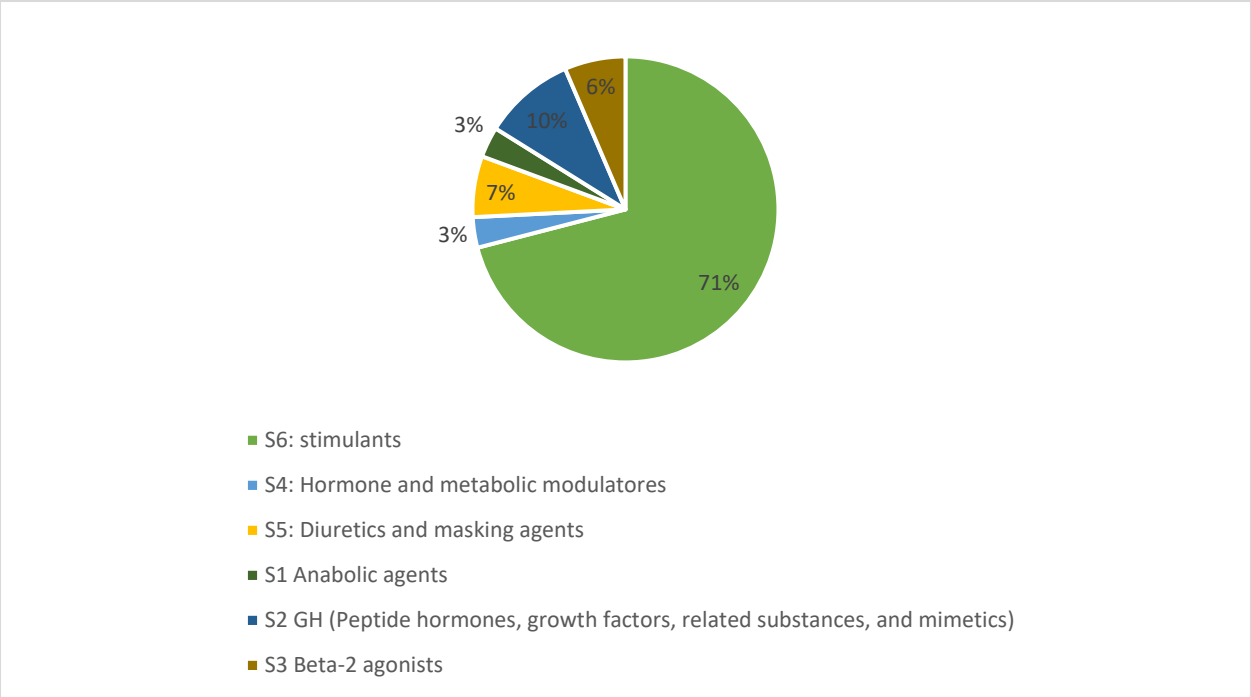


***Figure 26** – Repartition of TUEs by WADA prohibited substances class*

Result Management

ISU as Result Management Authority

2 Adverse Analytical Findings (AAF) were recorded.

- 1 was reported as negative due to a valid TUE
- 1 was recorded as ADRV and induced sanctions

1 ADRV following 3 Whereabouts Failures.

17 Whereabouts Failures were confirmed, 11 as Missed Tests and 6 as Filling Failures.

ISU Members

7 Adverse Analytical Findings (AAF) were recorded.

- 4 were reported as Negative due to a valid TUE
- 3 were considered as ADRV and induced sanctions

1 ADRV following 3 Whereabouts Failures.

Pure as Ice Program

ISU "Pure as Ice" Outreach and Seminars
The ISU “Pure as Ice” campaign continues to prioritize Anti-Doping education as an integral part of its events for junior Skaters. Below is a summary of the campaign's activities during the 2024/25 Season.

The seminar introduced the basics of Clean Sport through participative and interactive sessions. Skaters and ASPs learned mainly about the testing process, TUE, and supplements, amongst other topics

ISU Junior World Cup Short Track (Bormio, ITA)

- **Attendance:** **116 participants from 15 countries**
- **Countries:** AUS, AUT, BEL, CAN, CHN, COL, ESP, FIN, GBR, ITA, KOR, NED, POL, POR, SWE, USA

ISU World Junior Figure Skating Championships (Debrecen, HUN)

- **Attendance:** **35 skaters from 17 countries** (ages 14–21, avg. 17.8 years)
- **Countries:** AUT, CAN, CRO, CZE, ESP, EST, ITA, JPN, KAZ, POL, SUI, SVK, SWE, TPE, TUR, UKR, USA

ISU World Junior Synchronized Skating Championships (Gothenburg, SWE)

- **Attendance:** **187 skaters from 9 teams** (ages 13–19, avg. 16.4 years)
- **Countries:** CAN, CRO, ESP, HUN, ITA, NED, SUI, TUR, SWE

More than **200 Skaters** were included in **ICEPACK** (ISU Clean Education Pool Actors), 75% have submitted an education proof.

Published **P.L.A.Y.s** - Pocket Learning Anti-Doping and You on **Athletes’ Anti-Doping Ombuds**

Around **200 skaters and ASPs** have completed the **Pure as Ice** online course available in

ISU eRink