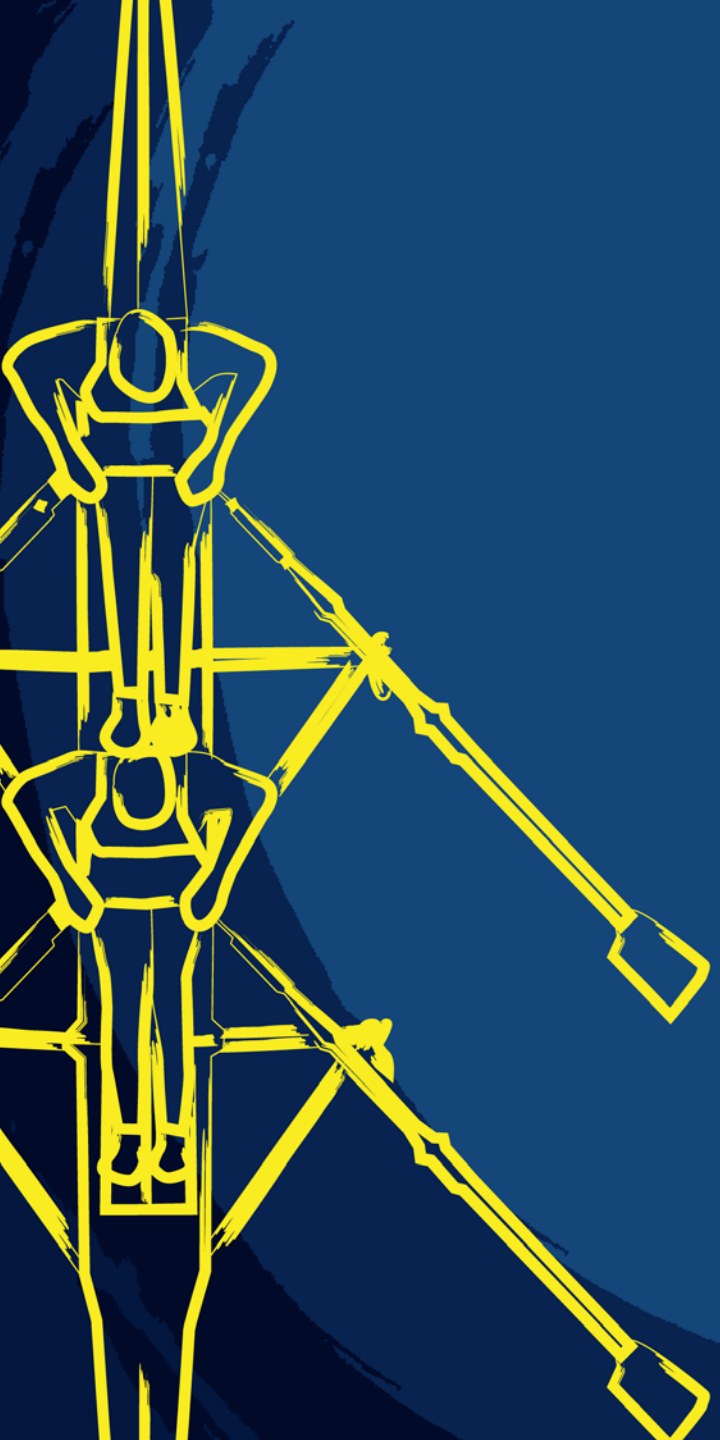


TALENT DEVELOPMENT IN SPORT

Professor Dr. Joerg Schorer (GER)
08/11/2014



PRACTICAL APPLICATION OF TALENT ID AND DEVELOPMENT IN ROWING

Chuck McDiarmid (CAN)
08/11/2014



Practical Application of Talent ID and Development in Rowing



WHY TALENT ID?

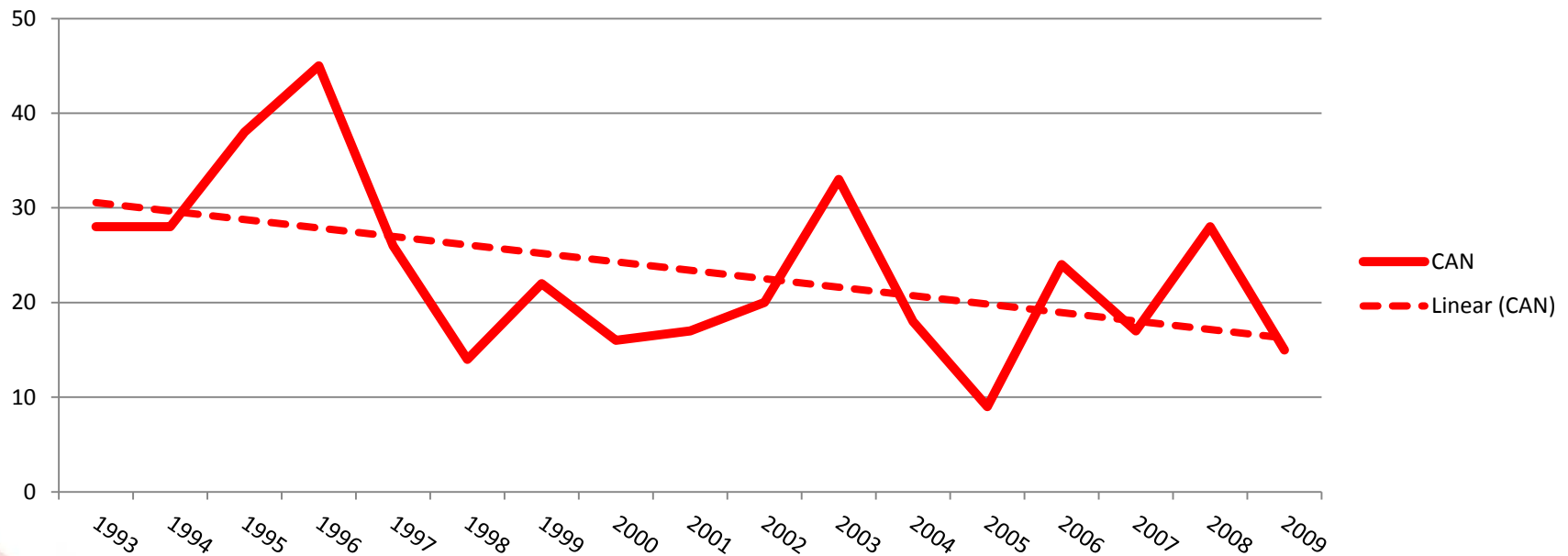
- Funding is linked to Olympic Gold Medal performance



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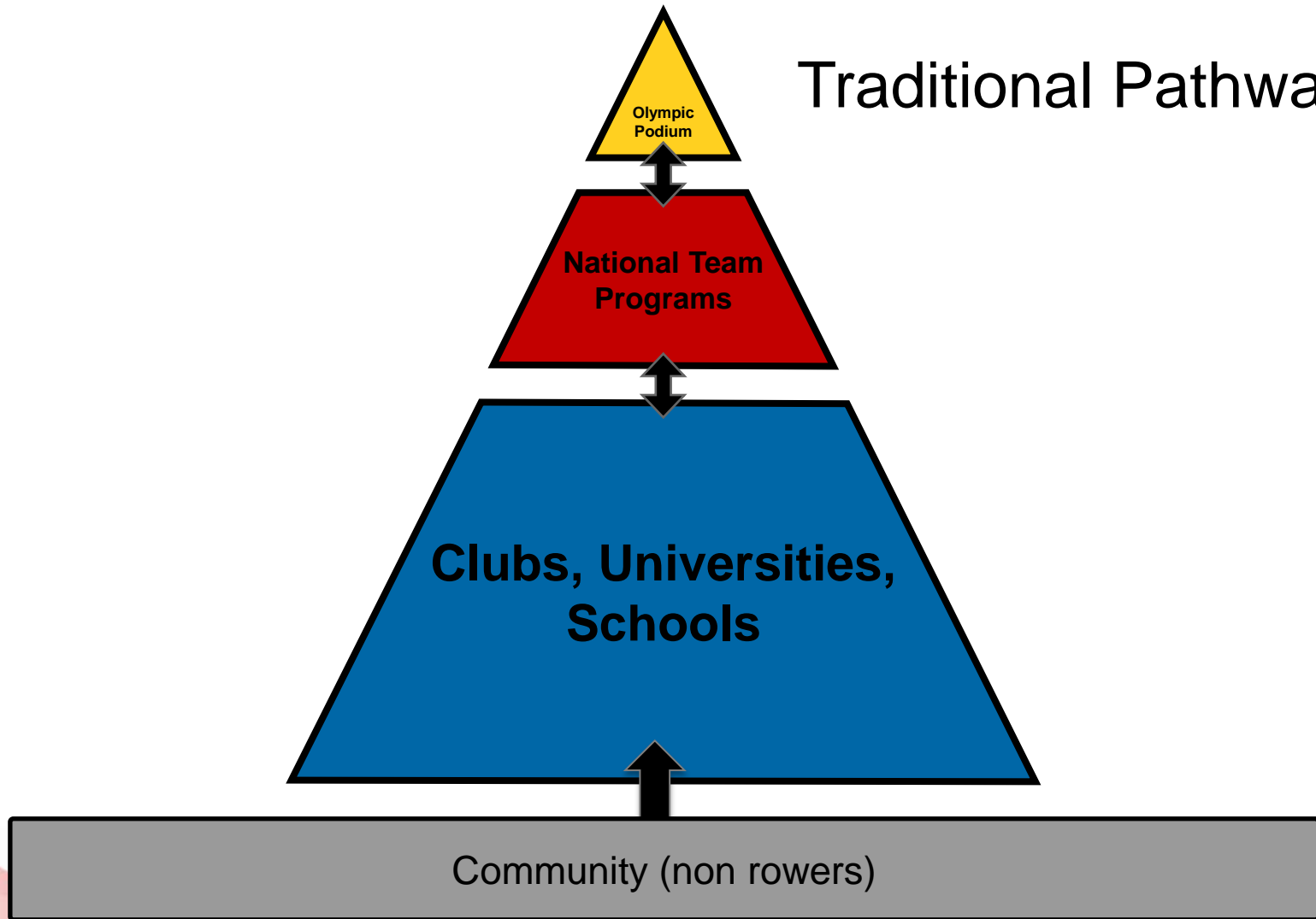
World Championship Points

CAN



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Traditional Pathway



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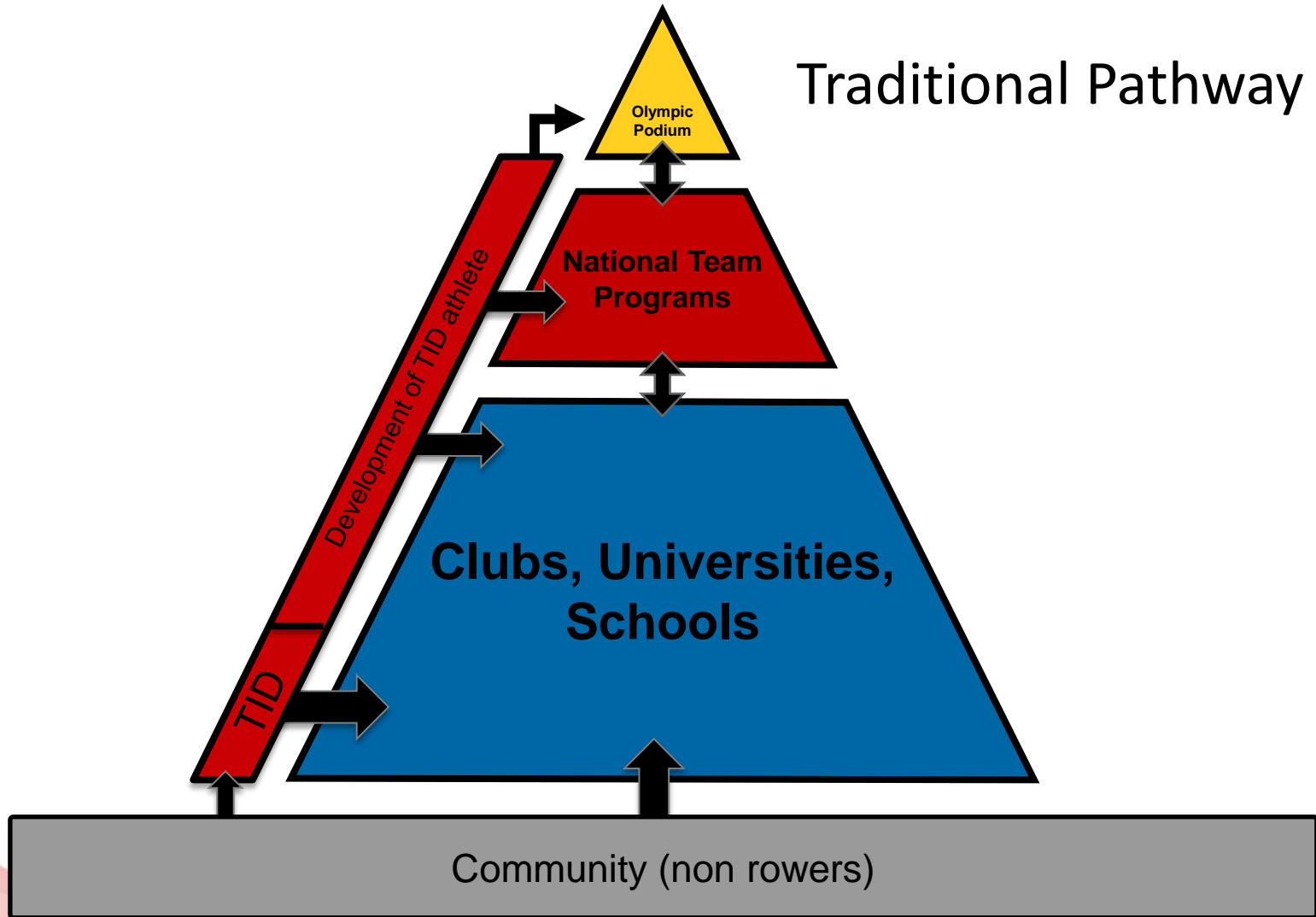
WHY TALENT ID?

- Funding is linked to Olympic Gold Medal performance
- Performances are always improving each Olympiad
- Plan for future performance: TID can identify and nurture talent for the future



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Traditional Pathway



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NATIONALLY LED– ROWING CANADA AVIRON

REGIONALLY DELIVERED – PARTNERSHIPS

Provinces | Canadian Sport Institutes | Clubs

FUNDED BY ALL LEVELS

OTPS | RCA | Provincial Ministries | Clubs

6 CENTRES – Full time coaches dedicated to the RTP program

3 SATELLITE CENTRES – Deliver program / other responsibilities

PARA and Able Body



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ROW TO PODIUM - PROCESS

Led by: Peter Shakespear



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STAGES OF TID AND DEVELOPMENT

**TID = building solid
foundations 5%**



**Development = building on
foundations 95%**



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STAGES OF TID AND DEVELOPMENT

**TID = building solid
foundations 5%**



- 1. IDENTIFY A SOURCE – RECRUIT**
- 2. TEST ATHLETES**
- 3. REVIEW RESULTS**
- 4. INVITE TO PROGRAM**



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IDENTIFY A SOURCE | RECRUIT

NON ROWERS: Individual or group recruitment

IDEAL AGE 16-18: Exceptions for Exceptional athletes

TALL / STRONG / FIT



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IDENTIFY A SOURCE | RECRUIT

- Schools — *Aggressive recruitment strategy*
- Universities — *Partnerships to support recruitment*
- Talent Transfer
 - Awareness: *Word of mouth | CSI partnerships | Website*
 - Targeted: *Individual invitations*

Correct Strategy for approaching athletes is critical



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TEST ATHLETES

- Using validated Row to Podium Testing protocols
- Field tests to provide objective information on untrained potential



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TEST ATHLETES

ANTHROPOMETRICS

Height | Arm span | Weight

STRENGTH: C2 DYNOS

Measure: "WORK" Nm – [Force x Distance]

FITNESS: Schwinn Arm Leg Bike

Measure: RPM - Step test



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REVIEW TESTING RESULTS

Compare individuals against established RTP Targets



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TID Selection Standards for Row To Podium U19 Athletes

	OPEN MEN		LIGHTWEIGHT MEN (18 YEAR OLD)		OPEN WOMEN		LIGHTWEIGHT WOMEN (18 YEAR OLD)	
	review minimum standard	upper selection standard	review minimum standard	upper selection standard	review minimum standard	upper selection standard	review minimum standard	upper selection standard
HEIGHT	186	193	175	180	175	183	163	170
ARMSpan	186	193	175	180	175	183	163	170
ENDURANCE	85	90	85	90	70	80	70	80
LEG PRESS (3)	700	800	580	750	400	525	390	500
BENCH PRESS (3)	300	400	280	350	150	205	140	190
ARM PULL (3)	450	500	380	450	200	290	190	280
Sum of Leg Press(3) and Arm Pull(3)	1150	1300	960	1200	600	815	580	780

REVIEW TESTING RESULTS

Compare individuals against established RTP Targets

Considerations:

- Results
- Age
- Sporting background
- Training location



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TESTING DETAILS					ANTHROPOMETRIC			STRENGTH - DYNO MACHINE				ENDURANCE ARM LEG BIKE
TEST DATE	TEST EVENT	DOB	Age at Test	Current Age	Weight (kg)	Height (cm)	Armspan (cm)	Leg press (nm)	Arm press (nm)	Arm pull (nm)	LP+AP (nm)	Arm/Leg (rpm)
yyyy-mm-dd		yyyy-mm-dd				>193.0	>193.0	>800	>400	>500	>1300	>90
						186 - 192.5	186 - 192.5	700-799	300-399.9	450-499	1150-1300	85-89
2013-12-10	group	1995-05-07	18.61	18.61	60.50	168.6	169.0	367	192	269	636	75
2013-02-09	TID event	1997-12-02	15.20	16.90	72.00	188.0	192.0	718	321	395	1113	79
2013-06-05	In-School Testing	1997-08-02	15.85	17.24	78.50	181.0	188.0	710	367	418	1128	77
2013-07-03	Individual	1990-07-06	23.01	23.02	91.60	167.0	168.0	825	424	510	1333	86
2012-03-15	Individual	1989-01-01	23.22	25.82	100.00	194.0	204.0	1045	460	593	1638	97
2013-05-01	Stelly's	1996-11-08	16.49	17.97	77.20	186.0	190.0	646	317	402	1048	80
2013-05-26	Podium Search	1991-10-10	24.64	23.95	76.4	179.5	186.0	648	384	460	1408	84
2013-09-15	UVIC -TID	1992-10-21	20.92	22.02	100.00	204.0	208.0	1210	657	689	1899	95
2013-09-15	UVIC -TID	1995-10-08	17.95	19.05	78.50	180.0	184.0	835	335	411	1247	82
2014-04-17	Group	1996-01-25	18.24	18.76	73.60	192.0	193.2	493	306	396	889	86
2014-09-14	UVIC	1993-11-30	20.80	20.91	76.60	192.0	201.0	505	423	483	988	75
2014-09-14	UVIC	1995-10-08	18.95	19.05	74.50	180.0	184.0	811	324	424	1235	75
2014-05-15	School - Ambrea	1996-12-07	17.45	17.89	88.20	176.0	181.0	407	357	269	676	72
2014-09-06	Novice Testing	1996-11-28	17.78	17.01	92.5	179	187	851	453	553	1464	80
2014-09-11	individual	1998-02-14	16.58	16.70	90.00	195.5	198.5	936	516	536	1472	93
2014-09-17	individual	1989-04-07	25.46	25.96	86.20	192.5	202.0	562	409	546	1108	90
25-May-14	Podium Search	10-Jun-96	17.97	18.38	75.2	185.0	191.4	740	360	401	1141	85
2014-09-24	group	1999-12-23	14.76	14.84	81.10	182.5	190.0	488	187	201	788	77
2014-09-22	individual	1996-05-03	18.40	18.48	102.40	196.5	208.0	899	481	598	1497	95



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INVITATION TO PROGRAM



- **Rigorous Interview process**
- **Medical Screen**
- **Athlete agreements**

CLUB PROGRAMS

- **RTP partnerships**
- **Tradition of developing athletes**



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STAGES OF TID AND DEVELOPMENT

Development = building on foundations 95%

1. PRINCIPLES

2. MONTHLY CAMPS



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PRINCIPLES OF RTP

TID DEVELOPMENT vs “TRADITIONAL DEVELOPMENT”

“FERRARI MENTALITY”

TID athletes have no perceived **limitations**

Talented athletes require special **development**

Talented athletes require special **coaching**

Talented athletes require special **expectations**



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PRINCIPLES OF RTP

- Athletes are blank canvas (no faults, no skills)
- All training is done in 1x's
- Intense coaching (1:1 ideal)
- Coach demands change: Maximize rapid but accurate technical development.
- Graduated Process - Progress only when achieved previous level

Eliminate technical limit on later performance



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PRINCIPLES OF RTP

Balance *before* **technique**

Sculling *before* **sweep**

Power *before* **endurance**

Automate *before* **extensive training**

Automate *before* **fatigue training**

Posture *before* **loading**

Core *before* **loading**

Flexibility *before* **loading**



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TECHNIQUE = Moving the boat a long distance between strokes

1. *CORRECT BODY POSTURE* – (core, spine neutral and pelvic rotation) long, strong, safe position
2. *LONG STROKE* – huge arc = 100 degrees sweep, 120 degrees scull / (flexibility plus timing/accuracy of turns)
3. *ACCELERATE THE BOAT* – from catch to finish (fill out force curve) – NEVER HANDLE ACCELERATION
4. *RHYTHM* – let the boat run, but no stop in the seat and hand movements



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MONTHLY CAMPS

Quality Control and Motivation

- Create competitive environment
- Continuous improvement
- Regular goal setting
- Introduce crew boats
- Create basis for motivation = achievement
- Delivery method for educational information

8 Camps in the East / 8 Camps in the West
1 National Camp



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MONTHLY CAMPS

Day 1 - Full day of assessment and measures

Dry-land

- Anthropometric
- Core and flexibility
- Aerobic assessment – 20 minute @ SR 18 (Mmol)
- Power ergs (Peak Power and 1000m SR 24)
- Pacing erg – Submitted Prior to camp
- Movement Screen – Submitted 4 times a year

Water Assessments

- Balance and boat skills
- 500 meter minimum strokes
- Rate capped 1000m pieces: 2 @ SR 24 / 2 @ SR 28



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Athlete Progress Report

Page 1

Name (Last, First) Kale Van Bruggen
Date of Birth 92-10-21
Current Age 22.1
Category Men

Most Recent
Weight 103.7 kg
Height 203.6 cm
Armspan 210 cm

Comments / Notes:

General

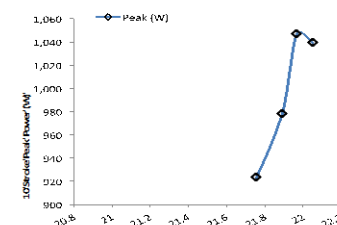
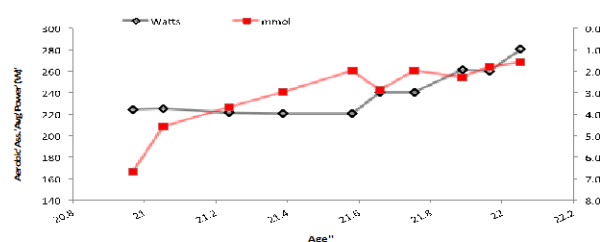
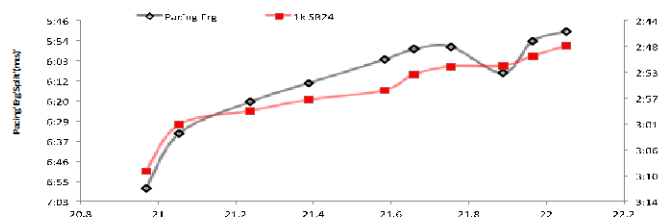
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1 November 4, 2014	22.0	Yes
2 October 4, 2014	22.0	Yes
3 September 5, 2014	21.9	Yes
4 July 19, 2014	21.7	
5 June 14, 2014	21.6	
6 May 17, 2014	21.6	
7 March 7, 2014	21.4	
8 February 7, 2014	21.3	INJ
9 January 11, 2014	21.2	
10 November 5, 2013	21.0	
11 October 5, 2013	21.0	

Ergometer Assessment

Pacing Erg		1k SR 24	10 Stroke	Aerobic Assessment		
Total	Avg SR	Total	Peak (W)	Watts	SR	mmol
5:50.50	26.8	2:48.50	1039	280	18	1.6
5:54.70	26.0	2:50.20	1047	280	18	1.8
6:00.30	24.0	2:51.80	970	261	19	2.3
5:57.10	26.5	2:51.90	923	240	18	2.0
5:58.20	26.5	2:53.30		240	18	2.9
6:02.00	26.8	2:55.90		220	18	2.0
6:12.70		2:57.50		220	17	3.0
6:20.70	24.5	2:59.30		221	17	3.7
6:34.30	25.5	3:01.60		225	17	4.6
6:58.00	19.5	3:09.40		224	17	6.7

Flexibility / Core

Core			Flexibility	
Plank L	Plank R	Back Ext	Left	Right
2:00	2:00	2:00	7	10
2:40	2:20	2:40	3	5
2:35	35:00	2:35	5	10
2:30	2:30	2:30	10	10
2:15	2:15	2:15		
2:00	2:00	2:00	15	20
3:40	3:00	3:03		
3:23	3:10	3:15	0	1
4:18	3:36	3:19	2	12
3:06	2:31	2:57	10	10



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Athlete Progress Report

Page 2

Name (Last, First)	Kyle Van Bruggen	Most Recent	Weight	103.7 kg
Date of Birth	92-10-21		Height	203.6 cm
Current Age	22.1		Armspan	210 cm
Category	Men			

Camp Dates	500m MI 1000m SR 28			2 x 1000m SR 24		
	Strokes	Avg. Time	% GMS	Avg. Time	% GMS	
1 November 4, 2014	20.0	4:59.63	88.3%	4:58.03	88.8%	
2 October 4, 2014	23.5	5:38.89	87.3%	5:43.72	85.5%	
3 September 6, 2014	23.0	5:44.00	87.5%	5:53.00	84.1%	
4 July 19, 2014	28.0	3:48.80	85.7%	4:12.37	77.7%	
5 June 14, 2014	21.5	3:54.59	83.5%	3:52.50	84.3%	
6 May 17, 2014	40.0	3:50.00	85.2%	3:49.61	85.4%	
7 March 7, 2014	19.0	4:05.50	79.8%	4:03.00	80.7%	
8 February 7, 2014						
9 January 11, 2014	21.0	4:11.22	78.0%	4:20.49	75.2%	
10 November 5, 2013	22.5	4:10.53	78.2%	4:05.38	79.9%	
11 October 5, 2013	19.5	4:15.50	76.7%	4:35.50	71.1%	
12						
13						
14						
15						
16						
17						
18						
19						
20						

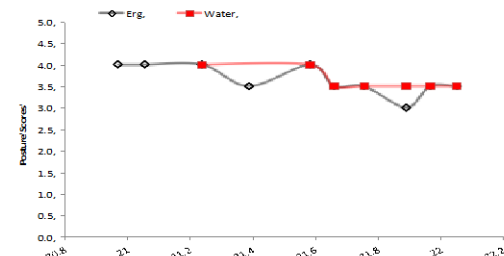
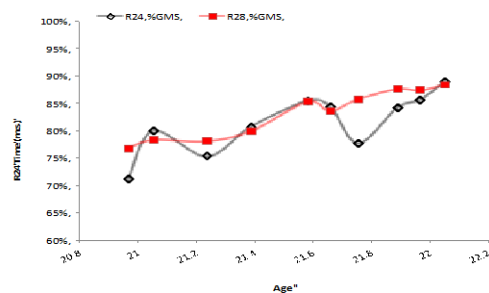
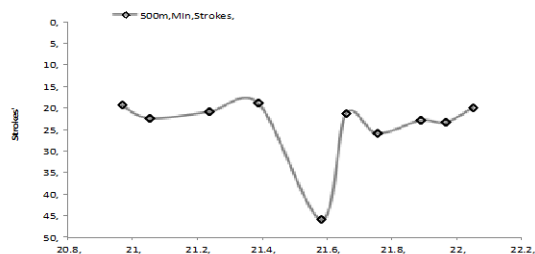
Water Assessment

Posture Scores

Erg	Water
Scores	Scores
3.5	3.5
3.5	3.5
3.0	3.5
3.5	3.5
3.5	3.5
4.0	4.0
4.0	4.0
4.0	4.0
4.0	4.0

Water Skills

30 second strokes	30 sec stroke stops	30 second single stops	single stops	single stops	single stops	30 sec average
74	32	70	38	30		0.30.0
70	58	68	58	26		0.28.5
67	59	52	61	65		0.31.0
72	28	42	56	37		0.29.5
74	54	35	55	38		0.29.0
86	38	55	54	38		0.29.0
72	30	57	56	48		0.31.0
89	50	50	56	35		0.34.5
72	54	55	61	54		0.32.5
78	37	58	67	45		0.47.0



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Athlete Progress Report

Page 1

Name (Last, First) Kale Van Bruggen
Date of Birth 92-10-21
Current Age 22.1
Category Men

Most Recent
Weight 103.7 kg
Height 203.6 cm
Armspan 210 cm

Comments / Notes:

General

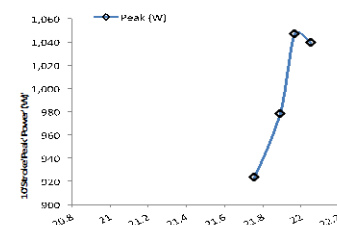
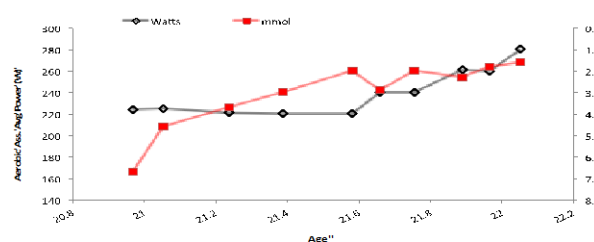
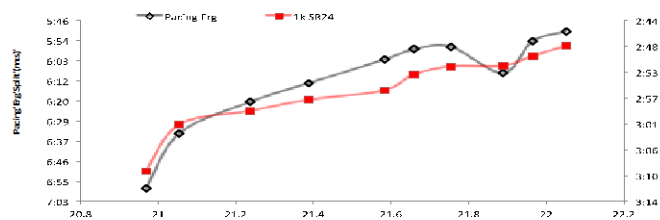
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6 May 17, 2014	21.6	
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8 February 7, 2014	21.3	INJ
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11 October 5, 2013	21.0	

Ergometer Assessment

Pacing Erg		1k SR 24	10 Stroke	Aerobic Assessment		
Total	Avg SR	Total	Peak (W)	Watts	SR	mmol
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5:54.70	26.0	2:50.20	1047	280	18	1.8
6:00.30	24.0	2:51.80	970	261	19	2.3
5:57.10	26.5	2:51.90	923	240	18	2.0
5:58.20	26.5	2:53.30		240	18	2.9
6:02.00	26.8	2:55.90		220	18	2.0
6:12.70		2:57.50		220	17	3.0
6:20.70	24.5	2:59.30		221	17	3.7
6:34.30	25.5	3:01.60		225	17	4.6
6:58.00	19.5	3:09.40		224	17	6.7

Flexibility / Core

Core			Flexibility	
Plank L	Plank R	Back Ext	Left	Right
2:00	2:00	2:00	7	10
2:40	2:20	2:40	3	5
2:35	35:00	2:35	5	10
2:30	2:30	2:30	10	10
2:15	2:15	2:15		
2:00	2:00	2:00	15	20
3:40	3:00	3:03		
3:23	3:10	3:15	0	1
4:18	3:36	3:19	2	12
3:06	2:31	2:57	10	10



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AVIRON



Athlete Progress Report

Page 1

Name (Last, First) Kate Van Drogen
Date of Birth 92-10-21
Current Age 22.1
Category Men

Most Recent
Weight 103.7 kg
Height 203.6 cm
Armspan 210 cm

Comments / Notes:

General

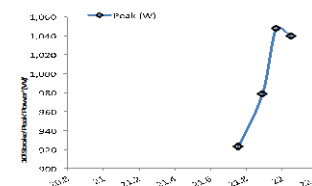
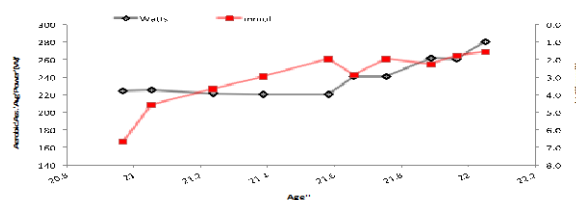
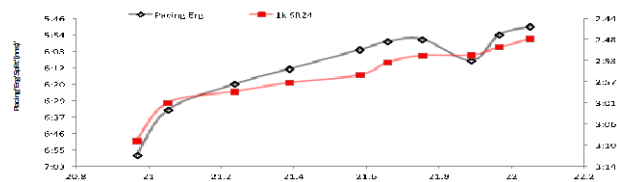
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3 September 5, 2014	21.9	Yes
4 July 15, 2014	21.7	
5 June 14, 2014	21.6	
6 May 17, 2014	21.6	
7 March 7, 2014	21.4	
8 February 7, 2014	21.3	NA
9 January 11, 2014	21.2	
10 November 5, 2013	21.0	
11 October 5, 2013	21.0	

Biometric Assessment

Pacing Erg		1k SR 24	10 Stroke	Aerobic Assessment		
Total	Avg SR	Total	Peak (W)	Watts	SR	Heart
6:50.50	26.8	2:48.50	1039	280	18	1.6
6:54.70	26.0	2:50.20	1047	260	18	1.8
6:58.30	24.0	2:51.80	978	261	18	2.3
6:57.10	26.5	2:51.90	923	240	18	2.0
6:58.20	26.5	2:53.30		240	18	2.9
6:52.50	26.0	2:55.30		220	18	2.0
6:12.70		2:57.60		220	17	3.0
6:20.70	24.5	2:59.30		221	17	3.7
6:34.30	25.5	3:01.60		226	17	4.6
6:58.00	19.5	3:09.40		224	17	6.7

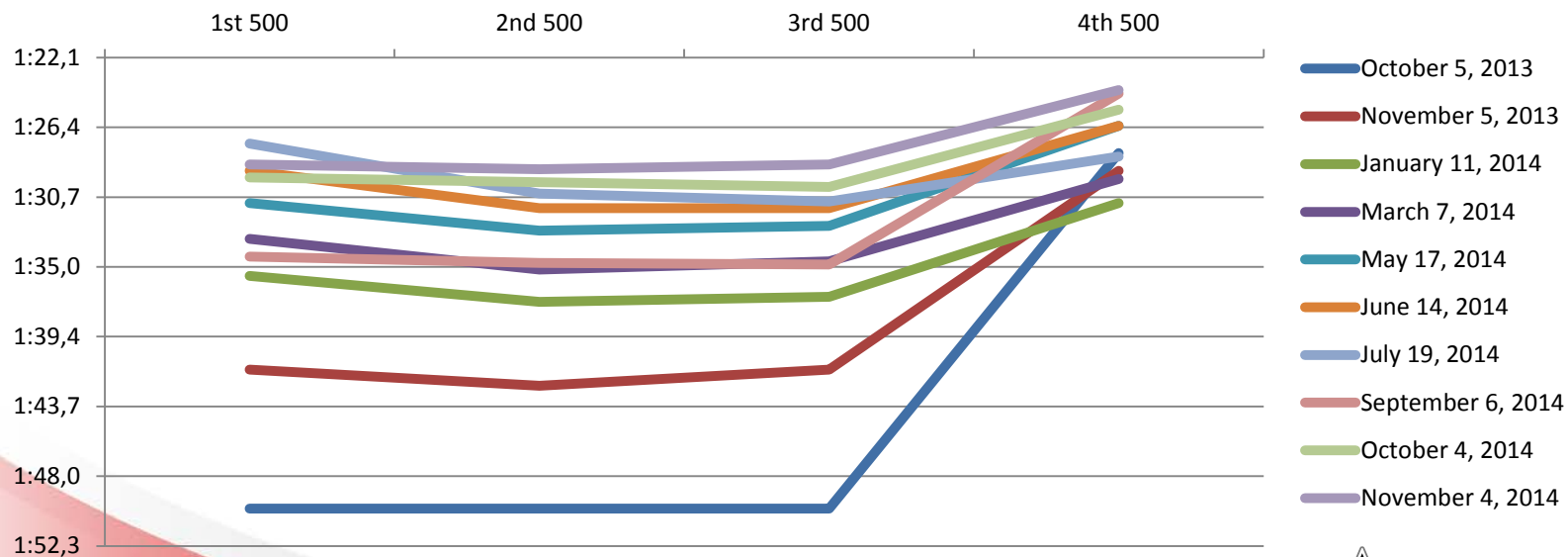
Flexibility / Core

Core			Flexibility	
Plank L	Plank R	Heck Ext	Left	Right
2:00	2:00	2:00	7	10
2:40	2:20	2:40	3	5
2:35	3:00	2:35	5	10
2:30	2:30	2:30	10	10
2:15	2:15	2:15		
2:00	2:00	2:00	15	20
3:40	3:00	3:03		
3:23	3:10	3:15	0	1
4:10	3:30	3:19	2	12
3:06	2:31	2:57	10	10



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Date	1st 500	SR	2nd 500	SR	3rd 500	SR	4th 500	SR	Total Time	Average Split	Average SR
October 5, 2013	1:50.0	18	1:50.0	18	1:50.0	18	1:28.0	24	6:58.0	1:44.5	19.5
November 5, 2013	1:41.4	24	1:42.4	25	1:41.4	25	1:29.1	28	6:34.3	1:38.5	25.5
January 11, 2014	1:35.6	23	1:37.2	23	1:36.9	24	1:31.1	28	6:20.7	1:35.1	24.5
February 7, 2014	INJ	INJ	INJ	INJ	INJ	INJ	INJ	INJ	INJ	INJ	INJ
March 7, 2014	1:33.3	-	1:35.2	-	1:34.7	-	1:29.6	-	6:12.7	1:33.2	-
May 17, 2014	1:31.1	26	1:32.8	26	1:32.5	26	1:26.3	29	6:02.6	1:31.4	26.8
June 14, 2014	1:29.1	26	1:31.4	25	1:31.4	26	1:26.3	29	5:58.2	1:29.5	26.5
July 19, 2014	1:27.4	27	1:30.5	25	1:31.0	26	1:28.2	28	5:57.1	1:29.2	26.5
September 6, 2014	1:34.4	22	1:34.8	22	1:34.9	22	1:24.3	30	6:08.3	1:32.1	24.0
October 4, 2014	1:29.5	25	1:29.8	25	1:30.1	25	1:25.3	29	5:54.7	1:28.6	26.0
November 4, 2014	1:28.7	26	1:29.0	26	1:28.7	26	1:24.1	29	5:50.5	1:27.6	26.8



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AVIRON



Athlete Progress Report

Page 1

Name (Last, First) Kate Van Bruggen
Date of Birth 02-10-21
Current Age 22.1
Category Men

Most Recent

Weight 103.7 kg
Height 203.0 cm
Armspan

Comments / Notes:

General

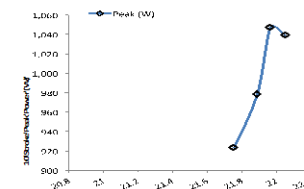
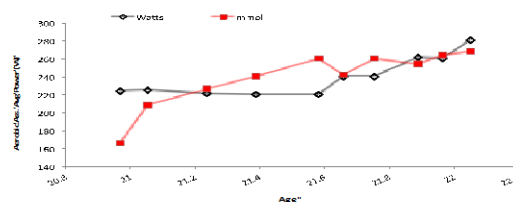
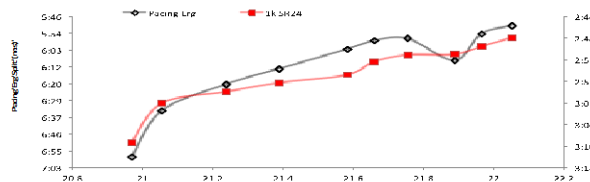
Comp Date	Age	Alt.
1 November 4, 2014	22.0	Yes
2 October 4, 2014	22.0	Yes
3 September 6, 2014	21.9	Yes
4 July 13, 2014	21.7	
5 June 14, 2014	21.6	
6 May 17, 2014	21.6	
7 March 7, 2014	21.4	
8 February 7, 2014	21.3	NI
9 January 11, 2014	21.2	
10 November 5, 2013	21.0	
11 October 5, 2013	21.0	
12		
13		
14		
15		
16		
17		
18		
19		
20		

Ergometer Assessment

Pacing Erg		1k SR 24	10 Stroke	Aerobic Assessment		
Total	Avg SR	Total	Peak (W)	Watts	SR	Interval
5:50.50	20.8	2:46.50	1039	260	18	1.8
5:54.70	20.0	2:50.20	1047	260	18	1.8
5:08.30	24.0	2:51.80	978	261	18	2.3
5:57.10	20.5	2:51.50	923	240	18	2.0
5:56.20	20.5	2:53.30		240	18	2.9
5:22.00	20.8	2:56.50		220	18	2.0
5:12.70		2:57.50		220	17	3.0
5:20.70	24.6	2:59.30		221	17	3.7
5:34.30	26.5	3:01.00		226	17	4.0
5:58.00	19.5	3:06.40		224	17	6.7

Flexibility / Core

Core			Flexibility	
Plank L	Plank R	Back Ext	L. Ext	Right
2:00	2:00	2:00	7	10
2:40	2:20	2:40	3	5
2:36	36:00	2:36	6	10
2:30	2:30	2:30	10	10
2:16	2:16	2:16	15	20
2:00	2:00	2:00		
3:40	3:06	3:03		
3:23	3:18	3:16	0	1
4:18	3:39	3:19	2	12
3:08	2:31	2:57	10	10

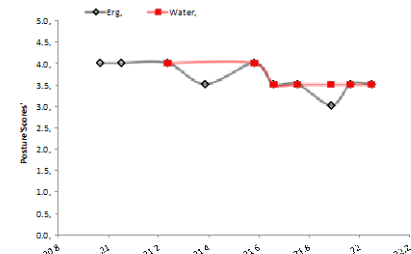
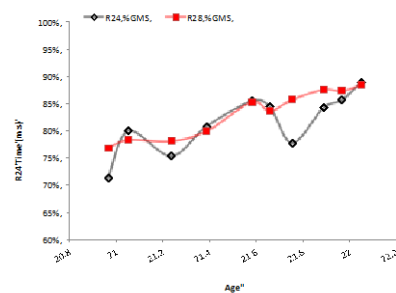
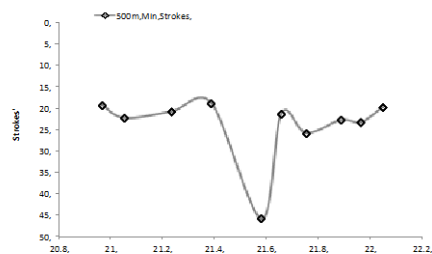


ROWING
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Page 2

		Most Recent	
Name (Last, First)	Kale Van Bruggen	Weight	103.7 kg
Date of Birth	92-10-21	Height	203.6 cm
Current Age	22.1	Armspan	210 cm
Category	Mixed		

Camp Date		500m SR 20				2 x 1000m SR 24				Eng		Water							
		Simulates Avg. Time	%GMS	Avg. Time	%GMS	Score	Score	Score	Score	36 accurate circles	36 one standstill steps	36 accurate single steps	ripper steps	ripper steps alternating	360 turn around				
1	November 4, 2014	20.0	459.03	88.3%	4:58.03	88.3%	3.5	3.5		74	32	70	38	30	0:30.00				
2	October 4, 2014	23.5	526.89	87.3%	5:43.72	85.5%	3.5	3.5		70	58	68	58	28	0:28.5				
3	September 6, 2014	21.0	344.00	87.5%	3:53.00	84.7%	3.0	3.5		67	99	52	61	65	0:31.0				
4	July 10, 2014	20.0	345.80	85.7%	4:12.37	77.7%	3.5	3.5		72	58	58	50	32	0:29.5				
5	June 14, 2014	21.5	354.69	83.5%	3:52.50	84.3%	3.5	3.5		74	54	35	55	38	0:29.0				
6	May 17, 2014	40.0	350.00	85.2%	3:49.01	85.4%	4.0	4.0		80	30	55	54	38	0:29.0				
7	March 7, 2014	19.0	495.50	79.8%	4:93.00	80.7%	3.5	4.0		72	30	57	50	45	0:31.0				
8	February 7, 2014																		
9	January 11, 2014	21.0	4:11.22	78.0%	4:20.49	75.2%	4.0	4.0		89	50	58	56	36	0:34.5				
10	November 5, 2013	22.5	4:10.53	78.2%	4:05.36	79.9%	4.0	4.0		72	54	55	61	54	0:32.5				
11	October 5, 2013	19.5	4:15.50	70.7%	4:35.50	71.1%	4.0	4.0		78	37	50	67	45	0:47.0				



MONTHLY CAMPS

Day 2 - Athletes

Introduce athletes to crew boats

Introduce technical principles

Introduce training principles

Essential sport education e.g. nutrition, recovery,
sport psychology

Day 2 - Coaches

Review results – establish individual targets for next camp



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CHALLENGES / OPPORTUNITIES

CASE STUDIES



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Geography



CHALLENGE

Coaches want to coach



TID = building solid
foundations 5%

**Most critical part of
process**



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CHALLENGE

Recruitment of older athletes

23+

- Significantly reduction of development period
- Potentially skip steps
- Athlete must bring more initial talent to table
- Less opportunities to compete internationally in development stage.
- Finished previous sporting career – golden parachute
- Life choices – Row vs Work

20-22 years

- Typical University ages athlete
- More opportunities than 23+ (Competition / Development time/ Etc)



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OPPORTUNITY

Recruitment of younger athletes

16-18 Years

- Stage by stage development
- 1:10,000 and 10,000 hours theories - 10+ years to develop
- International opportunities JR and U23.



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CHALLENGE

HP Talent Transfer

Bring a lot to the table

Understanding of HP performance

Very High short term expectations – equal to previous sport



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Identified: March 15 / 2012

Birth Year: 1989

Age at test: 23

Height: 194

Arm Span: 204

Strength: 1638 nm

Bike: 97 rpm



ROWING
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AVIRON

Identified: March 15 / 2012

Birth Year: 1989

Age at test: 23

Height: 194

Arm Span: 204

Strength: 1638 nm

Bike: 97 rpm

August 20 / 2012

- 2k = 5:48.4
- 6k = 18:20.4



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CHALLENGES

Traditional Pathway vs RTP Pathway

Both work – difficult to work together

One will always compromise

Negatively impacting the athlete



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Identified June 6, 2012

Birth year: 1995

Age at test: 17

Height: 191

Arm Span: 197

Strength: 815 nm

Bike: 87 rpm

1k (SR 24) = 3:23.3

2k = 7:03.2

6k = 23:04.0



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Athlete Progress Report

Page: 1

		<i>Most Recent</i>	
Name (Last, First)	Karen LeFaud	Weight	88.1 kg
Date of Birth	95-04-20	Height	191 cm
Current Age	19.6	Armspan	197 cm
Category	Women		

Comments / Notes:

General

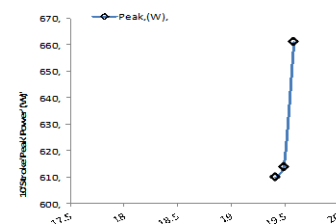
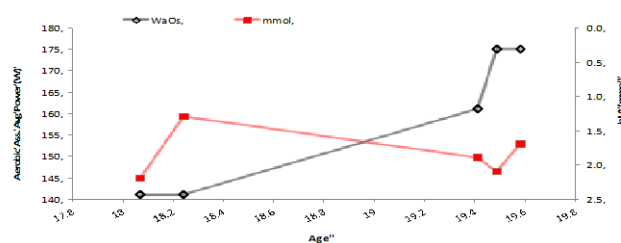
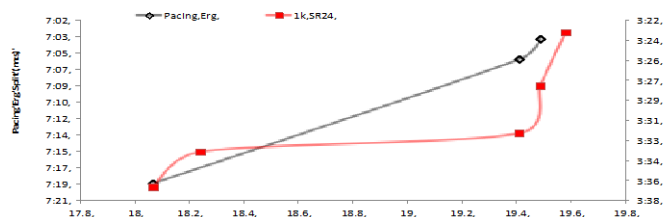
Ergometer Assessment

Flexibility / Core

Camp Dates	Age	Att.
1 November 14, 2014	19.6	Yes
2 October 11, 2014	19.5	Yes
3 September 13, 2014	19.4	Yes
4 October 19, 2013	18.5	Absent
5 September 14, 2013	18.4	Absent
6 July 13, 2013	18.2	
7 June 8, 2013	18.1	Absent
8 May 11, 2013	18.1	
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Pacing Erg		1k SR 24	10 Stroke	Aerobic Assessment		
Total	Avg SR	Total	Peak (W)	WaOs	SR	mmol
7:03.70	29.0	3:23.30	661	175	18	1.7
7:05.80	30.5	3:27.90	614	175	18	2.1
		3:32.00	610	161	18	1.9
		3:33.00		141	18	1.3
7:18.90		3:36.00		141	18	2.2

Core			Flexibility	
Plank L	Plank R	Back Ext	Left	Right
1:24	1:40	3:25	4	4
1:28	1:46	2:43	0	0
			0	0
1:30	1:20	2:30	2	0
1:04	1:20	1:24	3	0



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CHALLENGE

External Perception

Rowing Community – Mixed reviews

- Taking athletes they should have - STEALING
- They cannot provide the same services.

Sport Community – Very supportive

- Keep non performers so they don't leave sport.
- Avenue to direct athletes with potential
- Feel they are part of the athletes success



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OPPORTUNITY

Influence Traditional Pathway

Sharing process and best practices

- Clubs adapt to fit their needs

Support recruitment

- Partner clubs and institutions
- Direct athletes to clubs



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CHALLENGE

Find More Women

Currently 25-30 % of program



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Case Study

Starting to move in the right direction



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Graham Peeters



3rd Generation Farmer

Rural Ontario

Minimal sport background

Identified: April 2012

Age at test: 16.75 (1996 birth year)

Height: 193.9 cm

Arm Span: 206.9 cm

Strength: 1417 nm

Bike: 90



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Graham Peeters



Development Trials – May 2013

1x - 3rd of 13 boats

2x Matrix – Last place

Junior Selection – June 2013

1x – 1st of 12 boats

2x Matrix – Won every race



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2013 World Rowing Junior Championships



11th out of 35



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2014

U23 Selection: 1x – 2nd place | 2x matrix – 1st



World Rowing U23 Championships

BM4x : 7th place



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Graham Peeters

Identified: April 2012

Age at test: 16.75

Height: 193.9 cm

Arm Span: 206.9 cm

Strength: 1417 nm

Bike: 90

Retested: March 2014

Age at test: 18.45

Height: 195.5 cm

Arm Span: 209 cm

Strength: 1479 nm

Bike: 93

1k (SR 24) = 2:59.9

2k = 6:08.2

6k = 19:46.9



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Graham Peeters



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Future potential

Graham Peeters

Identified: April 2012

Birth year: 1996

Age at test: 16.75

Height: 193.9 cm

Arm Span: 206.9 cm

Strength: 1417 nm

Bike: 90

New Recruit

Identified: Sept 2014

Birth year: 1998

Age at test: 16.45

Height: 195.5 cm

Arm Span: 198.8 cm

Strength: 1472 nm

Bike: 93



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“TRAINING WILL BEAT TALENT UNTIL TALENT TRAINS”

- TID will never replace the role of clubs in providing the bulk of the top competitors
- TID can provide 10% of the very best athletes
- Ensure a consistent flow of high quality athletes to national teams



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“TRAINING WILL BEAT TALENT UNTIL
TALENT TRAINS”

FIND TALENT  TRAIN TALENT

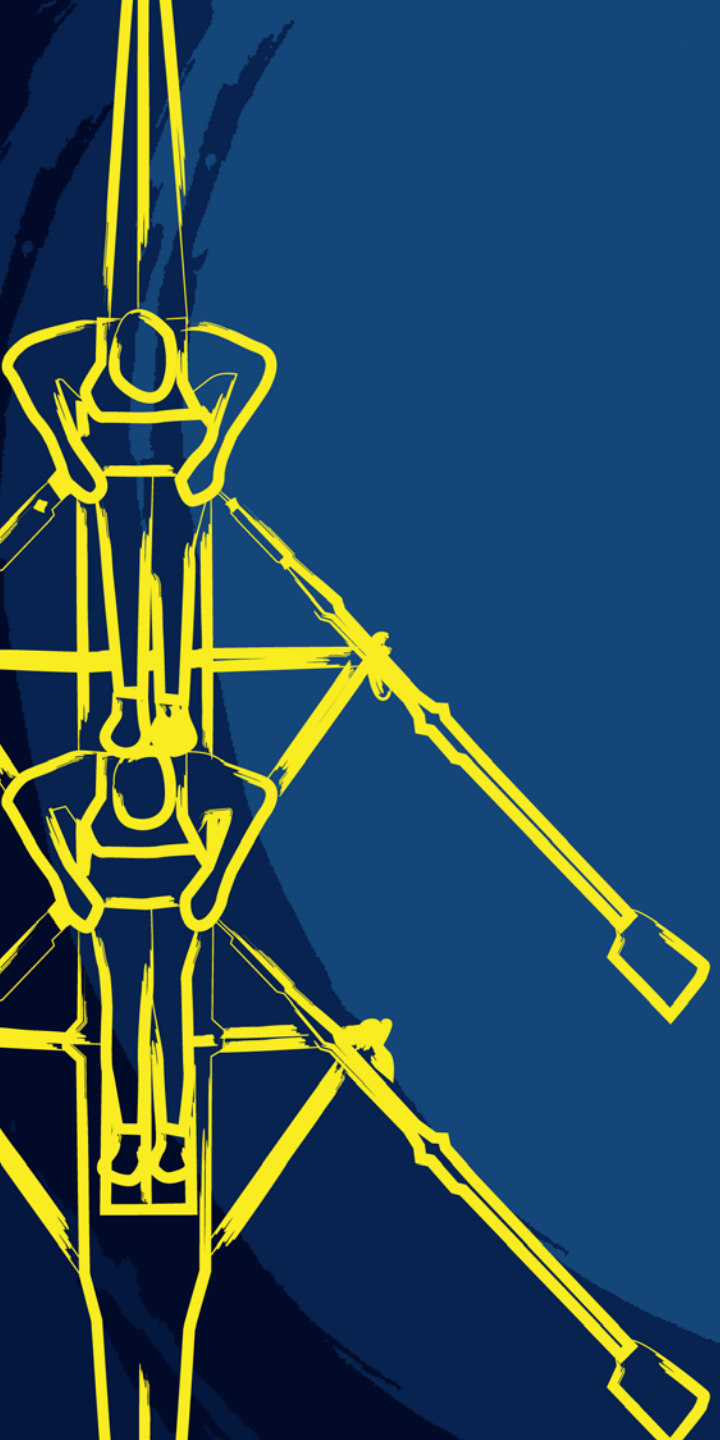


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END

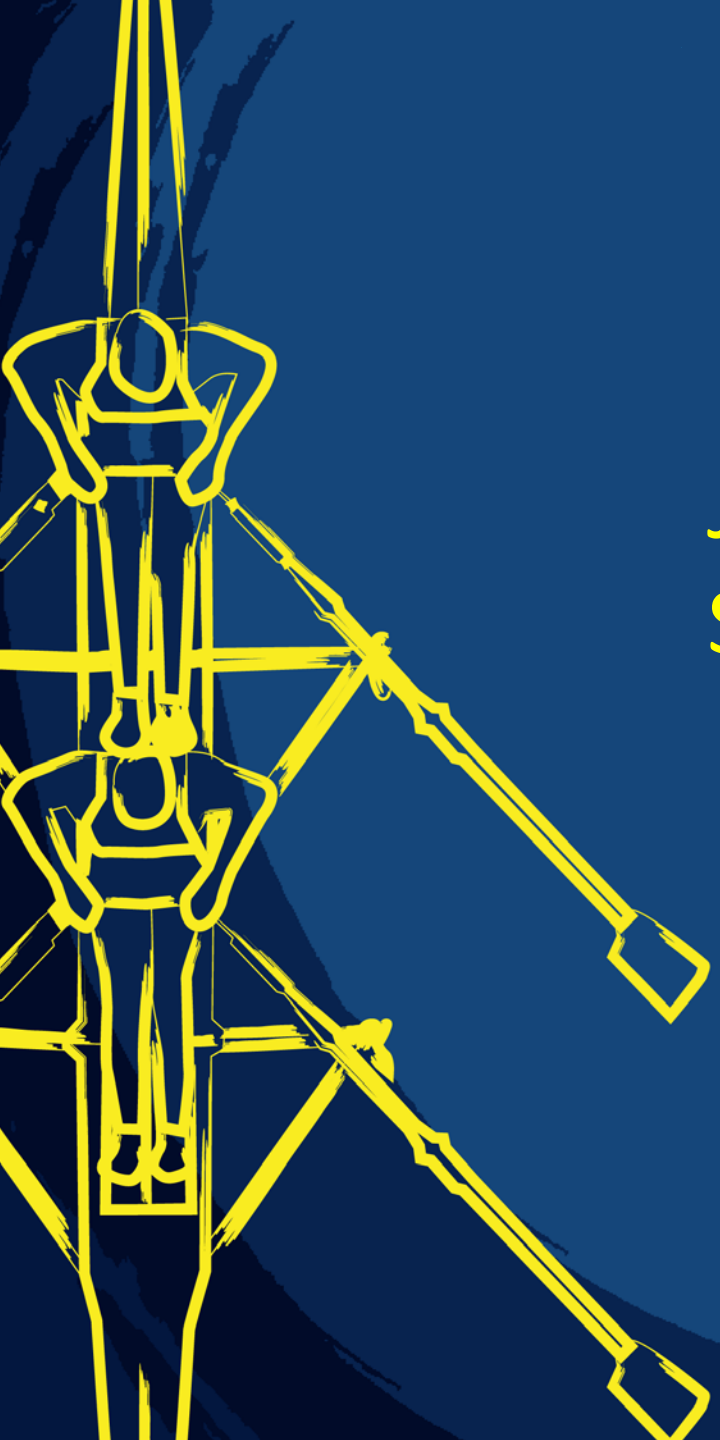


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COFFEE BREAK

08/11/2014



JUNIOR COACH IN THE SPOTLIGHT

Brigitte Bielig (GER)

08/11/2014

The German Youth Development Program in Rowing (U19)

FISA Youth Coaches Conference - Rio de Janeiro (6.-9.11.2014)

BRIGITTE BIELIG

National Youth Head Coach (U19 and U23)

German Rowing Federation

1. Long term performance development in rowing
2. Initial situation in Germany
 - 2.1. Working in three Regional Groups
2. Setting training priorities by boat type
 - 2.1. Phases of the season
 - 2.2. Competition actions
 - 2.3. Season contents
 - 2.3.1. Test battery
 - 2.3.2. Ergometer performance
3. National Team U19
 - 3.1. Anthropometry
 - 3.2. Age structure
 - 3.3. Team building process
 - 3.4. Content pre competition training camp
4. Comparison junior times
5. Medal table – German boats

Overview of the specifications in the long-term development of the German rowing federation

Age Group	Training-stage	Session/ Week.	Hrs./Week	Relative distribution	
				Specific	General
10-12	GAB	2-3,5	2-3,5	30%	70%
13-14	GLT	3-5	4-7	45%	55%
15-16	ABT	5-8	7-10	50%	50%
17-18	AST – 1	9-11	10-14	55%	45%
19-23	AST – 2	10-13	15-18	60%	40%
22+	HLT	>15	18-25	65-70%	30-35%

GAB: Versatile fundamental training

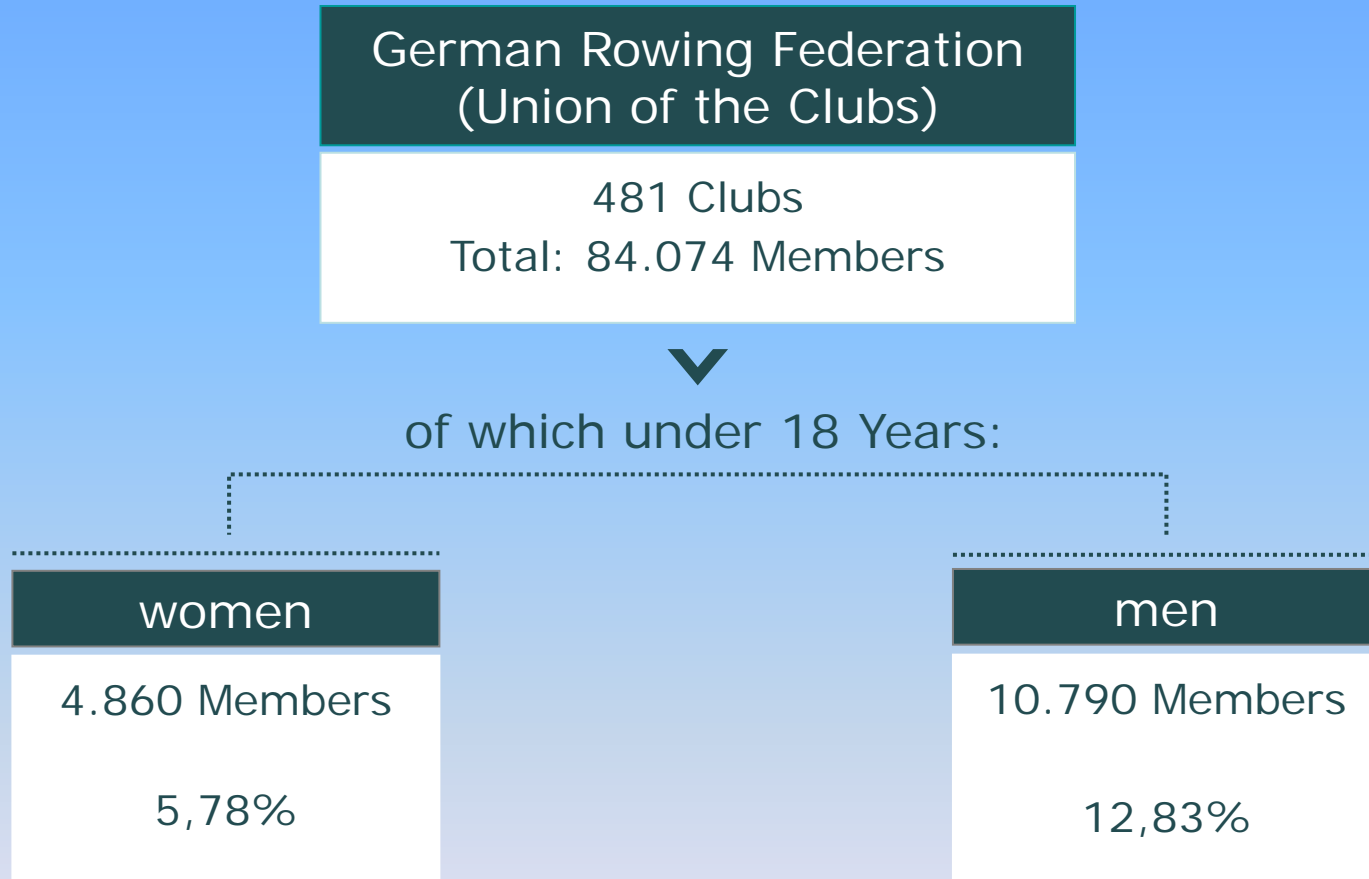
GLT: Training the basics

ABT: Building up training

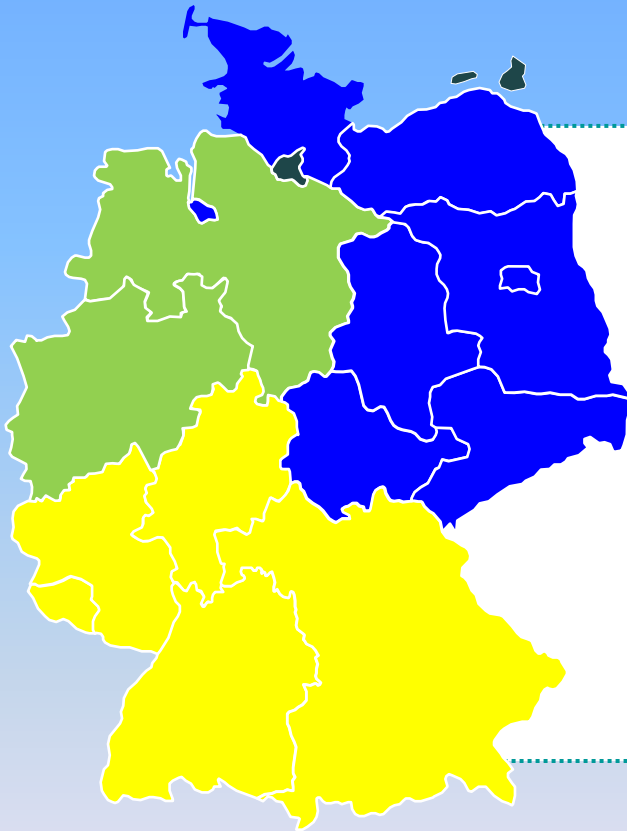
AST: Connecting training

HLT: High performance training

Initial Situation in Germany



3 Regional Working Groups in U19-Age Group



Green - Group West

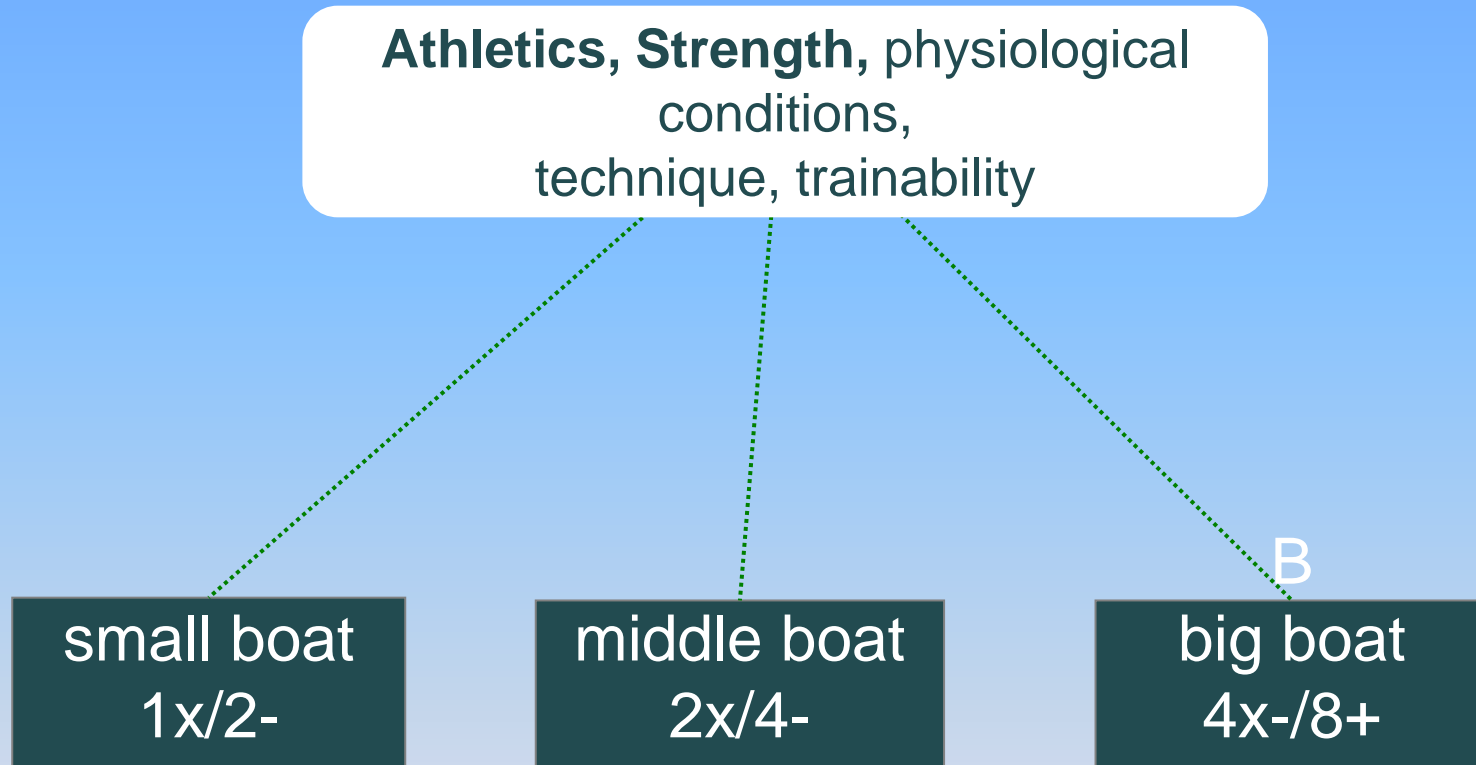
Lower Saxony, North Rhine-Westphalia

Yellow- Group South

Bavaria, Baden-Württemberg, Hesse,
Rhineland Palatinate, Saarland

Blue- Group North/East

Berlin, Brandenburg, Bremen, Hamburg,
Mecklenburg-Vorpommern, Saxony, Saxony-
Anhalt, Schleswig-Holstein, Thuringia



consolidation scull and sweep technique

Technique, physiological conditions, ergometer performance, trainability, strength capabilities

small boat
1x

middle boat
2x

big boat
4x-

Learning of sweep technique

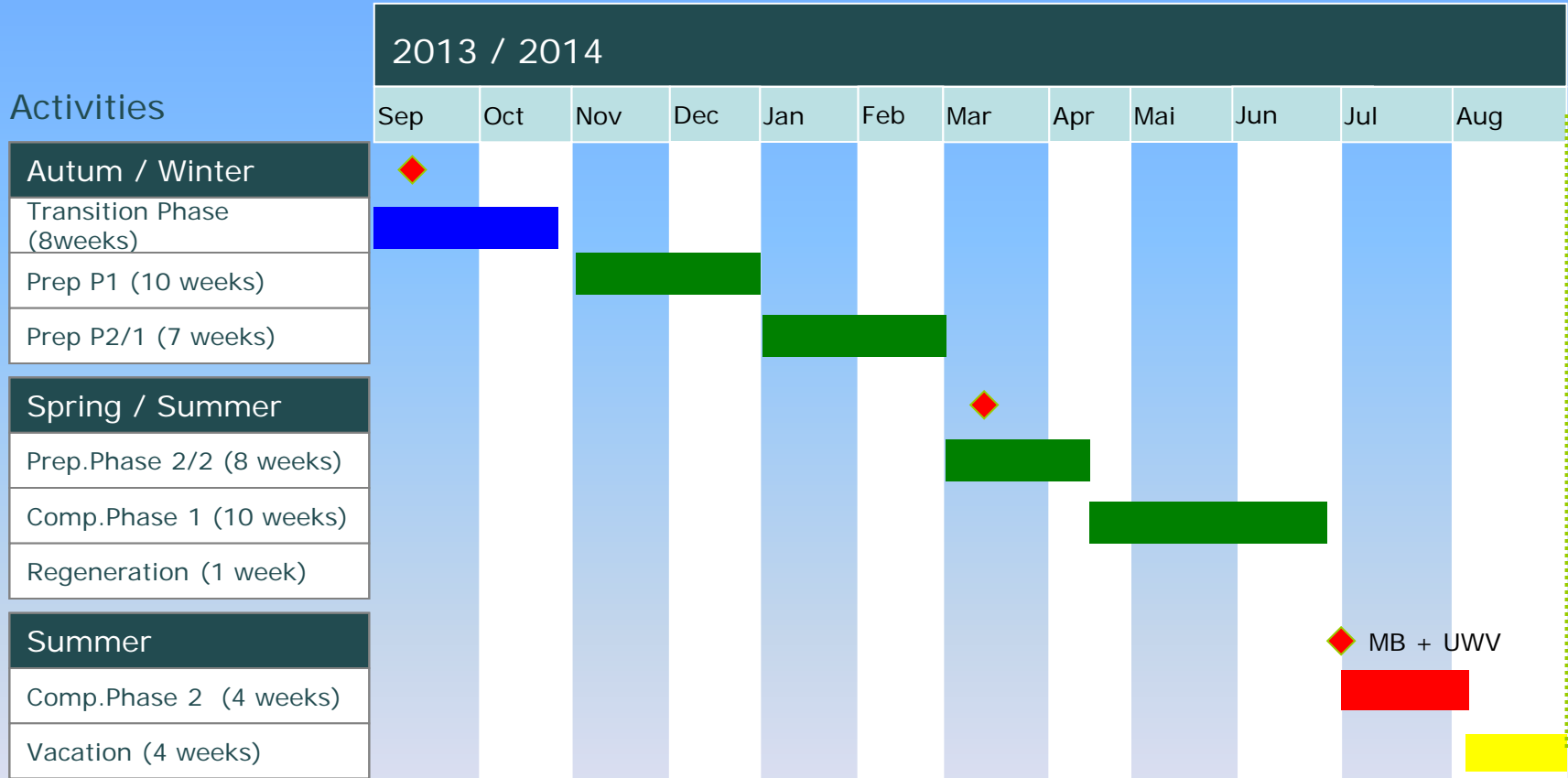
Technique, trainability, physiological conditions, ergometer performance, strength development

small Boat
2-

middle Boat
4-

big Boat
8+

building-up
boat 4+



MB (Measurement boat)
UWV (Pre-Competition Training Camp)

Dates	competition	place	country	participants
March 2015	Regional LD		Germany	Decentralized JMW sweep
29.03.15	Long Distance	Leipzig	Germany	centralized JMW scull
18.-19.04.15	Spring Test	Brandenburg	Germany	JMW S R (KB + MB) ¹
08.-10.05.15	Int. Comp.	München	Germany	JMW (sweep & scull)
23.-24.05.15	Int. Comp.	Köln	Germany	Voluntary participation
23.-24.05.15	EC-Junior.	Racice	CZE	possibly small Boats
05.-07.06.15	2. Test (1x/2-)	Hamburg	Germany	JMWS R (SB+MB+BB) ²
25.-28.06.15	German Jr. Ch.	Köln	Germany	Nomination Regatta
05.-09.08.15	Jr. World Ch.	Rio de Janeiro	Brasil	13 events

¹ JMWS R (KB + MB): junior men/women sweep/scull in small + middle boats

² JMWS R (SB+MB+BB): junior men/women sweep/scull in small + middle + big boats

Dates	competition	place	country	participants
26.-27.09.15	Baltic- Cup	Jonköping	Sweden	10 events U18
Nov. 2015	Regional LD		Germany	decentralized JMW sweep
29.11.2015	Long Distance	Dortmund	Germany	Centralized JMW scull

Season contents 2013 / 2014

Autumn activities

- Participation Baltic Cup in September (younger age group)
- Regional Long Distance Sweep Group
- Centralized Long Distance Scull group in Dortmund
- Delivery 1. Test battery (Athletics) - End October
- 3 Identification camps
Gr. South: Munich
Gr. West: Essen
Gr. N/E + Scull: Berlin
- 2 Athletic camps in Winter (Group. West+South) Herzogenhorn)
(Group. North - East + all Scull group) Rabenberg

Spring activities

- Regional LD Sweep Group
- Centralized LD Sculling group in Leipzig
- Identification camps
Gr. South: Breisach,
Gr. West: Berlin,
Gr. N/E + all Scull group: Berlin
- Delivery 2. Test battery (Athletics) – March
- Spring test with German Small Boat Senior CH's - Köln (SB + MB)
- Int. Regatta Munich – participation: Winner Small Boat; MB + BB: in regional Boats
- Int. Regatta – Köln – participation optional
- J.-Ech's Hazewinkel - JW2x/JM2x/JW2-/JM2-
- Int. Regatta - Hamburg – 2. Test in SM ; participation MB + BB
- German JCh's – Brandenburg – Nomination Regatta

Summer activities

- Team building in BB + MB - 4 days in Berlin (medical Tests + Measurement boat + Step test + Season performance)
- final pre-competition training camp - 4 weeks
- JWCh's - 1 week



General Athletic Test: 2 x year (October + March)

Exercises:

- Maximal Strength: Bench Pull / Bench Press / Full Squad Pull-ups
- Competition Test (Ergometer)
- Step test (if possible)
- 2x 100m Ergometer CII – SR: 45 spm
- 3000m – Run

Junior men

< 6:00 = 2 athletes Follert (5:58)
Syring (5:52)
< 6:18 = 43 athletes
< 6:23 = 30 athletes

Overall: 45 athletes under the Time Criteria

Junior women

< 7:00 = 2 athletes Faralisch (6:50)
Seuffert (6:51)
< 7:18 = 39 athletes
< 7:23 = 9 athletes

Overall: 45 athletes under the Time Criteria



- Best result for years in meeting the standard values (time criteria); showed this year a good conditional performance level of the team
- Especially with the JM; quantitatively good development

Comparisons between years – Competition Test CII

Junior men

2011: < 6:18 = 29 athletes

2013: < 6:18 = 31 athletes

2014: < 6:18 = 45 athletes

Junior women

2011: < 7:18 = 26 athletes

2013: < 7:18 = 25 athletes

2014: < 7:18 = 30 athletes



National Junior Team (U19)

	Body height (cm)			Body weight (kg)		
	Average	Minimum	Maximum	Average	Minimum	Maximum
JF – R/S	179,0	171,6	187,7	74,0	62,9	90,2
SD (+/-)	4,4			7,3		
JM – R/S	191,3	181,6	205,0	87,1	80,6	102,2
SD (+/-)	5,3			5,1		

2013

31 athletes: born ` 95
24 athletes: born ` 96



2014

33 athletes: born ` 96
22 athletes: born ` 97



2014: 30,9% of the athletes from the 2013 National Team

Day 1: Sports Medical examination and verification of trainability (stress tolerance) after arrival of the athletes

Day 2: Step test till exhaustion on the ergometer (FES)

Day 3: Rowing Technique assessment in big boat - Measureboat 2000m

Day 4: Crew selection and building

Selection criteria:

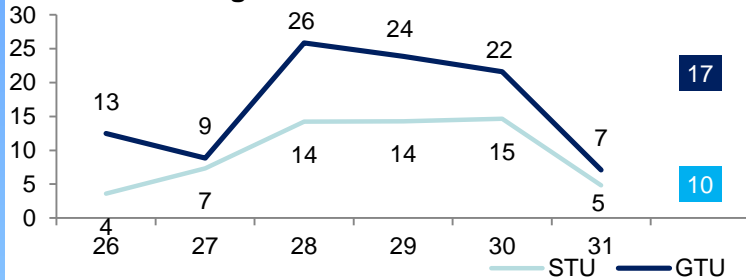
- | | | |
|----|------------------|------|
| 1. | Boat performance | 20 % |
| 2. | Measure boat | 40 % |
| 3. | Step test | 40 % |

Content of the Pre-competition training camp (4 weeks)

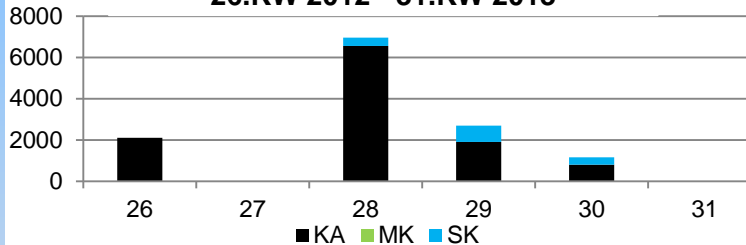
Week 1	Week 2	Week 3	Week 4
<ul style="list-style-type: none"> • Merging crew boats • Technique adjustments using PCS-Training and 'Sonification' • Content: extens. endurance Training + Strength training; General Athletic Training (Run + Bike) • Big amount of Gym-sessions (core stability/ stretching/spine gymnastic/ relaxation) 	<ul style="list-style-type: none"> • Further base development in the extensive endurance zone. • Strength training + Power training • Use of intensive endurance + high intensive endurance loads in specific training • Big amount of Gym-sessions (core stability/ stretching/spine gymnastic/ relaxation) 	<ul style="list-style-type: none"> • Further consolidation of rowing technique in higher stroke rates • Incipient intensification in the specific area (Speed + specific comp. endurance) • Power strength training • Big amount of Gym-sessions (core stability/ stretching/spine gymnastic/ relaxation) 	<ul style="list-style-type: none"> • Consolidation of competition specific capacities • Beginning of Tapering phase • Trip to the championship venue/location • Big amount of Gym-sessions (core stability/ stretching/spine gymnastic/ relaxation)

The pre-competition training camp (UWV) – JM8+

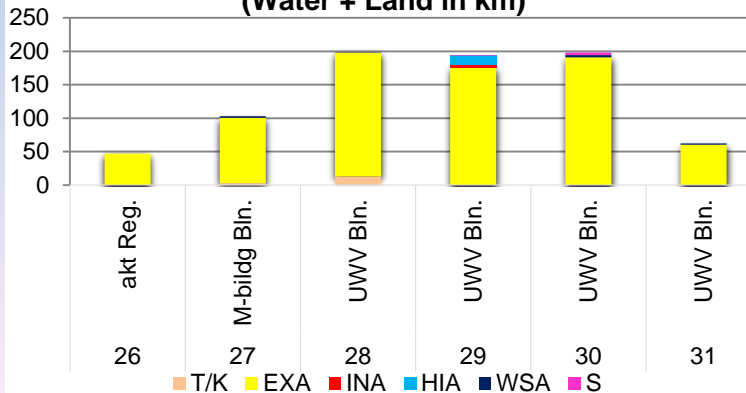
Training Volume in Hours STV - GTV



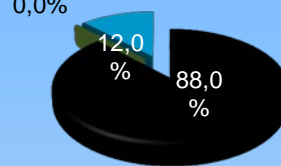
**number of repetitions strength training
26.KW 2012 - 31.KW 2013**



**Training zones 26.KW - 31.KW 2013
(Water + Land in km)**

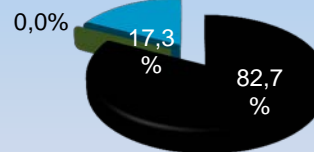


**Amount Strength %
pre-comp. training camp
(related to number reps.)**



■ KA ■ MK ■ SK

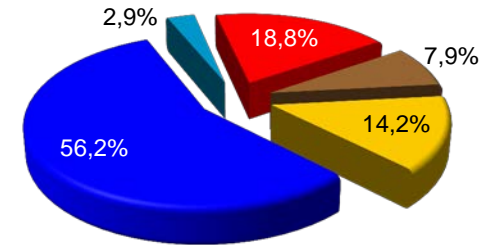
**Amount Strength %
pre-comp. training camp
(related to Time %)**



■ KA ■ MK ■ SK

KA – strength endurance
MK – maximal strength
SK – power strength

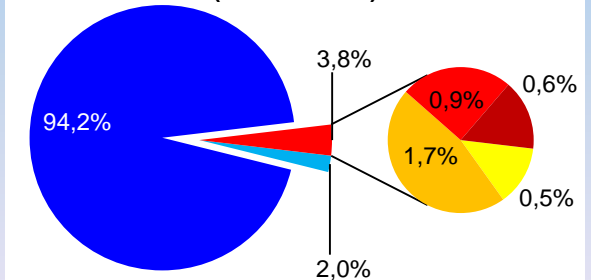
**Total Training Amount (hrs)
Pre- Competition training Camp
(related to minutes)**



■ WT ■ TR ■ KT ■ GAL ■ S&G

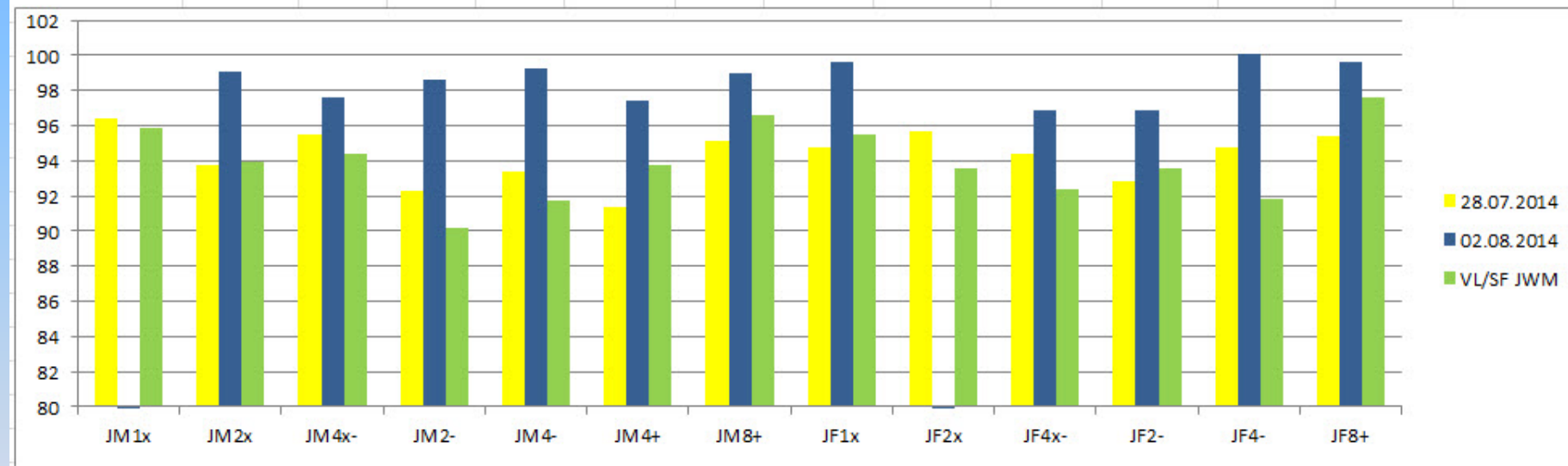
WT: Water training – TR: On Land Training – KT: Strength – GAL: General Training Land – S&G: GYM

**Intensities Water + Land %
during Final Preparation
(related to km)**

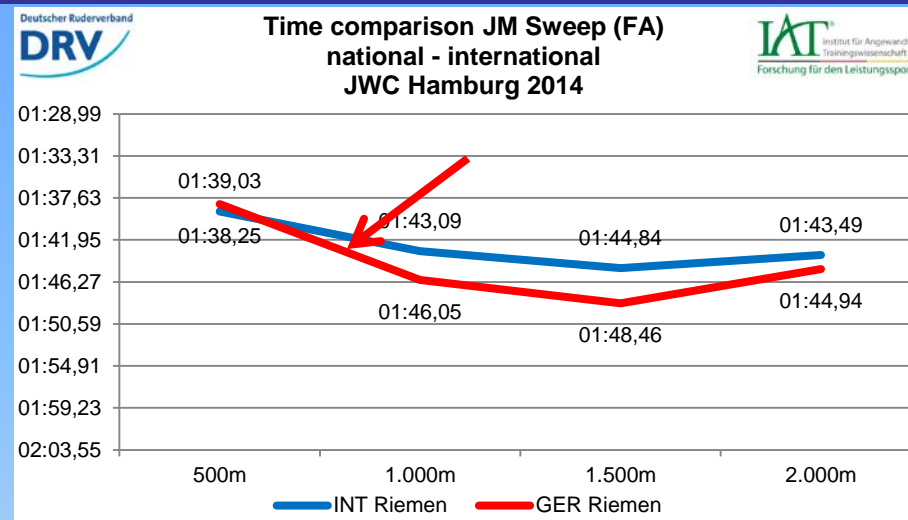
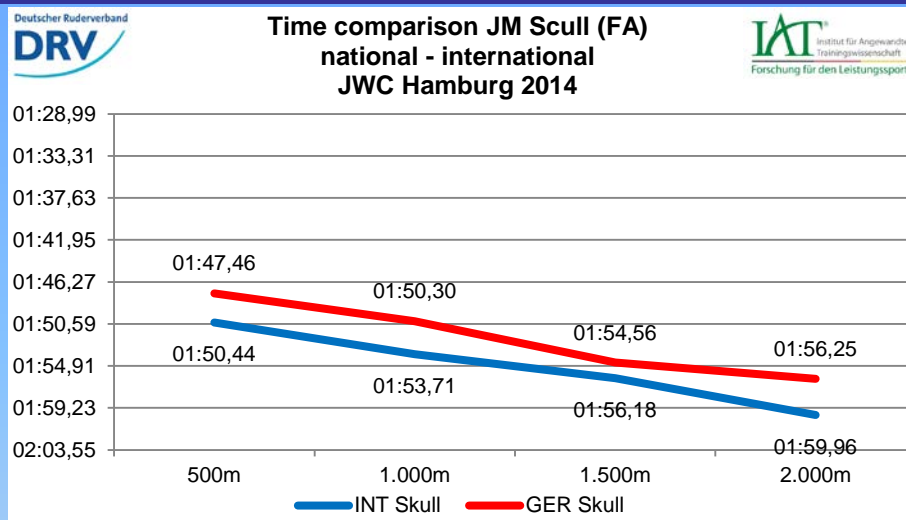


■ T/K ■ EXA ■ INA ■ HIA ■ WSA ■ S

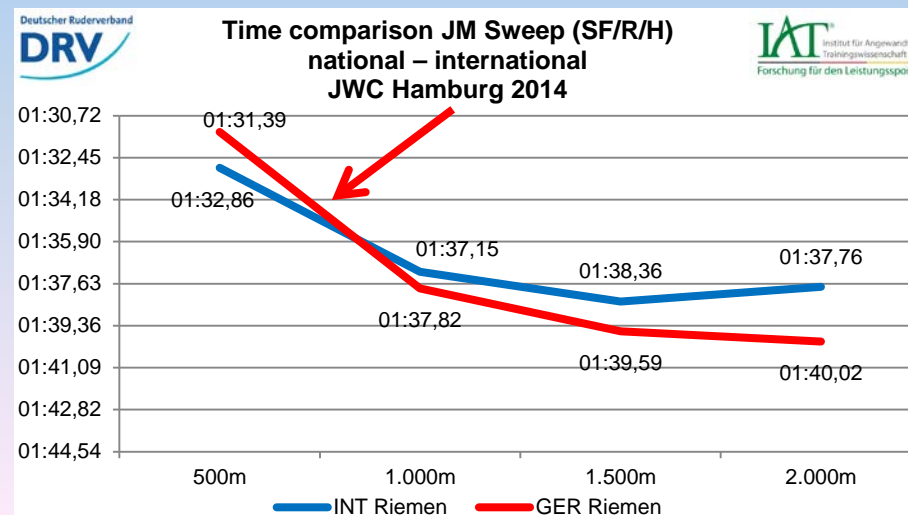
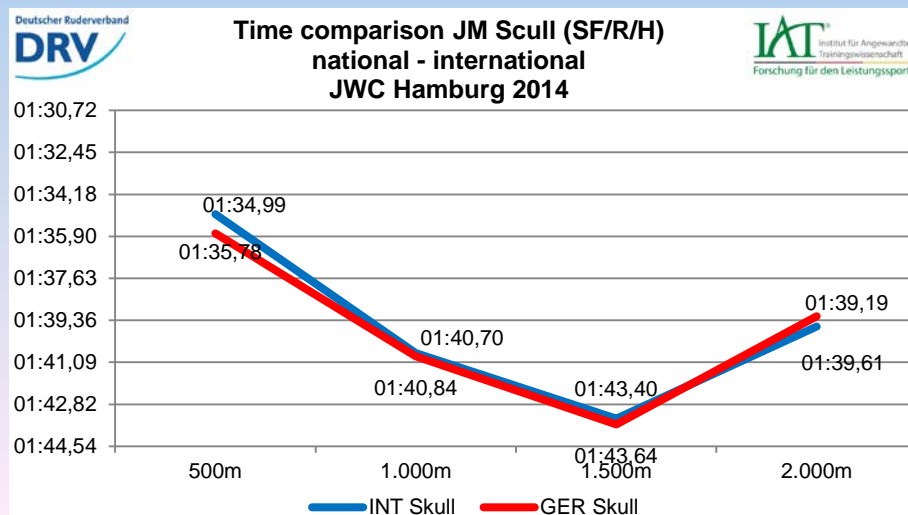
	JM1x	JM2x	JM4x-	JM2-	JM4-	JM4+	JM8+	JF1x	JF2x	JF4x-	JF2-	JF4-	JF8+
28.07.2014	96,4	93,8	95,5	92,3	93,4	91,4	95,1	94,8	95,7	94,4	92,8	94,8	95,4
02.08.2014	dns	99,1	97,6	98,6	99,3	97,4	99,0	99,6	dns	96,9	96,9	100,1	99,6
VL/SF JWM	95,9	93,9	94,4	90,2	91,7	93,8	96,6	95,5	93,6	92,4	93,6	91,8	97,6
Diff (%): 28.7. zu 02.08.		5,3	2,1	6,3	5,9	6	3,9	4,8		2,5	4,1	5,3	4,2

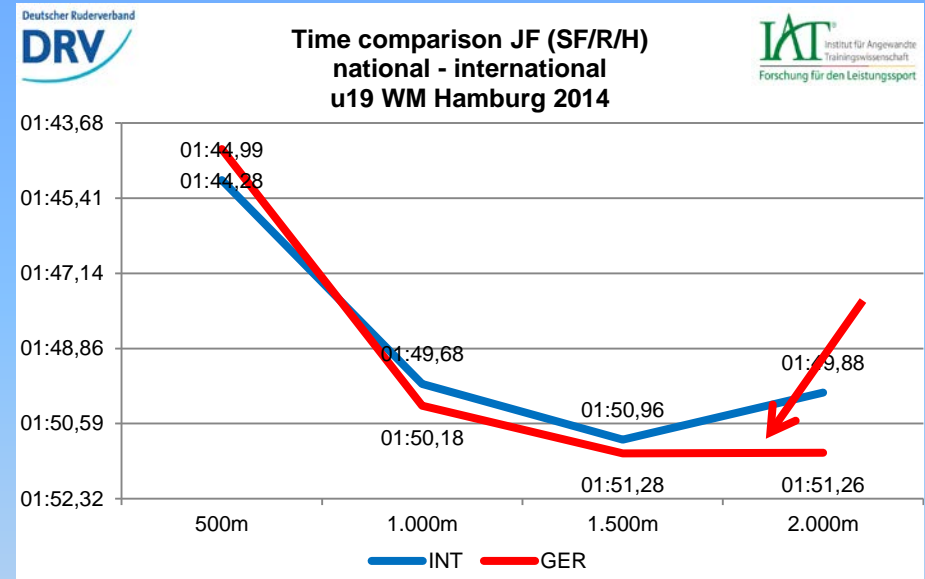
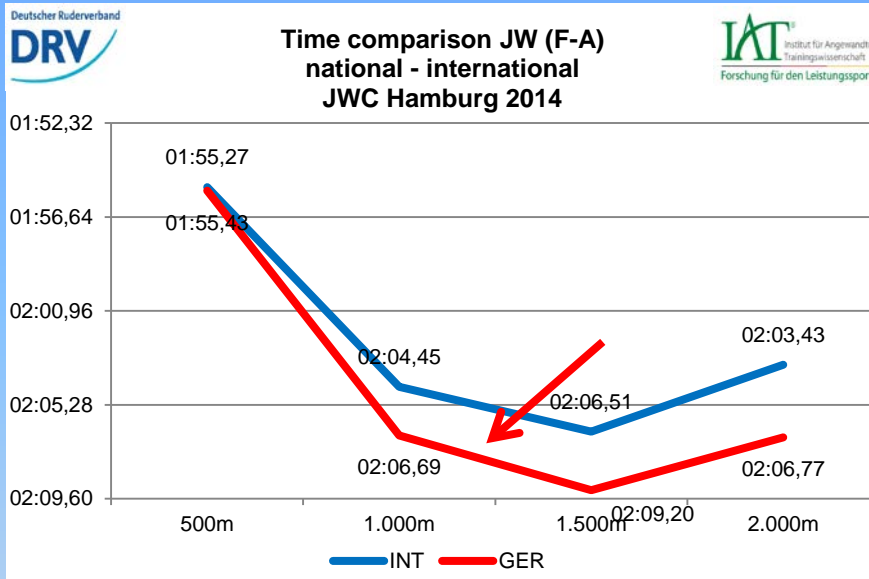


Bed.: 29.07.13: Wind: null- gl.Ggw.; Wasser:glatt							Bed.: 03.08.13: Wind: gl.Sw; Wasser: glatt				Finale:		
	JM1x	JM2x	JM4x-	JM2-	JM4-	JM4+	JM8+	JF1x	JF2x	JF4x-	JF2-	JF4-	JF8+
28.07.2014	07:24,0	06:39,1	06:04,9	07:00,6	06:17,0	06:46,6	05:50,5	08:00,4	07:19,1	06:47,9	07:47,5	07:00,0	06:31,0
02.08.2014	dns	06:17,7	05:57,1	06:33,8	05:54,7	06:21,7	05:36,7	07:37,3	dns	06:37,6	07:27,5	06:38,0	06:14,6
VL/HL/SF	07:09,0	06:38,9	06:09,1	07:10,7	06:24,0	06:36,1	05:44,4	07:56,7	07:28,7	06:56,8	07:43,5	07:14,0	06:22,0



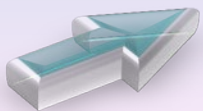
Time comparison in rowing and sculling boats between Final A and comparable preceding races. Connection to the international Top, better in sculling boats. In Sweep Rowing boats exist concerns, mainly in the transition from 500m to 1.000m; in this case the speed drop is too big, compared to other direct international competitors.





Medal table DRV JWC's in the Period 2006- 2014

U19 Juniors	JF1x	JM1x	JF2-	JM2-	JM4-	JF2x	JM2x	JM4+	JF4-	JF4x	JM4x	JF8+	JM8+	Gold	Silver	Bronze	Overall
2006	2	1	1	6	2	5	3	3	1	1	1	3	2	5	3	3	11
2007	2	2	2	4	2	5	1	3	2	1	5	2	1	3	6	1	10
2008	1	2	1	2	3	5	1	1	4	1	1	3	1	7	2	2	11
2009	1	1	11	7	6	1	1	1	4	3	1	3	1	7	0	2	9
2010	1	1	3	2	4	1	1	7	4	1	1	3	2	6	2	2	10
2011	1	1	3	2	1	3	1	5	5	1	1	1	3	7	1	3	11
2012	1	4	4	4	3	3	1	2	6	4	7	4	2	2	2	2	6
2013	4	7	4	1	9	5	1	2	3	3	1	2	1	4	2	2	8
2014	1	1	6	4	1	2	1	5	4	2	1	1	1	7	2	0	9

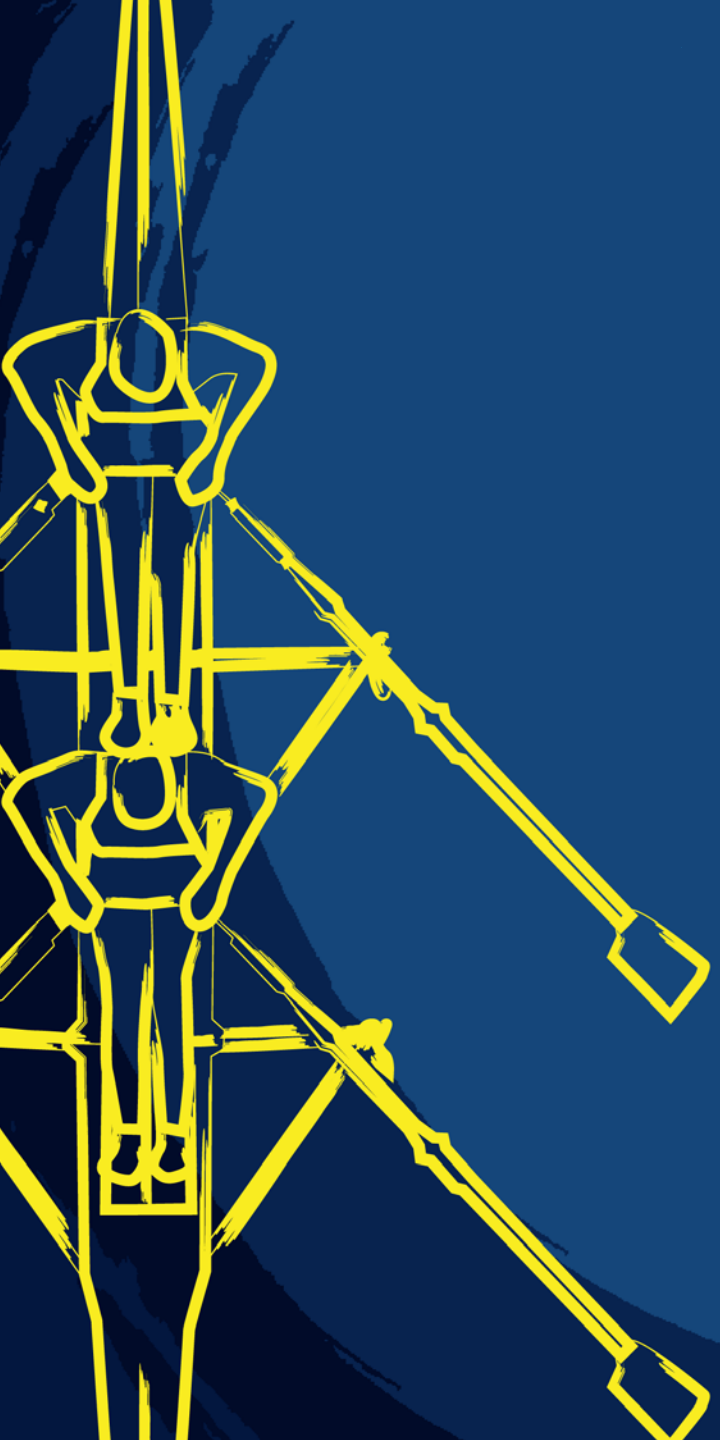


**Thank you very much
for your attention !**



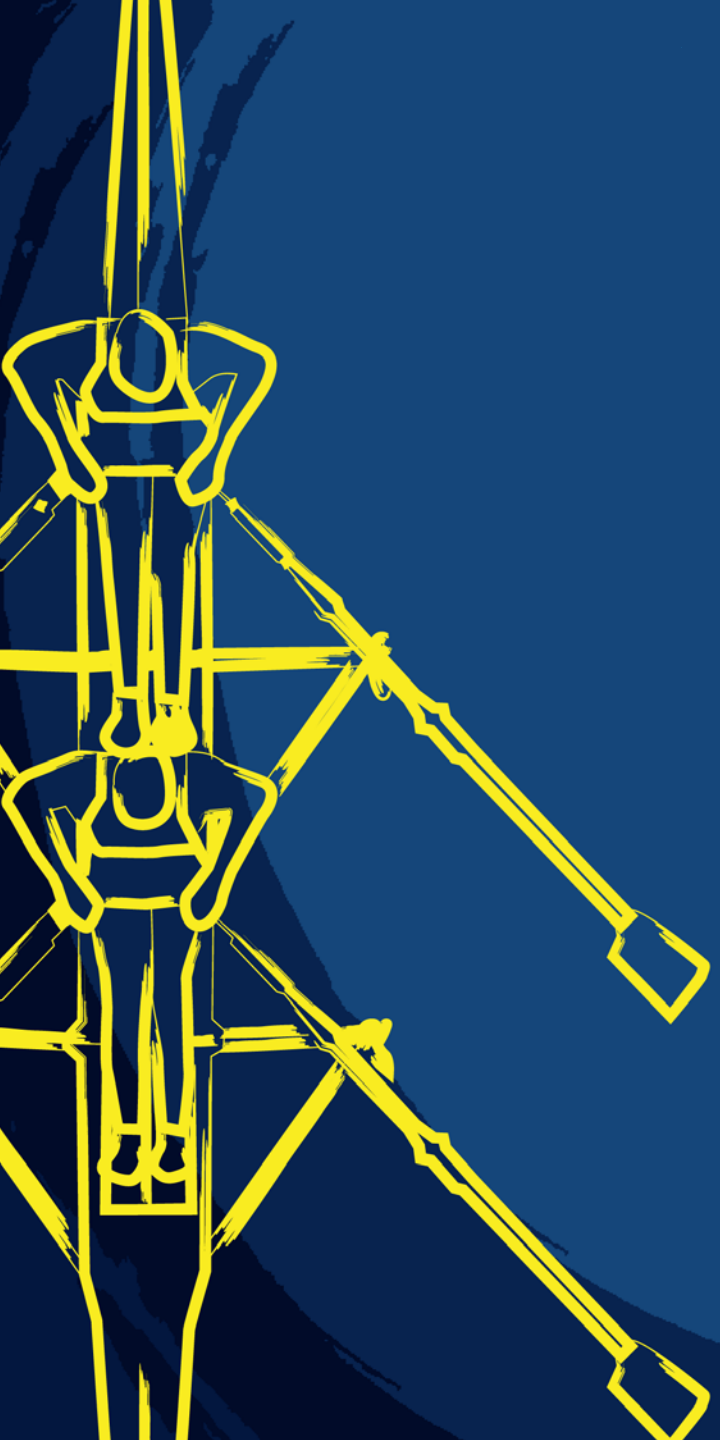
Intensity Zones:

T/K: Technique	<70%	Stroke Rate: <20
EXA: extensive endurance	72-80%	SR: up to 22; Lactate: <2 mmol/l
INA: intensive endurance	80-87%	SR: 18- 24; Lactate: 2-4 mmol/l
HIA: high-intensity endurance	85- 95%	SR: 26-32; Lactate: 4-8 mmol/l
WS: specific competition endurance	95-110%	SR: Starts/ racerate racerate+4 Lac: > 4 up to max.
S: Speed	106-112%;	SR: Race rates



LUNCH

08/11/2014



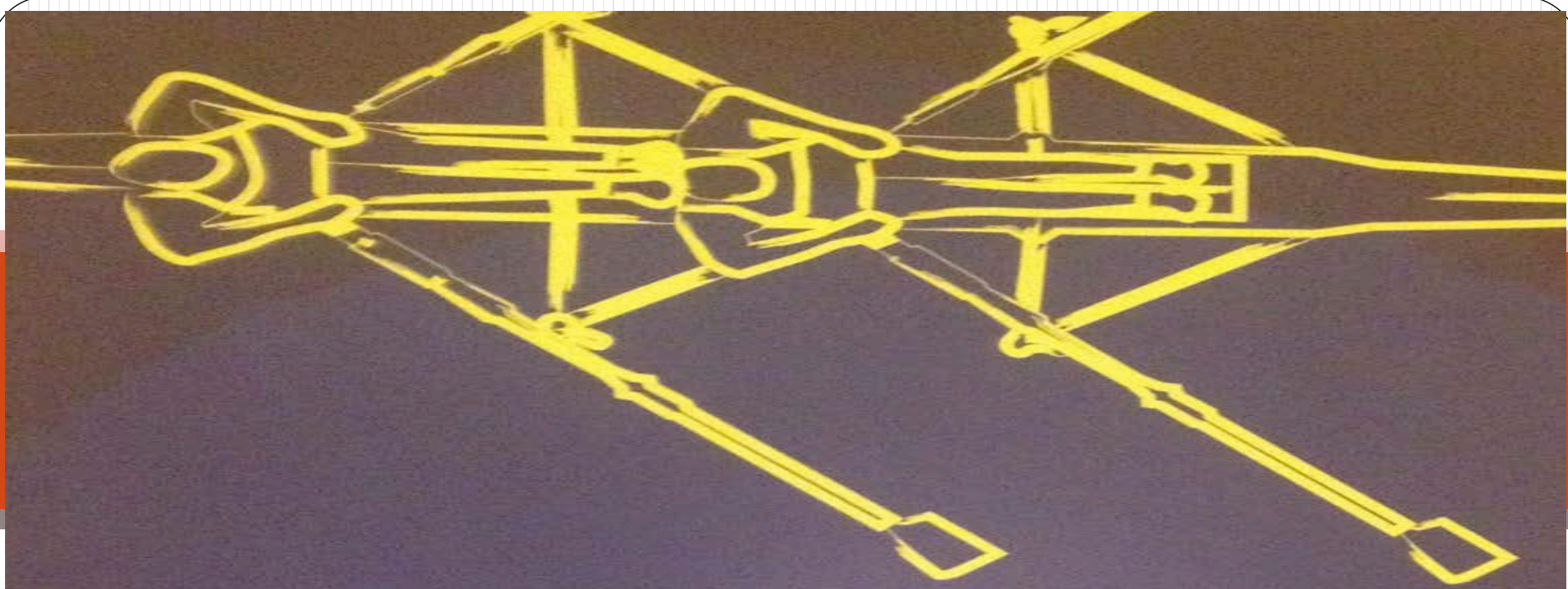
OUT OF THE BOAT TRAINING

Mike Spracklen (RUS)

Trent Lawton (NZL)

Dave O'Neill (USA)

08/11/2014



2014
**world
rowing**

*Rio de Janeiro,
Brazil*



TM

*coaches
conference*



OU
BO

Gen
Mil



CE



A man in a white and black tank top and black shorts with a red stripe is performing a deadlift in a gym. He is lifting a barbell with blue 20kg plates. The gym has a wooden floor, a red bench, and various weights and equipment in the background. The text "Rowing is a power sport" is overlaid on the image in a stylized font.

Rowing is a power sport



Some crews have been successful without weights.

Weight Training



Strength correlates to physique





*Increasing muscle bulk
increases strength.*