

Preparation and Use of Competition Analysis

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A decorative graphic consisting of several horizontal lines of varying lengths and colors (teal, light blue, white) extending from the right side of the slide.



Background

- Large teams of researchers
- Data processed after the competition
- No impact on performance during the competition



Current

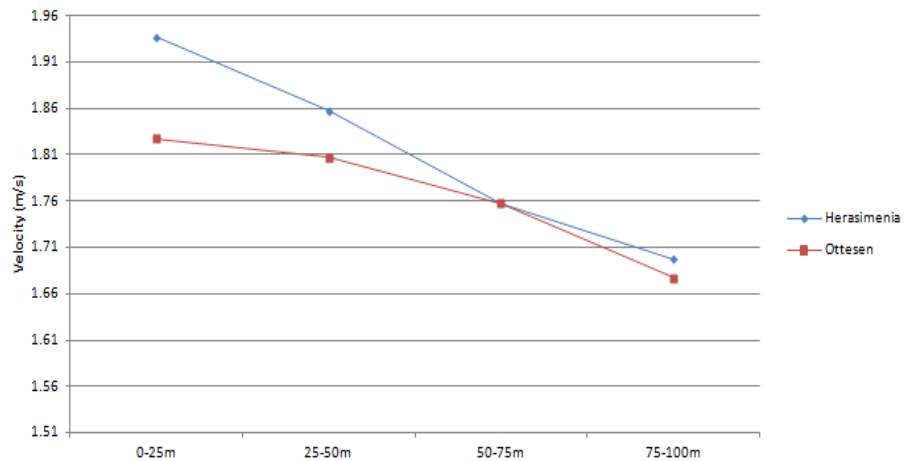
- Individual analysis
 - National team staff
- Event analysis
 - All swimmers
 - Online results

Race analysis

- Staff film then analyse swims
- Skills
 - Starts
 - Turns
 - Finishes
- Free swimming
 - SR/SL/Velocity
 - Stroke counts

Feedback

Graphical



Numerical

	Herasimenia	Ottesen
Key Times		
Total time	00:53.45	00:53.45
Block (s)	0.71	0.71
First 15m (s)	6.58	6.14
First 25m (s)	11.74	11.60
Last 5m (s)	2.77	2.73
Start, Turn, Last 5m (s)	17.21	16.55
Free swim (s)	36.24	36.90
Splits		
50m	00:25.49	00:25.54
100m	00:53.45	00:53.45
Laps		
50m	00:25.49	00:25.54
100m	00:27.96	00:27.91
Turns (s)		
50m	7.86	7.68
Average	7.86	7.68
Stroke Counts		
0-50m	39	33
50-100m	45	39

Event analysis -LEN

- Finals and semi finals
- Fixed cameras along the length of the pool
- Feedback available the following day at www.swim.ee



LEN SWIMMING COMPETITION ANALYSIS by Rein Haljand

■ Short Course Championships

- ☐ [Eindhoven 2010 - European Short Course Championships](#) - November, 2010
- ☐ [Istanbul 2009 - European Short Course Championships](#) - December, 2009
- ☐ [Rijeka 2008 - European Short Course Championships, Rijeka](#) - December, 2008
- ☐ [Debrecen 2007 - European Short Course Championships](#) - December, 2007
- ☐ [Helsinki 2006 - European Short Course Championships](#) - December, 2006
- ☐ [Trieste 2005 - European Short Course Championships](#) - December, 2005
- ☐ [Vienna 2004 - European Short Course Championships](#) - December, 2004
- ☐ [Dublin 2003 - European Short Course Championships](#) - December, 2003
- ☐ [Riesa 2002 - European Short Course Championships](#) - December, 2002
- ☐ [Antwerp 2001 - European Short Course Championships](#) - December, 2001
- ☐ [Valencia 2000 - European Short Course Championships](#) - December, 2000

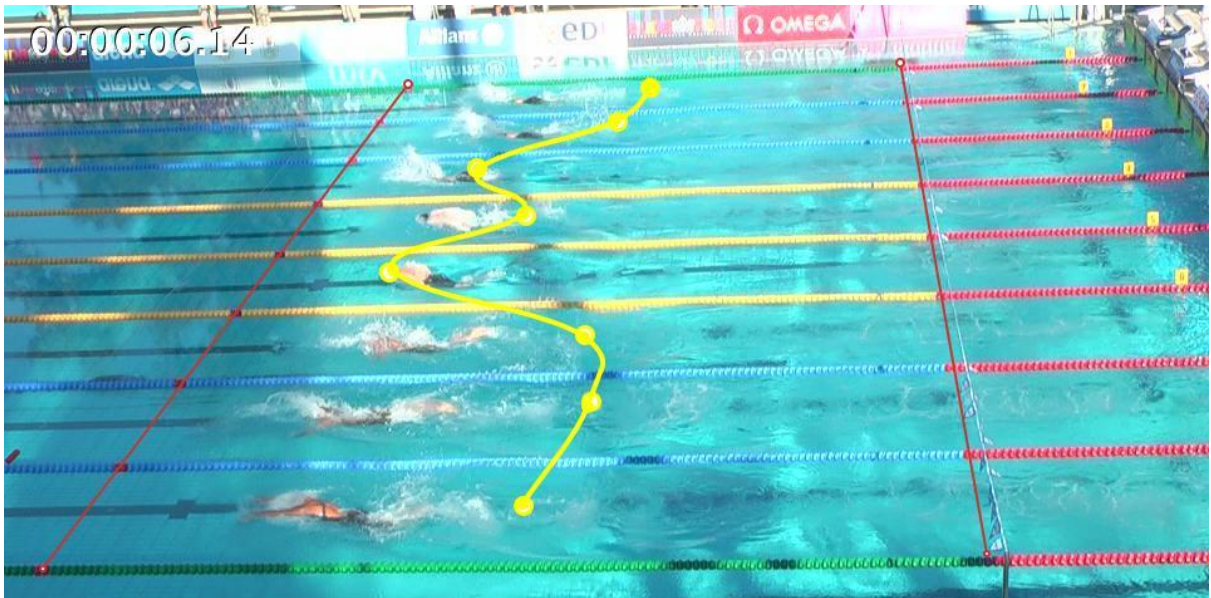
■ Long Course Championships

- ☐ [European Junior Swimming Championships, Beograd](#) - July 2011
- ☐ [European Swimming Championships, Budapest](#) - August 2010
- ☐ [European Junior Swimming Championships, Helsinki](#) - July 2010
- ☐ [Prague 2009 - European Junior Swimming Championships](#) - July 2009
- ☐ [Belgrade 2008 - European Junior Swimming Championships](#) - August 2008
- ☐ [Belgrade 2008 - Summary statistics*](#) - August 2008
- ☐ [Eindhoven 2008 - European Swimming Championships](#) - March 2008
- ☐ [Eindhoven 2008 - Summary statistics*](#) - March 2008
- ☐ [Antwerp 2007 - European Junior Swimming Championships](#) - July 2007
- ☐ [Budapest 2006 - European Swimming Championships](#) - August 2006
- ☐ [Palma de Mallorca 2006 - European Junior Swimming Championships](#) - July 2006
- ☐ [Budapest 2005 - European Junior Swimming Championships](#) - July 2005
- ☐ [Lisbon 2004 - European Junior Swimming Championships](#) - July, 2004
- ☐ [Madrid 2004 - European Swimming Championships](#) - May, 2004
- ☐ [Barcelona 2003 - FINA World Swimming Championships](#)
- ☐ [Berlin 2002 - European Championships](#) - August, 2002
- ☐ [Linz 2002 - European Junior Championships](#) - July, 2002
- ☐ [Malta 2001 - European Junior Championships](#) - July, 2001
- ☐ [Sydney 2000 - Olympic Games](#) - September, 2000
- ☐ [Helsinki 2000 - European Championships](#) - July, 2000

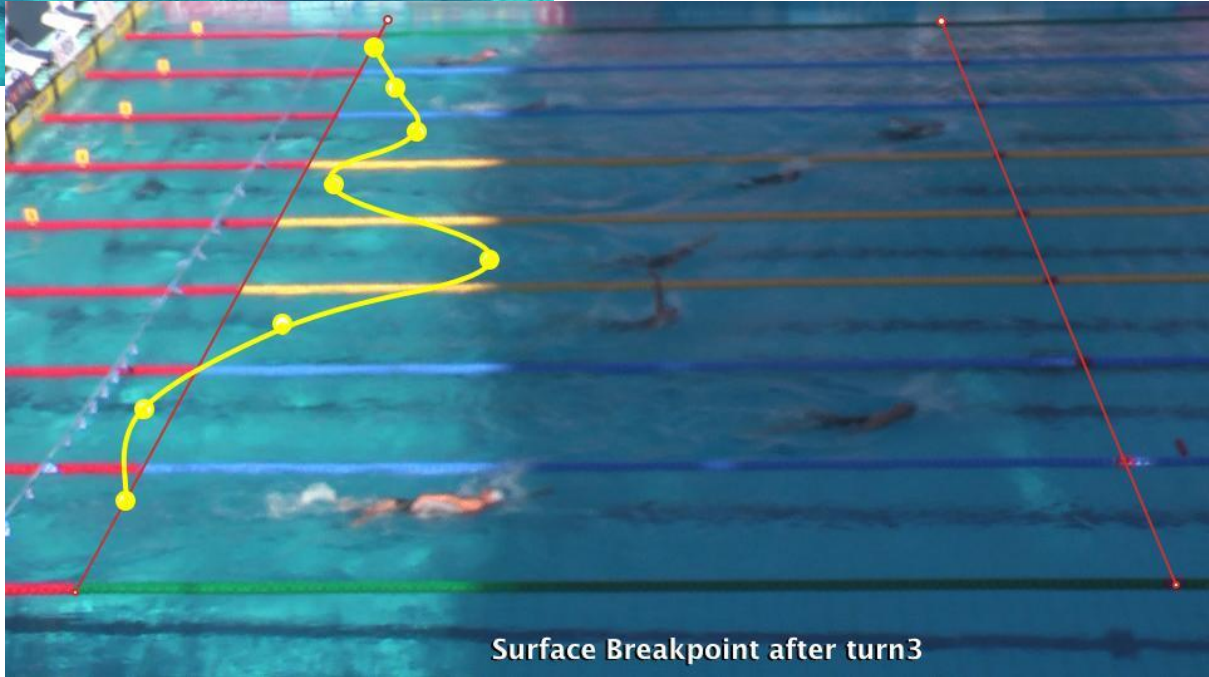
■ Other Competitions

- ☐ [Polish Long Course Swimming Championships, Ostrowiec, May 2009](#)
- ☐ [Polish Short Course Swimming Championships, Gorzow, December 2008 - Competition Analysis](#)
- ☐ [Polish Short Course Swimming Championships, Gorzow, December 2008 - Simulations](#)
- ☐ [Danish Open Swimming Championships, Aarhus, July 2007](#)





Surface Breakpoint after start



Surface Breakpoint after turn3

Women's 400m IM Final - 2010 ELC

	Nordenstam	Murphy	Hosszu	Miley	Klinar	Martynova	Jakabos	Zavadova
Turn 1	00:12.93	00:12.88	00:12.62	00:12.86	00:12.74	00:12.60	00:12.80	00:13.32
Turn 2	00:14.18	00:13.96	00:13.32	00:13.46	00:13.48	00:13.56	00:13.36	00:13.74
Turn 3	00:14.00	00:13.52	00:12.88	00:13.02	00:13.40	00:13.20	00:12.92	00:13.40
Turn 4	00:14.48	00:14.86	00:14.32	00:14.12	00:14.92	00:14.76	00:14.50	00:15.22
Turn 5	00:15.06	00:15.50	00:15.26	00:14.74	00:14.98	00:15.16	00:15.62	00:15.74
Turn 6	00:13.66	00:13.66	00:13.04	00:12.96	00:13.10	00:13.54	00:13.64	00:13.82
Turn 7	00:12.58	00:11.88	00:12.26	00:11.90	00:11.88	00:12.28	00:12.10	00:12.58

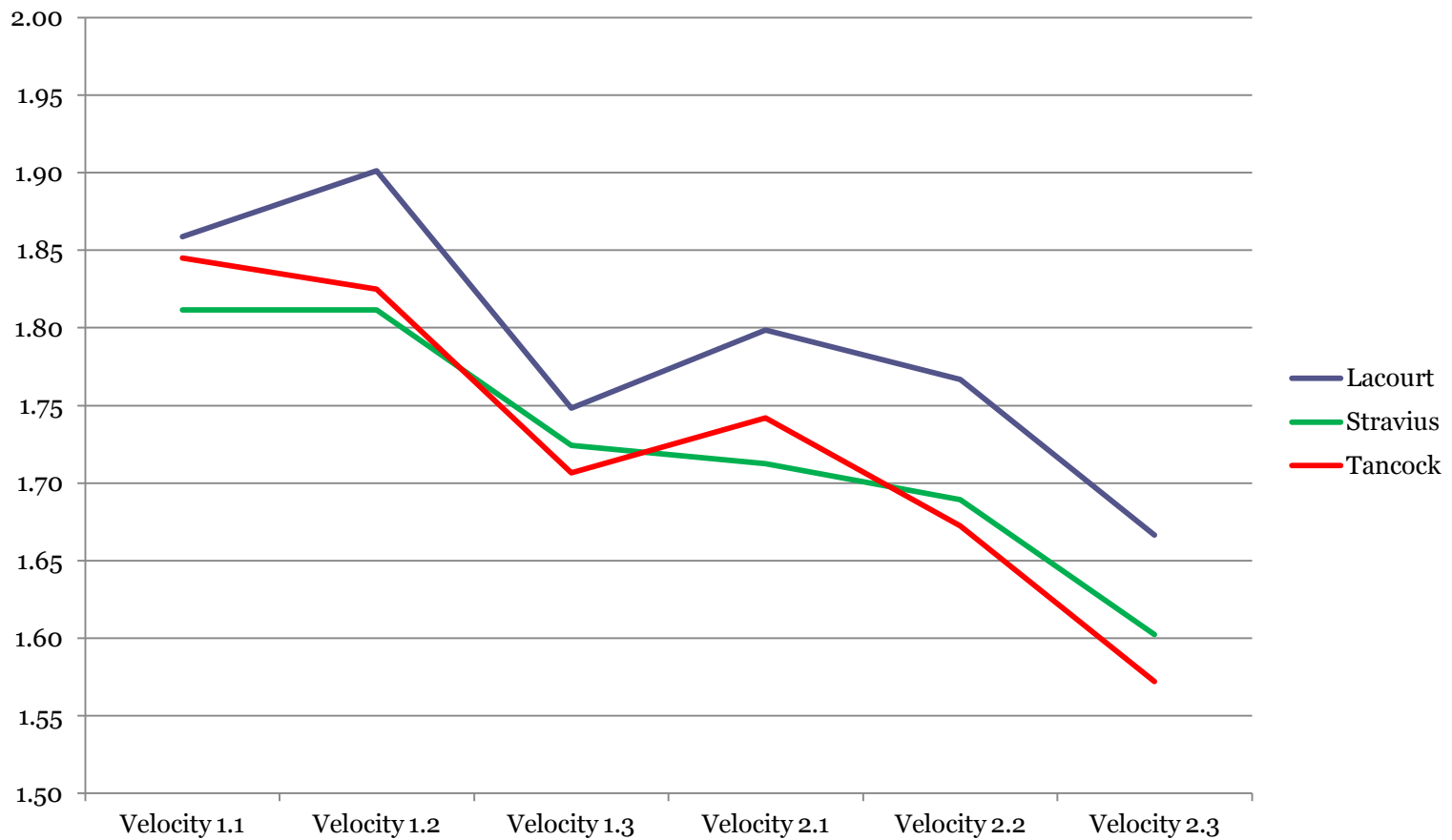
Men's 100m Back Final - 2010 ELC

	Donets	Driebergen	Borisov	Lacourt	Stravius	Grigoriadis	Wildeboer	Tancock
	1	2	3	4	5	6	7	8
Block	0.70	0.63	0.57	0.68	0.65	0.65	0.62	0.59
Start	6.18	6.54	6.48	6.34	6.20	6.62	6.38	6.26
SR 1	47	48	50	48	48	53	50	55
25m	11.74	12.16	11.98	11.72	11.72	12.00	11.84	11.68
35m	17.18	17.58	17.52	16.98	17.24	17.36	17.28	17.16
45m	23.12	23.26	23.42	22.70	23.04	23.20	23.14	23.02
50m	26.00	26.23	26.24	25.43	25.86	26.20	25.99	25.80
65m	32.84	33.56	33.46	32.24	32.76	33.70	33.40	33.10
75m	38.76	39.28	39.38	37.80	38.60	39.44	39.20	38.84
85m	44.92	45.22	45.30	43.46	44.52	45.32	45.20	44.82
95m	51.34	51.44	51.60	49.46	50.76	51.58	51.56	51.18
SR 2	46	50	51	49	46	47	46	54

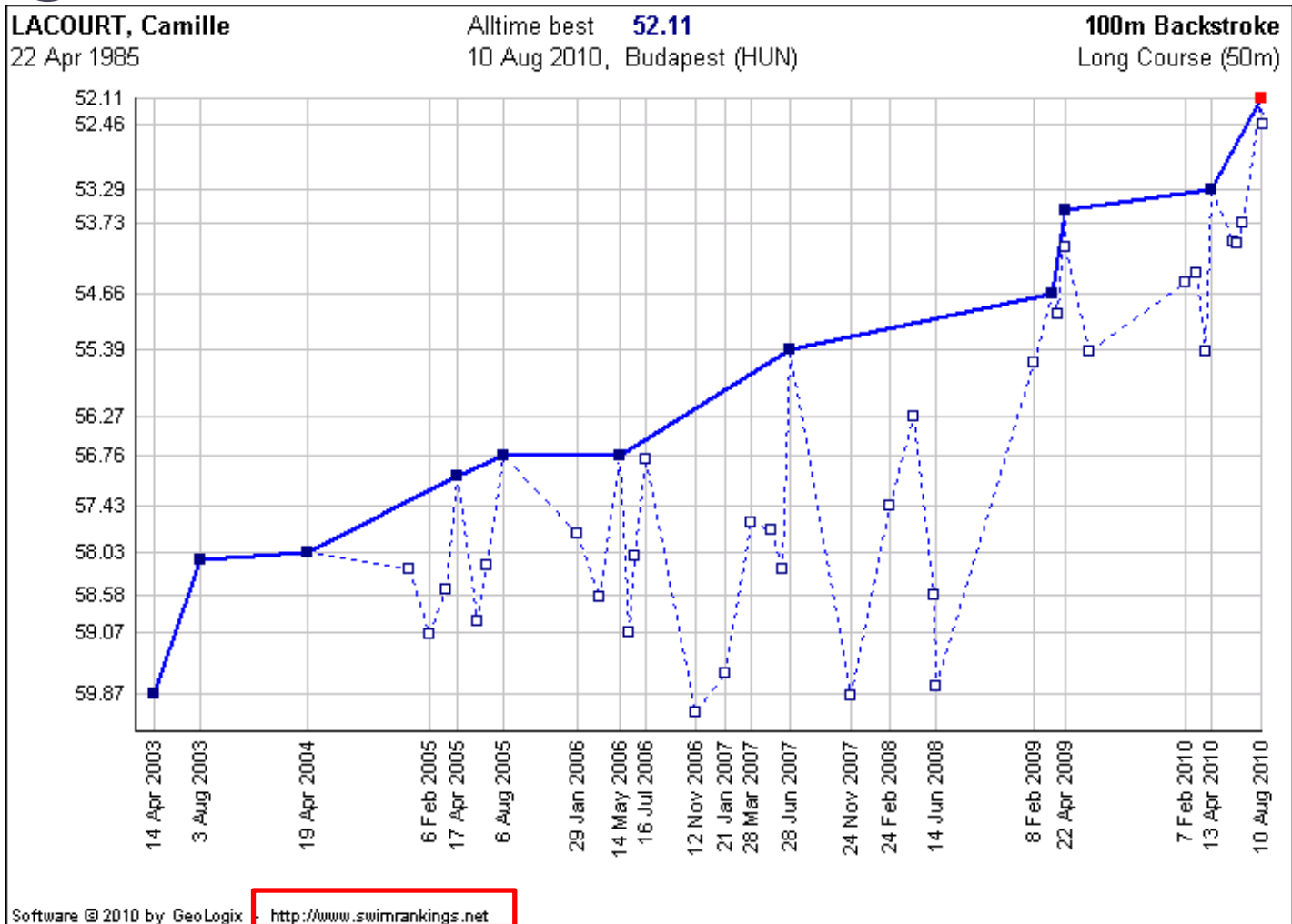
Skill components

	Donets	Driebergen	Borisov	Lacourt	Stravius	Grigoriadis	Wildeboer	Tancock
Turn in	2.88	2.97	2.82	2.73	2.82	3.00	2.85	2.78
Turn out	6.84	7.33	7.22	6.81	6.90	7.50	7.41	7.30
Turn total	9.72	10.30	10.04	9.54	9.72	10.50	10.26	10.08
Start	6.18	6.54	6.48	6.34	6.20	6.62	6.38	6.26

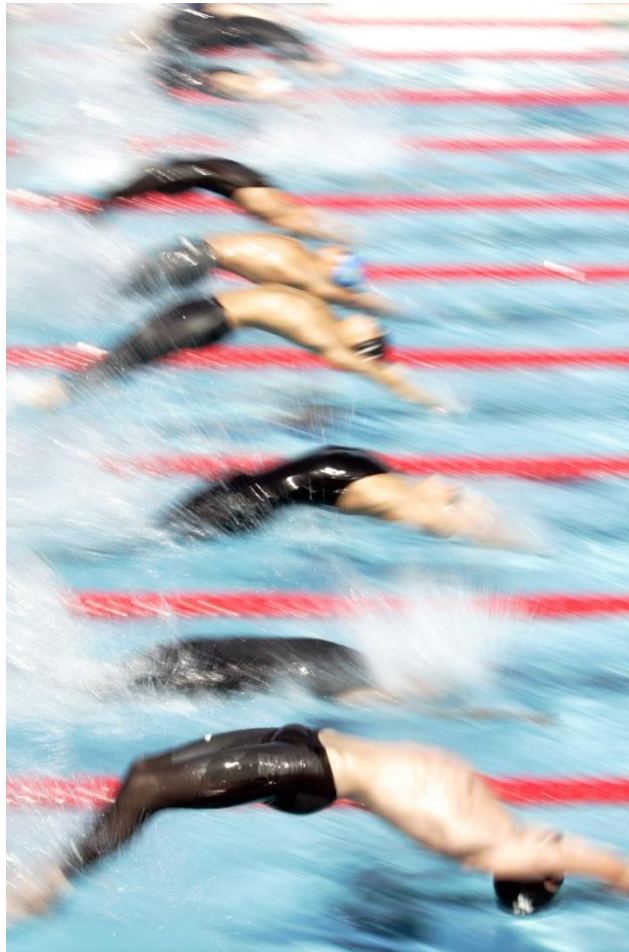
Race velocity



Progression

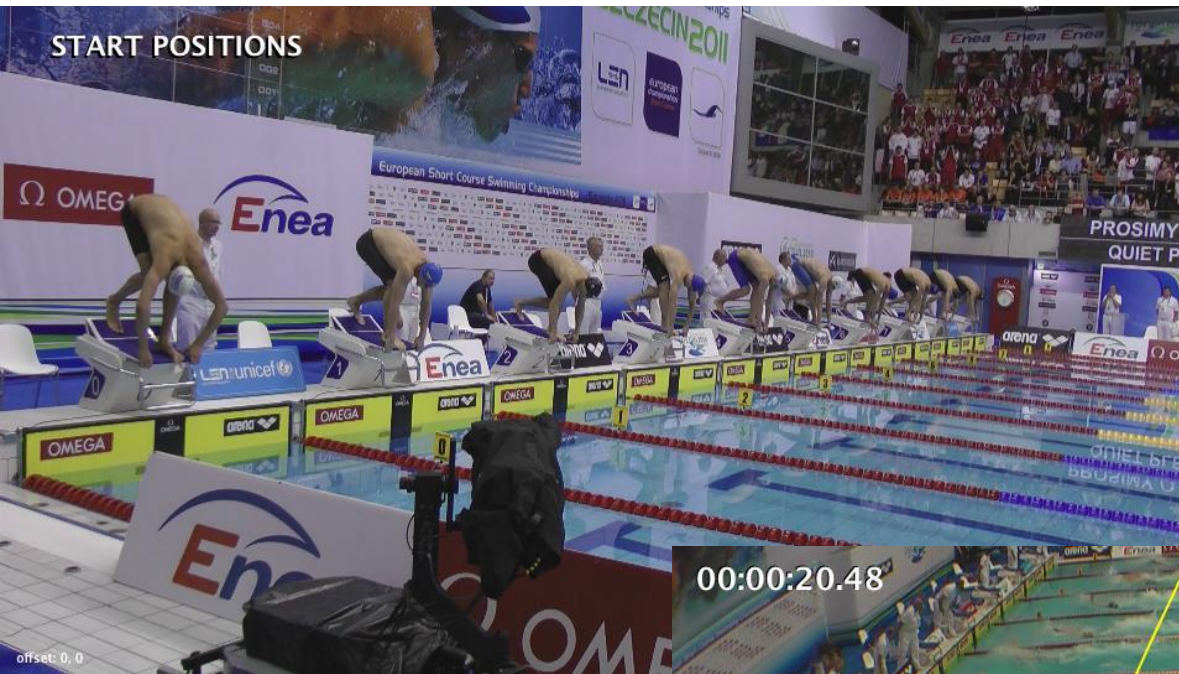


Skill components



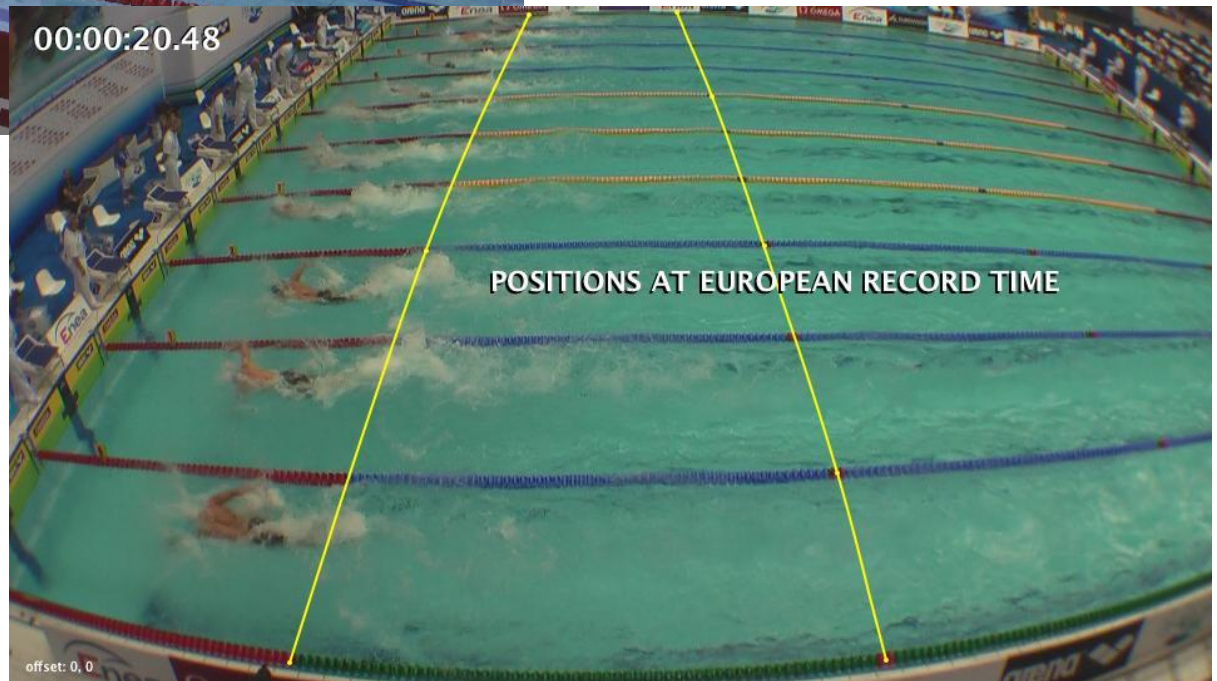
- Starts
 - Reaction time
 - Entry distance
 - Breakout
- Turns
 - In time
 - Rotation
 - Out time
 - Breakout distance
- Underwater phase
 - Timing of first kick
 - Amplitude and frequency

START POSITIONS



00:00:20.48

POSITIONS AT EUROPEAN RECORD TIME

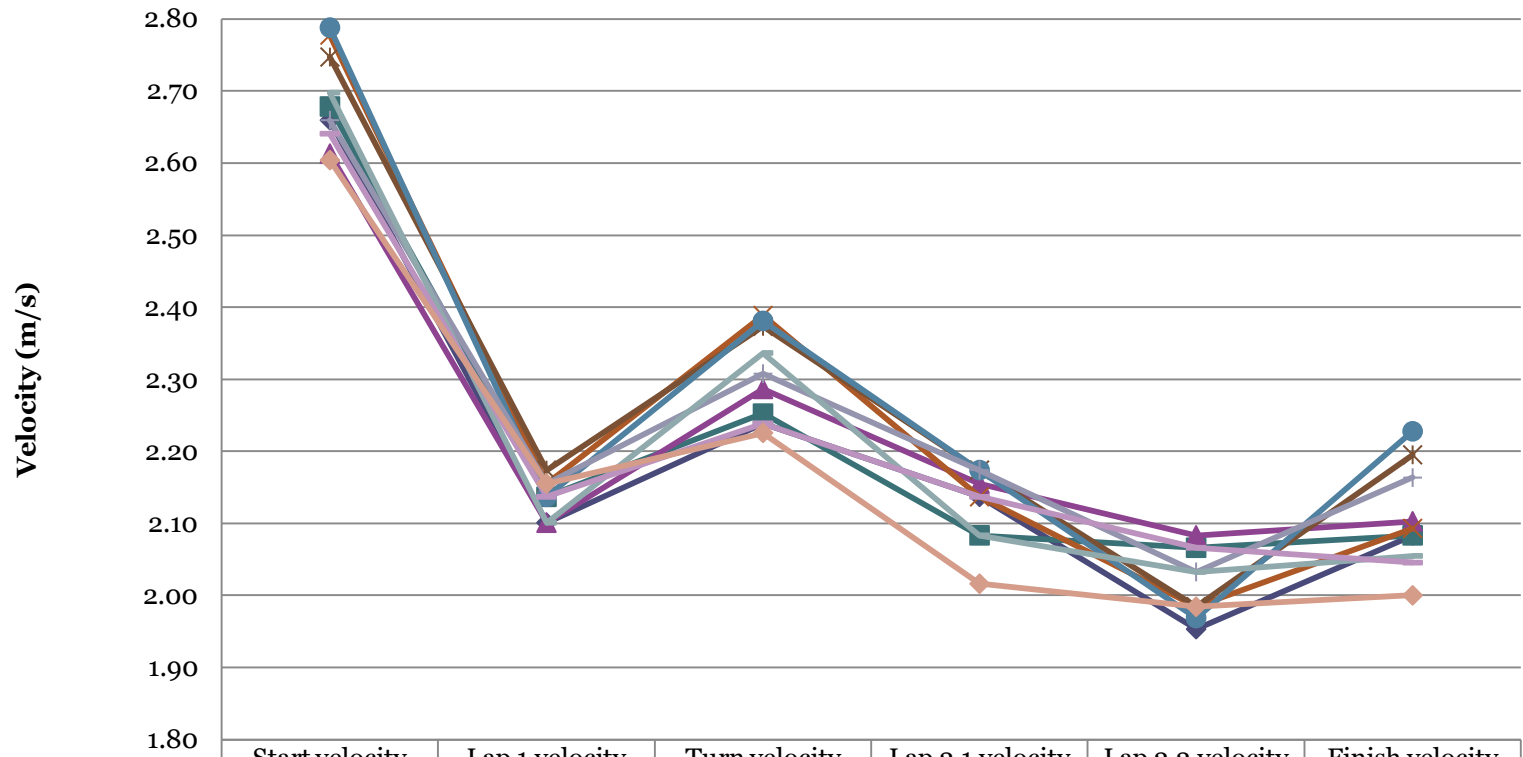


offset: 0, 0

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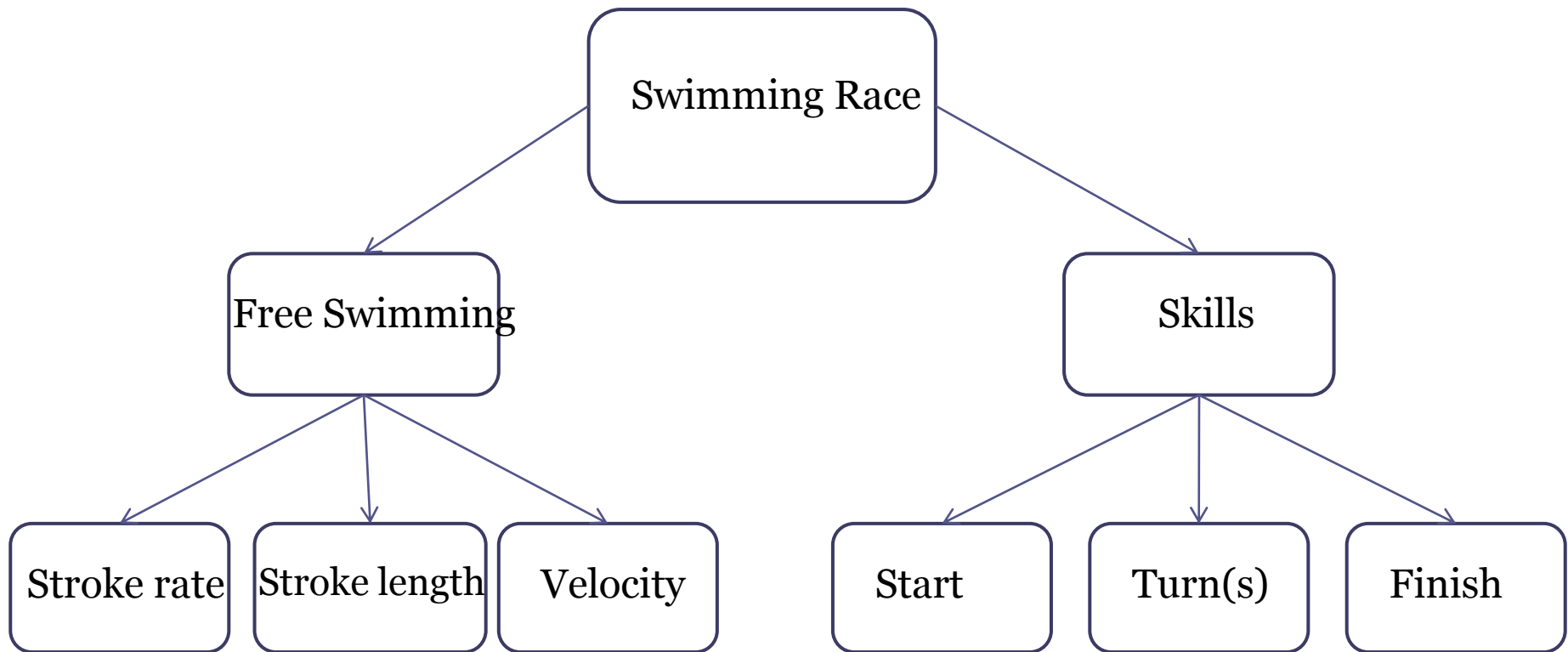
Swimmer	Lanes	Reaction time	Surface	Start time 15m	SR 1	Split 20m	Split 35m	Surface	Split 40m	Split 45m	SR 2	50m time
Liukkonen	0	0.68	2.78	5.64	65	8.02	14.72	12.58	17.06	19.62	65	21.78
Govorov	1	0.66	3.22	5.60	62	7.94	14.60	12.48	17.00	19.42	60	21.58
Takacs	2	0.64	3.14	5.74	75	8.12	14.68	12.76	17.00	19.40	69	21.54
Orsi	3	0.63	3.02	5.40	65	7.72	14.00	12.42	16.34	18.86	62	21.01
Fesikov	4	0.69	3.10	5.46	61	7.76	14.08	12.94	16.38	18.90	57	20.95
Czerniak	5	0.71	3.24	5.38	60	7.72	14.02	12.62	16.32	18.86	54	20.88
Dotto	6	0.67	2.88	5.64	65	7.96	14.46	12.22	16.76	19.22	58	21.30
Brown	7	0.71	2.88	5.56	61	7.94	14.36	12.56	16.76	19.22	51	21.41
Kozma	8	0.68	3.38	5.68	75	8.02	14.72	12.78	17.06	19.48	71	21.68
Lang	9	0.63	4.32	5.76	63	8.08	14.82	13.44	17.30	19.82	61	22.07

Swimmer	Start	Turn	Finish
Liukkonen (9th)	5.64	6.70	2.16
Govorov (7th)	5.60	6.66	2.16
Takacs (6th)	5.74	6.56	2.14
Orsi (3rd)	5.40	6.28	2.15
Fesikov (2nd)	5.46	6.32	2.05
Czerniak (1st)	5.38	6.30	2.02
Dotto (4th)	5.64	6.50	2.08
Brown (5th)	5.56	6.42	2.19
Kozma (8th)	5.68	6.70	2.20
Lang (10th)	5.76	6.74	2.25



	Start velocity	Lap 1 velocity	Turn velocity	Lap 2.1 velocity	Lap 2.2 velocity	Finish velocity
Liukkonen	2.66	2.10	2.24	2.14	1.95	2.08
Govorov	2.68	2.14	2.25	2.08	2.07	2.08
Takacs	2.61	2.10	2.29	2.16	2.08	2.10
Orsi	2.78	2.16	2.39	2.14	1.98	2.09
Fesikov	2.75	2.17	2.37	2.17	1.98	2.20
Czerniak	2.79	2.14	2.38	2.17	1.97	2.23
Dotto	2.66	2.16	2.31	2.17	2.03	2.16
Brown	2.70	2.10	2.34	2.08	2.03	2.05
Kozma	2.64	2.14	2.24	2.14	2.07	2.05
Lang	2.60	2.16	2.23	2.02	1.98	2.00

Practical applications



Home programme

	Time	Rate	Count	Velocity
15m				=distance/time
25m		One		
50m	Scoreboard	One	One (Swimmer)	
75m		One		
100m	Scoreboard	One	One (Swimmer)	

Home programme

Starts

- Entry, breakout and 15m times
- Entry and breakout distances
- Number of kicks
- Number of strokes to 15m

Turns

- 5m in
- 5m or 10m out
- Number of kicks
- Breakout distance

Conclusion

Competition analysis is readily available at most major international competitions – use the data to your advantage!



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