



ASSOCIATION  
OF SUMMER OLYMPIC  
INTERNATIONAL FEDERATIONS

**INTERNATIONAL  
FEDERATION ANTI-DOPING  
PROCESSES AND  
EXPENDITURE REPORT**

Lausanne, November 2016





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# Executive Summary

## Background

The anti-doping landscape changed significantly between 2009 and 2016. In addition to the new version of the WADA Code, which took effect on 1 January 2015, WADA, the International Olympic Committee, national and government bodies and the International Federations (IFs) came under more scrutiny than ever before.

The International Federations as funders and operators of their own anti-doping programmes under their obligations with respect to the WADA Code, have repeatedly come under attack for perceived and real conflicts of interest in the fight against doping. This would indicate the need to create a new model that would ensure that the International Federations are independent from decisions concerning key elements including testing of athletes, case management in the event of a positive test, and the sanctioning of athletes found guilty of an Anti-Doping Rule Violation.

The suspension of the Russian National Anti-Doping Organisation (RUSADA) and the allegations related to the anti-doping laboratory at the winter Olympic Games in Sochi in 2014, combined with the sanctioning of athletes following re-tests of samples from the 2008 Beijing Games and the 2012 London Games, have highlighted the need for a full review of the overall fight against doping for which WADA, Public Authorities (governments) and sport (including the International Olympic Committee and International Federations) jointly share responsibility. While recognising the very good work done by WADA and its stakeholders in the past in the fight against doping in sport, the above developments have caused many to conclude that the current system is no longer “fit for purpose” nor appropriate for the increasing challenges of the future.

While the 28 ASOIF member International Federations, all of them compliant with the WADA Code, have made great strides forward in administering their anti-doping

programmes over the last six years, particularly in regards to intelligence-led testing, cost savings and use of the Athlete Biological Passport, areas where improvements can be made to more effectively protect the clean athlete must continue to be pursued as a priority.

In 2016, the Association of Summer Olympic International Federations undertook a follow-up survey to that which it conducted in 2010 (the 2010 Report), to benchmark International Federations’ anti-doping programmes. All 28 summer Olympic International Federations participated in the survey. Data from 2015 was used for the survey as this represented the first year of implementation of the new Code. The Olympic Games year of 2016 was considered to be atypical as several International Federations tend to invest more in the fight against doping to help ensure that no cheats take part in their sports at the Olympic Games.

## Processes

All International Federations have an anti-doping education programme in place and slightly less than half monitor and assess the effectiveness of these programmes. The 2010 Report recommended that greater use be made of intelligence-led testing, one key component of which is the use of the Athlete Biological Passport. The majority of International Federations (61%) have an Athlete Passport Management Unit and use the haematological module of the Athlete Biological Passport.

Most International Federations now outsource their testing processes to National Anti-Doping Organisations or other independent sample collection providers. Quality, cost and location are the main considerations when choosing the most appropriate laboratory.

Ninety-three percent of International Federations have a Registered Testing Pool. The number of Therapeutic Use Exemptions (TUEs) processed by International Federations has decreased by almost 80%, from 2,386 in 2009 to 459 in 2015 due to changes in the

Prohibited List (specifically because beta-2 agonists rules have changed) and there has been an improvement in processing time, possibly related to the fact that 93% of International Federations utilise ADAMS. Mutual recognition of TUEs between International Federations and NADOs has also increased since 2009.

International Federations highlighted the following initiatives as best practices:

- ▼ Use of intelligence-led test distribution planning and unannounced Out-of-Competition testing
- ▼ Increased emphasis on Out-of-Competition testing outside the 60-minute time slot
- ▼ Full implementation of the Athlete Biological Passport (i.e. steroidal modules and blood, where appropriate)
- ▼ Development of an appropriately-sized International Registered Testing Pool that is derived from inclusion criteria such as rankings, intelligence, Athlete Passport Management Unit data, and other risk-based criteria
- ▼ Efficient and experienced administration of TUEs, including (where appropriate) mutual recognition, a timely review process, and the use of ADAMS
- ▼ Robust Results Management processes, including development of the capacity to pursue non-analytical Anti-Doping Rule Violations
- ▼ Utilisation of intelligence and information to develop a Test Distribution Plan
- ▼ Ensure that hearings and sanctioning are timely and occur through an independent process to eliminate real or perceived conflicts of interest.

## **International Federation Expenditure**

The total International Federation spending on anti-doping has increased by \$4.18M (\$23.5M in 2009 to \$27.68M in 2015) representing an overall increase in spending of 17.8%. Interestingly, the total of the 28 ASOIF member International Federations 2015 expenditure of \$27.68M is comparable to WADA's own total operating expenditure of \$29.28M (WADA Annual Report 2015).

Annual anti-doping expenditure, excluding staff and volunteer costs, by International Federations has increased by 6.7%, from \$21.4M in 2009 to \$22.8M in 2015. However, staffing costs have risen from \$2.1M to \$4.8M over the same period, indicating that the cost of implementing a Code-compliant anti-doping programme has required International Federations to increase their spending on staff.

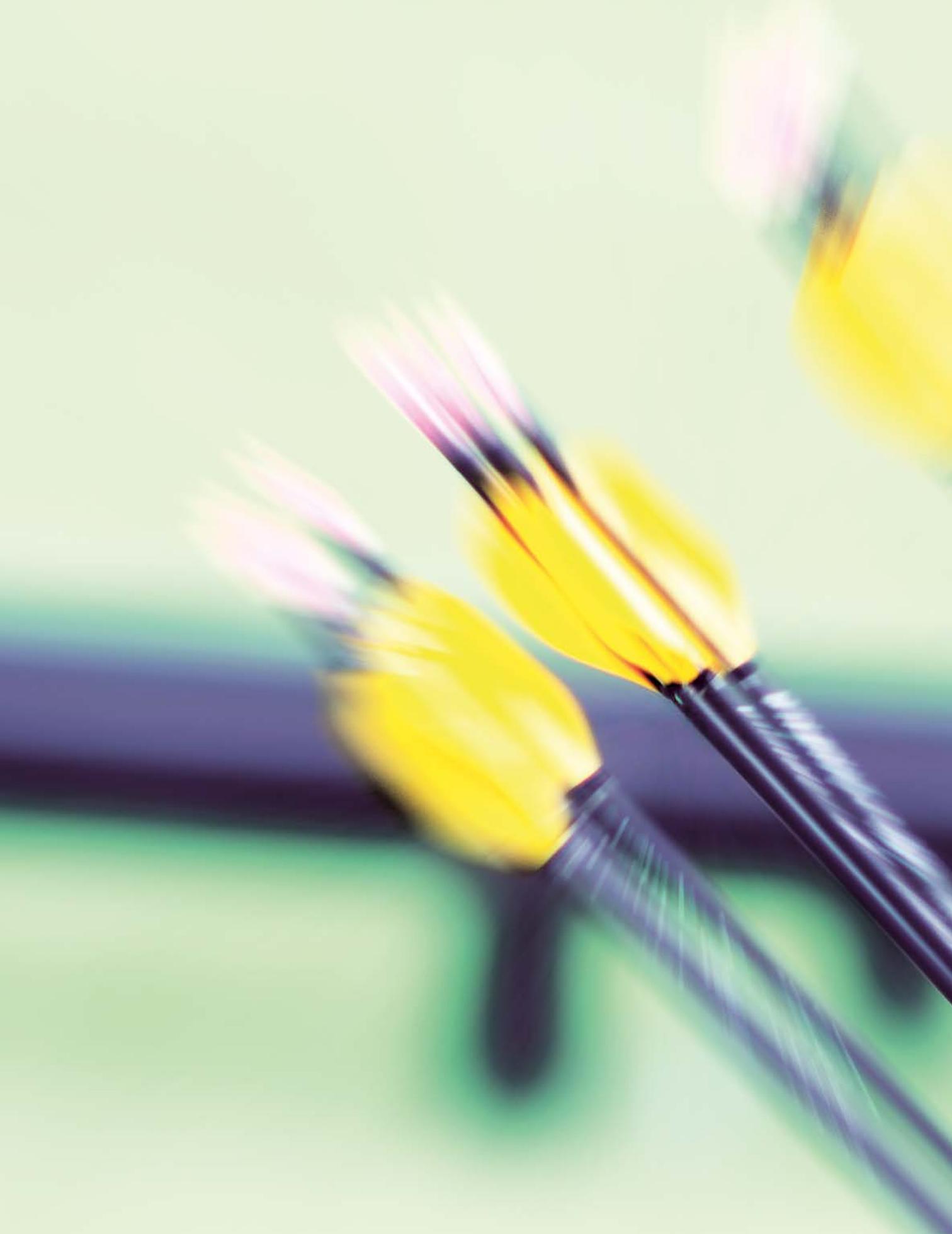
There remains a significant and uneven distribution of spending between the International Federations. Six International Federations contribute 80% of the total anti-doping expenditure (\$18.26M) with an average spend of \$3.04M. In contrast, the 17 lowest-spending International Federations constitute only 11% (\$2.6M) of total expenditure, spending an average of \$153,191 in 2015. However, this is an 82% increase on the equivalent figure for this group compared to 2009 (\$82,870).

Testing continues to account for the bulk of expenditure although the proportion has decreased from 78% to 70%. The average cost per test has more than halved from \$825 to \$387.

International Federations seem to be efficient concerning Results Management. The total cost of Results Management for the International Federations in 2015 was \$462,757, which is significantly lower than in 2009 where the total was \$1,807,091.

International Federations are seeking far greater external assistance in their attempts to implement anti-doping programmes. In 2015, \$6.9M was spent on internal costs and \$15.9M on external organisations. In 2009, the split was much more even with \$10.7M for internal and \$10.6M for external costs.

Spending on anti-doping education programmes has reduced from 4.1% of total expenditure to 2.9%. This is despite being one of the central recommendations of the 2010 report, and being an explicit item in the 2015 WADA Code.





# **BACKGROUND AND OBJECTIVES**

# Background and Objectives

The World Anti-Doping Agency (WADA) was established in 1999. The World Anti-Doping Code (the Code) was first adopted in 2003 and took effect in 2004 and was then amended, effective 1 January 2009. The revised Code came into effect on 1 January 2015 (the 2015 Code). The Code places obligations on signatories to implement effective anti-doping programmes.

In 2010, ASOIF (Association of Summer Olympic International Federations) commissioned a survey of the Summer Olympic International Federations to benchmark their total expenditure on anti-doping, to determine the distribution of that expenditure across the various aspects of anti-doping programmes and relate it to the outcome of those programmes. The resulting report (the 2010 Report) was based upon International Federation expenditure in 2009.

Six years on, ASOIF commissioned a broader research study to establish the full extent of the 28

International Federations' anti-doping practices and incurred financial costs.

The survey had four principal objectives:

1. Establish the anti-doping processes that individual International Federations implement within their respective sports
2. Quantify the financial resources devoted to the International Federations' anti-doping efforts in 2015
3. Compare these resources with those in the 2010 Report
4. Learn best practices from International Federations experience on how to better protect the clean athlete.

The study was conducted from February to May 2016 in the form of an online questionnaire based on expenditure during the year 2015, the first year of implementation of the 2015 Code. It surveyed the 28 International Federations that are ASOIF members governing sports on the programme of the summer Olympic Games.







# **METHODOLOGY AND RESPONSE RATE**

# Methodology and Response Rate

To meet the four principal objectives, ASOIF developed a survey in consultation with its Medical and Science Consultative Group (AMSCG) under the chairmanship of Dr. Margo Mountjoy (CAN), Bureau Liaison to the FINA Sports Medical Committee and a member of the IOC Medical Commission – Games Group.

## Methodology

The chosen data collection method was an online survey in order to provide:

- ▼ A user-friendly interface that ensures data accuracy
- ▼ Respondents the flexibility to complete the questionnaire at their own pace
- ▼ Multiple users within an International Federation to easily access the same questionnaire in order to complete different sections as necessary
- ▼ Efficiency in management of the survey process.

The facilitation and technical implementation of the online survey was outsourced to professional services company PricewaterhouseCoopers (PwC).

This survey was conducted from 14 March – 29 April 2016 and was distributed to all 28 International Federations who were full members of ASOIF (as at 14 March 2016). A list of the full ASOIF members can be found in Appendix IV.

## Response Rate

All 28 ASOIF members either fully or partially responded to the survey. With a 100% response rate, the survey results can justifiably be considered to be a valid representation for the current state of anti-doping across the International Federations.



**Result Presentation and Limitations**

The report presents the data and results as they were obtained from the International Federations and aims to provide the reader with an accurate overview of the anti-doping programmes across the International Federations in 2015.

Results are presented as a total (from all responded International Federations – that can vary depending on the data presented) and also using descriptive statistics. Results for anti-doping processes have been presented in a visual format with explanatory text where appropriate.

No additional statistical analyses have been performed on the cost data provided by respondents.

All costs are presented in United States Dollars (USD), which was the currency of choice for the majority of respondents. Costs provided in other currencies has been converted to USD based on the “Annual Average U.S. Dollar Exchange Rates” from the Federal Reserve Bank of New York on the 7th April 2016 as shown in Table 1.

**Confidentiality**

All anti-doping data collected from this survey will remain confidential and will only be used for the purpose of this report. We endeavour to publish the de-identified health-related data in the scientific literature.

**Questionnaire**

A PDF copy of the online questionnaire can be found on the ASOIF website via the following link:

<http://www.asoif.com/asoif-anti-doping-report-2016>

**Glossary**

A glossary of all terms and definitions used in the questionnaire and throughout this report can be found in Appendix I.

Dollars	Conversion
\$1	CHF 1.04
\$1	£ 1.44
\$1	€ 1.14

Currency conversion rates used in this report.

**100%**

The response rate to the 2016 survey on anti-doping



The background of the slide is an abstract, swirling pattern of colors. It features a dominant blue color on the left side, which transitions into a bright yellow on the right side. The colors are blurred and create a sense of motion and depth, resembling a vortex or a dynamic flow.

# **ANTI-DOPING PROCESSES**

# Anti-Doping Processes

## Education

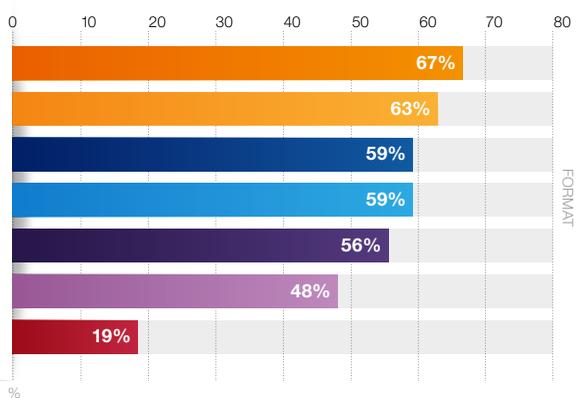
One of the central recommendations of the 2010 Report was for International Federations to continue to develop anti-doping education programmes. By 2015, every International Federation implemented education as part of its anti-doping programme, as they are obliged to under the 2015 WADA Code. The majority of International Federations focus on delivering anti-doping education to Athletes (86%) and Athlete Support Personnel (ASP) (89%). Of the International Federations that do not provide anti-doping education to ASP, lack of budget (33%) and the lack of in-house education expertise (33%) are the two most cited reasons.

The two most common anti-doping education delivery formats are face-to-face (either through outreach programmes or seminars; Figure 1). This is closely followed by the distribution of printed materials (brochures and booklets) and there is also substantial use of online resources and platforms such as eLearning, interactive computer based software, all of which are used by over half of International Federations.

# 33%

The percentage of IFs that do not provide anti-doping education to Athlete Support Personnel due to lack of budget

Figure 1 – Format of education programmes



Note: 27 IFs responded

### Format used:

- Outreach Programs
- Seminars
- Brochure/booklet
- eLearning
- Interactive computer based software
- On-line video
- Other

The various International Federation anti-doping education programmes are mainly delivered either in-house (41%) or through a combination of in-house and outsourced (52%) methods.

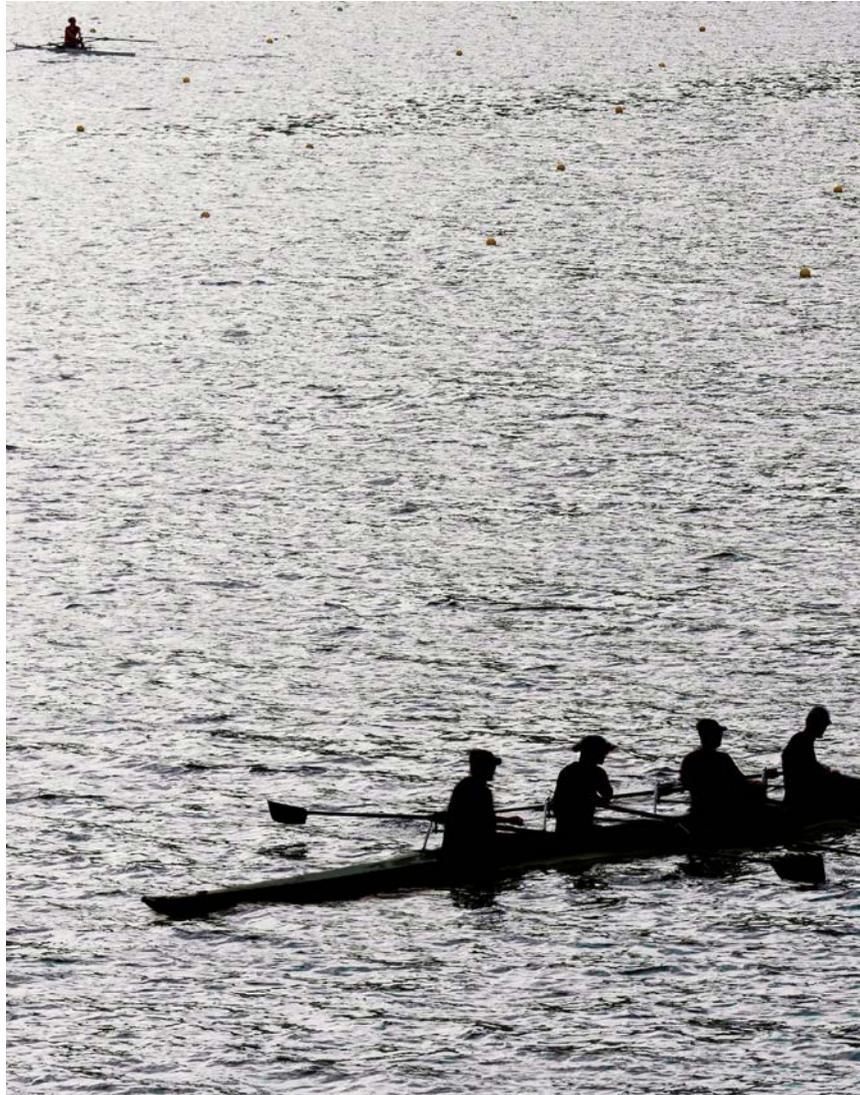
Of the International Federations that outsource their anti-doping education programmes, 81% outsource to National Anti-Doping Organisations (NADOs) (81%) while 31% commission their National Federations (NFs).

Slightly less than half of the International Federations (48%) assess the effectiveness of the anti-doping education programmes and whether their programmes are effective or beneficial to athletes and ASP. Education is a fundamental component of an effective anti-doping programme, and the understanding of its effectiveness is likely to help reduce the prevalence of doping.



# 48%

The percentage of IFs who assess the effectiveness of their anti-doping programmes



Methods of assessment include:

- ▼ Conducting post-seminar questionnaires and quizzes
- ▼ Seeking informal feedback from participants
- ▼ Monitoring the usage of eLearning platforms
- ▼ Comparing education dispensed against the number of whereabouts failures or inadvertent ADRVs on a quarterly basis.

### Best Practice:

**There is a need for some International Federations to develop and implement evaluation tools to assess the effectiveness of education programmes, and to amend the content of those programmes (as necessary) based on the outcome of that assessment.**

### Test Distribution Plan (TDP)

International Federations are required to develop Test Distribution Plans (TDPs) in order to achieve efficient, effective and intelligent allocation of resources to detect and deter doping.

International Federations use broadly the same four criteria when formulating both their In-Competition and Out-of-Competition TDPs. Available budget is the most common criterion, followed by risk assessments and intelligence gathering and feedback from the Athlete Passport Management Unit (APMU). Other less common considerations include athlete performance and random selection. See Figure 2.

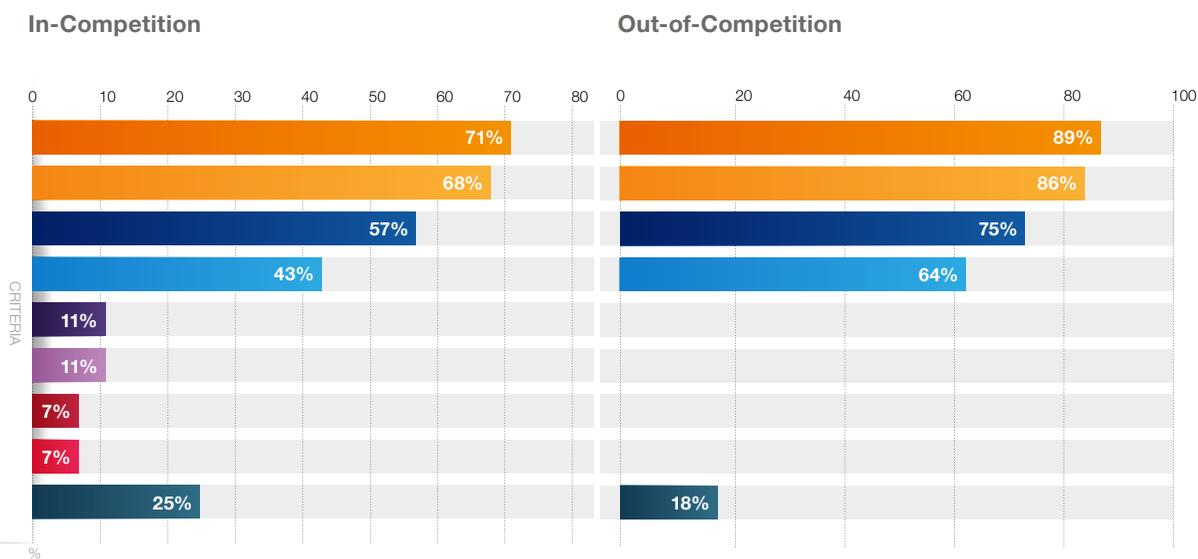
TDPs are most commonly updated on an annual basis (46%). However, a significant number of

International Federations update their TDPs on a more frequent basis; every six months (21%), quarterly (18%) or monthly (14%).

A key recommendation from the 2010 Report was for International Federations to increase detection of doping through intelligent testing. Five years later, the overwhelming majority of International Federations are basing their TDPs on gathered intelligence (93%). Half the International Federations conduct non-analytical investigations.

There are significant differences in the amount of testing that is targeted. While half of the International Federations (49%) conduct target testing in more than 70% of all cases, over a quarter do so less than 40% of the time.

Figure 2 – Criteria for In- and Out-of-Competition TDP



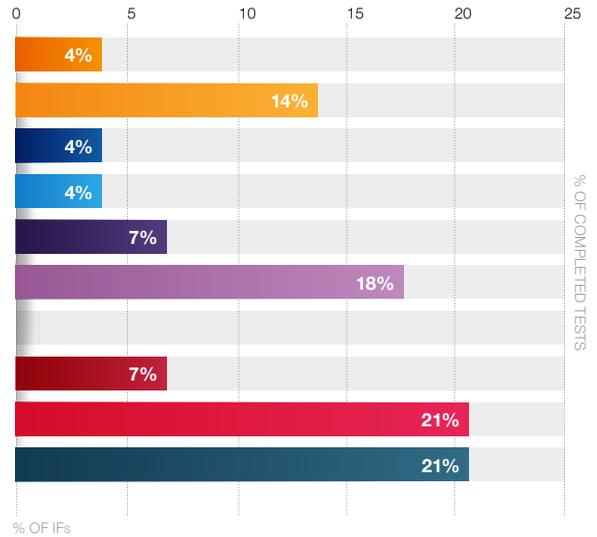
Note: 28 IFs responded

**Criteria used:**

- Available budget
- Use of Risk Assessment elaborated by the IF
- Intelligence Information Gathering
- Athlete Passport Management Unit Feedback
- Athlete Ranking
- Athlete Medals
- Type of events
- Random selection
- Other



**Figure 3 – Percentage of completed tests not randomly assigned**



Note: 28 IFs responded

- ▮ 0<10%  
 ▮ 20<30%  
 ▮ 40<50%  
 ▮ 60<70%  
 ▮ 80<90%
- ▮ 10<20%  
 ▮ 30<40%  
 ▮ 50<60%  
 ▮ 70<80%  
 ▮ 90<100%

The majority of International Federations (57%) establish their TDPs wholly in-house. The International Federations that outsource the TDP process, either partially (29%) or in full (14%), typically use agencies such as SportAccord’s Doping Free Sport Unit (DFSU), Clearidium, Canadian Centre for Ethics in Sport (CCES) and Independent Doping Tests and Management (IDTM).

**Best Practice recommends the use of intelligence driven test distribution planning and unannounced Out-of-Competition testing.**



**93%**

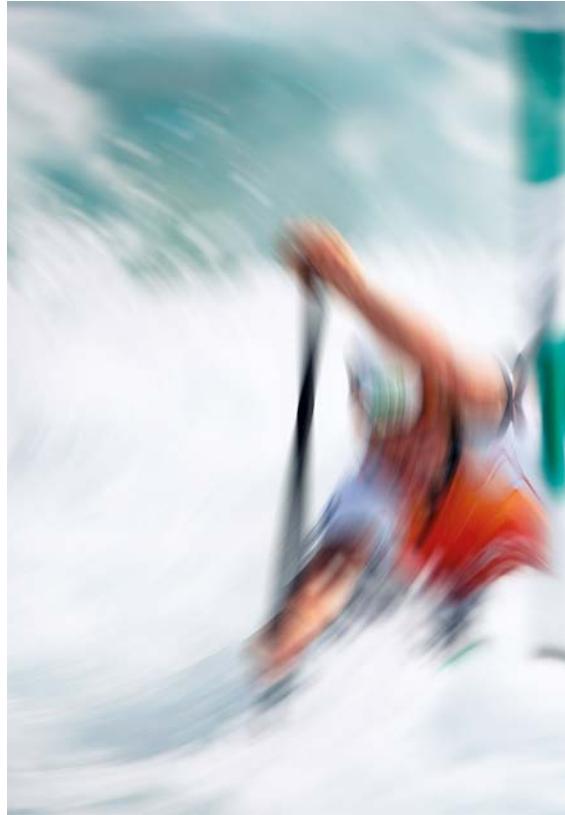
Percentage of IFs who base their Test Distribution Plans on gathered intelligence.

### Testing (In-Competition and Out-of-Competition)

Most International Federations outsource the sample collection process for both In-Competition and Out-of-Competition testing (See Figure 4).

92% of International Federations outsource their sample collection to NADOs or other Sample Collection Providers.

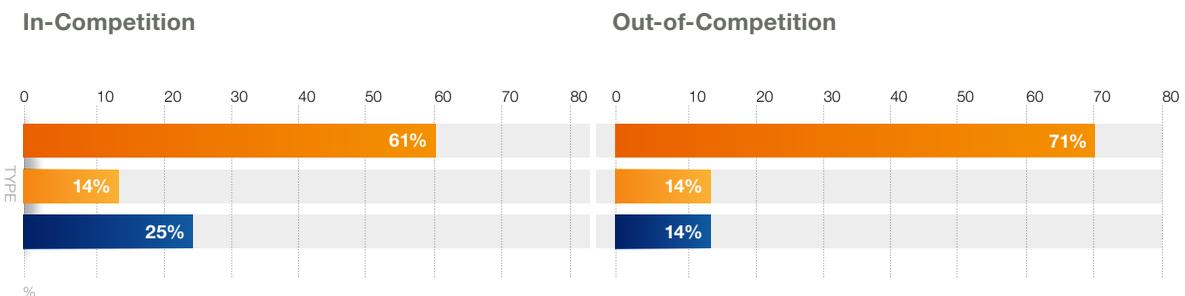
NADOs (86%) are utilised most frequently as the outsourced organisation for In-Competition testing, while the two leading private testing companies are used by 59% of International Federations.



# 92%

Percentage of IFs that outsource sample collection to NADOs or other sample collection providers.

Figure 4 – Implementation of In- and Out-of-Competition testing

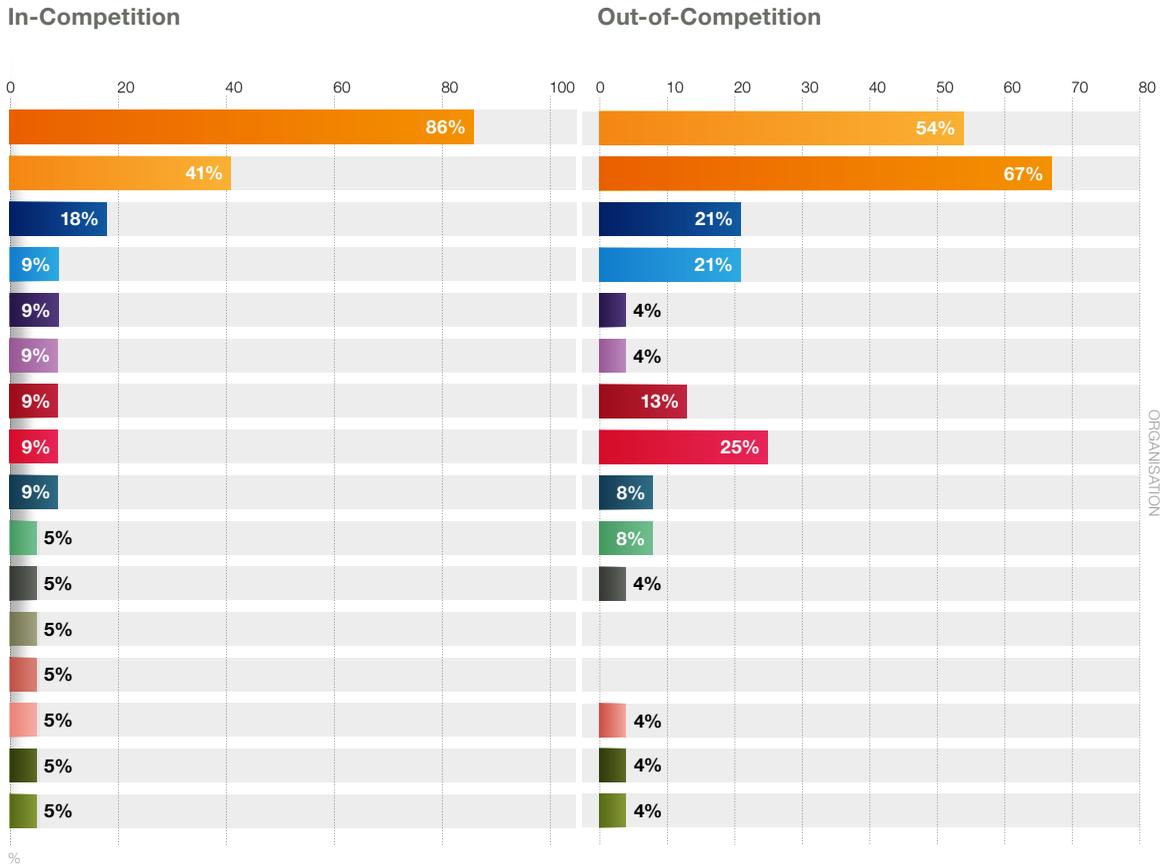


Note: 28 IFs responded

**Type of implementation:**

- ▮ Outsourced
- ▮ In-house
- ▮ Both

Figure 5 – Organisations used for outsourcing



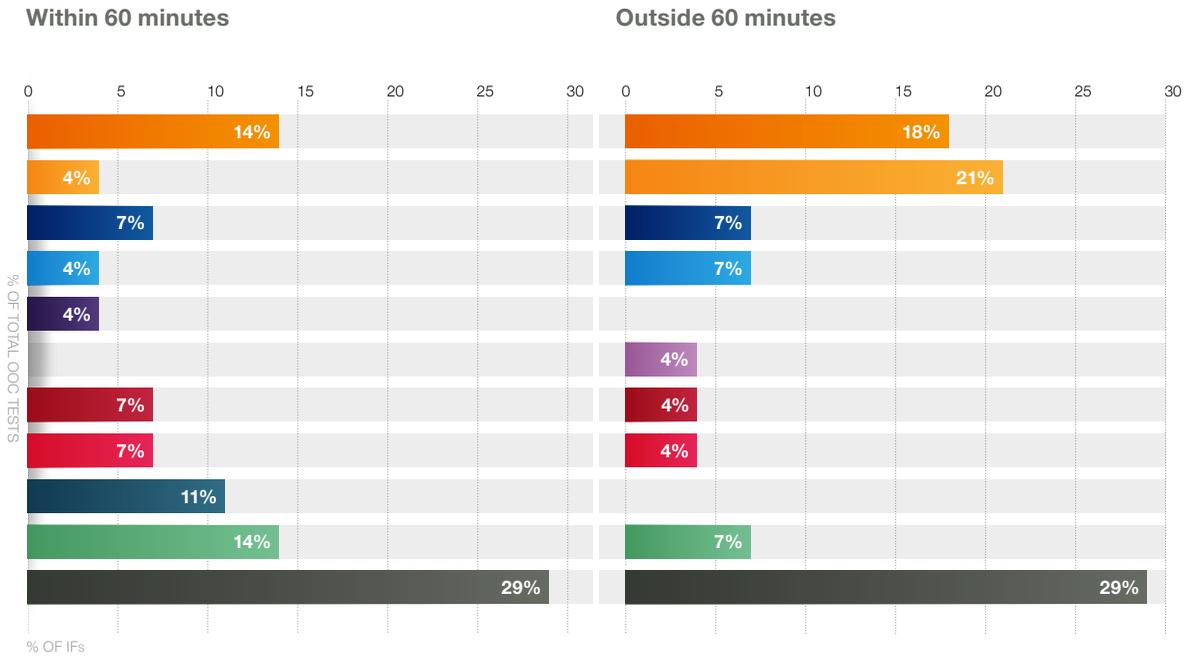
Note: 22 IFs responded

Note: 24 IFs responded

**Organisations used:**

- ▶ NADOs
- ▶ International Doping Tests & Management – IDTM
- ▶ Clearidium
- ▶ DFSU
- ▶ Africa Zone I RADO
- ▶ Central America RADO
- ▶ Global Quality Sports – GQS
- ▶ Professional Global Services – PWC
- ▶ Sports Drug Testing International – SDTI
- ▶ Africa Zone V RADO
- ▶ Africa Zone VI RADO
- ▶ Caribbean RADO
- ▶ South America RADO
- ▶ Central Asia RADO
- ▶ Oceania RADO
- ▶ Sport Physicians of Latin America and Caribbean – SPLAC

Figure 6 – Comparison of the percentage of total number of Out-of-Competition tests attempted within and outside of the nominated 60-minute slot



Note: 28 IFs responded

- 0<10%
- 20<30%
- 40<50%
- 60<70%
- 80<90%
- Don't know
- 10<20%
- 30<40%
- 50<60%
- 70<80%
- 90<100%

Figure 6 demonstrates variability in International Federation practices with respect to the distribution of Out-Of-Competition tests during and outside of the 60-minute time slot. The timing of Out-of-Competition attempts are likely to reflect the balance between maintaining uncertainty in the minds of athletes and the need to avoid failing to collect a sample.

Most International Federations are providing Doping Control Officers (DCOs) with instructions to call the athlete within the 60-minute timeslot (57% yes and 21% in exceptional circumstances) and outside the 60-minute timeslot (50% yes and 27% only in exceptional circumstances).

**Best Practice:**

**There appears to be an opportunity for some IFs to increase the effectiveness of their Out-of-Competition testing by increasing the proportion of attempts that are made outside the 60-minute time slot.**



The total number of samples initiated by the International Federations in 2015 was 32,889 of which 22,125 were In-Competition and 10,764 Out-of-Competition (excluding APMU-directed analysis).

**Table 1 - Number of Tests initiated in 2015**

	In-Competition	Out-of-Competition	Total
▼ Number of urine samples collected in 2015	22,125	10,764	32,889
▼ Number of additional urine analyses in 2015	7,280	11,699	18,979
▼ i. Erythropoiesis Stimulating Agents	3,780	2,579	
▼ ii. Growth Hormone Releasing Factors	1,353	8,210	
▼ iii. Isotope Ratio Mass Spectrometry	869	430	
▼ iv. Other	1,278	480	
▼ Number of blood samples collected in 2015	4,910	8,351	13,261
▼ i. Erythropoiesis Stimulating Agents	270	721	
▼ ii. Human Growth Hormone	452	770	
▼ iii. Athlete Biological Passport	3,765	5,742	
▼ iv. Haemoglobin Based Oxygen Carriers	234	540	
▼ v. Blood Transfusion	89	540	
▼ vi. Other	100	38	
▼ Total tests initiated by IFs	34,315	30,814	65,129
▼ How many samples analyses from the above total did your IF finance in 2015?	13,236	28,340	41,576



The number of tests initiated by International Federations (tests that are requested or instructed by an IF) totalled 65,129 for 2015, which has doubled since 2009 (32,916 tests initiated by IFs). Of these, 34,315 were In-Competition (52.7%) and 30,814 Out-of-Competition (47.3%) (excluding APMU-directed analysis).

Over 70% of samples initiated by International Federations were urine and just under 30% were blood. This ratio has changed significantly considering 92% of samples initiated by International Federations in 2009 were for urine and 8% for blood. This shift, is a result of International Federations using the Athlete Biological Passport (ABP) considerably more, compared to 2009.

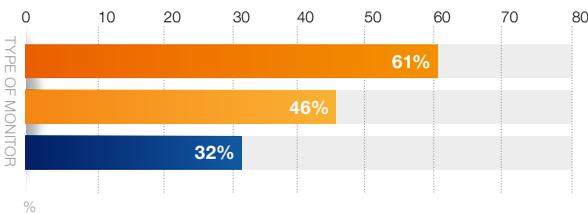
### Athlete Biological Passport (ABP)

Nearly 70% of International Federations utilise the ABP as part of their TDP. The majority (61% of all IFs) employ an Athlete Passport Management Unit (APMU).

There was significant variation in the number of ABP samples collected by each International Federation in 2015, ranging between 1 and 1,998.

Most International Federations (57%) outsource the ABP process and 94% of the 17 International Federations that utilise an APMU engage an external APMU (See Figure 8).

**Figure 7 – Percentage of IFs that have an APMU or monitor the ABP**



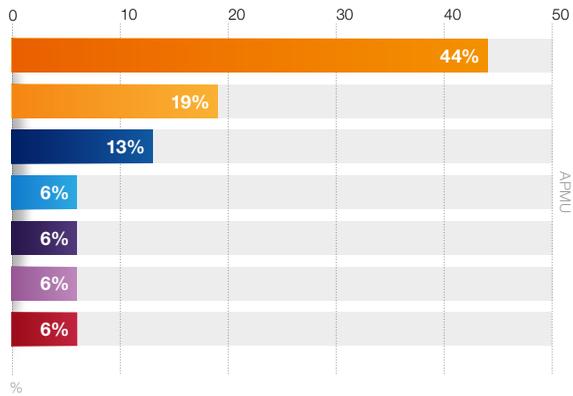
Note: 28 IFs responded

#### Type of monitoring:

- ▶ Have an APMU
- ▶ Monitor the ABP program implementation
- ▶ None of the above

APMUs utilised by International Federations external to the organisation are found in Figure 8.

**Figure 8 – List of APMUs**



Note: 16 IFs responded

#### APMU:

- ▶ Laboratoire Suisse d'Analyse du Dopage - Centre Hospitalier Universitaire Vaudois et Université de Lausanne
- ▶ Institute of Biochemistry - German Sport University Cologne /Institute of Doping Analysis and Sports Biochemistry (IDAS)-Dresden
- ▶ The Sports Medicine Research and Testing Laboratory (SMRTL)
- ▶ Laboratoire de contrôle du dopage INRS- Institut Armand-Frappier
- ▶ Agence Française de Lutte contre le Dopage (AFLD)
- ▶ Anti-Doping Laboratory LSI Medience Corporation
- ▶ Norwegian Doping Control Laboratory - Department of Pharmacology Oslo University Hospital

# 70%

Percentage of IFs that utilise the Athlete Biological Passport as part of the TDP

#### Best Practice:

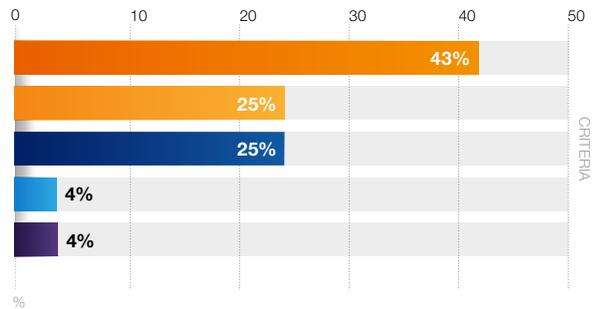
**As the ABP is a powerful tool to detect the use of prohibited substances and methods, full use of the ABP is recommended for IFs.**



### Sample/Laboratory Analysis

Perceived quality, cost and location were cited as the three primary considerations when choosing a WADA-accredited laboratory for sample analysis.

Figure 9 – Criteria used to choose laboratory



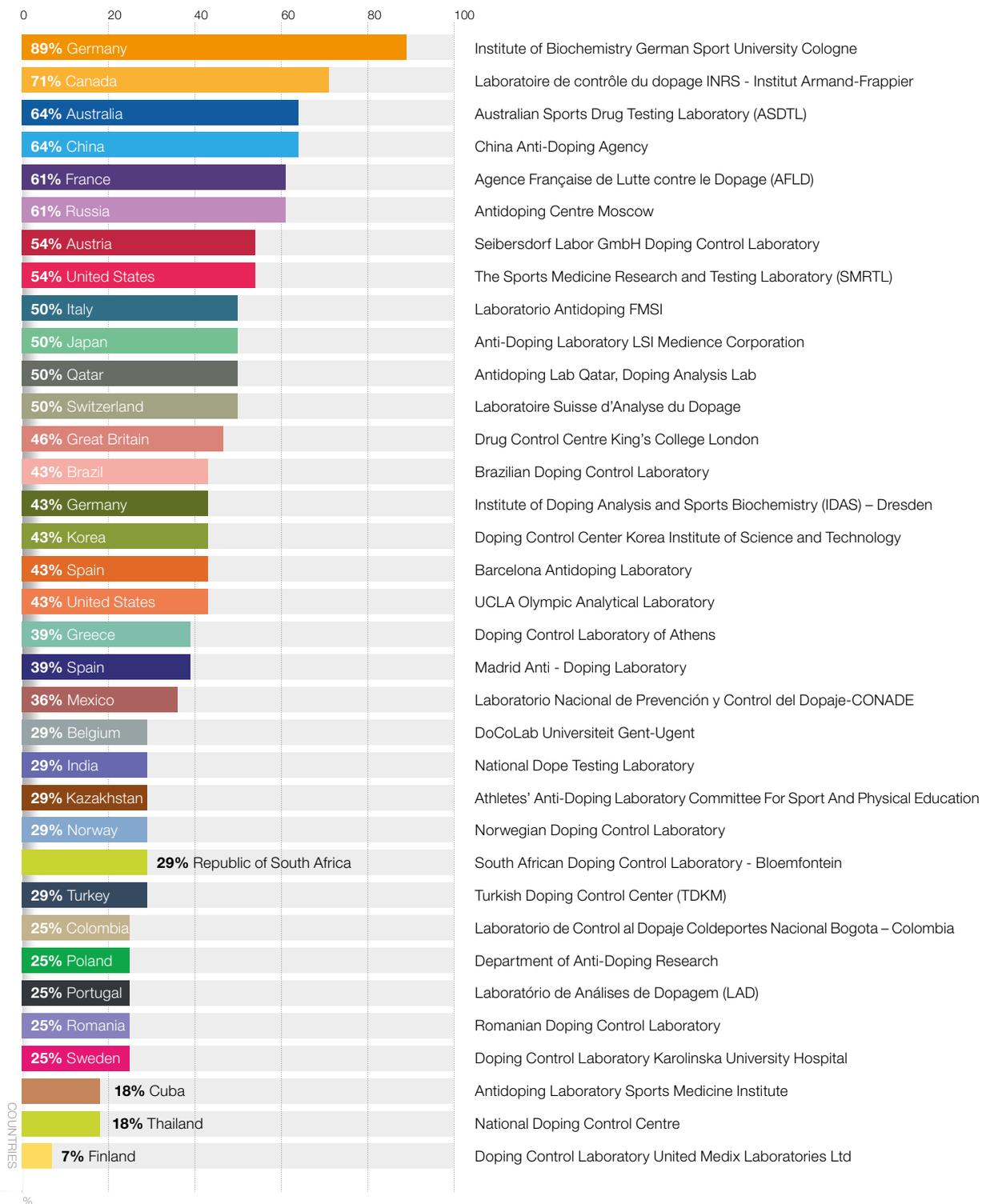
Note: 28 IFs responded

#### Criteria used:

- ▾ Quality
 ▾ Proximity to Testing Locations
▾ Other
- ▾ Cost
 ▾ Reputation

Figure 10 illustrates which WADA approved laboratories were used most by International Federations during the course of 2015.

Figure 10 – WADA approved laboratories used by IFs in 2015

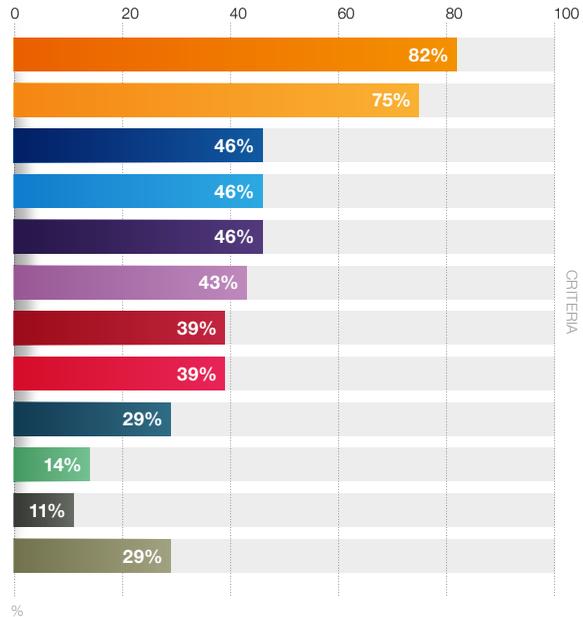




### Whereabouts and Testing Pools

93% of International Federations have a Registered Testing Pool (RTP) and 36% of International Federations have a Testing Pool (TP). The top criteria used to determine athlete inclusion within their RTP can be seen in Figure 11, with athlete ranking (82%) and Intelligence Information Gathering (75%) cited as the top two guiding considerations.

Figure 11 – Registered Testing Pool Athlete Inclusion Criteria



Note: 28 IFs responded

**Criteria used:**

- Ranking
- Intelligence Information Gathering
- AMPU Feedback
- Suspicious behaviour or tip
- Previous ADRV
- Athlete Performance Sudden Increase
- Sample Analysis
- Underdeveloped NADOs in Athlete's country
- Whereabouts Failures Count
- Athlete Withdrawal from Events
- Athlete who has not been tested in a long time
- Other

82%

Percentage of IFs who use athlete ranking as the top criterion for inclusion in the RTP

459

Number of TUEs processed by IFs in 2015

89% of International Federations use the Anti-Doping Administration and Management System (ADAMS) to store the whereabouts filings of their athletes. The remaining 11% use an alternative in-house system.

**Best Practice recommends the use of a representative sized RTP from a testing pool that is derived by numerous inclusion criteria such as rankings, intelligence, APMU data, sport discipline risk, etc.**

### Therapeutic Use Exemptions (TUEs)

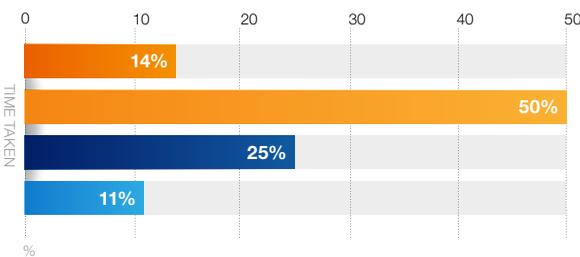
The number of TUEs processed by International Federations (excluding 3 International Federations who did not provide information) in 2015 was 459. This represents just 19.2% of the 2,386 TUEs that were processed by International Federations in 2009. This is primarily due to changes in the Prohibited List (specifically because the regulations concerning beta-2 agonist use have been modified).

The number of TUEs processed in 2015 varied between International Federations, with 40% of International Federations processing 0-10 TUEs, 40% of International Federations dealt with 10-30 TUEs and the remaining 10% handled 30-80 TUEs.

The average time to process a TUE from the time the application is received, to the time the athlete is notified varies considerably between International Federations, with the majority completing TUE reviews within one week.

This suggests an improvement from 2009 when the average processing time was 2.2 weeks.

**Figure 12 – Average time for processing a TUE**



Note: 28 IFs responded

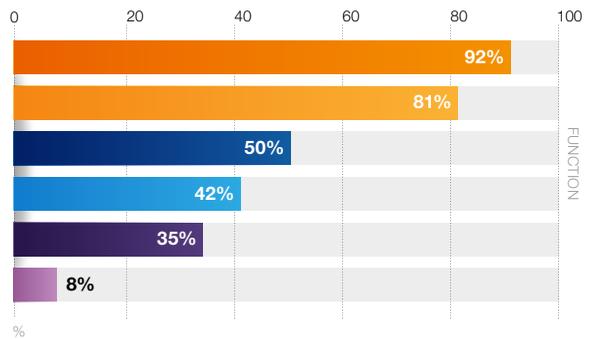
**Time taken to process TUEs:**

- 3 days or less
- 4 to 7 days
- 8 to 14 days
- 15 to 29 days

93% of International Federations use Anti-Doping Administration and Management System (ADAMS) for the administration of TUEs with one International Federation outsourcing to IDTM and one using their internal TUE system. By contrast, 23% of International Federations outsourced their administration for TUE applications in 2009.

International Federations use ADAMS mainly for storing valid TUEs (92%) and issuing TUEs (81%). However, other TUE functions in ADAMS such as receiving applications, managing notifications and reviewing applications are utilised by 50% or fewer International Federations (See Figure 13).

**Figure 13 – TUE Functions in ADAMS**



Note: 26 IFs responded

**Functions:**

- Storing valid TUEs
- Issuing TUEs
- Receiving applications
- Notifying athletes
- Reviewing applications
- Other

Over three quarters of the International Federations (78%) have an in-house TUE committee. Just over 60% of International Federations implement mutual recognition of TUEs with NADOs, a significant increase on the corresponding figure of 19% from 2009.

**Best Practice:**

**Delays in the processing of TUE applications may affect athletes' abilities to compete. IFs are recommended to develop processes that minimise such delays.**

## Results Management

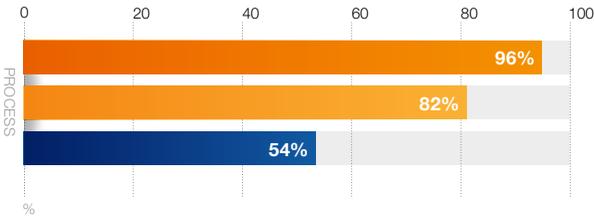
Table 3 provides a breakdown of International Federation Results Management activity during 2015. The number of Filing Failures (278) and the number of Missed Tests (287) have increased by 15.4% and 36.7% respectively. This increase may be due to the rise in the total number of Out-of-Competition tests initiated by International Federations in 2015 of almost 100%.

**Table 2 – Average per outcome for all IFs**

Outcome	Total in 2009	Total in 2015	Mean number of cases per IF in 2015
Adverse Analytical Finding (AAF)	193	475	23
Atypical Passport Finding (ATPF)	N/A	328	30
Atypical Finding (ATF)	226	242	17
Filing Failure (FF)	241	278	19
Missed Test (MT)	210	287	16
Adverse Passport Finding (APF)	N/A	23	12
Anti-Doping Rule Violation (ADRV)	159	219	15

The Results Management process is most often carried out in-house (71%) or by a combination of in-house and outsourced (21%).

**Figure 14 – Processes carried out by IF**



Note: 28 IFs responded

**Processes used:**

- ▾ Monitor the RM processes
 ▾ Investigate non-analytical ADRV's
- ▾ Investigate analytical ADRV's

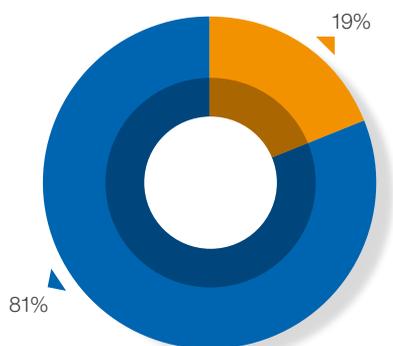
Only 7% of IFs fully outsource their Results Management. Ninety-six percent of International Federations state that they monitor this process closely. Figure 14 shows that more International Federations investigate analytical ADRV's (82%) compared to non-analytical ADRV's (54%).



### Information and Intelligence

One of the changes in the 2015 Code was the addition of the requirement for intelligence-driven anti-doping practices. Of the 28 International Federations, 21 (75%) confirm that they utilise information and intelligence gathering.

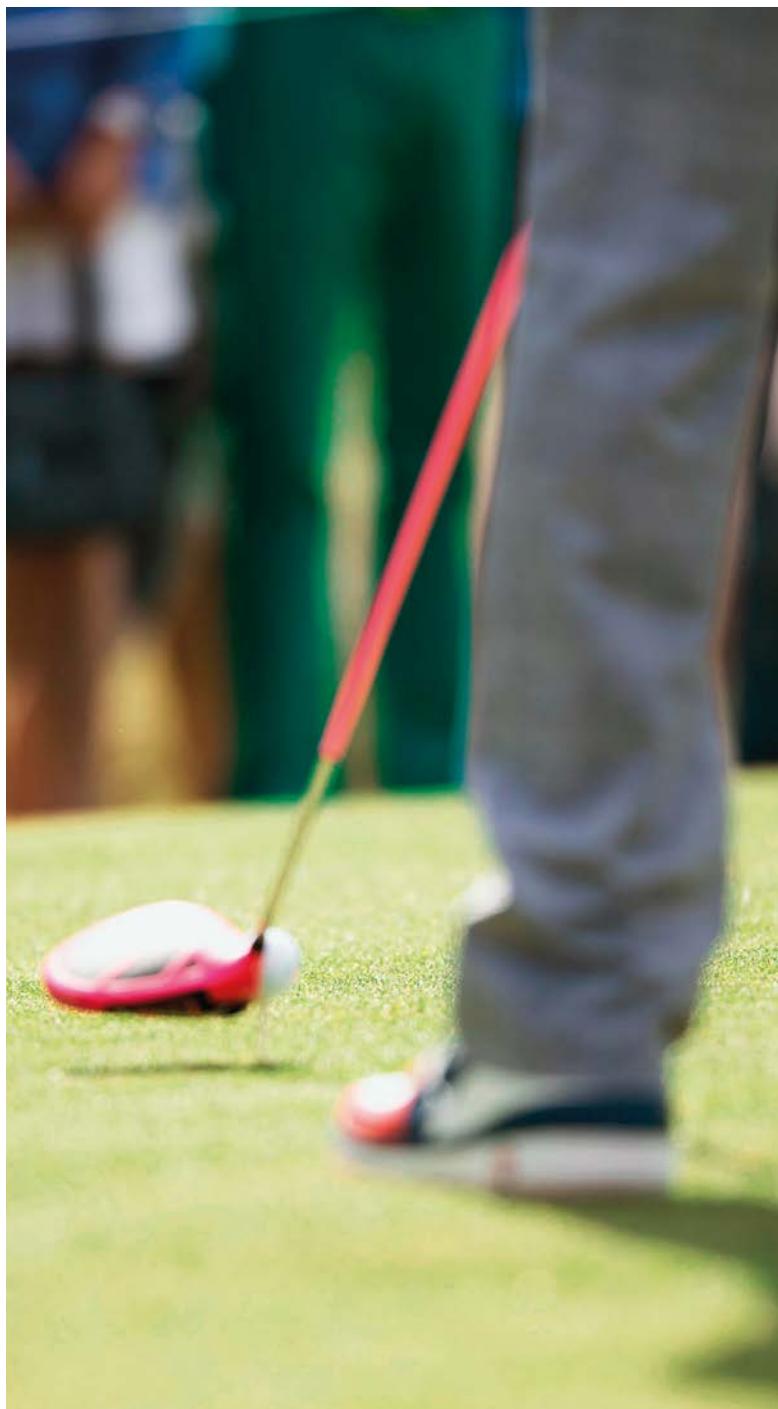
Figure 15 – IFs that utilise software for the management of intelligence information



Yes No

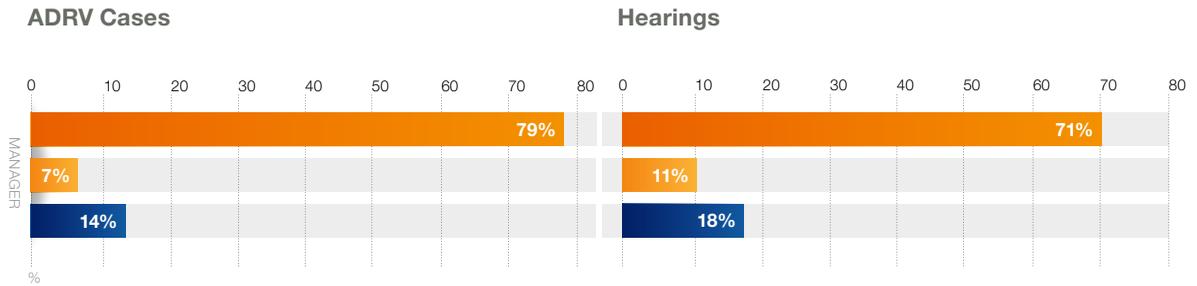
Note: 21 IFs responded

**Best Practice recommends the utilisation of intelligence information in informing and influence anti-doping processes; through the designation of an intelligence officer and utilisation of specified intelligence management software.**



## Hearings and Sanctioning

Figure 16 – Implementation of ADRV Cases and Hearings



Note: 28 IFs responded

### Type of implementation:

- ▾ In-House
- ▾ Outsourced
- ▾ Both

The number of reported ADRVs in 2015 was 219. This compares with 159 ADRVs in 2009.

A total of 54 hearings were managed by the International Federations (12) themselves. The majority of International Federations perform the hearing and sanctions in-house (71%), with just 11% outsourcing these aspects of the process.

**Best Practice recommends that Hearings and Sanctioning are timely and occur in an independent, arms-length process from the IF to ensure there is no real or perceived conflict of interest.**







**IF EXPENDITURE  
ON ANTI-DOPING**

# IF Expenditure on Anti-Doping

## Financial Resources and Budget

The total reported expenditure (excluding staff and volunteer costs) of International Federations in relation to anti-doping increased from \$21.4M in 2009 to \$22.8M in 2015. This represents an increase of \$1.4M or 6.7%.

**Table 3 – Comparison of Anti-Doping expenditure 2009 and 2015**

Anti-Doping Process	2009 Cost (\$) (proportion of total 2009)	2015 Cost (\$) (proportion of total 2015)
▼ Testing	16,660,178 (77.8%)	16,043,291 (70.2%)
▼ Results Management	1,807,091 (8.4%)	462,757 (2%)
▼ Rules & Planning	782,779 (3.7%)	522,669 (2.3%)
▼ TUE	175,842 (0.8%)	157,199 (0.7%)
▼ Communication	407,632 (0.8%)	290,161 (1.3%)
▼ Education	882,546 (4.1%)	667,337 (2.9%)
▼ Research	272,410 (1.3%)	125,000 (0.5%)
▼ Legal	-	1,424,343 (6.2%)
▼ Administration	-	1,137,515 (5.0%)
▼ Contract Management	-	57,05 (0.2%)
▼ Risk Assessment	-	2,651 (0.00%)
▼ Other	413,094 (1.9%)	1,947,616 (8.5%)
<b>▼ TOTAL</b>	<b>21,402,090</b>	<b>22,837,589</b>

The expenditure on testing continues to account for the majority of the total expenditure (70.2%) despite a decrease from 2009 when it constituted 77.8% of overall costs.



**Results Management** made up 8.4% of expenditure in 2009 but has decreased to 2% in 2015. This suggests that International Federations are being more cost-efficient in the Results Management.

**Legal costs** account for \$1.4M of total International Federation anti-doping expenditures, or 6.2% of total expenditure. Unfortunately, the 2010 study did not separate out legal costs from other costs, rendering it impossible to quantify any changes in expenditure on this item.

One of the key recommendations from the 2010 Report was for International Federations to increase their activity and investment within the sphere of **education**. However, spending on education programmes has actually reduced as both an absolute figure and as a percentage of total expenditure from 4.1% to 2.9%.

There was a significant difference between “internal” (i.e. costs paid to people employed by the International Federations) and “external” (i.e. costs paid to external organisations) expenditure with \$6.9M and \$15.9M spent respectively. This contrasts with the findings in 2010, which demonstrated a more equal split of \$10.7M for internal International Federation costs and \$10.6M for external costs. This reflects a change in the type of anti-doping practices required by the change in the 2015 Code. External expertise is now required to implement a robust anti-doping programme.

A more detailed breakdown of the cost categories between In-Competition and Out-of-Competition testing can be found in Appendix III.

The expenditure on each aspect of anti-doping, as a proportion to the total (i.e. In-Competition and Out-of-Competition combined) can be seen in Figure 17.

Figure 17 – Anti-Doping Expenditure as a proportion of total budget

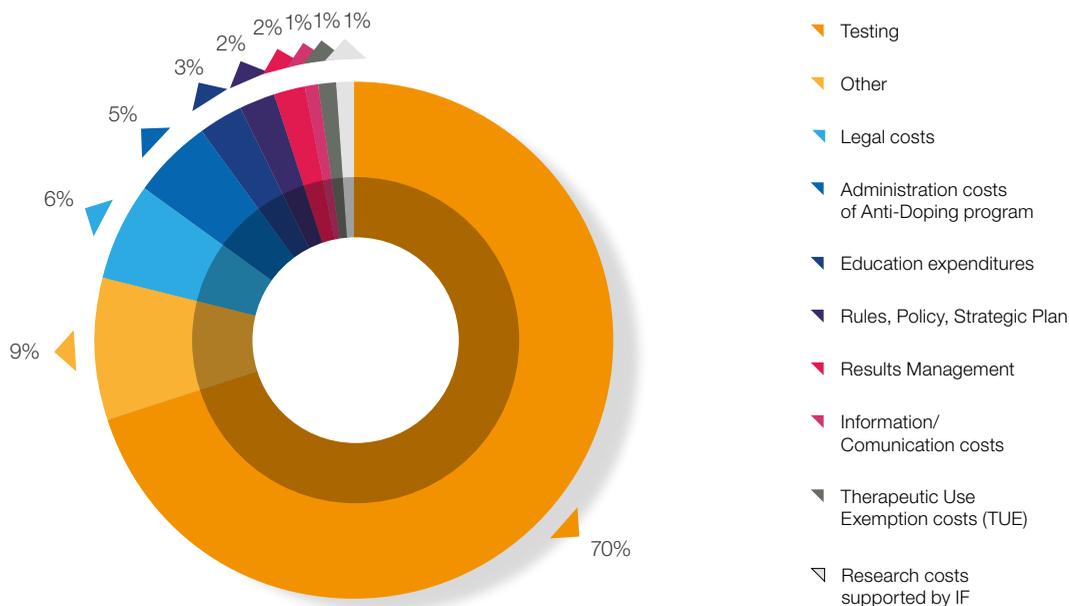




Table 4 – Resource &amp; Budget Expenditures

Anti-Doping Process	Cost		
	Internal	External	TOTAL
▼ Rules, Policy, Strategic Plan	\$225,949	\$296,720	\$522,669
	Internal	External	TOTAL
▼ Testing	\$3,584,230	\$12,459,061	\$16,043,291
▼ 1. Sample Collection	\$738,776	\$3,330,267	\$4,069,043
▼ 2. Test Distribution planning	\$106,098	\$4,117,360	\$4,223,458
▼ 3. Laboratory Analysis	\$92,516	\$2,198,110	\$2,290,626
▼ IF ABP Management	\$4,115	\$2,080	\$6,195
▼ APMU costs	\$0	\$505,406	\$505,406
▼ Intelligence Management	\$70,534	\$31,294	\$101,827
▼ Transport of sample	\$0	\$405,467	\$405,467
▼ Athlete Whereabouts	\$81,556	\$2,080	\$83,636
▼ Other	\$2,490,636	\$1,866,997	\$4,357,633
	Internal	External	TOTAL
▼ Result Management (RM)	\$357,707	\$105,050	\$462,757
▼ 1. Routine: RM includes all “routine” activities related to RM such as AAFs where there are TUEs on file	\$105,427*	\$105,050	\$210,477
▼ 2. Non-routine Analytical (AAF, ATF, others)	\$134,936*	\$0	\$134,936
▼ 3. Non-routine Non-Analytical (ATPF, FF, MT, ADRV, others)	\$66,600*	\$0	\$66,600
▼ Legal	\$333,295	\$1,091,047	\$1,424,343
▼ Therapeutic Use Exemptions	\$73,413	\$83,785	\$157,199
▼ Information / Communication	\$116,281	\$173,880	\$290,161

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▼ Education	\$450,196	\$217,141	<b>\$667,337</b>
▼ Research supported by IF	\$125,000	\$0	<b>\$125,000</b>
▼ Administration	\$974,668	\$162,848	<b>\$1,137,515</b>
▼ Contract Management	\$42,050	\$15,000	<b>\$57,050</b>
▼ Risk Assessment	\$2,651	\$0	<b>\$2,651</b>
▼ Other	\$623,016	\$1,324,600	<b>\$1,947,616</b>
<b>▼ TOTAL IF ANTIDOPING EXPENDITURE 2015</b>	<b>\$6,908,457</b>	<b>\$15,929,132</b>	<b>\$22,837,589</b>

Note: 26 IFs provided valid information for the Results Management Breakdown



Table 5 - Total cost overview (internal/external/grand total) of anti-doping activities in 2009 and 2015

▼ Total Costs incurred by IFs	Total 2009	Average 2009	Total 2015	Average 2015
▼ Total Internal/In-House Costs	\$10,738,435	\$429,537	\$6,908,457	\$265,710
▼ Total External/Outsourced Costs	\$10,663,665	\$850,558	\$15,929,132	\$612,659
<b>▼ TOTAL IF ANTI-DOPING BUDGET</b>	<b>\$21,402,090</b>		<b>\$22,837,589</b>	
▼ Total IF Staff Human Resources Costs	\$1,600,000	N/A	\$4,437,064	N/A
▼ Total Volunteer/External Expert Costs	\$500,000	N/A	\$407,323	N/A
<b>▼ TOTAL IF ANTI-DOPING BUDGET WITH HR COSTS</b>	<b>\$23,502,090</b>		<b>\$27,681,976</b>	

The difference in total IF anti-doping budgets (excluding staff, volunteer costs) between 2009 and 2015 was \$1.44M. However, if staffing costs are included, the difference is \$4.18M, demonstrating that costs have significantly increased to implement anti-doping programmes during those intervening years.

# \$27.68<sub>m</sub>

The total anti-doping expenditure by IFs in 2015.

# 70%

Percentage of IFs' total anti-doping budget spent on testing.

## Comparison of IF expenditures

It is important to note that there are significant differences in spending between the different International Federations. The table below quantifies these differences using the standard deviation of the values provided by IFs.

**Table 6 – Mean Cost Distribution**

	Cost		
▼ Activity	Total	Average	Standard Deviation
▼ Rules, Policy, Strategic Plan	\$522,669	\$16,333	\$36,022
▼ Testing	\$16,043,291	\$308,525	\$759,743
▼ Testing (In-Competition)	\$3,568,054*	\$187,792*	\$334,028*
▼ Testing (Out-of-Competition)	\$7,159,681*	\$357,984*	\$775,086*
▼ Results management	\$462,757	\$14,461	\$36,302
▼ Legal	\$1,424,343	\$37,483	\$102,703
▼ Therapeutic Use Exemption (TUE)	\$157,199	\$17,467	\$21,702
▼ Information / Communication	\$290,161	\$9,672	\$25,382
▼ Education	\$667,337	\$15,889	\$33,451
▼ Research supported by IF	\$125,000	\$12,500	\$27,003
▼ Administration	\$1,137,515	\$23,698	\$45,122
▼ Contract Management	\$57,050	\$2,853	\$8,323
▼ Risk Assessment	\$2,651	\$221	\$765
▼ Other	\$1,947,616	\$139,115	\$301,487

Note: Standard Deviation, when added to and subtracted from the average value, provides the range of expenditure that includes 68% of all IFs.

In 2009, the majority of IFs (17 out of 27) spent \$100,000 or less on anti-doping, whereas only 3 IFs spent more than \$1M. IFs were grouped into 3 categories of anti-doping expenditure. On average, members of Group 1 spent \$28,794, members of Group 2 spent \$77,322 and Group 3 members spent more than \$1M (\$1,078,734 average)

We have adopted a similar approach in this report by splitting the IFs into 3 groups, which results in the following:

- ▼ **Group 1** - expenditure of up to \$300k
- ▼ **Group 2** - expenditure between \$300k and \$1,000k
- ▼ **Group 3** - expenditure above \$1M

**Table 7 – Distribution of anti-doping costs amongst grouped IFs**

	2009				2015			
▼ Internal Costs	Number of IFs	% of Total Costs	Total	Average expenditure per IF	Number of IFs	% of Total Costs	Total	Average expenditure per IF
▼ Group 1 (up to \$300k)	21	12%	\$1,250,230	\$59,534	20	23%	\$1,581,106	\$79,055
▼ Group 2 (\$300k to \$1,000k)	3	17%	\$1,817,394	\$605,798	4	31%	\$2,161,351	\$540,338
▼ Group 3 (\$1,000k+)	3	71%	\$7,670,807	\$2,556,935	2	46%	\$3,166,000	\$1,583,000
▼ External Costs	Number of IFs	% of Total Costs	Total	Average expenditure per IF	Number of IFs	% of Total Costs	Total	Average expenditure per IF
▼ Group 1 (up to \$300k)	22	14%	\$1,533,047	\$69,683	19	9%	\$1,385,464	\$72,919
▼ Group 2 (\$300k to \$1,000k)	2	14%	\$1,487,674	\$743,837	3	11%	\$1,674,821	\$558,274
▼ Group 3 (\$1,000k+)	3	72%	\$7,642,934	\$2,547,644	4	81%	\$12,868,847	\$3,217,212

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▼ Total Costs	Number of IFs	% of Total Costs	Total	Average expenditure per IF	Number of IFs	% of Total Costs	Total	Average expenditure per IF
▼ Group 1 (up to \$300k)	17	7%	\$1,408,799	\$82,870	17	11%	\$2,604,250	\$153,191
▼ Group 2 (\$300k to \$1,000k)	4	11%	\$2,288,501	\$572,125	3	9%	\$1,971,372	\$657,124
▼ Group 3 (\$1,000k+)	6	83%	\$17,704,790	\$2,950,798	6	80%	\$18,261,967	\$3,043,661

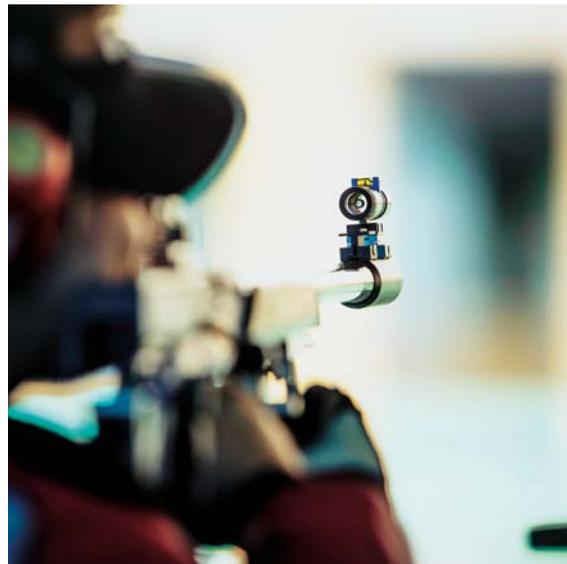
Note: 26 IFs responded with information for 2015

From Table 7 the uneven distribution amongst IFs regarding their total Internal and External costs is clear. Six IFs account for 80% of the total anti-doping costs, whereas 17 IFs account for only 11%.

There is a significant increase from 7% to 11% of the total costs of anti-doping between 2009 and 2015 for Group 1. The average expenditure for the lower spending IFs was \$82,870 in 2009 increasing to \$153,191 in 2015.



Six international federations accounted for 80% of total IF anti-doping costs in 2015.



## Financing of Anti-Doping

The International Federation anti-doping budget is financed mainly through the International Federations' annual budget with half of the International Federations providing 100% of funding from this source. However, for certain International Federations, other finance sources contribute to the anti-doping budget such as International Federation sport events and competitions, sanctions, IOC funding, external stakeholders or through professional athletes and teams.

## Human Resources

The total Human Resource expenditure has doubled over the past six years as a result of more FTE staff being employed across the 28 International Federations. In 2009, the total HR expenditure was \$2.1M, comprising \$1.6M for FTE staff and \$0.5M for

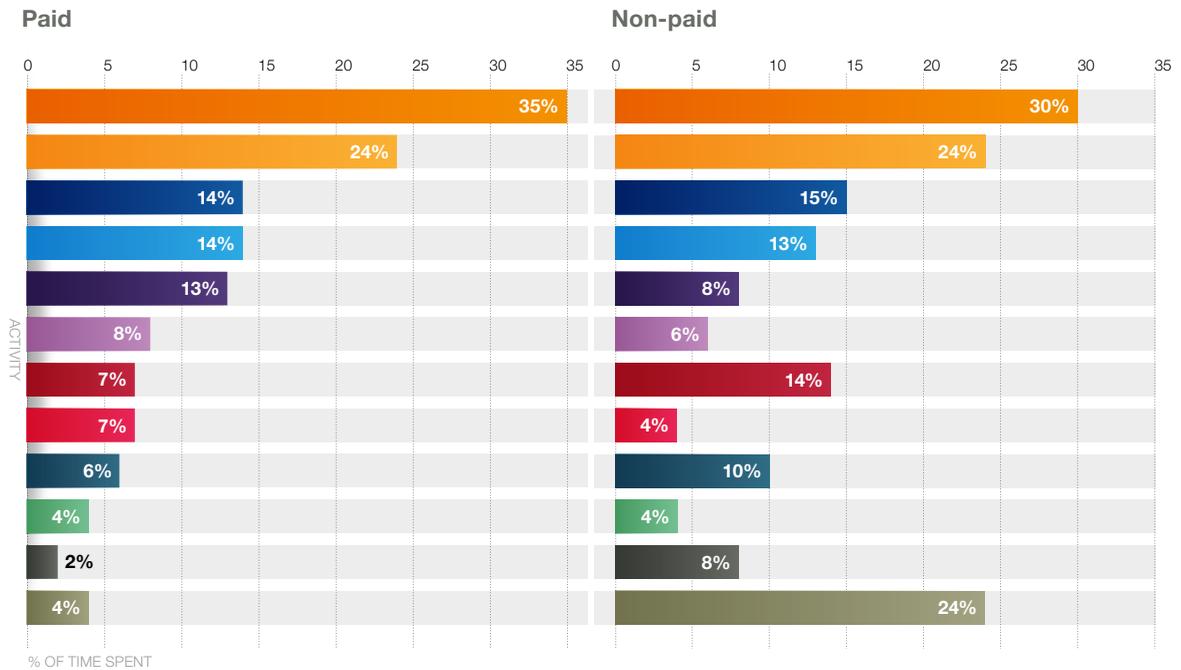
unpaid volunteers. In 2015, the total HR expenditure was \$4.8M, comprising of \$4.4M for paid staff and experts and \$0.4M for unpaid volunteers.

The equivalent 61 Full-Time Equivalent (FTE) staff are employed by the 28 International Federations on anti-doping at a total cost of approximately \$3.1M in 2015. The expenses for volunteers as well as outsourcing professionals outside of the International Federation (89.3 FTE) totalled approximately \$1.7M.

The distribution of the number of paid staff working on anti-doping is uneven, with three International Federations accounting for 48% of the total paid staff (in FTEs). These same three International Federations have a total budget that accounts for 58% of the total anti-doping expenditure. This indicates, unsurprisingly, that the number of paid employees tends to reflect the size, at least in financial terms of the respective anti-doping programmes.



Figure 18 - Time spent on Anti-Doping activities by IF staff



Activity

- ▶ Testing
 ▶ Rules, Policy, Strategic Plan
▶ Therapeutic Use Exemption
▶ Risk Assessment
- ▶ Administration of Anti-Doping program
 ▶ Education expenditures
▶ Contract Management
▶ Research costs supported by IF
- ▶ Result Management - RM
 ▶ Information/Communication
▶ Legal
▶ Other Specified

Both International Federation staff and volunteers or outsourced staff spend most of their time on testing and administration. While International Federation staff tend to spend more time dealing with education, the volunteers and outsourced staff spend more time with rules, policy and strategic planning activities.

Testing remains the activity that demands the most time, however results management and TUEs are activities that International Federations spend considerably less time on than in 2009.



HR expenditure across the 28 IFs doubled between 2009 and 2015.

Table 8 - Actual expenditure on human resources with regards to anti-doping activities

Paid Staff			Volunteers/ External Experts		
Functions	Total staff costs (based on 22 IFs)	Average Annual Salary	Functions	Total Annual Salary (based on 22 IFs)	
IF Staff	\$3,120,464	\$75,740	Other (Anti-Doping Board, Medical Committee, Legal Staff, Admin Support, Medical Expert etc.)	\$407,323	
Other (Medical Advisor Expert, Admin Support, Legal Staff, etc.)	\$1,316,600				
<b>Total</b>	<b>\$4,437,064</b>		<b>Total</b>	<b>\$407,323</b>	

Individual salaries for International Federation staff working on anti-doping averaged \$75,740. If we look at the time spent per activity, it is apparent that the most time-intensive anti-doping processes are testing, result management (both for volunteers and paid staff) and TUEs (for volunteers/external staff).



**47%**

The reduction in the average cost of tests between 2009 (\$825) and 2015 (\$387).

## Testing

Table 9- In-Competition and Out-of-Competition Testing Costs

Anti-Doping Process	Cost			
	Internal		External	
	In-Competition Costs	Out-of-Competition Costs	In-Competition Costs	Out-of-Competition Costs
<b>▼ Testing</b>	<b>\$825,825 (5)</b>	<b>\$385,784 (5)</b>	<b>\$2,742,229 (10)</b>	<b>\$6,773,897 (13)</b>
▼ 1. Sample Collection	\$15,060 (2)	\$87,896 (1)	\$356,221* (7)	\$1,497,890* (8)
▼ 2. Test Distribution planning	\$1,140 (1)	\$3,140 (2)	\$878,800* (1)	\$2,852,720* (2)
▼ 3. Laboratory Analysis	\$30,576 (1)	\$61,940 (2)	\$360,088* (6)	\$1,204,347* (7)
▼ 4. IF ABP Management	\$300 (1)	\$700 (1)	\$0*	\$0*
▼ 5. APMU costs	\$0	\$0	\$0*	\$204,122* (3)
▼ 6. Intelligence Management	\$3,280 (2)	\$4,140 (2)	\$0*	\$0*
▼ 7. Transport of samples	\$0	\$0	\$32,000* (2)	\$174,120* (4)
▼ 8. Athlete Whereabouts	\$969 (1)	\$3,969 (2)	\$0*	\$0*
▼ 9. Other	\$774,500 (2)	\$224,000 (2)	\$0*	\$1,115,120* (3)

Note: This question was not compulsory. Not all IFs were able to provide In-Competition and Out-of-Competition testing costs\*Of those who responded, not all IFs were able to provide External In-Competition and Out-of-Competition testing costs

It is important to note that not all International Federations were able to separate their testing costs into In-Competition and Out-of-Competition costs as a number of International Federations have an anti-doping budget that covers all processes.

## Cost Per Test

Of the 65,129 tests initiated by International Federations, 63.8% were financed by the International Federations concerned (41,576), which is double the corresponding figure from 2009. However, the ratio of initiated tests to tests financed by International Federations has only increased by 2.5%. Based on the total cost of testing (\$16.0M), the average cost per test can be calculated at \$387. This is a significant reduction on the average of \$825 per test in 2009.

## Missed Tests and Filing Failures

A total of 278 Filing Failures (FFs) and 287 Missed Tests (MTs) were recorded by the International Federations that responded. The distribution of these across the IFs can be found in the table below.

**Table 10 – Test findings**

▼ Testing	Adverse Analytical Finding	Atypical Passport Finding	Atypical Finding	Filing Failure	Missed Test	Adverse Passport Finding	Anti-Doping Rule Violation
▼ Total	592	328	242	278	287	23	219

## Testing Efficiency

### 2009 ADRV

Average cost: \$104,781

### 2015 ADRV

Average cost: \$73,245

### 2009 AAF

Average cost: \$86,501

### 2015 AAF

Average cost: \$33,775

### 2009 ATF

Average cost: \$73,574

### 2015 ATF

Average cost: \$66,295

The average cost for each ADRV has dropped by 30.1%. The average costs for AAF and ATF have also decreased by 61.0% and 9.9% respectively despite the incidence of both having increased.

## Therapeutic Use Exemptions (TUEs)

In 2015, the total cost for processing TUEs was \$157,199 or 0.7% of total International Federation expenditure. The figure is split between internal (\$73,413) and external costs (\$83,785).

The corresponding figure in 2009 was 0.8% of total expenditure, despite the number of TUEs processed by International Federations having decreased from 2,386 in 2009 to 459 in 2015.

The processing cost per TUE has increased 463% from an average of \$74 in 2009 to \$342 in 2015.

This does not take into account the time that volunteer doctors spent on reviewing TUEs, as explained above, who spend more than 20% of their time on this activity.

**Table 11 – Cost of TUEs**

Number of TUEs	Total Cost for TUEs	Average Cost Per TUE
459	\$157,199	\$343

## Results Management

The total cost of results management for the International Federations in 2015 was \$462,757, which is significantly lower than the corresponding 2009 total of \$1,807,091. The total Results Management cost has a split of 43.6% on Non-Routine Result Management versus 45.5 % on Routine Results Management (versus total).

**Table 12 – IF Results Management**

	Internal costs	External costs	Total costs
▼ <b>Results Management</b>	<b>\$357,707</b>	<b>\$105,050</b>	<b>\$462,757</b>
▼ 1. Routine: RM includes all “routine” activities related to RM such as AAFs where there are TUEs on file	\$105,427*	\$105,050	\$210,477
▼ 2. Non-routine Analytical (AAF, ATF, others)	\$134,936	\$0	\$134,936
▼ 3. Non-routine Non-Analytical (ATPF, FF, MT, ADRV, others)	\$66,600*	\$0	\$66,600





# CONCLUSION

# Conclusion

The figures contained in this report represent the International Federation totals bearing in mind the existing, and sometimes large variations, amongst different International Federations. Nevertheless, they give a clear indication as to how the money of International Federations is spent globally on fulfilling their obligations under the WADA Code and more specifically on what aspects within anti-doping the money is spent on.

The aims of this study were to establish the anti-doping processes amongst IFs, quantify the financial resources that IFs devoted to anti-doping in 2015, compare those resources to the situation in the 2010 Report and learn best practices on how to better protect the clean athlete.

The key findings were that:

- ▼ Much greater use of intelligence testing is being made by the IFs compared to 2009
- ▼ The number of Therapeutic Use Exemptions processed by IFs has decreased by almost 80% between 2009 and 2015
- ▼ Mutual recognition of TUEs between IFs and NADOs has also increased since 2009
- ▼ IF spending has increased from \$23.5M in 2009 to \$27.68M in 2015 (17.8%) between 2009 and 2015
- ▼ Six IFs contribute 80% of the total anti-doping expenditure, with an average spend of \$3.04M
- ▼ The 17 lowest-spending IFs contribute only 11% of total expenditure, spending an average of \$153k in 2015. However, this represents an 82% increase on the equivalent figure compared to 2009
- ▼ Testing continues to account for the majority of expenditure with the average cost per test reducing from \$825 to \$387
- ▼ Spending on anti-doping education has reduced from 4.1% of total expenditure in 2009 to 2.9% in 2015.

While the 28 ASOIF members are all WADA Code compliant and have made great strides forward in administering their anti-doping programmes over the last six years, particularly in regards to intelligence-led testing, cost savings and use of the Athlete Biological Passport, there are clearly areas where improvements can be made to more effectively protect the clean athlete.





# Appendices

## Appendix I – Glossary

Term	Definition
▼ <b>AAF</b>	<b>Adverse Analytical Finding</b> - A doping control sample that shows the presence of a prohibited substance or its metabolites or markers, or evidence of the use of a prohibited method following testing and its subsequent report. An adverse analytical finding does not necessarily lead to an anti-doping rule violation, since an athlete may have a Therapeutic Use Exemption (TUE) for this particular substance.
▼ <b>ABP</b>	<b>Athlete Biological Passport</b> - The concept of monitoring selected biomarkers that indirectly reveal the effects of doping, as opposed to the traditional testing model. Biological tracing throughout an athlete's sporting career should make doping far harder to achieve undetected.
▼ <b>ADAMS</b>	<b>Anti-Doping Administration and Management System</b> - The web-based database management tool for data entry, storage, sharing, and reporting designed to assist stakeholders and Wada in their anti-doping operations in conjunction with data protection legislation.
▼ <b>ADRV</b>	<b>Anti-Doping Rule Violation</b> - A determination that one of the rule violations listed in the Code has occurred.
▼ <b>APMU</b>	<b>Athlete Passport Management Unit</b> - An APMU is composed of persons designated by the Anti-Doping Organisation to administer an ABP.
▼ <b>ATF</b>	<b>Atypical Finding</b> - A report from a Wada-accredited laboratory or other Wada-approved laboratory that requires further investigation.
▼ <b>ATPF</b>	<b>Atypical Passport Finding</b> - An ATPF is generated in ADAMS if the athlete's blood profile requires further investigation.
▼ <b>Code</b>	<b>The World Anti-Doping Code</b> - The core document that provides the harmonised framework for anti-doping policies, rules, and regulations within sport organisations and among public authorities.

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▼ <b>DCO</b>	<b>Doping Control Officer</b> - An official who is trained and authorised to carry out specific duties, including one or more of the following: notification of the athlete selected for sample collection, accompanying and observing the athlete until arrival at the doping control station, and/or witnessing and verifying the provision of the sample.
▼ <b>FF</b>	<b>Filing Failure</b> - A failure by an athlete to make an accurate and complete Whereabouts filing.
▼ <b>FTE</b>	<b>Full Time Equivalent</b> - a person working 100% e.g. full-time person (100%) = 1 half-time person (50%) = 0.5
▼ <b>IF</b>	<b>International Federation</b> - International non-governmental organisation administering one of the sports at global level and recognised by the International Olympic Committee. For the purpose of this report, International Federations means one of the 28 members of ASOIF.
▼ <b>In-Competition</b>	Any doping control that occurs during the period commencing twelve hours before a competition in which the athlete is scheduled to participate through the end of such competition and the related sample process.
▼ <b>Internal Cost</b>	Costs which are from internal resources such as staff.
▼ <b>MT</b>	<b>Missed Test</b> - Term used when an athlete has failed to be available for testing on any given day at the location and time specified in the athlete whereabouts filing.
▼ <b>NADO</b>	<b>National Anti-Doping Organisation</b> - An entity designated by a country as possessing the primary authority and responsibility to adopt and implement anti-doping rules, as well as direct the collection of samples, the management of test results, and the conduct of hearings, all at the national level. If this designation has not been made by the public authority, the entity will be the country's National Olympic Committee or its designee.
▼ <b>NOC</b>	<b>National Olympic Committee</b> - The national organisation recognised by the International Olympic Committee.
▼ <b>Out-of-Competition</b>	Doping control which is not conducted during an In-Competition period.
▼ <b>Non-routine</b>	Includes AAF, ATF, ATPF, FF, MT, hearings and special cases.
▼ <b>Prohibited List</b>	The list published by WADA identifying the Prohibited Substances and Prohibited Methods.
▼ <b>Prohibited Substance</b>	Any substance on the Prohibited List.
▼ <b>RADO</b>	<b>Regional Anti-Doping Organisation</b> - Anti-Doping Organisation established by a group of countries to coordinate, manage and deliver the mandate of doping-free sport within a specific region.

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▼ <b>Results Management</b>	<b>Results Management</b> - The process for the pre-hearing administration of potential anti-doping rule violations. This process notably includes the initial review of the adverse analytical finding and the possible imposition of a provisional suspension.
▼ <b>RTP</b>	<b>Registered Testing Pool</b> - The pool of highest-priority athletes established separately at the international level by International Federations and at the national level by National Anti-Doping Organisations, who are subject to focused In-Competition and Out-of-Competition Testing as part of that International Federation's or National Anti-Doping Organisation's test distribution plan and therefore are required to provide detailed whereabouts information.
▼ <b>Sample Collection</b>	<b>Sample Collection</b> - All of the sequential activities that directly involve the athlete, from notification until the athlete leaves the doping control station after having provided their sample.
▼ <b>SCP</b>	<b>Sample Collection Provider</b> - An entity that conducts Sample Collection.
▼ <b>TDP</b>	<b>Test Distribution Plan</b> - lays down the number and categories of tests (In-Competition or Out-of-Competition, blood or urine samples, athletes, performance levels) on a risk analysis.
▼ <b>TP</b>	<b>Testing Pool</b> - A second degree Testing Pool, where athletes are required to comply with a lower level of whereabouts obligations as defined by the International Federation.
▼ <b>TUE</b>	<b>Therapeutic Use Exemption</b> - A TUE is an authorisation to take a Prohibited Substance under well-defined and restricted conditions for health reasons. TUEs are granted by an expert TUE Committee.
▼ <b>WADA</b>	<b>World Anti-Doping Agency</b> - The international organisation created in 1999 to promote, coordinate and monitor the fight against doping in sport in all its forms at the international level.
▼ <b>Whereabouts</b>	Whereabouts is information provided by a limited number of top elite athletes about their location to the IFs or NADOs that included them in their respective Registered Testing Pool as part of these top elite athletes' anti-doping responsibilities.

17.8%

Rise in IF spending on anti-doping, including staffing, between 2009 and 2015.

80%

Decrease in Therapeutic Use Exemptions processed by IFs between 2009 and 2015.

## Appendix II – Resources and Budget In-Competition and Out-of-Competition Testing Costs

Anti-Doping Process	Cost			
	Internal		External	
	In-Competition Costs	Out-of-Competition Costs	In-Competition Costs	Out-of-Competition Costs
<b>Testing</b>	<b>\$825,825</b>	<b>\$385,784</b>	<b>\$2,742,229</b>	<b>\$6,773,897</b>
1. Sample Collection	\$15,060	\$87,896	\$356,221*	\$1,497,890*
2. Test Distribution planning	\$1,140	\$3,140	\$878,800*	\$2,852,720*
3. Laboratory Analysis	\$30,576	\$61,940	\$360,088*	\$1,204,347*
4. IF ABP Management	\$300	\$700	\$0*	\$0*
5. Athlete Passport Management Unit costs	\$0	\$0	\$0*	\$204,122*
6. Intelligence Management	\$3,280	\$4,140	\$0*	\$0*
7. Transport of samples	\$0	\$0	\$32,000*	\$174,120*
8. Athlete Whereabouts	\$969	\$3,969	\$0*	\$0*
9. Other	\$774,500	\$224,000	\$0*	\$1,115,120*

Note: This question was not compulsory. Not all IFs were able to provide In-Competition and Out-of-Competition testing costs

\*Of those who responded, not all IFs were able to provide External In-Competition and Out-of-Competition testing costs

## Appendix III – Testing and Sample Analysis

	In-Competition	Out-of-Competition	Number of APMU related directed analysis
▼ How many urine samples did your IF collect in 2015?	22,125	10,764	1,062
▼ How many urine additional analyses did your IF perform in 2015?			
▼ i. Erythropoiesis Stimulating Agents	3,780	2,579	1,630
▼ ii. Growth Hormone Releasing Factors	1,353	8,210	306
▼ iii. Isotope Ratio Mass Spectrometry	869	430	123
▼ iv. Other	1,278	480	379
▼ How many blood analyses did your IF perform in 2015?			
▼ i. Erythropoiesis Stimulating Agents	270	721	120
▼ ii. Human Growth Hormone	452	770	103
▼ iii. Athlete Biological Passport	3,765	5,742	6,215
▼ iv. Haemoglobin Based Oxygen Carriers	234	540	0
▼ v. Blood Transfusion	89	540	0
▼ vi. Other	100	38	0
▼ How many samples analyses from the above total did your IF finance in 2015?	13,236	28,340	9,118

Appendix IV – International Federations

ASOIF Members						
						
						
						
						





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