



# DOPING AUTORITEIT

**Stuck in the mud or going fast  
forward?**

***The status of global anti-doping***

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Aarhus, 26<sup>th</sup> october 2015



# **My presentation**

1. Rules
2. Implementation
  - a. Countries
  - b. ADOs
    - I. NADOs
    - II. RADOs
    - III. IFs
3. Resources
  - a. Human
  - b. Financial
4. Effectiveness
  - a. Do we catch the cheats?
  - b. Do we catch the innocent?
  - c. Do we deter?
5. Conclusions / food for thought



# **DOPING AUTORITEIT**

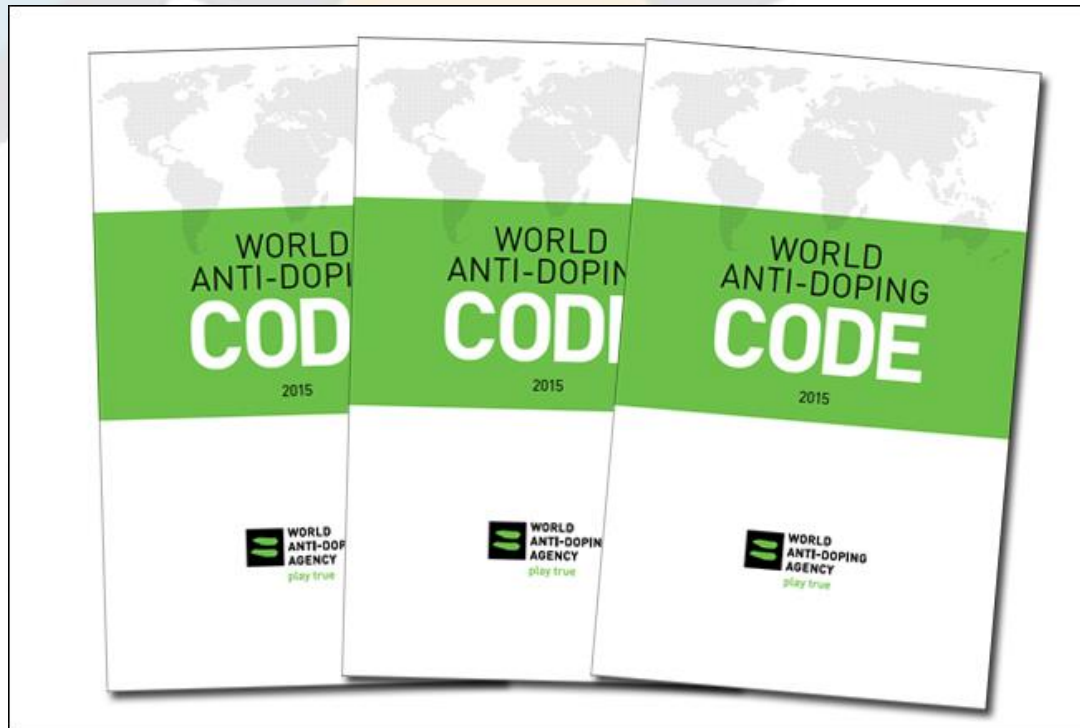
## **1. Rules**



**DOPING  
AUTORITEIT**

# 1. Rules

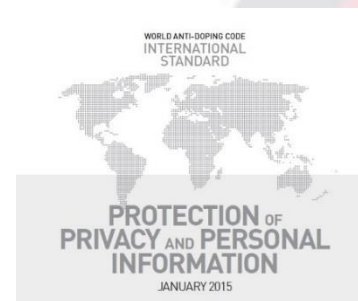
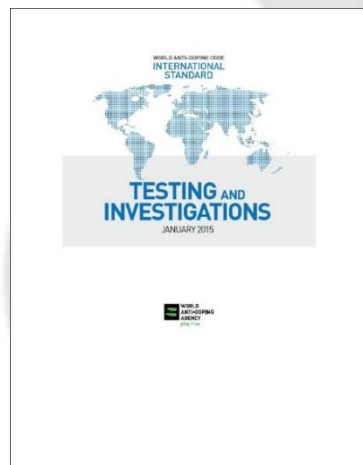
- Level 1: World Anti-Doping Code
  - 152 pages





# 1. Rules

- Level 2: International Standards
  - Prohibited List: 10 pages
  - Laboratories: 91 pages
  - Testing & Investigations: 104 pages
  - Therapeutic Use Exemptions: 26 pages
  - Privacy and Personal Information: 19 pages





# 1. Rules

- Level 3: Model Rules and Guidelines
  - Model Rules: 226 pages
  - Guidelines: 588 pages

Model Rules

Guidelines



# 1. Rules

- Presently, 1216 pages of Rules and supporting documents are in force
- Generally speaking, these Rules are robust, coherent and legally sound (although not always easy to understand and to implement)
- The production is impressive
- We don't need more Rules.



# DOPING AUTORITEIT

## **2. Implementation**

### **a. Countries**





## **2.a Council of Europe Convention**

- Anti-Doping Convention
- 16 November 1989
- On 5 October 2015: 52 State Parties (out of 47 CoE Members)
  - (5 non-members of the CoE have ratified the Convention)



## **2.a UNESCO Convention**

- International Convention against Doping in Sport
- 19 October 2005
- Includes 2 International Standards as annexes:
  - Prohibited List
  - Therapeutic Use Exemptions
- On 5 October 2015: 182 State Parties (out of 195 UNESCO Members)



## **2.a Conventions**

- Almost all countries are bound by one - or even two - anti-doping conventions (we don't need more)
- However, these conventions are weak instruments when it comes to enforcing the Rules
- Countries/governments (usually) are not the entities that do the actual anti-doping work
- The UNESCO Convention is therefor mainly a starting point (which is good and necessary)
- But it is only a step towards actual implementation



## 2.a Conventions vs. Reality

- It is naïve to expect all these 182 countries to have a working Code-compliant anti-doping program in place
- We – after all – try to harmonize anti-doping policies in a diverse, complicated and often nasty world
  - Currently, the people in Syria have other things to worry about
  - So have the people in Haiti (still)
  - And what do we expect from countries like, for instance: Seychelles (UNESCO State Party no. 14), Burundi (65), Saint Kitts and Nevis (83), Eritrea (93), Togo (129), Tonga (143), Vanuatu (153), Lesotho (171), Palestine (180) and Djibouti (182)?



## 2.a Conventions vs. Reality

- Luckily, in most cases, non-compliant situations in these countries have no impact on international sport
- However, time and again, news is revealed about such situations in countries where it *does* matter, as in:
  - Russia
  - Kenya
  - Jamaica
  - Brazil
  - ???



# DOPING AUTORITEIT

## **2. Implementation**

**b. ADOs**

**I. NADOs**



## **2.b.i NADOs**

- Presently there are about 50 'true' NADOs functioning worldwide, and they cover the majority of sport events
- Most NADOs have ISO Certification
- NADOs may be 'state run', 'sport run', or in between the two
- NADOs generally work independently on the operational level (with exceptions)
- But financially, NADOs are – of course – not independent at all



## **2.b.i NADOs**

- NADOs do almost 90% of the testing worldwide
- NADOs do the result management in 90% of the cases
- NADOs are focused organizations (for the simple reason that they have nothing else to do)
- The strength of a NADO is primarily the result of its financial situation
- There are relatively very few 'weak' NADOs: in countries where a NADO would be 'weak', there usually is not a NADO at all





## **2.b.i NADOs**

- But still: NADOs cannot do all that should be done
- Many NADOs are not ready for really complicated (and therefor expensive) cases
- NADOs may be hindered seriously by attacks from press and public, or a lack of political support
- NADOs do not always cooperate with IFs and other ADOs the way they should
- NADOs are not always seen as 'independent' because they test athletes from their own country



# DOPING AUTORITEIT

## **2. Implementation**

**b. ADOs**

**II. RADOs**



## **2.b.II RADOs**

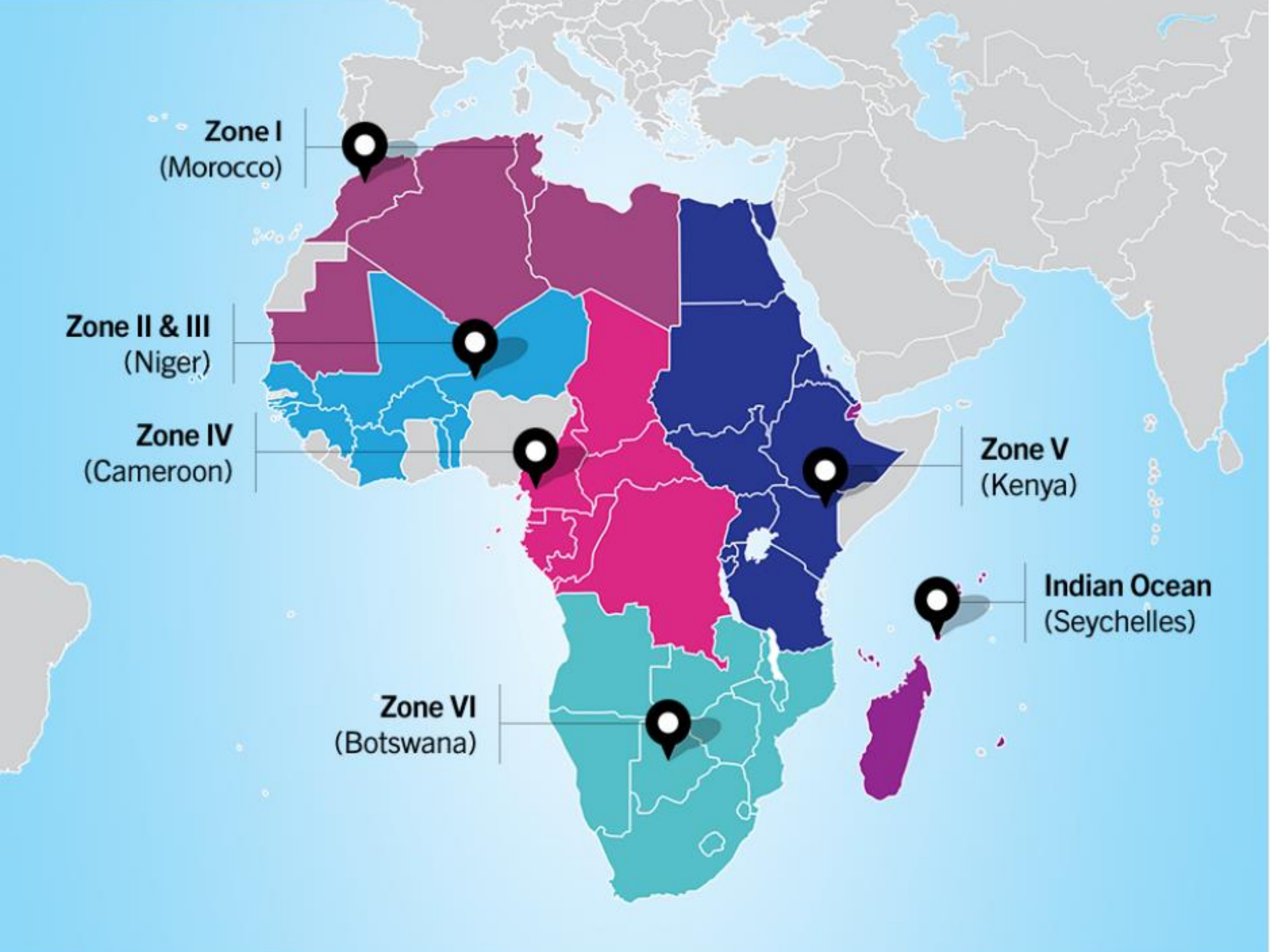
- RADOs were not meant to be
- RADOs were not in the 2009 Code (but they are in the 2015 Code)
- RADOs fill in the gaps where the original 'model' of IFs / NADOs fails
- RADOs play an essential role in those areas
- RADOs are essentially 'service providers', not 'regulators'



## **2.b.II RADOs**

- Code art. 21.3.1: To ensure member countries adopt and implement rules, policies and programs which conform with the Code
- Code art. 21.3.2: To require as a condition of membership that a member country sign an official *RADO* membership form which clearly outlines the delegation of anti-doping responsibilities to the *RADO*

*How realistic this is, remains to be seen*



**Zone I**  
(Morocco)

**Zone II & III**  
(Niger)

**Zone IV**  
(Cameroon)

**Zone V**  
(Kenya)

**Indian Ocean**  
(Seychelles)

**Zone VI**  
(Botswana)



# DOPING AUTORITEIT

## **2. Implementation**

**b. ADOs**

**III. IFs**



## **2.b.III IFs**

- All Olympic IFs have Code-compliant doping regulations, and so does practically every IOC-recognized IF
- IFs do about 10% of the testing worldwide
- The variation between IFs is enormous
- IFs have to deal with many of the most difficult and complicated (and expensive) cases there are



## **2.b.III IFs**

- Some IFs run an exemplary program, others only run a very basic program
- The level of quality of education and information varies enormously
- Quite a number of IFs lean heavily on NADOs for TUEs, disciplinary proceedings, etc.
- IFs do not always cooperate with NADOs and other ADOs the way they should





## **2.b.III IFs**

- ISO Certification is rare
- Some IFs are under fire for a supposed lack of independence, determination, etc.
- Only a few IFs have a separate Anti-Doping Foundation of some kind that works independently on the operational level
- But financially, those Foundations are – of course – not independent at all



# DOPING AUTORITEIT

## **3. Resources**

### **a. Human**



## **3.a Human resources**

- All ADOs together employ between 2.000 and 2.500 anti-doping professionals (excluding DCOs)
- (The City of Aarhus employs about 28.800 people)
- It is hard to assess the exact number of people involved in anti-doping
- But whatever the exact number is: we're a small crowd



# DOPING AUTORITEIT

## **3. Resources** **b. Financial**



## **3.b Financial resources**

- An estimated 300.000.000 US\$ is spent on testing annually
- (Lance Armstrong alone earned about half this figure)
- (and the City of Aarhus has a 3.000.000.000 US\$ budget)
- An estimated 50.000.000 US\$ is spent on all other anti-doping activities (excluding WADA)
- It is hard to assess the exact amount of money involved in anti-doping



# DOPING AUTORITEIT

## **4. Effectiveness**

- a. Do we catch the cheats?**



## 4.a Do we catch the cheats?

- An *estimated* 1.750 intentional 'dopers' and a few dozen ASP are sanctioned annually
- Less than 1% of all doping tests performed lead to the successful prosecution of an ADRV
- In Competition testing is (in terms of 'catching the cheats') considerably more effective than Out of Competition testing



## 4.a Do we catch the cheats?

- A lot of cheats get away with it
- More importantly: the *perception* that many get away with it is widespread
- There is a tendency to implement new rules and tools (whereabouts, Athlete Biological Passport, storing of samples, new analytical tools) but the effectivity is probably limited and certainly hard to measure





## **Rand.Resp. doping prevalence**

<b>Source</b>	<b>Athletes level</b>	<b>n</b>	<b>Prevalence (%)</b>
Pitsch et al. 2007	Adult elite	448	20-39 last year
Striegel et al. 2010	Junior elite	480	3-11 ever



# Rand.Resp. doping prevalence

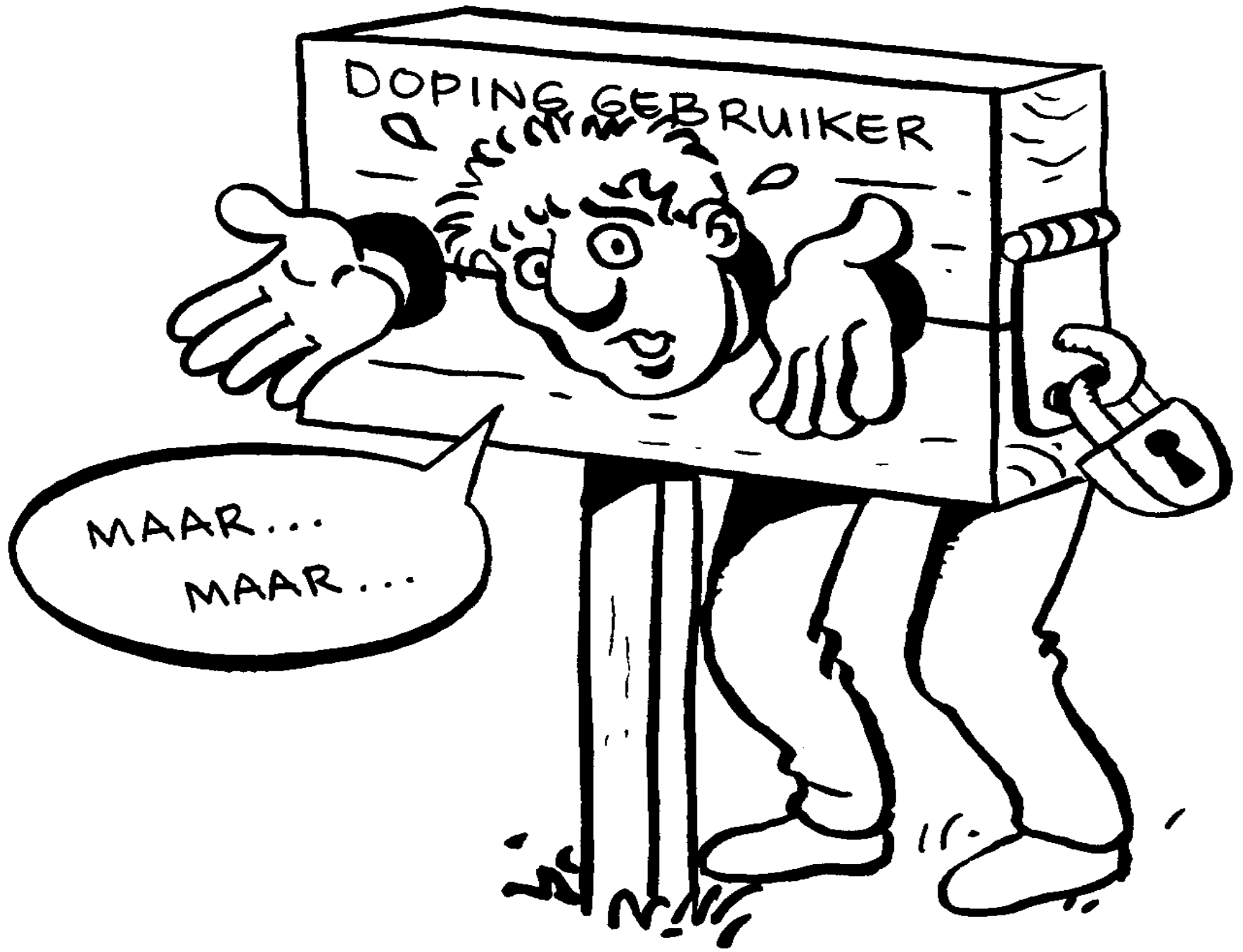
Source	Athletes level	n	Prevalence (%)
Duiven et al. 2015	Adult nat./intern. level	1263	2-8 (4.2) last year / ever
Stubbe et al. 2009	Fitness / Gyms	447	5-23 (8.2) last year



# DOPING AUTORITEIT

## **4. Effectiveness**

- b. Do we catch the 'innocent'?**



DOPING GEbruiker

MAAR...  
MAAR...



## 4.b Do we catch the 'innocent'?

- An *estimated* 750 athletes who had no intention to commit an ADRV are sanctioned annually
- In about 50% of all doping cases processed in The Netherlands, the athlete claims that he had no intention to cheat
- These athletes *have* committed an Anti-Doping Rule Violation, and we have to deal with that, but these cases are different in nature from intentional cases



## 4.b Do we catch the 'innocent'?

- Unintentional ADRVs can be the result of:
  - Contaminations
  - The use of 'social drugs'
  - The use of medication (prescribed or not)
  - Sloppiness
  - Stupidity
  - Etc.



## 4.b Do we catch the 'innocent'?

- The prosecution and sanctioning of unintentional ADRVs is often hard to explain to the general public
- Extreme examples (Igor Walilko!) undermine the credibility of what we do
- Steps have been taken, but more should be done
- In daily practice, the present tools give 'room to maneuver'



## **35 Sanctions (1<sup>st</sup> viol.) imposed for methylhexaneamine before 2015**

Reprimand:	1
3 mnth:	8
4 mnth:	2
5 mnth:	1
6 mnth:	8
12 mnth:	3
15 mnth:	2
18 mnth:	2
24 mnth:	8

Source: The Anti-Doping Knowledge Center, [www.doping.nl](http://www.doping.nl)





## 40 Sanctions imposed for cannabis before 2015 (1<sup>st</sup> viol.)

Reprimand:	8
4-6 wks:	5
2 mnth:	3
3 mnth:	8
4 mnth:	3
5 mnth:	2
6 mnth:	5
7 mnth:	2
8 mnth:	1
12 mnth:	2
24 mnth:	1

Source: The Anti-Doping Knowledge Center, [www.doping.nl](http://www.doping.nl)



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- 4. Effectiveness**
  - c. Do we deter?**

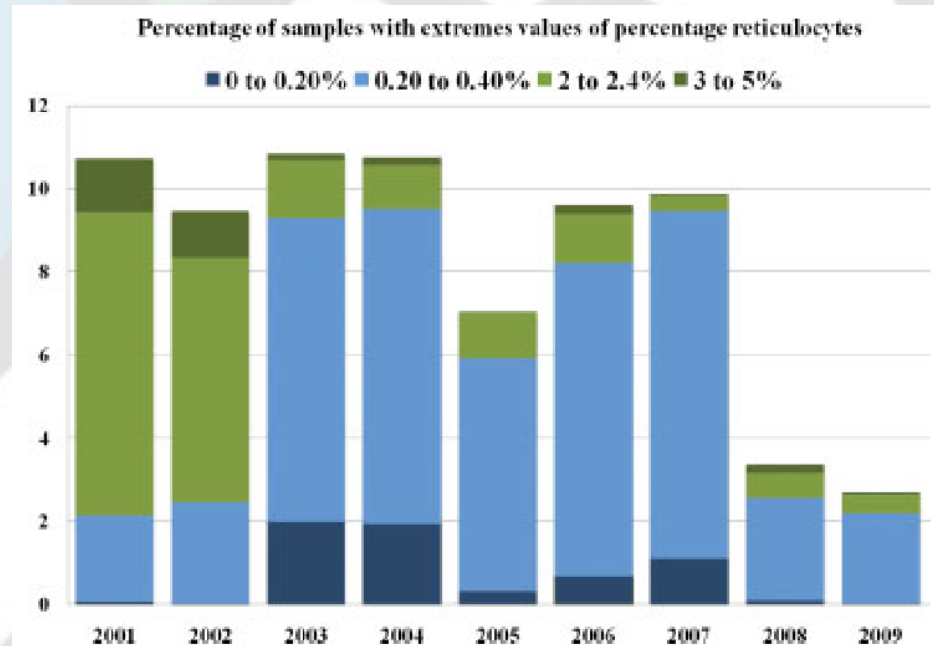


## **4.c Do we deter?**

- Statistical measures can be used to determine the effect of anti-doping measures on the prevalence of doping
- Such methods have been used a number of times in the past, and they may be used again in the future (to assess the present)



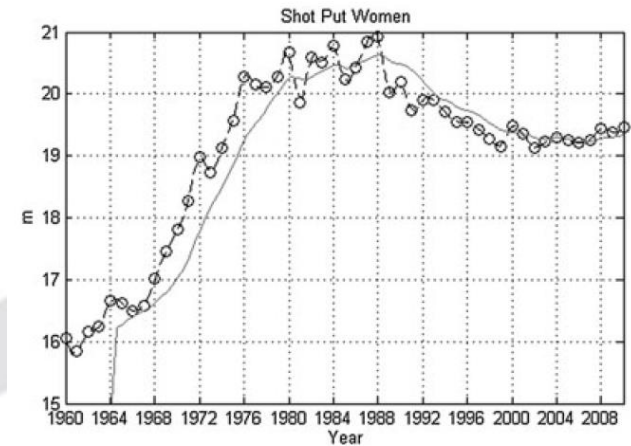
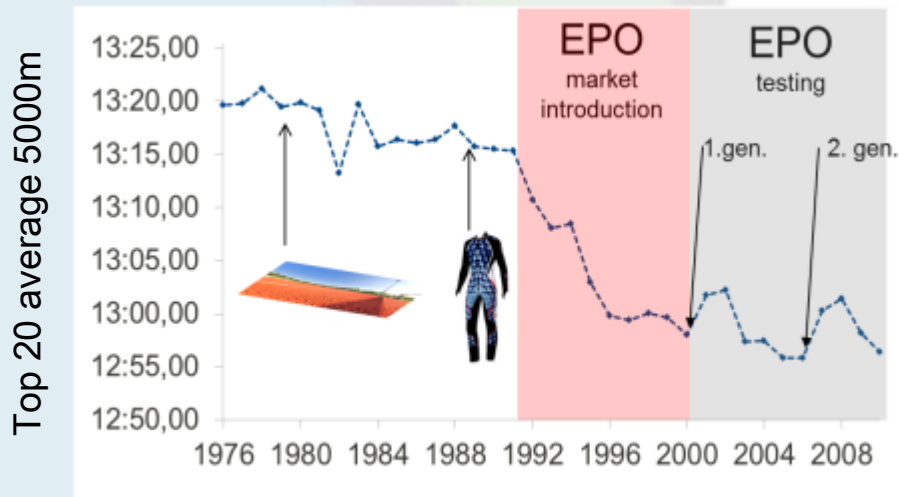
Zorzoli & Rossi. *Drug Test. Analysis* 2010, 2, 542–547



**Figure 3.** Percentage of sample whose RET% values are extremes: low values (blue) are typical of an OFF phase (previous intake of ESA or blood transfusion), while high values (green) indicates an ON phase (recent use of ESA or haematological disease).



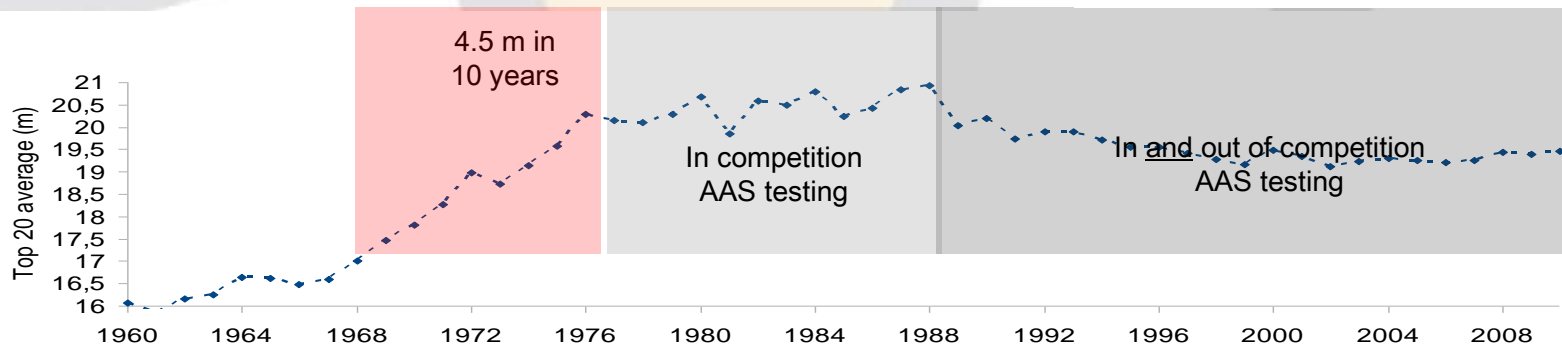
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**Figure 1.** Development of the arithmetical mean of the distance thrown of the top 20 athletes in the women's shot putt from 1960 to 2010 (o) connected through a polynomial spline (—) and further described with the corresponding moving average (---).

## Women shot put

## women's top 20 average shot put



*Modified after: Ernst and Simon, Drug Testing and Analysis, 2012*



## **4.c Do we deter?**

- Our cycling investigations have shown that riders not only know what measures are in place, but that they act on it as well
- Some riders declared that they completely refrained from doping because of the chance to 'get caught'
- Some limited their doping use to periods, times and doses that they thought were (relatively) 'safe'
- Some moved to new methods or substances



## **4. Do we deter?**

But the general picture is: we don't know to what extent the present programs deter athletes from doping



# DOPING AUTORITEIT

## **5. Conclusions / Food for thought**





## 5. Conclusions / food for thought

- A impressing set of Rules has been produced
- We don't need more rules
- A record has been set in terms of acceptance of the Conventions
- We don't need more Conventions
- We should focus on the (f)actual implementation
- In that respect, we live in interesting times
- After barking comes biting



## **5. Conclusions / food for thought**

- A large number of countries are committed
- A relatively small number of people with limited resources are actually fighting doping in sport
- Anti-doping organizations are small, but very productive
- The outcome of their work is largely defined by their legal positions, budgets and political support



## **5. Conclusions / food for thought**

- We need simple and inexpensive testing methods (in addition to the methods we have in place already)
- We need better statistics
- We need (much) more research into the effectivity of anti-doping policies
- We need more research into the prevalence of doping
- We need much more research into deterrence
- We need to learn more from research from outside anti-doping



## 5. Conclusions / food for thought

- A lot has been achieved
  - A rather amazing lot, actually
- More can be achieved
- But we should be realistic, because of:
  - The size of the problem
  - The limited resources available
- And there is no such thing as *completely* Clean Sport
  - (But we certainly do what we can)



# DOPING AUTORITEIT

**Thank you!**

***Herman Ram***