

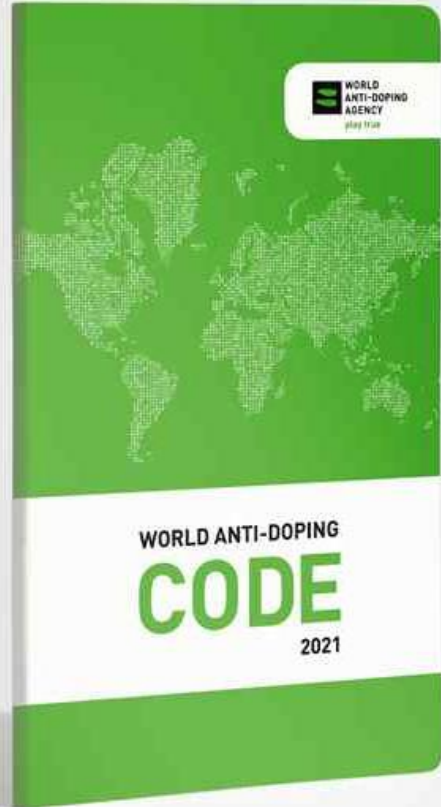


Doping Mind & Body : New Substances & Human Enhancement

**Prof. Olivier Rabin
Sr Director Science & Medicine
World Anti-Doping Agency**

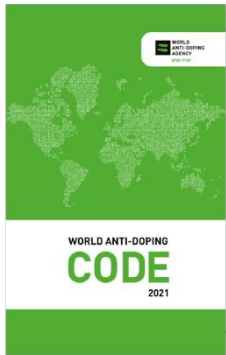
Albatros Conference – Paris 11 June 2026

Who we are



- The World Anti-Doping Agency (WADA) was established in 1999 as an international independent agency to lead a collaborative worldwide movement for doping-free sport.
- As the global regulatory body, WADA's primary role is to develop, harmonize and coordinate anti-doping rules and policies across all sports and countries.
- Our key activities include:
 - Scientific and social science research;
 - Education;
 - Intelligence & investigations;
 - Development of anti-doping capacity; and
 - Monitoring of compliance with the World Anti-Doping Program.

The Code and the International Convention against Doping in Sport



Code
~751
Signatories

The Code has been adopted by 751 Signatories (or Anti-Doping Organizations)



United Nations
Educational, Scientific and
Cultural Organization

Convention
192
State Parties

192 State Parties have ratified the UNESCO International Convention against Doping in Sport – formally committing to align their domestic policies with the Code

Convention
99%
Global Endorsement

At 99% global endorsement, the Convention is the second most successful in the history of UNESCO in terms of the rhythm of ratification post-adoption

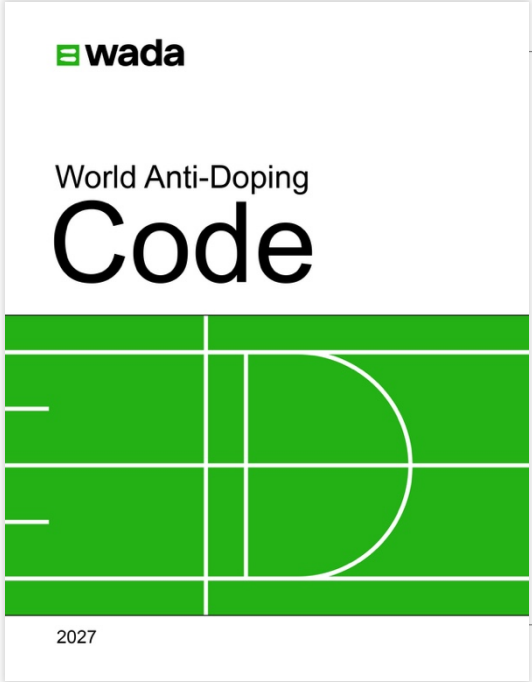
Note: As the Code is a non-governmental document that applies only to members of sports organizations, the UNESCO International Convention against Doping in Sport provides the legal framework under which Governments can address specific areas of the doping problem that are outside the domain of the Sport Movement.

Our Partners



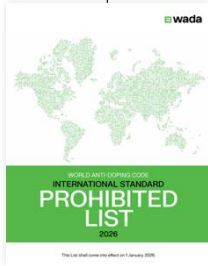
Athlete Community	Public Authorities (Governments)	Sport Movement	Anti-Doping Expert Community	Other Stakeholders
<ul style="list-style-type: none"> — Athletes (stakeholder group that is the most impacted by anti-doping policies and activities) — Athlete entourage/ support group — Athlete representative bodies 	<ul style="list-style-type: none"> — Governments (50% donor) — International organizations (UNESCO, Council of Europe, WHO, Interpol, etc.) 	<ul style="list-style-type: none"> — IOC (50% donor) — International Federations (IFs) — IF umbrella organizations (ASOIF, AIOWF, GAISF, etc.) — Other Sport Movement organizations (IPC, NOCs, etc.) — Major event organizations — Major private sports leagues 	<ul style="list-style-type: none"> — NADOs and RADOs — Laboratories — Third-party service providers 	<ul style="list-style-type: none"> — General public — Media — Pharmaceutical industry — Sports science — Academia & research — Court of Arbitration for Sport

The World Anti-Doping Program - 2027 Edition



Mandatory for Code Signatories
(Anti-Doping Organizations)

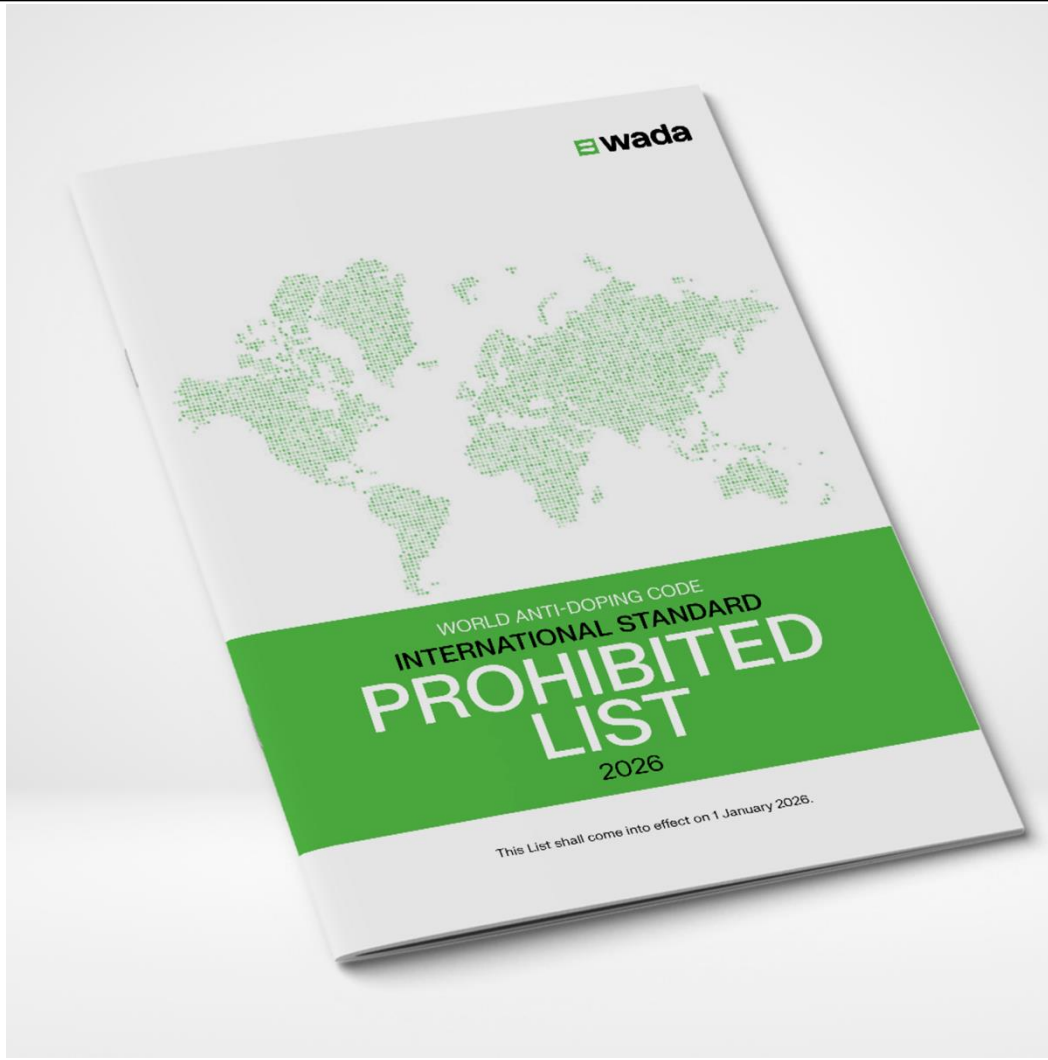
International Standards



Models of Best Practices & Guidelines

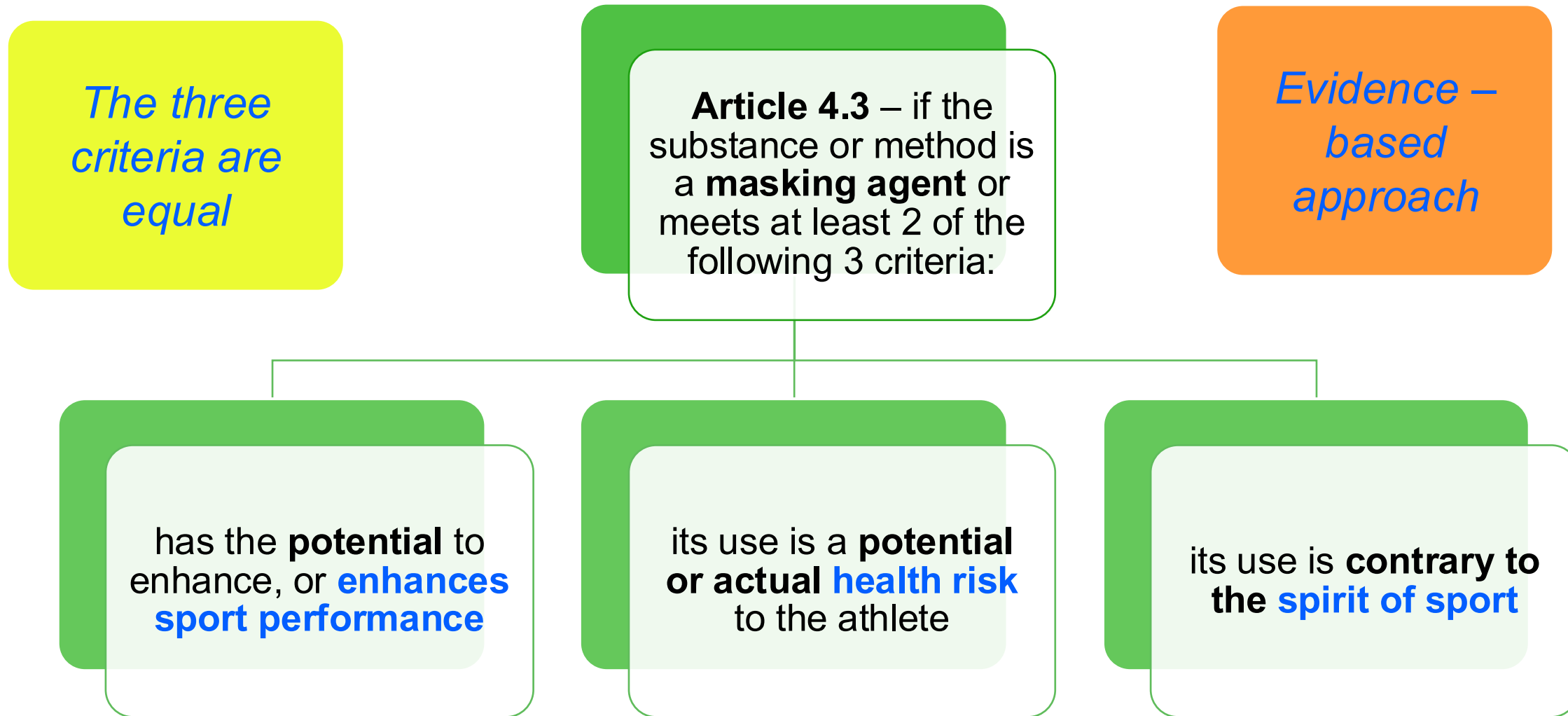
Non-Mandatory for Code Signatories
(Anti-Doping Organizations)

The List of Prohibited Substances and Methods



- Described in Article 4,
World Anti-Doping Code
- International Standard
- Revised at least annually
- Determines the **Substances & Methods** prohibited in sport

Inclusion criteria

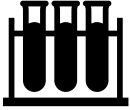


Drivers of Change

Current scientific knowledge (often from WADA research grants)

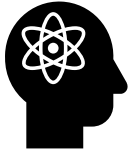
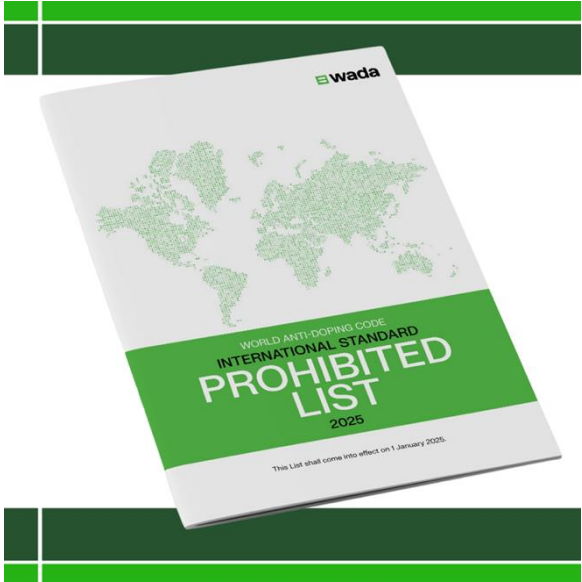


Stakeholder Comments



Improvements in analytical methods

International changes in 'Standards of Care' and medical practice



Emerging pharmacological breakthroughs

Format and style updates for clarity and consistency



Monitoring program results

Distinguishing permitted therapeutic uses and routes from prohibited. IC vs OOC



Legal & Ethical aspects



Intelligence, Drug seizures, Doping trends

List of Prohibited Substances and Methods



Legal

- Potentially all medicines, commercialized or in development, discontinued NCEs, that meet at least two out of the three inclusion criteria.

Illegal

- NPS, designer drugs, discontinued NCEs, substandard medicines (counterfeit drugs).

Substances of Abuse (Cocaine, THC, MDMA, Heroin)

Open list of examples

- « ... and other substances with a similar chemical structure or similar biological effect(s). »
- « Including, but not limited to...»
- « e.g. » ; « analogues » ; « agonists »

Substances - Prohibited at All Times

Substances

S0 Non-approved substances

Methods

S1 Anabolic agents

S2 Peptide hormones, growth factors, related substances and mimetics

S3 Beta-2 agonists

S4 Hormone and metabolic modulators

S5 Diuretics and masking agents

Methods - Prohibited at All Times

Substances

Methods

M1

Manipulation of blood and blood components

M2

Chemical and physical manipulation

M3

Gene and cell doping

Prohibited In-Competition

Substances

S6 Stimulants

S7 Narcotics

S8 Cannabinoids

S9 Glucocorticoids

Prohibited in Particular Sports

Substances

P1 Beta-blockers

Legal Substances : Why Pharma Industry and WADA collaborate

- Most doping in sport comes from misuse of legitimate pharmaceutical products
- Biopharmaceutical companies know pharmacological properties and toxicity of NCEs years before entering the market
- Limited information needed by WADA (IB) and no interference with drug development
- NCEs can be accessed during clinical trials
- Some NCEs are found on Internet
- Anti-Doping tests discourage misuse of NCEs
- Risk reduction of counterfeiting for companies
- Risk Management Plan (Regulatory)
- Ethical and CSR role of Pharmas.



5-Year Figures for Substances of Abuse

SoA	Year	2024 (N=297965)	2023 (N=261259)	2022 (N=231334)	2021 (N=219126)	2020 (N=138818)
D9-THC		145	136	91	42	42
Cocaine		62	73	63	64	77
MDMA		4	8	6	4	4
Heroin		0	0	0	1	0

Novel Psychoactive Substances

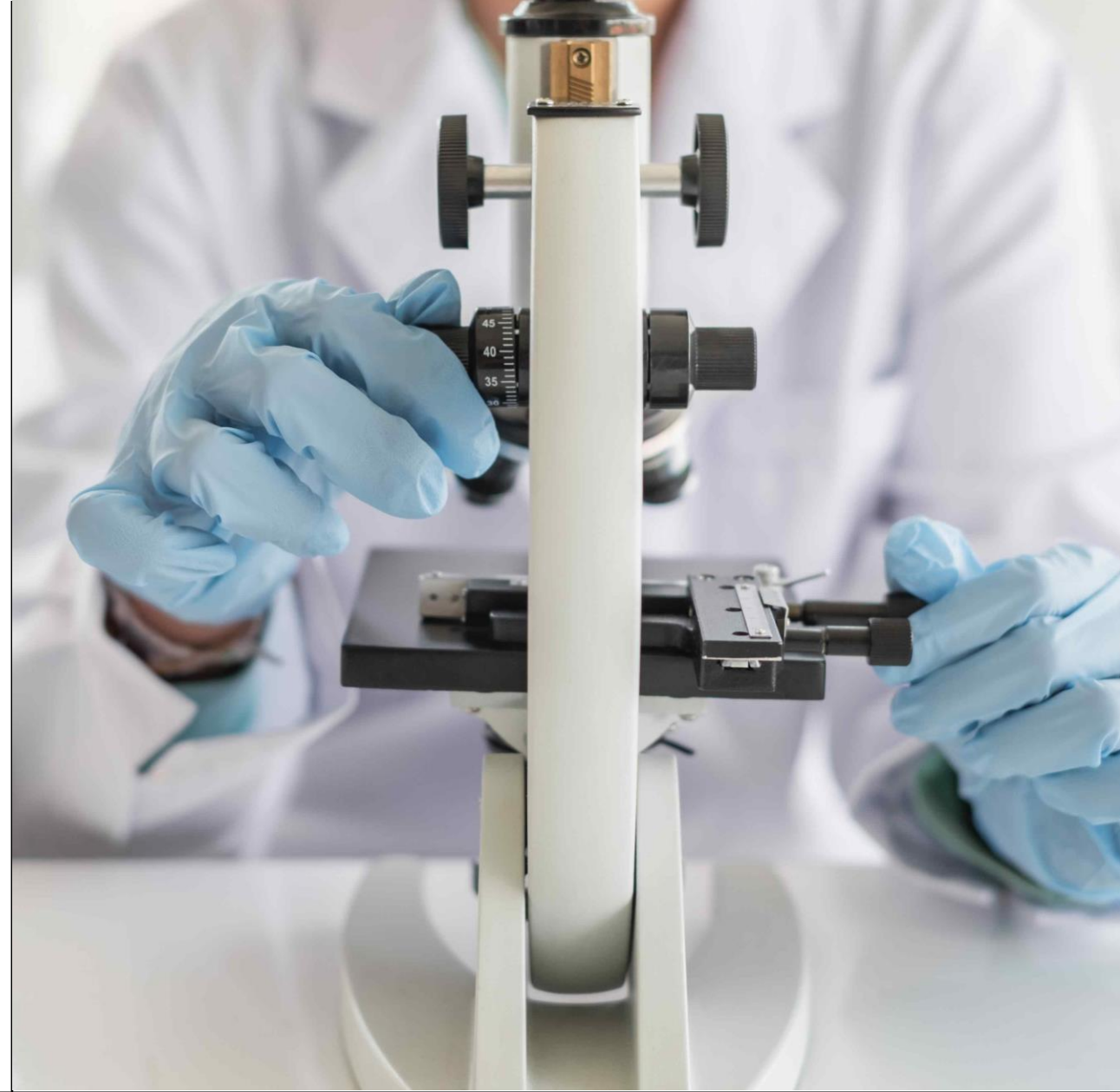


- Stimulants, cannabinoids, opioids, hallucinogenic,... produced by illegal laboratories around the world.
- 1640 Identified to date (since 2008).
- New NPS identified: 118 in 2024 & 53 in 2025* :
 - Synthetic cannabinoids: 38% (2024) & 30% (2025)
 - Synthetic opioids : 18% (2024) & 21% (2025)
 - Stimulants : 14 % (2024) & 15 % (2025)
- Issues in monitoring: regional releases, some short lasting, some resurgences

* (source UNODC)

Peptides

- 20+ year ago – WADA identified peptides as a future threat for doping in sports
- Active monitoring of biopharmaceutical industry portfolios
- Active monitoring on internet and ordering for analysis
- Scandals (e.g. Australian Football : AOD9604, Thymosin- β 4*) or seizures by customs*.
- Recently prohibited peptides: BPC-157*, CJC-1293, hGH 176-191, MOTS-C*, TB-1000, MK-677...
- Monitoring: GHK-Cu, AHK-Cu, Selank*, FOXO4-DRI*, Epitalon*, ...



Dr Kevin R. Stone (Expert in orthopaedic surgical & rehabilitation techniques to repair cartilage & ligaments) – Times of India - April 2026

- **BPC-157**: Used for gut health and tissue/ligament repair. ; **Thymosin Beta-4 (TB-500)**: Utilized for muscle recovery and flexibility.
- **Thymosin Alpha-1 (Ta1)**: Known for immune system modulation.; **AOD-9604**: A growth hormone fragment used for fat metabolism.
- **GHK-Cu**: A copper peptide popular for wound healing and anti-aging ; **Semax & Selank**: Neuropeptides used for cognitive function and anxiety management.
- **MOTS-c**: A mitochondrial peptide studied for metabolic regulation ; **Epitalon**: Linked to longevity and telomere support.
- **KPV**: An anti-inflammatory peptide used for gut health ; **Emideltide (DSIP)**: Used for sleep regulation.
- **Kisspeptin-10**: Studied for hormone regulation ; **CJC-1295 & Ipamorelin**: Growth hormone secretagogues
- No human comparative or controlled studies of the newer peptides, nor any manufacturing controls.
- In February 2026, the DHHS reclassified 14 of these peptides (previously restricted by the FDA in 2023) from Category 2 (substances with significant safety concerns that cannot be compounded) to Category 1 (substances eligible for compounding while under review). -
- For now, the single most effective and proven therapy for tissue healing and extending health span is daily exercise. **Go out and play!**

Intelligence & Investigations (I&I)

- We conduct investigations, collaborate with law enforcement agencies and protect whistleblowers.
- Operating independently within WADA, I&I is composed of the following three units:
 1. Confidential Information Unit (CIU)
 2. Investigation Unit (IU)
 3. Compliance Investigation Section (CIS)





INTERPOL

PROJECT ENERGIA

A CRIMINAL INTELLIGENCE INITIATIVE
TO COMBAT THE TRAFFIC IN
PERFORMANCE-ENHANCING DRUGS



WORLD
ANTI-DOPING
AGENCY

Unil

UNIL | Université de Lausanne

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Global Anti-Doping Intelligence and Investigations Network (GAIIN)

The Outset

- 99 Countries in Europe, Asia and Oceania
- Questionnaire (100% feedback)
- Whistleblower management, Open-Source techniques, Analysis, Interviewing

The Initial Training

- 8 training sessions conducted (2-3 hours; 10 weeks)
- I&I Standards (French, English, Spanish)
- e-learning tool for Law Enforcement

Advanced Workshops

- 12 workshops
- **309** participants trained (132 Law Enforcement including Customs, 177 NADOs, INTERPOL)

Operations

Multiple Investigations in Europe, Asia and Oceania of NADOs and Law Enforcement

67 Operations with

- 14.500 kg PEDs seizure
- 14 illicit laboratories dismantled
- 47.000 kg successful trafficked PEDs
- 11.500 list of customers shared
- **288 million doses of PED prevented to get on the global market**

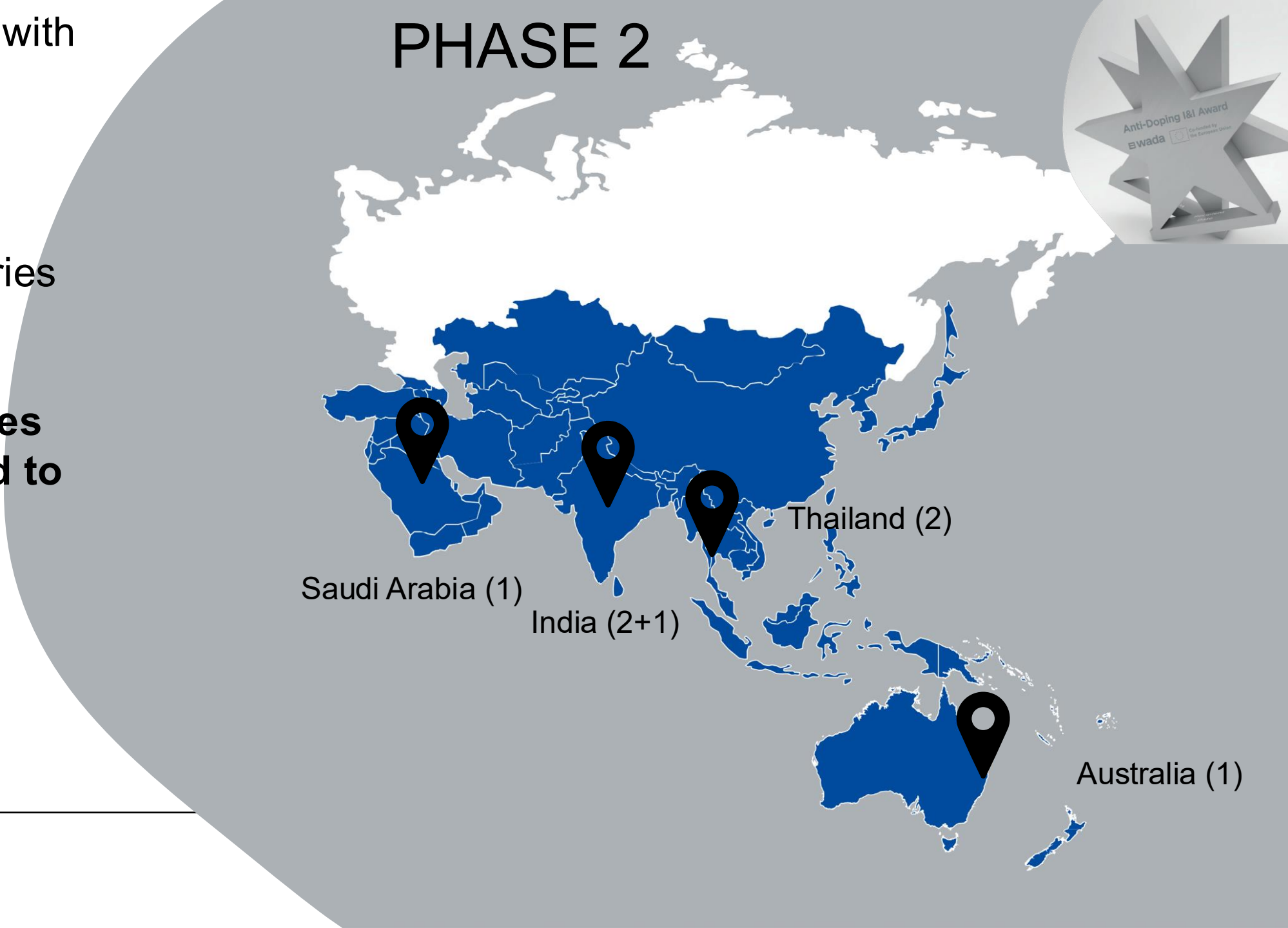
PHASE 1



242+ Operations with

- 87.000 kg PEDs seizure
- 75 illicit laboratories dismantled
- 1.75 Billion doses of PED prevented to get on the global market

PHASE 2



INTERPOL



PHASE 3



United Nations General Assembly
05/2024: Resolution A79/L.10,
entitled "**Sport as an enabler of
sustainable development**";
(Protect the Integrity of Sport)

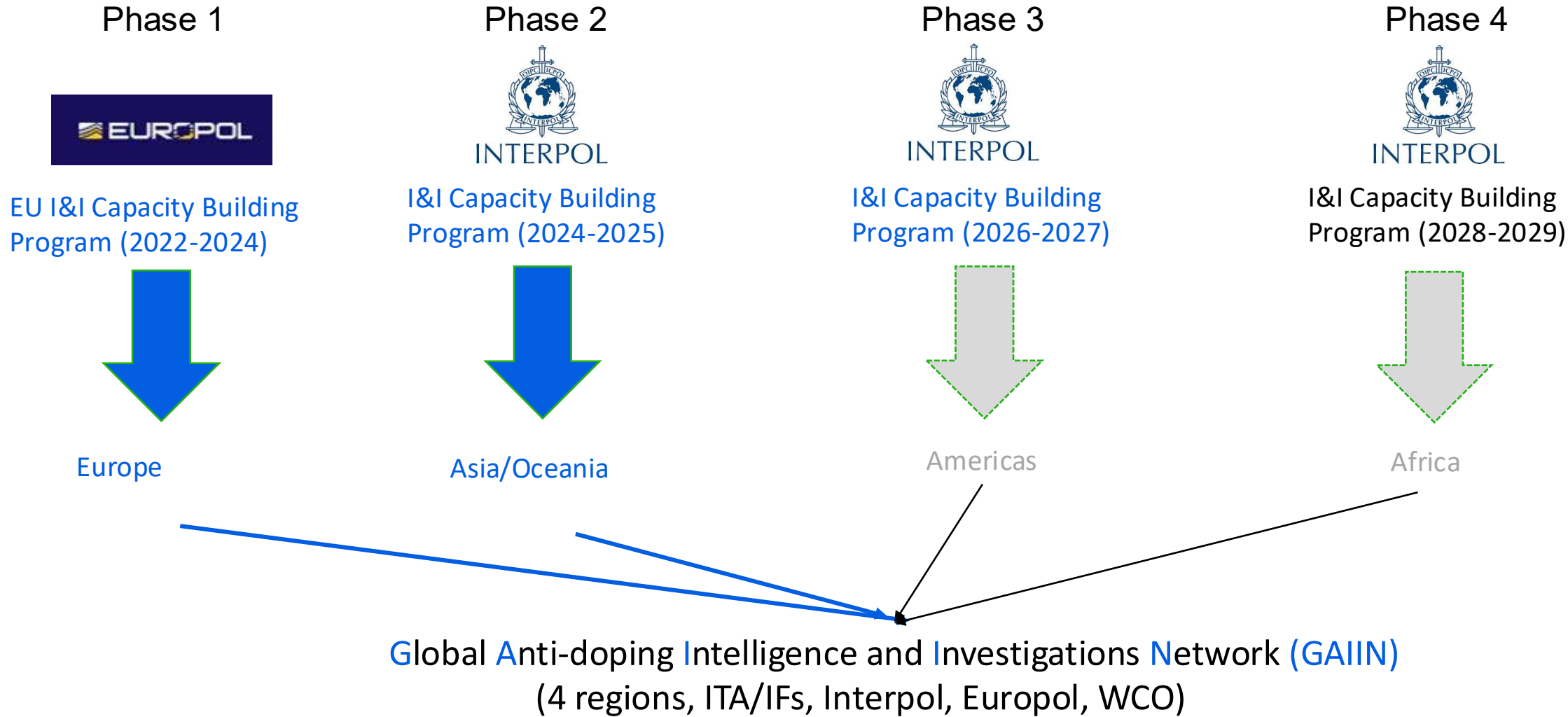
**Organized Crime: High Profit,
Low Detection, Minimal
Punishment**

**Organized Crime: Decentralized
& Multi-Commodity Network**

**PED manufacturing, trafficking
and doping in South America**

- Incentives for hosts:**
- Exclusive Participation Privileges
 - Access to I&I Mentoring Program

Vision for a future I&I global network 2022 - 2028



Together for Clean Sport



- Intelligence + Investigation + Science = Stronger, smarter anti-doping
- Cooperation and trust are essential for success
- Protecting athletes' rights while upholding fair play
- Combine knowledge and efforts to limit distribution and use of such substances in sports and society.

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play **true**