

# EHF Men's Euro 2008 – Analysis, discussion, comparison, tendencies in modern handball

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## I. Analysis of the official statistics provided by Swiss Timing - discussion

The 8<sup>th</sup> Men's European Handball Championship (EHF Euro 2008) was held during January 2008 in Norway . It was a further occasion to see the best handball national teams in the World. At the same time it was an occasion to observe and analyse the level of top handball quality. The basic idea of using official stats is to get helpful information for media representatives, coaches and other handball experts for their work in handball. Therefore we have elaborated on the official statistics supplied by Swiss Timing and presented at [www.ehf-euro.com](http://www.ehf-euro.com).

Let's have a look at the results of our elaboration and let us try to discover what the stats results are “teaching” us.

**Table 1** provides information about **shot efficiency** and the percentage of **scored and conceded goals**. Results are shown and ranked between first 12 teams at Euro 2008. This table “provides arguments” for the following discussion:

- **Shot efficiency** is worse than at former competitions (about that we will talk later). Only Spain has a really high percentage of efficiency (59,60%) but in the other parameters Spain is much worse than before and because of that their ranking at Euro 2008 is not so good this time.  
After Spain only 4 teams have a **shot efficiency** higher than 56% (Denmark, France, Sweden and Slovenia). Three teams have a percentage between 55 and 56% (Croatia, Norway, Hungary), while Germany (54,50%), Island (52,33%) and Monte Negro (51,20%) can't be satisfied at all.
- The teams taking medals (DEN, CRO, FRA) are not the best teams in shot efficiency and scored goals. Two of them (DEN, FRA) are still among the best in **shot efficiency** (3<sup>rd</sup> and 4<sup>th</sup> position) but they have only 5<sup>th</sup> and 6<sup>th</sup> position in percentage of **scored goals**. On the other side Croatia is only in the second half of the 12 best ranked teams (7<sup>th</sup> position in **shot efficiency** and 10<sup>th</sup> position in percentage of **scored goals**).

Team	games	Shot efficiency%	Pos.	Average of scored goals	Pos.	Average of conceded goals	Pos.
1. DEN	8	57,53	3	29,12	5	24,12	1
2. CRO	8	55,49	7	26,50	10	25,37	2
3. FRA	8	57,46	4	28,87	6	25,87	3
4. GER	8	54,50	9	28,00	8-9	28,00	6
5. SWE	7	57,77	2	29,71	3	27,14	5
6. NOR	7	55,05	8	28,00	8-9	26,42	4
7. POL	6	53,15	10	30,33	1	28,66	8-9
8. HUN	6	55,52	6	29,33	4	28,83	10
9. ESP	6	59,60	1	30,00	2	28,16	7
10. SLO	6	56,57	5	28,66	7	30,00	11
11. ISL	6	52,33	11	26,16	11	28,66	8-9
12. MNE	6	51,20	12	24,83	12	31,33	12

**Table 1 - Shot efficiency, average of scored and conceded goals**

But there is something that makes these three teams differ from the others.

These teams have the **best defences** - Denmark, European Champion, received the least goals on the average(24,12).After them Croatia is in the second position with an average of 25,37 goals while France has an average of 25,8 goals.

- The team with the best **shot efficiency**, Spain (59,60%), finished Euro 2008 at the 9<sup>th</sup> position. Spain is also good in the percentage of **scored goals** and with 30,0 goals on the average reaches the second position behind Poland. What can be the reason for such a(n) (unexpectedly) bad ranking. It could be defence (28,16 conceded goals and 7<sup>th</sup> position), it could be the too big number of technical faults(what we will see in table 2) where Spain is at the last (12<sup>th</sup>) position. Or, it can be the too small number of blocks (table 3) where Spain is at the 11th position. In any case one conclusion is correct and authentic: good attack only is not enough and does not guarantee a good result.
- A similar situation is with Sweden. After a few years Sweden came back to the world scene with a young and ambitious team. They have shown their quality with a good **shot efficiency**(57,77% and second position) and a good average of **scored goals** (29,71 and 3rd position). Defence (conceded goals) corresponds to their position at Euro 2008 (5<sup>th</sup> position). Later we will see that it is the only team without enough experience (table 2 – technical faults, assists).
- Specifically interesting are the“cases” of Poland and Iceland. After many years Poland came back to top world handball at WCh 2007 in Germany and won the second place and silver medal. They played excellently

and were the greatest surprise of the World Championship. This time, in Norway, expectations were high. Could Poland repeat the success? At the end they occupied the 7<sup>th</sup> position and for sure they were not satisfied. Especially an interesting detail seems to be that Poland **scored the most goals** on the average(30,3) but concerning **shot efficiency** they were at the 10<sup>th</sup> position (53,15%) only. Was that the price of psychological pressure and a big desire? Scoring a lot of goals from too many shots can be an indication for the lack of an objective estimation “what is a chance for scoring a goal”.

- Iceland is an even stranger case. One year ago in Germany Iceland was second in shot efficiency(60,94%) and first with scored goals (33, 7) .This time Iceland was bad and occupied the 11<sup>th</sup> position only in the both categories. Now it would be very interesting to have information about the height of players, age, number of international games for each player – data which we we had in Germany but not in Norway. With that information it would be possible to get a better insight into the “profile” of a team and with more scientific objectivity to search for the cause of this negative change. It would be possible to say more objectively what the reason could be: too old or too young players. Maybe the reason is the too experienced (old) players at the most important positions in attack - when their tactical estimation doesn't follow (any more) the physical capacity. Or, too young players with a nice physical capacity at the most important positions in attack, but not being ready to mark (estimate) the right moment for shooting.

**Table 2** gives evidence about **technical faults** and **assists**, very important information which pinpoints to team quality. These elements are not articulated through the quality of shots or the quality of defence. They are “mediate” parameters and help us to make a clear evaluation of team quality. Simply, teams with fewer technical faults and more assists than the other teams use their own knowledge of handball in a better way.

**Technical faults.** We have already mentioned two teams when we have talked about table 1. These teams are Spain and Sweden, two teams with the best shot efficiency, but....

- **Spain** is the team with the most faults of the first 12 teams:16,50 per game. With so many errors a good shot realisation didn't help.
- **Sweden** was second in shot realisation but they had also many faults: 13,42 per game and 10<sup>th</sup> position. Only Montenegro and Spain are worse.
- If we observe **faults** of the first 12 teams it is possible to say that the situation is almost identical as last year at the WCh in Germany. There are two groups of teams and the “border” is 12 faults.

The best team is France with 10,25 faults per game while Denmark is a little bit worse but below 11. Four teams are in the zone between 11-12 faults with a small difference: Norway (11,28), Poland (11,66), Croatia (11,87) and Slovenia (12,00).

The second group with more than 12 faults are Germany (12,87) and Hungary (12,83) with a little bit less than 13 errors, then three teams with more than 13 faults per game: Iceland (13,33), Sweden (13,42), Montenegro (13,83) while Spain is the worst team with 16,50 faults per game.

Team		Games	Technical Faults	Average	Pos.	assists		Average		Pos.	
1.	DEN	8	87	10,87	2	153	73	19,12	14,6	2 <u>Dr.</u>	1
2.	CRO	8	95	11,87	5	99		12,37		8	7
3.	FRA	8	82	10,25	1	94		11,75		10	9
4.	GER	8	102	12,75	7	97		12,12		9	8
5.	SWE	7	94	13,42	10	80		11,42		11	10
6.	NOR	7	79	11,28	3	139	58	19,85	14,5	1 <u>Dr.</u>	2
7.	POL	6	70	11,66	4	75		12,50		7	6
8.	HUN	6	77	12,83	8	65		10,83		12	11
9.	ESP	6	99	16,50	12	80		13,33		6	5
10.	SLO	6	72	12,00	6	86		14,33		4	3
11.	ISL	6	80	13,33	9	82		13,66		5	4
12.	MNE	6	83	13,83	11	93	29	15,50	9,6	3 <u>Dr.</u>	12

**Table 2 – faults and assists**

**Assists.** Analysis of assists in Norway has shown that three teams have much better results than the others. Much better than at former competitions of EHF and IHF. These teams were Denmark, Norway and Montenegro. An extreme number of assists of these three teams appeared in their “B” group in Drammen. Later, in the main round their results came back to “normality”. Statistics in Drammen say that at the match Norway vs. Monte Negro (27:22) the Norwegian team has 26 assists and Montenegro 21!!! Or, the match Montenegro vs. Denmark (24:32), Monte Negro has 24 assists and Denmark 29!!!

Because of that in the final analysis I deleted results from Drammen and I analysed only the results of assists for these three teams in the main round. Anyway in **table 2 I** showed both solutions: with and without Drammen. The classification of some teams is not so different with or without results of assists in Drammen. Only the final number of assists of Denmark, Norway and Montenegro is very different. With Drammen Denmark is in the second position with 19,12 assists per game and Norway is first with 19,85. Without Drammen Denmark is first with 14,6 and Norway is second with 14,5 assists per game. But the position of Monte Negro is totally different. With the results in Drammen Montenegro is 3rd (15,50) whilst without Drammen Montenegro is 12<sup>th</sup> with 9,6 assists per match.

Otherwise, when we analyse assist results we have the theoretical case only with 1<sup>st</sup> and 12<sup>th</sup> team. Denmark has the most assists and Montenegro the least. All other results show that the number of assists (as last year in Germany) is not an exclusive sign of quality at this level of competition. How to explain that teams with a lot of assists are in the lower part of the final classification at Euro 2008 (Spain, Slovenia,

Iceland) and teams with less assists have a better position (Croatia, France, Germany, Sweden)? Is it paradox or not?

At the moment the only possible explanation is that better teams score a lot of goals based on individual quality and actions of some players and in this case there is not so many assists.

On the other side teams with not so strong individual quality of players depend more of collective cooperation. They score more goals after common actions and in this case the assist is very important.

In any case about this detail we need to take care in the future because it is not the first time that we can notice it.

In **table 3** we have results of **blocks, steal balls and 2 min suspension**.

Team	G.	Block. shots	Aver.	Rank.	Steal	Aver.	Rank.	2 min.	Aver.	Rank.
1. DEN	8	35	4,37	5	37	4,62	2	34	4,25	8
2. CRO	8	41	5,12	2	29	3,62	9-10	26	3,25	3
3. FRA	8	23	2,87	9	29	3,62	9-10	24	3,00	1-2
4. GER	8	24	3,00	8	31	3,87	6	31	3,87	6
5. SWE	7	33	4,71	3	28	4,00	5	29	4,14	7
6. NOR	7	23	3,28	7	29	4,14	4	30	4,28	9
7. POL	6	27	4,50	4	42	7,00	1	31	5,16	12
8. HUN	6	32	5,33	1	20	3,33	11	21	3,50	4-5
9. ESP	6	10	1,66	11	27	4,50	3	18	3,00	1-2
10. SLO	6	21	3,50	6	22	3,66	7-8	30	5,00	11
11. ISL	6	15	2,50	10	22	3,66	7-8	21	3,50	4-5
12.MNE	6	2	0,33	12	14	2,33	12	27	4,50	10

**Table 3 – blocked shots, steal balls, 2 min suspension**

**Block.** This element is also very “delicate” (“sensitive”) to analyse. During the game we have blocks because of two cases. The **first case** is when defence is good, there is no mistake, attack is pretty long and they cannot outplay defence and find situations for a shot at goal. Maybe the referees show signals for passive game. However, defence is good and ready for blocks. The **second case** is when defence makes mistakes and attack is trying to use those occasions for shots at goal. The last thing what defence can try is an attempt of blocking. Of course, efficiency of blocks in this situation is less than when the block is the result of a good defence. Because of that, as with assists, we determine results of this element but this result “doesn’t speak”

directly about the defence quality of a team. At Euro 2008 it was possible, as in Germany 2007, to observe two groups of teams. At this time the border between these two groups is 4 blocks per game. Beyond this border are Hungary (5,33), Croatia (5,12), Sweden (4,71), Poland (4,50) and Denmark (4,37).

Already the next team is pretty far away from this result. It is Slovenia (3,50) while the most inferior result has Montenegro with only 0,33 blocks per game.

Of course, if we talk about quality of these blocks, the better effect had blocks of Denmark and Croatia with excellent defences than blocks of Spain and Poland because at this competition they had conceded a lot of goals.

**Steals.** I think it is the first time that we have this element as an element of statistical report. With this element we have not too much experience but it is sure that it is nice information and this information can help us in analysing of the matches.

Poland is the best team with an unusually high result, even 7 balls per game while Montenegro is the last one with 2,33 balls only. Almost all teams (11) are concentrated between 3-4,5 balls per game what is not a too big difference. Top are 5 teams: Poland (7,00), Denmark (4,62), Spain (4,50), Norway (4,14) and Sweden (4,00). It is interesting that most of these teams play usually 6:0 defence.

**2 min suspension.** How often one team plays with one player less during the game is not a sign of good or bad defence. Every team comes into such a situation and the most important thing is how they play attack and defence in this situation (5:6).

The results of **2 min suspension** at Euro 2008 show that “normal” suspensions for one team are less than 4 min per game. It is a much better result than at former competitions and now it is a very important question what the reason is - better defences or referees’ criteria.

In any case 6 teams have less than 4 min suspension per game which for sure is the minimum. Even the worst result (Poland with 5,16 min per game) is not too much. Only one year ago at the WCh in Germany the best team was Spain with 5,4 min per game. The average at Euro 2008 was only 3,00 min per game.

## II. Comparison of statistical data with former competitions

Until now we have observed, analysed and discussed parameters in three tables and some elements of the handball game were in the focus of our attention as well as their level and influence on both the result and the quality of a team.

In the second part of this article we will put the teams into the focus of our attention.

And now we will observe the same elements of the handball game, but we will observe and compare these elements of some teams with previous international competitions – Euro 2006, World Championship 2007 and Euro 2008.

What does a table like this (**table 4**) “speak” about some teams during a, period of three years?

**Germany.** For Germany Euro 2008 was a “competition of truth”. Still “in the air” is the strong and serious critique of Spain and France National teams after ¼ and ½ final games at WCh last year in Germany. And Spain and France complained very much that Germany had big help from the referees because they played at home. Euro 2008 was the occasion for everybody to see “who was right”.

Without any doubt Germany didn’t pass this test this time. During Euro 2008 Germany played two times against France and once against Spain and lost all three

matches - in their group “C” Germany lost against Spain 30:22, after that in the main round they lost against France 26:23 and finally in the game for 3<sup>rd</sup> place again with France. This time the result was 36:26 for France.

W/E	Country		Games	R/S %	S.G Aver.	C.G Aver.	Fault Aver.	Ass. Aver.	Block. Aver.
08	4	GER	8	54,50	28,00	28,00	12,75	12,12	3,00
07	1	GER	10	57,68	30,4	26,0	10,4	13,9	4,7
06	5	GER	7	56,4	31,8	27,5	8,85	13	4

08	7	POL	6	53,15	30,33	28,66	11,66	12,50	4,50
07	2	POL	10	60,0	31,0	27,4	11,9	12,2	4,4
06	10	POL	6	52,0	27,1	30,8	11	13,83	3,5

08	1	DEN	8	57,53	29,12	24,12	10,87	14,6	4,37
07	3	DEN	10	58,19	31,6	28,3	11,6	13,4	5,3
06	3	DEN	8	61,2	31,6	29	11,12	15,12	2,5

08	3	FRA	8	57,46	28,87	25,87	10,25	11,75	2,87
07	4	FRA	10	57,91	30,0	24,3	11,1	12,2	3,4
06	1	FRA	8	57,0	30,3	24	10,25	11,87	3,75

08	2	CRO	8	55,49	26,50	25,37	11,87	12,37	5,12
07	5	CRO	10	62,22	30,8	24,6	11,7	16,1	5,5
06	4	CRO	8	57,6	28,6	28,5	10,75	13,75	3

W/E – World Championship/Europe Championship; R/S – Realisation of shot (Shoot/Goal); S.G – Scored goals; C.G – Conceded goals

**Table 4/I**

When we observe the last three competitions the “picture” is more articulated and clear. In the last three years Germany has more and more worse results in the number of scored goals (31,8; 30,4 and 28,0) and in the number of faults (8,85; 10,4 and 12,75). At Euro 2008 Germany had worse results in all elements compared to Euro 2006: shot realisation (56,4 and 54,50), the average of conceded goals is almost the

same but, still a little bit worse (27,5 and 28,0), the number of assists is less (13 and 12,2) and the number of blocks is, also, less (4 and 3). These results were better at the WCh in Germany only one year ago. What is in question? Especially good preparation, ambition, concentration and motivation for competition at home or something other (what was opinion of Spain and France)? Nobody can give the answer to these questions. Only remain facts and thinking everybody of us. In any case no one expect of World Champion at first competition where they defend the title to score and concede same number of goals (28,0).

**Poland.** The finalist at WCh last year didn't keep the level of one year ago when they were the biggest and the most pleasant surprise. This time some elements, very important for the result of the game, are worse as shot realisation, scored goals and number of conceded goals. Some elements are a little bit better (faults, assists) but it is not enough to keep the level and quality of the last year. But, in comparison with Euro 2006, most of the indicators are better (except a little bit more faults and some assists less). The impression is that Poland is on a good "road" of development and progress. This time, maybe, psychological pressure after the silver medal was too strong because Poland many years had not been at the top of world handball and in a similar situation.

**Denmark.** After two times 3<sup>rd</sup> position Denmark is back to the top. The main characteristics are a little bit reduced **shot realisation** and fewer **scored goals** than before (but still at a high level), but a much better defence. Denmark conceded 5 goals less on the average than two years ago and 4 goals less than one year ago. It is probably the result of selection of players and the system of preparation. The number of faults and assists has a very small variation. In the last two years progress has been made in **blocks**, because at Euro 2006 there were only 2,5 whereas now, already for the second time, more than 4 which is the level of the best teams.

**France.** Over the years France has been at the top of the world handball. When we observe the statistics of the French National team in the last three years we can see that there is not too much oscillation. Obviously there are fewer blocks but not too many, one block per game. Because of that it is possible to say that France keeps the high level of quality and the final result depends on the match schedule during the competition and on, eventually, one but decisive match. Last year it was the match against Germany and this time the one against Croatia. These lost games both times had a very high price because these games were games of elimination.

**Croatia.** When we look at the statistics and results of Croatia in the last three years we have to notice one special quality. Last year, when statistics parameters were excellent, Croatia took the 5<sup>th</sup> place. This time statistical parameters were of a lower level, but Croatia was in the final and took the silver medal. What is common in these two totally different cases? Last year and this year Croatia showed one quality which is not possible to measure. About this quality it is necessary to say something more. Sometimes results and classification don't depend only on statistical parameters. Sometimes the decisive parameter is the mental power of the team that is not possible to describe with numbers.

For Germany and Poland we have already seen that, maybe, psychological pressure for them was too strong and it can be the explanation for their results at Euro 2008. Croatia is a totally different example. Last year in the ¼ final game at the WCh in

Germany Croatia lost against France in the game of elimination. Until this game they played excellently, at a very high level and everybody already “had seen” Croatia in the final. After the lost game, when a medal was not possible anymore, when all ambition had gone, Croatia demonstrated an exceptional, mental power. All other games they continued to play on a high level and at the end they finished at the 5<sup>th</sup> place with 9 victories and only one lost game from Germany, the World Champion. This year Croatia was in a quite different situation. Already before the preparation for Euro 2008 they had several injured players. These players were not ready for serious preparation, for some of them the big question whether they were able to participate in Euro 2008. During the competition, with these players, it was obvious that the level and quality of handball had not been the usual one. Most of the statistical parameters were worse than at former competition. But the power of the collective has given something which statistics can't measure and explain. This time Croatia didn't play to show nice handball, they played for result. They played seriously with full power. At the end with 5 victories, one tied match and 2 lost games, which is a worse result compared to last year when they had taken the 5<sup>th</sup> place, Croatia finished as finalist and took the silver medal. But during the competition they had to beat themselves at first and after that their rivals. In the game of elimination (again) against France Croatia won and opened the road towards a medal. Once again we have got the confirmation that it is not enough only to know. It is very important to know how to use and realise what you know.

**Russia.** After the gold medal at the OG 2000 in Sidney Russia had only a bronze medal in Athens 2004. All other results have been between places 5-6 (with the 8<sup>th</sup> place at the WCh 2005). This time Russia didn't pass even the first round in the preliminary group and after 3 games had to leave Euro 2008 as the last team in their group. The decisive match was a tied match against Montenegro (25:25) and with two lost games against Denmark and Norway it was all what Russia had done this time. A team with a longlasting tradition in handball this time was not among the best 12 teams.

**Spain.** If we look at the classifications of Spain in the last three years it is possible to say: a big crash for Spain. Two years ago final and second place at Euro 2006, last year 7<sup>th</sup> place and this year even 9<sup>th</sup> place. What does the statistics say? Is there any explanation?

Shot realisation has decreased steadily (62,1; 60,22; 59,60), but still is very high. Don't forget: with 59,60 % shot realisation Spain has the best realisation at Euro 2008. The number of scored goals is smaller by almost two goals compared to former years. Conceded goals are also a little bit fewer but at the level of last three years. Where is the problem in this case? It seems to be related to technical faults. This time it is much more than before: 16,50 per game. In this element Spain is the last of 12 first teams. Also, it is the reduced numbers of assists in comparison with the last three years and especially it is the reduced number of blocks, only 1,66 per game. Only Montenegro has a lower result.

In any case a good shot realisation (1<sup>st</sup> place) and 30 goals per game (2<sup>nd</sup> place) were not enough. Inferior defence (28,16 goals and 7<sup>th</sup> place), a lot of faults (more than 16 balls to give to the opponent is too much. If the opponent realizes only 50% of them it is 8 goals) and few blocks made Spain lose 3 games out of 6 (Hungary, France, Sweden) with only 3 victories.

But it is necessary to say that this time fortune was not at the side of Spain. Two games were lost by 1 goal: against France 27:28 and against Sweden 26:27. But exactly at these games Spain made a lot of errors. And if you produce a lot of mistakes, fortune can't help you. It remains one conclusion which we have already said: for victory, for a good result a good realisation and a lot of goals are not enough. Handball is much more.

W/E	Country		G.	R/S %	S.G Aver.	C.G Aver.	Fault Aver.	Ass. Aver.	Block. Aver.
08	/	/	/	/	/	/	/	/	/
07	6	RUS	10	56,03	28,3	28,0	10,50	16,00	3,0
06	6	RUS	7	63,6	29,7	29,1	16,42	14,28	4,0
08	9	ESP	6	59,60	30,00	28,16	16,50	13,33	1,66
07	7	ESP	10	60,22	31,8	29,0	12,00	19,40	4,3
06	2	ESP	8	62,1	31,8	28,8	14,00	15,25	3,25
08	11	ISL	6	52,33	26,16	28,66	13,33	13,66	2,50
07	8	ISL	10	60,94	33,7	31,5	11,10	16,70	2,90
06	7	ISL	6	59,5	31,6	31,8	11,83	11,50	1,33
08	8	HUN	6	55,52	29,33	28,83	12,83	10,83	5,33
07	9	HUN	8	58,44	28,1	28,0	12,10	13,10	3,87
06	13	HUN	3	51,50	28,0	29,6	13,00	6,66	2,66
08	10	SLO	6	56,57	28,66	30,00	12,00	14,33	3,50
07	10	SLO	8	54,44	30,1	30,3	12,75	12,00	3,37
06	8	SLO	6	61,8	31,8	32,3	14,00	15,83	3,83
08	6	NOR	6	55,05	28,00	26,42	11,28	14,5	3,28
08	12	MNE	6	51,20	24,83	31,33	13,83	9,6	0,33

W/E – World Championship/Europe Championship; R/S – Realisation of shot (Shoot/Goal); S.G – Scored goals; C.G – Conceded goals

#### Table 4/II

**Iceland.** At Euro 2008 Iceland did one big step back. The biggest difference we can see in **shot realisation** and **scored goals**. Last year, in Germany, Iceland was a very efficient team (60,94% and 2<sup>nd</sup> position) and first in number of scored goals (33,7). This time – a big drawback. Shot realisation is less for more than 8% (52,33 % and 11<sup>th</sup> place among the 12 best teams). The number of scored goals is smaller for more than 7 goals (26,16) which was enough only for the 11<sup>th</sup> position in this parameter. The other parameters are not too much different compared to previous championships. Some of them are a little bit better (lower average of conceded goals) while some are a little bit worse (more faults, fewer assists). But such a big decrease in shot realisation and scored goals can't be by accident. Statistics can indicate problems but can't give the cause. For me, it is clear: the Icelandic Handball Federation needs to find the answer. Because, at this competition Iceland lost their basic characteristic-dangerous attack. They didn't improve in other segments of game, either.

**Hungary.** Hungary played in very strong group with Germany and Spain. They managed to win Spain, which was very convincing. They showed that some matches could be played at a very high level. Later, in the main round, they won against one more strong opponent. It was France. It is correct to say that this game for France was not so important and France had "protected" some players for further matches. The chance to make something more serious at this competition Hungary lost in the match against Iceland. They lost 28:36.

Shot realisation was a little bit better than at Euro 2006 but worse than last year at the WCh. It was enough for the 6<sup>th</sup> position (55,52%) at this parameter. The average of scored goals is improving and this time Hungary was 4<sup>th</sup> in scored goals. The problem still is defence or the average of conceded goals. At Euro 2008 the average was 28,83 or the 10<sup>th</sup> position out of the 12 first teams. Only Slovenia and Montenegro were worse.

**Slovenia.** Fromn the year 2000 Slovenia has been a regular participant in all international competitions but (with some exceptions) the usual position of Slovenia is place 10 - 12. This time, at Euro 2008, Slovenia occupied the 10<sup>th</sup> place. The statistical parameters don't show bigger turbulence. For now it is on a constant level, enough to be a participant in such competitions but without indication for something bigger.

**Norway.** One goal more (against Croatia) and Norway would have reached a historical success by reaching the ½ final. At the beginning of the competition Norway was strong and very successful. In group "B" against Denmark, Russia and Montenegro three games led to three victories and the first place in the group. Great ambitions and expectations were awoken. But for medals usually you need much more experience from international competitions than Norway had at this moment. In the course of the competition Norway kept a high level against (officially) strong opponents as Poland and Croatia. The results in both matches were tied. Norway did not succeed against (objectively) more inferior teams than Poland and Croatia, e.g.: Slovenia. Norway lost this match by 29:33.

If we look only at their result we can say that Norway was at the brink of a big success. Their last match in the main round (group II) against Croatia ended 23:23 and only a small step had missed for reaching the ½ final of Euro 2008. But statistical parameters show us that the 6<sup>th</sup> place that Norway took at the end was a realistic place. In shot efficiency Norway was 8<sup>th</sup>, in the average of scored goals 8-9<sup>th</sup>, in blocks 7<sup>th</sup>. A little bit better were the conceded goals (4<sup>th</sup> place), faults (3<sup>rd</sup> place) and assists (2<sup>nd</sup> place). In any case it will be very interesting to watch Norway participating in the next international competition. In any case it is interesting to see teams from the organizing country playing at home compared to an international tournament abroad.

At the **Euro 2004** in Slovenia, Slovenia played excellently; they played in the final and took the silver medal. After that at the next five competitions the classifications were always between 10<sup>th</sup> and 12<sup>th</sup> place only!

**Olympic Games 2004, Athens.** Greece finished in the 6<sup>th</sup> place which was both a very nice result and surprise for everybody. Before that Greece had never played any serious role in international handball and neither later.

At the **WCh 2005** in Tunisia, Tunisia played very well and took the 4<sup>th</sup> place. At the next WCh 2007 in Germany Tunisia finished in the 11<sup>th</sup> position!

At the **WCh 2007** in Germany, Germany became World Champion and it was nothing special. Germany is one of the best handball teams in the world. But heavy reactions from Spain and France after the ¼ and ½ finals left shadows at this result. Especially when Spain and France won Germany very convincingly at Euro 2008 with 8 and 10 goals difference and “proved” that playing against domestic team had a “special dimension”. At Euro 2008 Norway played at home and they achieved a good result, better than ever.

**Montenegro.** Montenegro finished in the 12<sup>th</sup> place, last place in the main round. For many people that was not a good result. But for Montenegro Euro 2008 is an historical event. For the first time Montenegro participated in a qualification for a European Championship and qualified for Euro 2008, their first big international competition. Already this was a big step forward and a success. At Euro 2008 in one group with Denmark, Russia and Norway Montenegro had “matches of life”. It was the game against Russia, where the result was tied (25:25). With this result Montenegro eliminated one big handball nation, Russia, and qualified for the main round of the competition. Euro 2008 will be memorable in handball in Monte Negro.

### III. Comparison “first” and “last” teams

In the last part of the article we will look at the “first teams” (teams at 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place) and the “last teams” (teams at 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> place). We will review the four last international competitions: WCh 2005 in Tunisia, Euro 2006 in Switzerland, WCh 2007 in Germany and Euro 2008 in Norway.

I hope that by comparing the statistical parameters of these teams we will be able to say more concrete and more precise what the main characteristics of modern handball are. Let’s have a look at table 5. At first we will observe results “according to vertical parameters”. The most important information what we are getting when we observe results “according to vertical parameters” is that **shot efficiency**, average of **scored goals**, number of **faults** and number of **assists** of the “first teams” are smaller and smaller. But only a small number of errors can be seen as a positive trend while for a

smaller amount of other parameters it is not sure to say. I don't believe that somebody has expected it.

	Average of shots	Scored goals	Conceded goals	Technical Faults	Assists	Blocks		Average of shots	Scored goals	Conceded goals	Technical Faults	Assists	Blocks
<b>WCH 2005</b>													
<b>1.ESP</b>	66,7	35,5	27,2	11,9	25,2	3,8	<b>10.CZE</b>	54,6	29,0	30,1	15,6	15,5	1,4
<b>2.CRO</b>	60,6	31,6	27,3	11,7	19,5	4,0	<b>11.SWE</b>	60,4	30,5	26,0	15,0	23,6	2,5
<b>3.FRA</b>	59,8	30,1	24,0	11,8	10,2	4,0	<b>12.SLO</b>	57,7	30,2	27,7	11,7	14,7	3,4
<b>Aver.</b>	<b>62,3</b>	<b>32,4</b>	<b>26,1</b>	<b>11,8</b>	<b>18,3</b>	<b>3,9</b>		<b>57,5</b>	<b>29,9</b>	<b>27,9</b>	<b>14,1</b>	<b>17,9</b>	<b>2,43</b>
<b>ECH 2006</b>													
<b>1.FRA</b>	57,0	30,3	24,0	10,2	11,8	3,7	<b>10.POL</b>	52,0	27,1	30,8	11,0	13,8	3,5
<b>2.ESP</b>	62,1	31,8	28,8	14,0	15,2	3,2	<b>11.NOR</b>	58,5	29,6	29,5	9,8	16,8	2,5
<b>3.DEN</b>	61,2	31,6	29,0	11,1	15,1	2,5	<b>12.UKR</b>	47,3	27,1	32,1	12,3	9,0	4,5
<b>Aver.</b>	<b>60,1</b>	<b>31,2</b>	<b>27,2</b>	<b>11,7</b>	<b>14,0</b>	<b>3,1</b>		<b>52,6</b>	<b>27,9</b>	<b>30,8</b>	<b>11,0</b>	<b>13,2</b>	<b>3,5</b>
<b>WCH 2007</b>													
<b>1.GER</b>	57,6	30,4	26,0	10,4	13,9	4,7	<b>10.SLO</b>	54,4	30,1	30,3	12,7	12,0	3,3
<b>2.POL</b>	60,0	31,0	27,4	11,9	12,2	4,4	<b>11.TUN</b>	57,2	29,6	29,6	12,7	10,7	2,1
<b>3.DEN</b>	58,1	31,6	28,3	11,6	13,4	5,3	<b>12.CZE</b>	55,0	28,3	29,3	13,8	14,0	5,3
<b>Aver.</b>	<b>58,5</b>	<b>31,0</b>	<b>27,2</b>	<b>11,3</b>	<b>13,1</b>	<b>4,8</b>		<b>55,5</b>	<b>29,3</b>	<b>29,7</b>	<b>13,0</b>	<b>12,2</b>	<b>3,6</b>
<b>ECH 2008</b>													
<b>1.DEN</b>	57,5	29,1	24,1	10,2	14,6	4,3	<b>10.SLO</b>	56,5	28,6	30,0	12,0	14,3	3,5
<b>2.CRO</b>	55,4	26,5	25,3	11,8	12,3	5,1	<b>11.ISL</b>	52,3	26,1	28,6	13,3	13,6	2,5
<b>3.FRA</b>	57,4	28,8	25,8	10,2	11,7	2,8	<b>12.MNE</b>	51,2	24,8	31,3	13,8	9,6	0,33
<b>Aver.</b>	<b>56,7</b>	<b>28,1</b>	<b>25,0</b>	<b>10,7</b>	<b>12,8</b>	<b>4,0</b>		<b>53,3</b>	<b>26,5</b>	<b>29,9</b>	<b>13,0</b>	<b>12,5</b>	<b>2,1</b>

**Table 5 - The „best teams“and the „last teams“after the maind round**

But fact is fact.

- The average of **shot efficiency** for the first three teams at WCh 2005 was 62,3; at Euro 2006 shot efficiency was 60,1; in Germany at WCh 2007 it was 58,5 and finally in Norway we had 56,7.

The average of **scored goals** in Tunisia was 32,4; in Switzerland 31,2; in Germany 31,0 and in Norway 28,1.

- The number of **faults** for the “first teams” is between 11 and 12 but it is an obvious tendency of decrease. This year in Norway the number of faults was for the first time under 11 (Tunisia 11,8; Switzerland 11,7;Germany 11,3 and Norway 10,7).
- The “first teams” also show a decrease of **assists**: Tunisia 18,3; Switzerland 14,0; Germany 13,1 and Norway 12,8.

If we look at the **shot efficiency** and **scored goals** of the “last teams”, we can’t see these tendencies.

- Only the “last teams” had a decrease of **assists** in the period 2005-2007 while this year assists are a little bit better than last year, but not so much that we can talk about a considerable improvement.
- The number of **faults** at the “last teams “was between 13-14, which compared to Euro 2006 (where the number of faults was 11 for the best teams) was a good result.
- The average of **conceded goals** at the “first teams” in the period 2005-2007 was between 26,1 and 27,2 while this year it was only 25,0. The average of **conceded goals** at the “last teams” was about 30. Only in Tunisia it was a little bit better – 27,9.
- The number of **blocks** at the “first teams” is showing slight tendencies of increase. In Tunisia and Switzerland the number of blocks was under 4 (3,9 and 3,1) while in Germany and Norway it was 4 and more. This year France “spoiled” this result with only 2,8 blocks on the average. Denmark (4,3) as Champion and Croatia as Vice-Champion (5,1) had much better results. The “last teams” were always under the level of 4 blocks per game. Only Czechia in Germany had a high level of 5,3 blocks per game. The reason probably was a bad defence with too many occasions to try blocking. But at this moment we can only determine the number of blocks but not explain what was the reason for a block: good or bad defence.

At the end, to complete the “picture” of current handball, let’s go to see the differences between the “first” and “last teams” when we are looking at their statistics “**according to horizontal parameters**”. For this we use **table 6** where we can see numerical difference in observing handball elements.

**Table 6**

<b>SP 2005</b>	<b>Shot efficiency</b>	<b>Scored goals</b>	<b>Conceded goals</b>	<b>Faults</b>	<b>Assists</b>	<b>Block</b>
<b>1-3</b>	62,3	32,4	26,1	11,8	18,3	3,9
<b>10-12</b>	57,5	29,9	27,9	14,1	17,9	2,43
<b>difference</b>	<b>4,8</b>	<b>2,5</b>	<b>- 1,8</b>	<b>- 2,3</b>	<b>0,4</b>	<b>1,47</b>
<b>EP 2006</b>						
<b>1-3</b>	60,1	31,2	27,2	11,7	14,0	3,1

<b>10-12</b>	52,6	27,9	30,8	11,0	13,2	3,5
<b>difference</b>	<b>7,5</b>	<b>3,3</b>	<b>- 3,6</b>	<b>0,7</b>	<b>0,8</b>	<b>- 0,4</b>
<b>SP 2007</b>						
<b>1-3</b>	58,5	31,0	27,2	11,3	13,1	4,8
<b>10-12</b>	55,5	29,3	29,7	13,0	12,2	3,6
<b>difference</b>	<b>3,0</b>	<b>1,7</b>	<b>- 2,5</b>	<b>- 1,7</b>	<b>0,9</b>	<b>1,2</b>
<b>EP 2008</b>						
<b>1-3</b>	56,7	28,1	25,0	10,7	12,8	4,0
<b>10-12</b>	53,3	26,5	29,9	13,0	12,5	2,1
<b>difference</b>	<b>3,4</b>	<b>1,6</b>	<b>- 4,9</b>	<b>- 2,3</b>	<b>0,3</b>	<b>1,9</b>

Now we have arrived at a concrete profile of current handball.

- **“Shot efficiency”** of the “first teams” is better with about 3-7,5% compared to shot efficiency of the “last teams”. But the difference in average scored goals is not so big. This difference in 2007 and 2008 was under 2 goals (1,7 and 1,6). It means that for approximately the same number of goals the “first teams” need fewer shots than the “last teams”, which is quite normal. In fact, during the game the “first teams” score a little bit more goals than the “last teams”, but with a smaller number of shots. The big “capital” of the “first teams” are exactly those balls which the “last teams” lose when shooting without success. This fact only confirms that for a good result it is not enough to only score a lot of goals. The other details decide who will be the winner.
- While difference in scored goals is not too big, it is bigger in **conceded goals**, maybe not too much, but this difference decides the winner. The smallest difference was in Tunisia in 2005, only 1,8 goals and the biggest this year in Norway: 4,9.
- The difference in the number of **faults** is not big (about 2), while the difference in **assists** is less than 1. Finally the difference in the number of **blocks** is a little be bigger than 1. The biggest difference was now in Norway (1,9).

At the end let us try to create a **“profile” of a “winner”** in current handball. I think that with a lot of arguments we can say that in top handball there are not too big differences. Very often “everybody can beat everybody”. A lot of this depends on the mental power of the team and very often it is decided by 1-2 balls, 1-2 details. Simply, a few “small details” characterize the strongest top level teams. These “small details” are: **better shot efficiency**, because the difference in scored goals is not too big, **good defence** at a level of 25-27 goals, a **little bit less faults**, **a little bit more blocks**. The **number of assists** is not decisive.

Simple, isn't it? But it is well-known that to play simply is very complicated but to play complicated is very simple.

Dr Branislav Pokrajac

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