



HIGH PERFORMANCE
CONFERENCE

MADRID 2025



*Talent development
between theory and reality*
Czech Athletic Federation case

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Czech athletic Federation*

What can a small country offer?



Provide Comparative data and approach, maybe inspiration?

Present a case of using centralized testing as part of the system

Follow up on thoughts presented by...





In numbers

CZE Population **10.500.000**

Registered athletes **86.000** (vs. football 350.000)

Popularity top 3

Up to **U12 25.000**

U14 10.200

U16 9.300

U18 6.600

U20 3.500

U23 3.400

senior 27.000


*Mostly track &
field athletes*

*Actively
competing? 1/2*



Small country – big dreams




- Trying to get the **medals** and **Top 8**
Vs. Population gaps
- For CZE last 2 years successful in U18/U20
- Are we really successful?

Medal Table		WCH U20 (2024)	
RANK	COUNTRY		TOTAL
1	 United States		16
2	 Ethiopia		10
3	 Pr Of China		11
4	 Jamaica		5
5	 Kenya		7
6	 South Africa		7
7	 Australia		14
8	 Czechia		6






Was it „the system“ or coincidence?
And how can we tell?

Medals ECH U20 (2023)

Rank	Country	Gold	Silver	Bronze	Total
1	 Germany	8	8	7	23
2	 Sweden	5	2	0	7
3	 Czechia	3	1	4	8

Medals ECH U18 (2024)

Rank	Country	Gold	Silver	Bronze	Total
1	 Italy	7	3	5	15
2	 Poland	4	3	1	8
3	 Czechia	4	3	0	7



Medals clearly are not the best and only variable for evaluating the talent system



EUCH U20 (2023)
Jerusalem

Country	Points	Placing Rank	Population (mil)	Points per 1mil	TDSI
Germany	231	1	84,0	2,8	2,98
Italy	112	2	59,1	1,9	2,05
Great Britain & N.I.	110	3	69,5	1,6	1,71
Poland	88	4	38,1	2,3	2,50
France	88	5	66,6	1,3	1,43
Sweden	82	6	10,6	7,7	8,37
Czechia	80	7	10,6	7,5	8,17
Spain	75	8	47,8	1,6	1,70
Switzerland	73	9	8,9	8,2	8,88
Netherlands	64	10	18,3	3,5	3,78
Hungary	63	11	9,6	6,6	7,10
Türkiye	55	12	87,6	0,6	0,68
Finland	47	13	5,6	8,4	9,08
Serbia	47	14	6,6	7,1	7,71
Ukraine	44	15	38,9	1,1	1,22

WCH U20 (2024)

Lima



Country	Points	Placing Rank	Population (mil)	Points per 1mil	TDSI
UNITED STATES	170	1	347,2	0,5	0,73
AUSTRALIA	141	2	26,9	5,2	7,77
PR OF CHINA	111	3	1416	0,1	0,12
ETHIOPIA	94	4	135,4	0,7	1,03
KENYA	78	5	57,5	1,4	2,01
SOUTH AFRICA	70	6	64,7	1,1	1,60
GERMANY	66	7	84	0,8	1,16
JAMAICA	59	8	2,8	21,1	31,22
GREAT BRITAIN & N.I.	55	9	69,5	0,8	1,17
JAPAN	54	10	123,1	0,4	0,65
POLAND	53	11	38,1	1,4	2,06
CZECHIA	49	12	10,6	4,6	6,85
FRANCE	38	13	66,6	0,6	0,85
UGANDA	38	13	51,3	0,7	1,10
ITALY	33	15	59,1	0,6	0,83

Shouldn't we introduce an **effectivity ratio**? 😊

Talent Development System Index (TDSI)

$$\text{TDSI} = \left(\frac{\text{Points Scored}}{\text{Total Possible Points}} \right) \times \left(\frac{1,000,000}{\text{Population}} \right)$$

How can we compare Nations and talent programs efficiency?

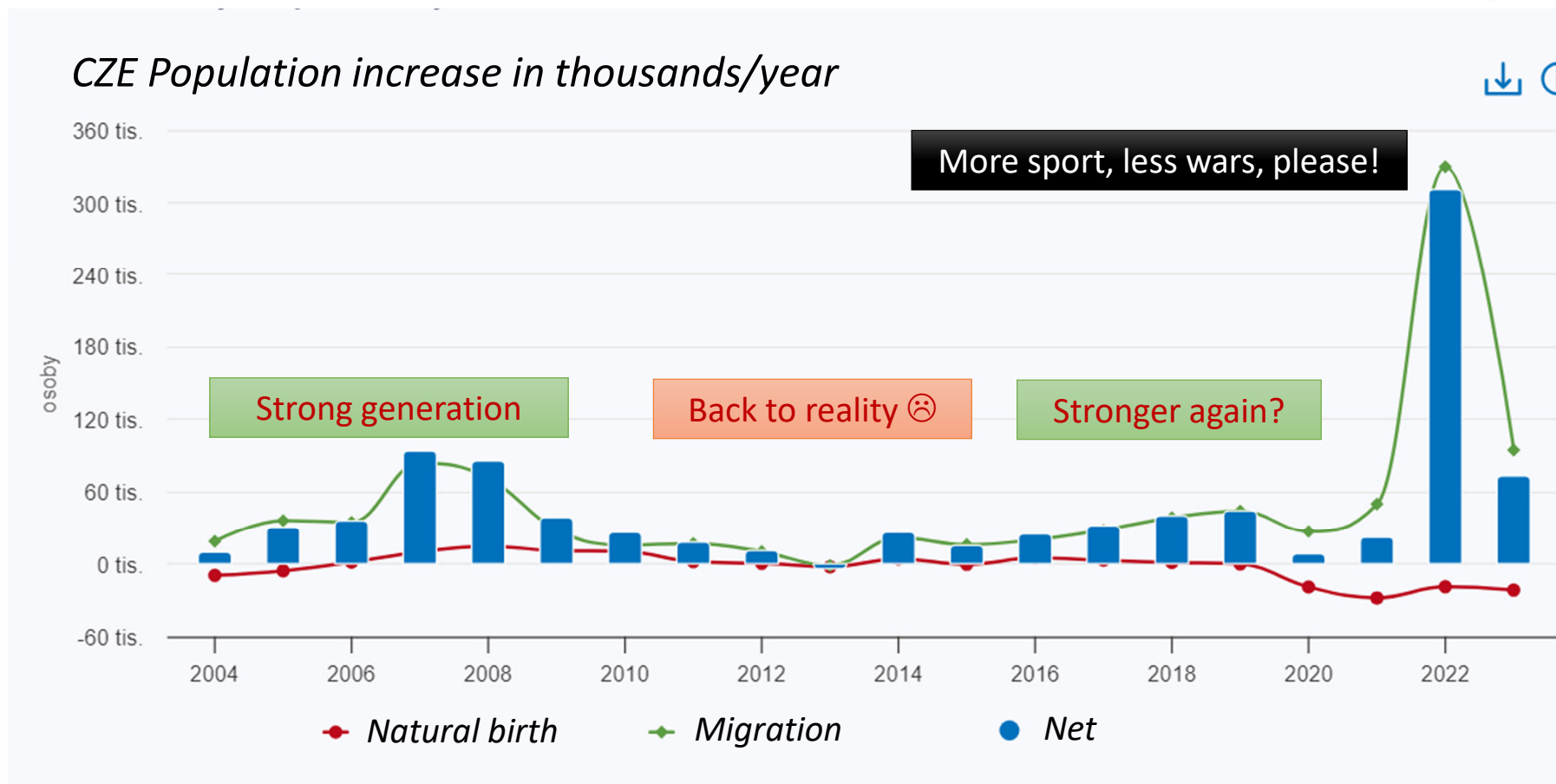
Population **not the only factor** however significant.

Which other factors would you include?

How else can we know how well we are working?

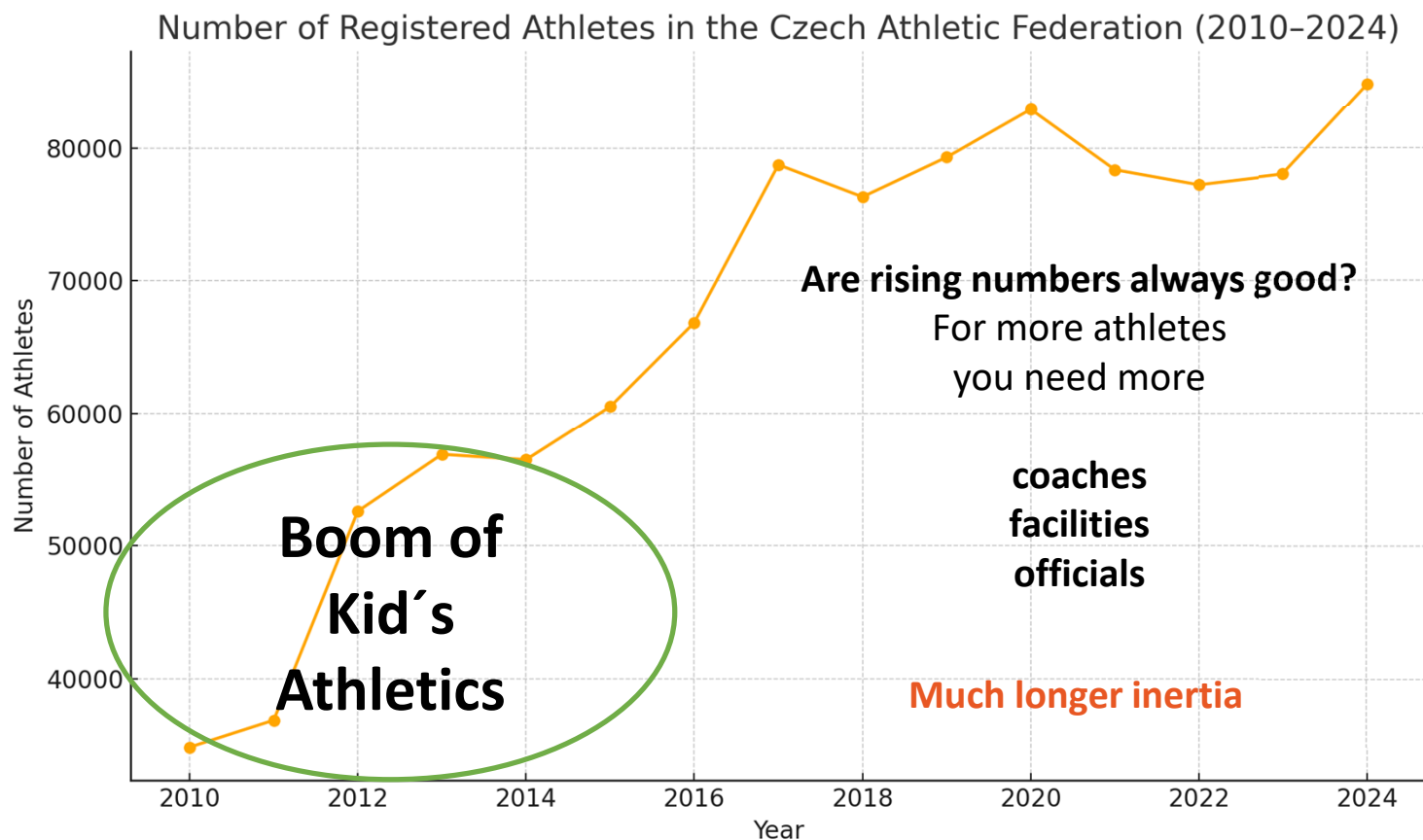
Demographics

The most powerfull variable?



Specific athletic demographics

Harnessing the „kids athletics“



Do not overemphasize the talent system

How much did the system contribute to a certain result?



Jakub Dudycha
800 m



Lurdes Gloria Manuel
400 m



Tomas Järvinen
decathlon



Michal Rada
400 m hurdles

Counting the contribution?



System	60 %	10 %	30 %	30 %
Non-system	10 %	40 %	10 %	20 %
Talent	30 %	50 %	60 %	50 %

Non-negotiable:

family support 100 %

They need to work really hard to get and stay at elite level in the future.

What would you count as THE SYSTEM?

State/federation: paid coach, financial support for the club/athlete/coach, sports school, medical team, methodics/testing, systemic club support (filling the white gaps on the map); coaches education; athlete monitoring; attracting enough childer...?

We invest a lot.

Is it worthy?

Czech Athl. Fed. budget (aprox.)

250 mil CZK = 1 mil EUR

(200 mil state funding)

65 mil for Youth talent programs
(including U23)



Youth Budget

65 mil CZE = 2,6 mil EUR

U12

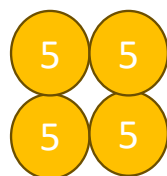
①

+ Partners

Methodical
/admin
support

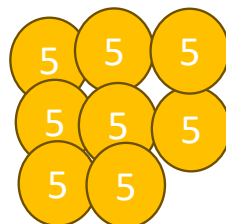
+ Major state subsidies for
active children in the clubs

U16



Club
Coaches

U18+U20



Professional
Coaches (30x)

Centralized
Regional and
Events group camps

Club activity

U23



Professional
Coaches

Individualized support
+ top U23
10 federation funded
cca 10 ministry funded

Youth Budget

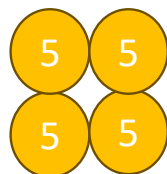
65 mil CZE = 2,6 mil EUR

U12

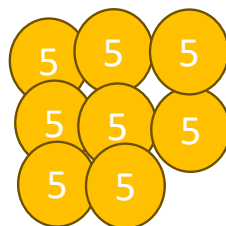
①

+ Partners

U16



U18+U20



U23



20.000+
no direct support

450 athletes
(100 top /350 basic)

40 basic funding
10 top federation funded
+ cca 10 top ministry funded

Money isn't the issue

*We try invest and try hard to
find, keep and develop the
talents*

Still we lose a lot

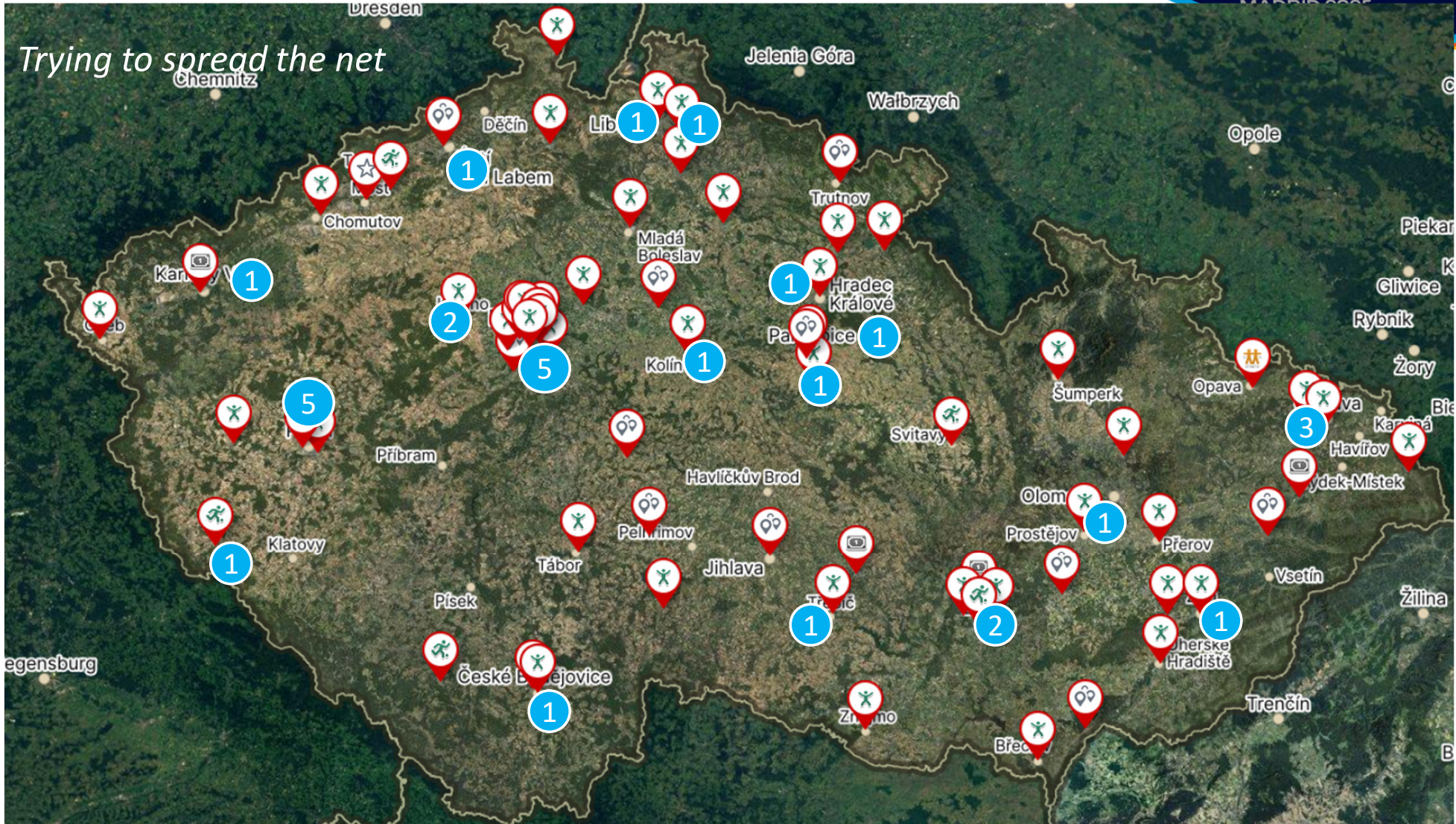
*55 % top 8 in U16 don't do
the sport in U23*

(2023 data)



So what are the problems?
Can we solve them?

Talents don't consult the map!



What slows or stops the talents In the white gaps?

- Local bonds
- Changing schools
- Not good club
- No coach
- No facility
- No good coach
- Daily traveling

- **Example**

1,5-2 hours traveling 5x week
= 7,5 – 10 hours

Cca 5 less hours of sport movement per
week x 50 weeks = 250 per year



The talent pool is changing

Child obesity in CZE

overweight

+ Poor physical education

+ Poor lifestyle

+ A lot of distractions

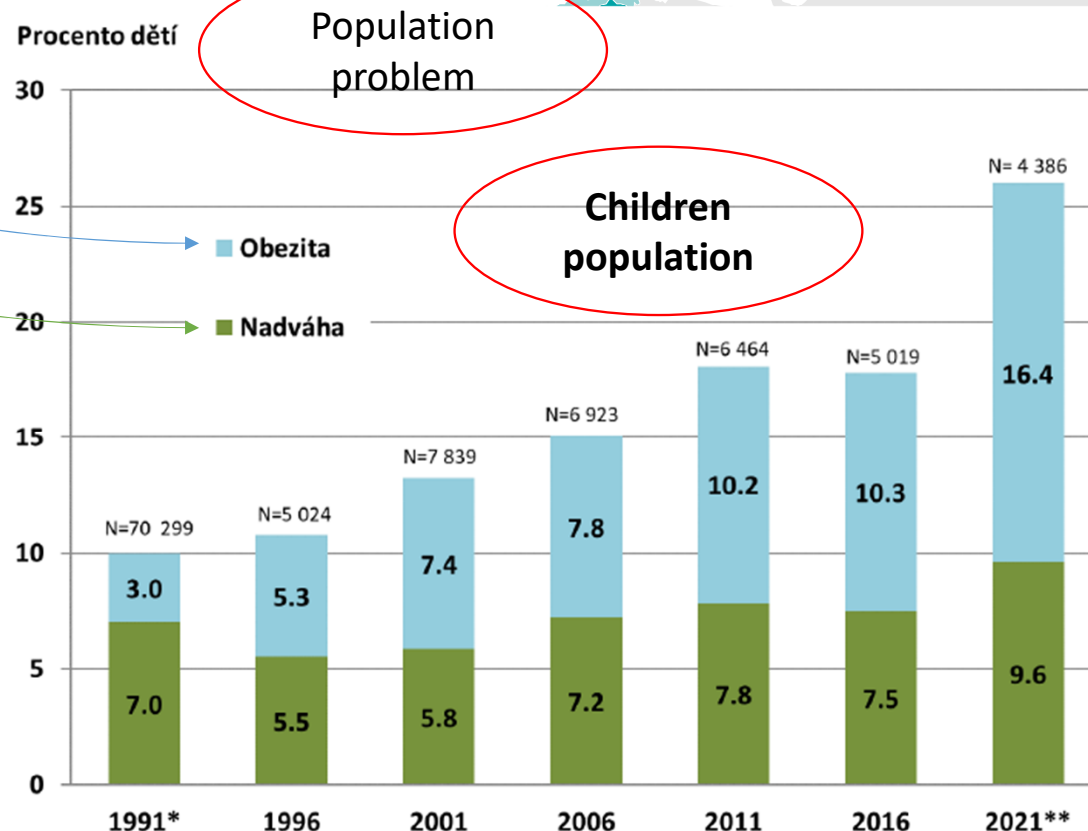
=

Decreasing fitness,
sports skills, motivation

Track and Field Clubs
should't be basic PE clubs

Overweight population (BMI ≥ 25)

% of adult population, 2019



Lack of good coaches

For the thousands of kids

Paid ≠ Professional

*The efficiency of some
state/federation/school
paid coaches is debatable*

All levels

our sport is **based on hobby coaches**
/big respect/

Coaches we need



vs.

we have

well experienced

(identify the level of maturity, know ways to adjust, path to top athletics, needs at certain level)

well educated

(events, methods, planning, movement, injury prevention, nutrition ...)

enough time

(planning, individualization, analysis, communication; training camps)

Limited range of athletic experience
(usually max. national)

Basic coaches education, language gaps 😞, not willing to educate more...

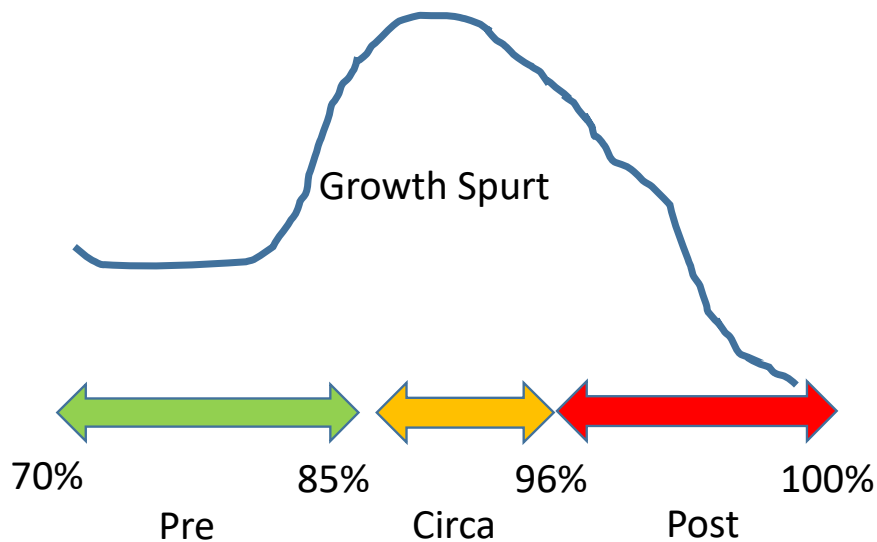
Time limited due to employment

Individualization?

Almost impossible to U16

Even if you are aware of the problem (different maturity level / needs) it is complicated to organize

- Too crowded
- Space limited
- Time limited



Lack of university sport

No sport scholarships

No excuses from the schedule

Insufficient dormitories

Need to travel / move for majority



The main reason for drop-out of U23 athletes

Lot of talents to USA...results? 🥲

*One case of CZE trying to face
some of the problems...*



Centralized testing camps

*7-8 testing camps (several locations,
indoor / corridor)*

*U18 and U20 selected in talent
programs*

*440 athletes tested in 2024 (previous
300, 370, 400)*

November (indoor)

Since 2021 (extended version)



Obligatory for further support U18 and U20

- November 24' = testing camp → 2025 talent program support

Support basic

- *1 or 2 regional camps*
- *Medical/physio support*
- *1 testing camp*

Support „top“

- *1 foreign event camp*
- *2-3 CZE event camps*
- *Medical/physio support*
- *1 testing camp*
- *Additional testing/monitoring upon event group*



Physical testing was organized pre-2021

But wasn't very understandable for athletes and coaches

1 day camps

- 50m (20 acceleration + 30 fly)
- 10 bound jumping test
- Standing jump
- Overhead throw (front x back)



Long waiting for results
No added value...



Extended format

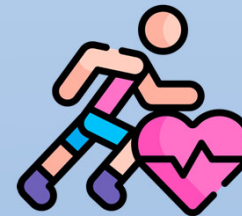
1,5 - 2,5 day camp
Results on-site



Physical testing

- 50m (20 acceleration + 30 fly)
- 10 bound jumping test
- Standing 3 jump
- Vertical jump + Drop jump (RSI)
- Overhead throw (front x back)
- 12 min run / Beep-test
- Basic gymnastics

Health prevention



Physiotherapist

- Kinesiological analysis

Physician

- Laussane Q
- Trauma/Orthopedic Q
- RED-s (RST Q)
- Nutrition and Lifestyle
- Food diary (3 days)



Education athletes and coaches

- Results interpretation
- Specific sport (nutrition, rules, safeguarding, anti-doping,
- Specific athletic education (gym, compensation exs., speed workshops...)

Goal Sport testing

*Reference values for each test
adjusted by age, gender and discipline
= benchmarks*

Physical testing



- 50m (20 acceleration + 30 fly)
- 10 bound jumping test
- Standing 3 jump
- Vertical jump + Drop jump (RSI)
- Overhead throw (front x back)
- 12 min run / Beep-test
- Basic gymnastics

1. We want overall good sport basis and skills
2. We show to the athletes (and coaches) **what are the qualities we look for** in the youth regardless of discipline
3. You can identify
 - strenghts
 - weaknesses
 - comparisons (population, yourself, competition results)

Health Prevention



Prevention / Medical

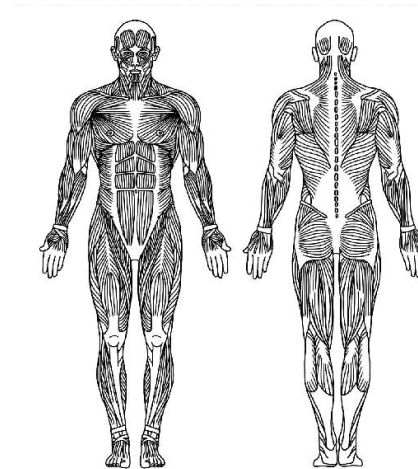
Physiotherapist

- Kinesiological analysis

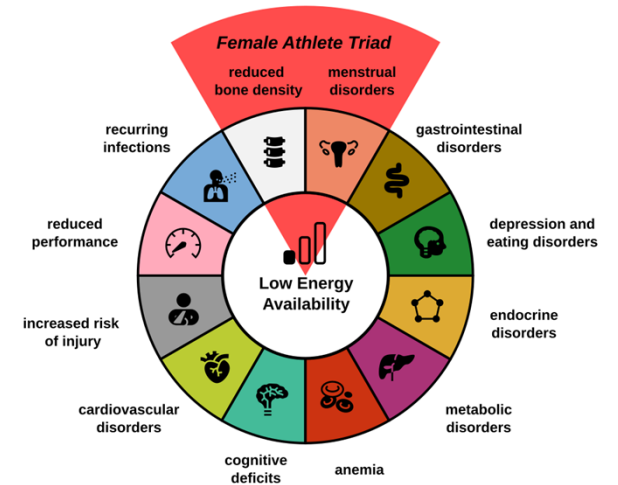
Physician

- Trauma/Orthopedic Q
- Laussane Q
- RED-s (RST Q)
- Nutrition and Lifestyle
- Food diary (3 days)

1. Medical prevention in areas that concern us.
2. Message – take care of your athletic health seriously
3. Recommending follow up care
4. Searching and preventing more serious problems
5. Gathering population data



Relative Energy Deficiency in Sport (RED-S)



Goal Education



Athletes and coaches

- Test Results interpretation
- Specific sport (nutrition, rules, safeguarding, anti-doping,
- Specific athletic education (gym, compensation exs., speed workshops...)

1. Educating athletes about athletics
2. Connecting coach-athlete goals
3. Get „PRO“ info to the „hobby“ coach

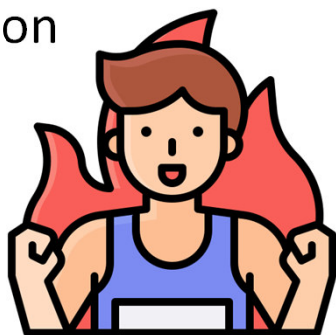


Complex testing U18 – U20

What are the goals?

1) Showing the way to the **athletes**

- What general skills they should have
- Lack of general fitness
- Health prevention
- Injury prevention
- Weak/strong spots identification
- Education



2) Showing the way to the **coaches**

- What is the expected outcome of the youth
- Weak/strong spots of their training plan
- Helping to deal with issues



3) Gather population **data**

- Performance / testing
- Health
- Motivation
- Kinesiology
- Nutrition...




Organization

- **Federation coaches briefing** Unify protocols and measuring
- **Medical team briefing**
- **Manual for athletes**




On-site (30-60 athletes per camp)

- Rotation 2 test groups, 1 physio, 1 medical/fed coach consultation
- Education, briefings...
- Give results

- 
- **Questionnaires** 14 days prior to the camp
 - **Some physio** prior to the camp
 - **Physio – on-line standardized form**

After

- 
- Results analysis
 - follow up decision and communication
 - Publication

Scoring portfolio

*Personal „athletic“
data*

Matěj Peffek			
Pohlaví	M		
Věk	17		
Datum narození	02.08.2007		
Kategorie	Junior		
AO/AK	Spartak Praha 4		
Kraj	Pražský		
Sekce	víceboje		
Disciplína	desetiboj		
I Run Clean	18.9.2024		
Tréninkový deník	TD - elektronický		
Výkonnost			
Hlavní disciplína	desetiboj		
PB	6894		
MČR umístění	2	3	
Tabulkové umístění	2	3	
Reprezentace v posledním roce	ano	1	
Limit	reprezentace	3	
Kombinace limitů z více sekcí	ano	3	

*Athletic performance
data and points*

Scoring portfolio

Medical / Physio results

Zdravotní anamnéza						
Ortopedický dotazník	v pořádku	3				
Kineziologie	v pořádku	3				
Lausannský dotazník	v pořádku	3				
Nutrice	v pořádku	3				
RST dotazník (RED-s)						
Testování				Referenční hodnoty		
Test	Výkon	Body	Hodnocení	Průměrně	Dobře	Výborně
20 m PVS	3,05	0	nedostatečně	3,04	2,93	2,81
30 m Letmo	3,14	2	dobře	3,4	3,26	3,12
Desetiskok	29,88	1	průměrně	28,33	30,01	31,7
Trojskok z místa LPL	8,48	2	dobře	7,97	8,45	8,93
Trojskok z místa PLP	8,63	2	dobře	7,97	8,45	8,93
Vertikální výskok	43,4	0	nedostatečně	44,5	49	54
Výskok po amortizaci z 30 cm	33,0	0	nedostatečně	35	41	46
Index reaktivní síly (RSI)	2,19	1	průměrně	2	2,35	2,7
Skok z místa	262	0	nedostatečně	263	278	293
Autový hod	13,43	1	průměrně	13,15	14,87	16,58
Koule vzad	14,70	0	nedostatečně	15,32	17,14	18,96
12 minutovka		0		3027	3224	3422
Beep test	11,08	0	nedostatečně	11,3	12,49	13,68
Stojka	1	3	výborně			
Kotoul vpřed	1	3	výborně			
Kotoul vzad	1	3	výborně			
Výmky	1	3	výborně			
Součet bodů		46				

Physical tests results, points and reference benchmarks (age, event, gender adjust)

Overall scoring

Aftercare

- *Test results can make a **difference for support***
 - *Good results – top support*
- *Very **specific comparative info on the athlete's level***
- ***Communication channell***
 - *Early future university planning!*
- ***Reference point for future training and support***
 - *4 year tracking cycle in the system*
- *Data Analysis and **Publication***

Analýza testovacích srazů SCM
2022



What is the cost?

- *110-120 EUR per athlete (with travel, accomodation, paying the coaches-medical crew),*
- *not including the wage of federation coaches*
- *About 2 % of total „youth“ budget*
- *Some work*
- *Quite cost-effective*



Lot of added values

What matters the most?

- a) Transfer to the senior top athletics*
- b) Transfer to all level senior athletics = vital for the sport*

*Small nation
Big dreams
Similar problems
Searching for solutions*



Thank you!

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