

Introduction

2011 Women's 19 European Handball Championship was held in Holland from 4th to the 14th of August 2011. All together 16 national teams of female handball players born 1992 and later played a total of 56 matches. The preliminary round matches were played all around Holland.

The 16 teams were divided over 4 groups:

- Group A: ESP, RUS, SLO and ROM.
- Group B: NED, AUT, UKR and NOR.
- Group C: DEN, CRO, HUN and POL.
- Group D: GER, SRB, SWE and FRA.

The Dutch Handball Federation (NHV) had asked permission of the EHF to play the group matches in 4 cities Almelo (in the new sportscomplex ISPA, *photo 2*) (group A), Arnhem (group B), Leek, (group C), Maastricht (group D). Maastricht is close to Germany and Leek is close to Denmark, so these cities provided a good opportunity also for foreign supporters to visit the tournament (*photo 1*).



Photo 1: Danish supporters visiting the matches in Leek (group C)

The NHV wanted to use this tournament to promote European top handball all over the country. The main round was played in only 2 cities (Arnhem and Maastricht) and the final round and placement matches were also played in 2 cities Arnhem and Rotterdam. The ambition of Rotterdam is to be the City of Sports in Holland. The town has an excellent Indoor Topsport Centre with four sport halls at the same location in the neighbourhood of the football stadium of Feijenoord (called 'de Kuip'). This was why Rotterdam was selected by the NHV for the semi-finals and finals.

The final between Denmark and the home team of Holland was played in The Rotterdam Top sport Centre in a great ambience. The hall was sold out and filled with 2100 spectators. The Dutch fans filled the hall completely orange and created a great atmosphere.

2011 Women's European Handball Championship under 19 (WECH19_2011) was the first time that Holland hosted a final tournament for young players. The NHV organised around WECH19_2011 at all locations so-called side-events (clinics by national trainers, beach handball tournaments and circuits with handball related games) for children, in the hope to fill the playing halls with spectators. The only practical problem for the organisation was that the Championship was played during the summer holidays. In the first weeks of august most of the handball clubs and their volunteers are still in rest.



Photo 2: new sport hall ISPA (Almelo), accommodation for group A.

The idea behind organising WECH19_2011 was to warm up both the members, local organising committees and a lot of volunteers for the 2012 Women's European Championship in the Netherlands. This tournament will be organised between 2nd and 16th December 2012 in the cities of Rotterdam, Maastricht, Eindhoven and Apeldoorn. After 1998 this will be the second time that the NHV hosts such a final tournament for Women.

In 2005 Holland had its greatest success in history of handball with a fifth place on the World Championship Women in Sint Petersburg. After this tournament some prominent handball players stopped as international. Natasja Burgers, Saskia Mulder and Monique Feijen (earlier Olga Assink), who had started their international career in preparation for Women's European Championship 1998, in the so-called Oranjeplan-group under bonds coach Bert Bouwer, ended their career in the national team after that event.

The success of 2005 took almost ten years of preparation. In our country we say following the 10,000 hour rule in sport of Ericsson, may be you become successful after this investment in time. We realised that to continue the work of Bert Bouwer (who started in 1997) and Sjors Röttger (other coaches between them) which had finally led to the success of the fifth place, we had to start again a project to practise 10,000 hours to get a new successful national team.

The international success of 2005 gave the opportunity for the handball federation to get funds from the National Olympic Committee (NOC NSF) to set up a National Handball Training Centre for young Dutch female players at the national sports centre (NSC) of Papendal (near Arnhem), called the 'HandbalAcademie' (HA).

The HandbalAcademie (HA)

The idea behind the HA was that Dutch handball needed to develop a new generation female internationals to have an opportunity to qualify for the Olympics in the future. NOC-NSF has the ambition to become a top eight country at the medal list of the Olympic Games. Female handball is seen as a team sport where Holland is at good international level.

It was unrealistic to expect much initiatives for international development from the clubs. Handball is a relatively small sport in Holland with almost no external finances, so the most Dutch handball clubs do not have international ambitions. Besides money most clubs lack knowledge, experience, facilities and culture. There are no professional players and trainers in ladies handball in Holland. Due to the support of NOC-NSF the federation could create good conditions to develop young female players for an international handball career. When the HA started in the season 2006-2007 the girls only trained together four days a week. The HA played also in the Dutch competition during the week. At this so-called CTO (centre for top sport and education) the young female handball players lived together with young sportsmen and sportswomen of other sports (like table tennis, badminton and athletics).

The whole week the players stayed at the National Olympic Training Centre Papendal and could not train with their clubs. Friday in the afternoon the players went home, so on Friday evening they could practise with their club teams at home. On Saturday evening or Sunday afternoon they played the league match with their own club. On Sunday evening they returned to Papendal. For matches of the HandbalAcademie against a club team, there was an appointment that the players were always available for the club team.

Due to the ranking in the Dutch league in the season 2009-2010, the HA even qualified for the European Challenge Cup 2010-2011 where they were eliminated in the semi-final by Muratpasa Belecıyesi Sk (TUR). Playing in the semi-final of the Challenge Cup last year was a great result and a valuable international experience for the young Dutch players in preparation for this international Championship.



Photo 3: Team HandbalAcademie season 2010-2011.

Some players of the Dutch national HandbalAcademie already have a contract for next season as professional player in the German first league: Lois Abbing and Laura van der Heiden (Vfl Oldenburg), Larissa van Dorst (Bayer Leverkusen), Daniek Snelder (Thüringen HC). Estavana Polman and Sanne van Olphen will play next year in Danish league. All these players realised their dream to become professional in a top handball competition.

At the HA the participating players (*photo 3*) follow an intensive programme, which is a combination of a school programme and sports training. The big advantage of a CTO is that the girls do not lose much time for travelling to training locations and that there is a lot of professional knowledge and support available (social, mental, medical, healthy food etc.). They start every day with physical training before school time. Then each girl follows their normal school programme in the neighbourhood of Arnhem. In the afternoon they had a handball training together of 2 hours by one of the national talent trainers (Monique Tijsterman, Henk Groener, Jokelyn Tienstra, Gino Smits). The evening is reserved for school work.

During the season the club trainers complained a lot about the physical load for the players of the HandbalAcademie. It was a challenge in this project to have enough communication between club trainers and trainers of the HA and to exchange actual information about injuries and training loads from both sides. Therefore the HA used a modern information system based on the use of the Internet (TVS, Talent Follow UP System, <http://tss.ortec.com/tss/tvs.aspx>) where the club trainers could find all the information about their players. To monitor the physical and mental health, the players had to fill in every week a so-called Profile of Mood State (POMS), a questionnaire about their state of mood.

A problem for the club trainers was that the feeling of the players about the matches with the club team was sometimes totally different from the feeling about playing the matches with the HandbalAcademie team, with which they stayed and trained the whole week. This was an aspect which was not taken into account before the HA started playing in the league. It is one of the reasons to change the model for the coming season. Besides the season 2011-2012 the Dutch league will consist of only 10 teams.

The Academie starts in august 2011 with a new and younger group female players, mainly consisting of girls born in 1994 (recruited from the national Youth Team). In the season 2011-2012 the HA group will no longer play as a team in the league. The HA did not qualify in the season 2010-2011 for an EC tournament. The idea is that the HA during the season will go abroad for training camps in the neighbourhood of strong international club teams during the breaks in the Dutch league for international matches. They need this international experience because it will not be developed by the Dutch handball clubs.

All the players of the Dutch squad at this European Championship tournament were present or former members of the HA. Lois Abbing stopped in the summer of 2010 at the HA when she got a contract of VfL Oldenburg. It was perhaps a big advantage of the Dutch team over the other national teams that the team had a lot of experience being and playing together. Due to the physical preparation at the HA, the team could resist the heavy load of this tournament without problems. The physical load of such an international championship could not be handled successfully if the players had only trained with their own Dutch clubs. Three players of the Dutch national Junior team (left back Lois Abbing, right wing Angela Malestein, and centre back Estevana Polman, which were all nominated for the ALL Star team of this championship) was already once selected for the national A-team by bonds coach Henk Groener.

An own Dutch identity in handball

This analysis is written by 4 Dutch handball trainers, who worked together in the past with national men's team. We write this analysis with an Orange look and we do not restrict ourselves just to describing statistical data and tactical systems. This has to do with the Dutch handball philosophy, the so-called 'Handbalvisie' (Dutch idea on playing and training handball).

This document was written on initiative of the former director of the Dutch Handball Federation (NHV) Vince Evers. His first step was bringing three (former) national woman coaches together : Ton van Linder, Bert Bouwer and Sjors Röttger. Later the at that moment coach of our men team Henk Groener (now woman coach) came to the group.

In his opinion Dutch national handball was too much following ideas of former national trainers who came from other countries and without an own face and philosophy coupled to the Dutch culture. It is no problem to copy ideas about handball from other countries but the general opinion was that it did not always fit with the Dutch culture. In Holland a child chooses for handball because the image of the sports attracts him and not because his physical constitution will probably make him a successful handball player in the future. Height is in Holland not a main aspect of player selection.

Until 2003, there was in Holland no document in which there was written down ideas about handball, that could give direction to the further development of the sport in Holland. A first version (out of the discussions off the coach group) of such a document was formulated by Ton van Linder (former member of Technical Committee of the EHF)

Key-words in this Dutch handball philosophy are *Speed*, *Dynamics* and *Surprise*. It should make handball more interesting for players, media, sponsors and spectators. In Holland we are not satisfied only with success, but we are also interested in the way of playing. This should be based on trust and also show the beauty of the sports. An example is the Dutch philosophy for football called *Total Football* introduced by former football coaches Michels and Van Gaal for Ajax and the national football team.

Special for top handball the writers of the *Handbalvisie* added the keyword *Effectiveness* to their philosophy. The ideas formulated in the document were related to the developments in international handball but were linked to the typical Dutch culture in sports, where there always should also be room for personal ideas and improvisations. Therefore we can say that the '*Handbalvisie*' is certainly not a playing-book filled with team tactics: tricks and fixed concepts. The Dutch handball federation (NHV) had the ambition by introducing such a general philosophy for youth development and the education of coaches to improve Dutch handball. It should help to make Dutch handball internationally more successful. International success should make handball more popular in a country where football dominates sports on television and sports in the newspapers.

The basis of the Dutch handball education are five important pillars in sports:
Technical skills with and without ball (catching, throwing, feinting, screening).
Tactics (individual, in small groups and for the whole team).
Physics (length, strength, speed, agility).
Mentality (winning, endurance).
Social coherence (team spirit, cooperation, style of coaching).
We have tried to take these pillars into account in our analysis.

We hope that you have recognised the keywords *Speed*, *Dynamics* and *Surprise* of the *Handbalvisie* in the playing style of the Dutch national Junior team in the matches of this championship. Of course we have also found these elements in the matches of other teams. Our analysis starts with a short general review of the results of the tournament. Special attention will be paid to the final matches and we discuss the way of playing of the first six teams. One important parameter for success in an international handball championship is international experience. To determine this experience number, we did not use the number of interlands on the delegation lists, but the experience from the former 3 international tournaments played by the same generation (*girls born 1992 or later*). We compared the names of the players on the match reports.

These 3 great international tournaments are:

1. the 2009 EHF Women's 17 European Championship in Serbia analysed by Jerzy Elias (2009);
2. the 2010 European Open Championship in Sweden;
3. the 2010 World Championship for YOUTH teams in the Dominican Republic.

Then we will compare the physical properties of the teams by the topic *effect month of birth* and the length of some players at certain positions. We did not compute an average height and weight of the players, because we know that these statistical average may be influenced by players, who are most of the time sitting on the bench. Besides the physical properties of the

players of this tournament was the subject of a separate study by the University of Bratislava (SVK). These figures were not known when this article was finished.

For our analysis we use the pillars: technical skills, tactics, the physical pillar, mentality and social coherence.

International experience

One important parameter for success in an international handball championships is international experience. To determine this experience number, we determined the experience by comparing the present selection with the playerslist or match reports of the former 3 international tournaments organised for the same generation (*girls born 1992 or later*).

These 3 great international tournaments are:

- 1 the 2009 EHF Women's 17 European Championship in Serbia analysed by Jerzy Elias (2009);
- 2 the 2010 European Open Championship in Sweden, (match reports);
- 3 the 2010 World Championship for YOUTH teams in the Dominican Republic (match reports).

The European Championships are played with 16 teams. The World Championship was played with 19 teams. The first 8 teams of ECH 2009 were qualified for the WCH 2010.

Final position	EK <17 SRB (2009)	WK<17 DRP (2010)	EK <18 SWE (2010)	EK <19 NED (2011)
1	DEN	SWE	DEN	DEN
2	RUS	NOR	RUS	NED
3	NOR	NED	SWE	AUT
4	FRA	FRA	POL	SRB
5	HUN	ESP	AUT	SWE
6	NED	DEN	HUN	ROM
7	SWE	RUS	NED	CRO
8	ESP		ESP	ESP
9	GER		NOR	RUS
10	ROM		ROM	FRA
11	CRO	HUN	CRO	GER
12	SRB		NOR	NOR
13	SVK		SVK	POL
14	CZE		CZE	HUN
15	LTU		FIN	SLO
16	MKD		BUL	UKR

Table 1: final rankings in international championships *Girls born 1992 or later*.

For the top teams this was the fourth succeeding tournament for the age group *girls born in 1992 or later*. From Table 1, we see that the final ranking of the tournament in Holland had a lot of surprises, compared to 2009. For the first time there is only one Scandinavian team that wins a medal. The surprise team of EURO19_2011 is of course Austria. This team did not qualify for European Championship in 2009. With a 5-th place, they played a good European Open Championship girls under 18 in Gothenburg (2010), but they improved their result during this Championship with 3-rd place. This is a great compliment for coach Helfried.

Müller (*fanatic coaching, see photo 7*) who started with this team in 2010. He built his team around captain and playmaker Sonja Frey, who also played with the A-team of AUT in the World Championship in China in December 2010. Martina Goricanec of AUT was the youngest player at the WECH19_2009 (*girls born 1990 or later*) in Hungary (Neukum, 2009), so it was her second European Championship, although AUT was not playing with a Youth Team in 2009 in Serbia.

In the ECH19_2011 tournament some countries with good handball traditions NOR, FRA, RUS and HUN were not qualified under the top eight teams. This is a difference with the edition of this tournament in Hungary (Neukum, 2009).

ranking 2009		Keyplayers	Players of 2011 in squad	ranking EO 2010	Players of 2011 In squad	ranking WCH 2010	
1	DEN	2/6	9	DEN	8	SWE	11
2	RUS	3/6	7	RUS	7	NOR	9
3	NOR	2/6	4	SWE	13	NED	11
4	FRA	3/5	5	POL	13	FRA	9
5	HUN	1/4	3	AUT	11	ESP	10
6	NED	3/4	11	HUN	6	DEN	12
7	SWE		9	NED	12	RUS	8
8	ESP		7	ESP	7	DOM	
9	GER		8	NOR	8	KOR	
10	ROM		6	ROM	7	ANG	
11	CRO		8	CRO		HUN	9
12	SRB		11	SVK		URU	
13	SVK			CZE		BRA	
14	CZE					GER	8
15	LTU						
16	MKD						

Table 2: number of players of squad 2011 in former Championships *Girls born 1992 or later*.

It is interesting to compare the squads of the competing teams of this tournament with the ECH17_2009, the EOCH18_2010 and the WCH18_2010. Eliaz indicates for the 6 top teams some *key* players. Most of these *key* players were also playing in this tournament, see Table 2, the third column.

NED, SRB, DEN, SWE played in the ECH2011 in Holland with more than half of the squad who also played the tournament of 2009 and 2010, so all these teams had a lot of international tournament experience.

The Russian team started the tournament with in their squad 5 players born 1994 who also played in the summer of 2011 Women's YOUTH European Handball Championship in Czech and the European Youth Olympic Festival in Trabzon (TUR). The relatively young team lost the match against ESP in the second half time (20-24) within a period of 10 minutes. Two other teams ROM (3) and NED (2) also used players who played in Czech in July but they did not play in TUR.

Both teams DEN and NED who reached the final had a back player with international experience in a top senior team Holland (Lois Abbingh of VFL Oldenburg, 65/23 goals, 61%) and Denmark (Louise Burgaard of KIF Vejen 37/8, 59%). They both play in a top club in a top competition and their clubs even played against each other for the EHF-cup. Another

player with a great experience in senior handball was Sonja Frey of AUT. She played at the World Championship in December 2010 in China.

The Dutch players had got some additional international experience by the matches they played with HA team until the semi-finals in the European Challenge Cup.

Playing time

The finalists NED and DEN won all their matches in the preliminary and main round. Both teams used a lot of players during the tournament, they sometimes had two players of almost the same quality at the same position in their selections, so changes did not lead to drop in quality.

The teams of AUT and SRB who used mostly the same players (fixed basis and only a few substitutions) both reached the semi-finals.

team	< 60 minutes	60<TP<120	120<TP<180	180<TP<240	240<TP<300	300<TP<360	360<TP<420
AUT	5	3	0	0	1	2	4
CRO	2	4	3	3	0	3	1
DEN	2	2	2	7	3	0	1
ESP	3	4	2	1	0	4	2
FRA	0	6	3	1	3	2	1
GER	2	5	3	0	3	2	1
HUN	1	2	5	5	0	2	1
NED	1	4	2	5	2	2	0
NOO	2	1	5	1	4	3	0
POL	2	3	2	3	4	2	0
ROM	2	1	4	6	2	1	0
RUS	2	1	5	3	3	2	0
SLO	2	4	4	0	1	2	3
SRB	5	3	1	0	3	1	3
SWE	3	0	6	1	4	1	1
UKR	4	2	2	1	1	6	0

Table 3: Distribution total playing time (420 minutes) over 16 players of the team.

The back player Hornyak of HUN, played most of all the players at this tournament (412 minutes). Denmark had to overcome the problem of an injury of their first goalkeeper (Greve) in the first match of the main round against SRB. Their second goalkeeper Clausen had a great performance in this key match in the main round against SWE.

Effect day of birth

In Holland there has been done research by the famous Dutch soccer conditioning expert Raymond Verheyen under 10,000 young football players on the effect of the day of birth on their chance to become a professional player. He found remarkable correlations, by checking the birth months of soccer professionals. He found that 43% was born in the first three months of the year. That is an interesting correlation because the month of birth should have no effect

on talent. The birth month effect was also found by Malcolm Gladwell for Mayor League baseball players.

If a trainer has to make a choice between players for a Youth Championship he makes a comparison between players at that certain moment. Because talent is not something you can measure or test in an objective manner, a trainer will try to compare his players. In international handball the cut-off date for Youth Championships is January 1st, so the players born in January until July are the oldest and they are often larger and faster than players born in December.

Physical tests and the performance of the players in test matches are used for comparison. It is well known that a player who is older, is usually further in his physical and mental development and will have an advantage in size, strength and majority and will more likely be selected for a Youth Champion. The comparisons where the decisions are based on, do not give always an indication for the real talent. If the players selected for a Youth Championship will get the opportunity to follow a better programme and have more advanced practice time, and play more international matches than the younger players, their skills will develop faster and the difference in performance grows. So with a cut-off date of January 1st players born in the first six months of the year are more likely to be in a national Junior Handball Team.

team	92(jan-jun)	92 (jul-dec)	93 (jan-jun)	93 (Jul,Dec)	94-95
AUT	5	2	3	2	4
CRO	5	5	3	3	1
DEN	6	6	2	1	1
ESP	9	2	1	4	0
FRA	5	2	6	3	0
GER	5	4	2	5	0
HUN	6	4	0	5	1
NED	5	7	2	0	2
NOO	4	5	3	4	0
POL	6	3	2	5	0
ROM	6	4	2	1	3
RUS	5	0	5	0	6
SLO	1	6	4	3	2
SRB	5	5	4	2	0
SWE	5	6	3	2	0
UKR	10	0	1	4	1
total	88	61	43	44	21

Table4: Day of birth in teams on ECH <19 for Girls born 1992 or later.

If we count the number of players born in January until June 1992 in the teams (88) (see Table 4) and compare this with the number of players born in July until December (61), we see a difference which confirms Verheyen's theory about an effect of day of birth also for handball. * *Off course the late natural (biologic) growing up by kids is here also a factor.*

If we compare the formations of the top teams over the four tournaments, we see that the number of younger players grows, see Table 2 and 4. Only ESP and NOR still have a lot of players born in 1992.

Results

Due to the present competition system at Championships, where teams take the result of a mutual match in the group phase into the main round or intermediate round, matches in the group phase can have a lot of influence on the final ranking of the tournament. This was one of the reasons why NOR and RUS did not reach the main round and SWE did not reach the semi-finals of this tournament (last column, Table 1).

The final teams DEN and NED

Denmark won this tournament, defeating the home team NED in a great ambience. The Rotterdam Topsport Centre was sold out and filled with 2100 spectators, which coloured the hall completely orange (*photo 4*).



Photo 4: Ambience in Rotterdam Topsport Centre, during final NED-DEN.

In the final Holland took the lead with 2-0 by starting with an aggressive 5-1 defense. After some attacks the Danish team used their supreme technical passing skills (long diagonal passes from the right back to the left wing and contra-passes from right back to right wing) to break this tactical move. They took over the lead and the Dutch team became uncertain and started to play more reactive in defense (they switched back to 6-0). In attack they created some good situations for scoring but their most experienced players (Abbingh, Malestein) failed in 1-1 situations after a breakthrough between the second defender and the wing defender against the excellent Danish goalkeeper Greve. In the second half when DEN was leading with 7 goals NED switched to a 4 + 2 defense taking the two shooters Burgaard and Andersen out. This gave a lot of space to wing player Woller to show her great qualities in 1-1 (7 goals). When the Danish team sometimes lost the ball there was always goalkeeper Greve to save DEN. She had an excellent performance (40%) in the final and was nominated as the best Danish player in that match. The Dutch goalkeeper Wester who played the second half, stopped two 7M's and was nominated as the best Dutch player. Wester (*photo 5*) with (7/14, 50%) was in the overall statistics the best 7M killer of the tournament .



Photo 5: Tess Wester Stopping a 7M of Burggaard in final NED-DEN.

The champion DENMARK

DEN was in all respects the best team of this championship. They won all their matches and scored in 7 matches 207 goals with an efficiency of 58%.

Their basic defence set up was 6-0. In the centre of the defence they had tall defenders and there was good blocking against shots from distance. Usually DEN used a single switch between attack and defence bringing in their defence specialist Bjerregaard. She was nominated as best defender of the tournament. She had 3 steals, 8 defence blocks and 18 attack interruptions. She defended in a very fair way, because she had overall only two 2M suspensions. Her efficiency in attack was only 22%.

They had two excellent goalkeepers (Greve/Clausen) who stopped a lot of shots in 1-1 situations from wing players and after break throughs.

In the turnover play DEN used the fast break by their wing players, they scored 29 goals from fast breaks (Table 8) which was less than NED (45) and SWE (39). Due to the exchange of players between defence and attack, DEN did not use so much the second wave or the fast throw off.

DEN had a very good organisation in the positional attack with a lot of variation in the tactical moves, with also throws from the wings when outnumbering the defence. The wing players (Woller/Pedersen) were technically well prepared. A lot of attacks started with left-handed shooter at the play maker position. This created a lot of tactical opportunities. They had very good distance shooters and scored a lot of goals from 9M (67) in the positional play, see Table 8. The 9M shots were usually tactically well prepared by crossings or transitions.

One of the movements in attack was the transition of the right back (without the ball) after a preliminary crossing of the LB with the LW. Single and double crossings were used to split the 6-0 defence. In the crossings Burgaard often played a pass in jump.

DEN also used the transition of a wing player to make a crossing with a back player at the opposite site.

The second place NETHERLANDS

For the first time in history NED won a silver medal at an international handball Championship. Reaching the final was already a great result for the team and a confirmation for the policy makers who started the HandbalAcademie and succeeded in getting two European Championships to the Netherlands.

Following the Dutch 'Handbalvisie' as described before, NED tried to play very fast handball. They used the fast throw off (4/6) most of all the teams. They also scored most fast breaks of all the teams (45/64). Not only the wings but also the PM (Polman) and the pivots (Van der Mast and Michielsen) were involved in the turnover play. Besides the fast break NED scored a lot of goals from the fast counter attack (second wave), before the defense of the opponent was organised.

The key player in the fast turnover handball of NED was Estavana Polman. She directed the attack play of NED and had to take the decisions. She also played always in defense. Usually Polman directly received the pass from the goalkeeper and carried out the transport of the ball from defense to attack. Some matches she was really in FLOW and showed a great variety of passing skills to the pivot and wing players. Following the Dutch 'Handbalvisie' as described before NED tried to play with a lot of *surprising actions* in attack. They only used some simple moves in a small group set-up with a lot of freedom for the players for individual solutions. This made the attack faster and shortened the preparation phase.

Polman made a lot of changes of position with Abbingh. Sometimes she started an attack as CB and sometimes as LB. With break-through actions Polman set a lot of pressure on the defenders creating space for the pivot or creating a gap for a shot by Abbingh or Van der Wiel between the wing and second defender. She even played Kempa passes (3/3) to the LW or to Abbingh.

In defence NED mostly played 6-0. In the centre of defense NED played with the flexible tall back players Van der Wiel and Abbingh. Sometimes Van der Wiel switched in attack or she only played in offence. In some matches NED switched to a 5-1 defense with Polman in front of the defense.

The bronze medal contest AUSTRIA

The bronze medal in the championship was won by the team of Austria. AUT only lost in the group phase of NED (27-35) after a surprising start in the first ten minutes of the match (7-5). The Most Valuable Player of the tournament Sonja Frey was captain of this team. Sonja Frey made her debut in the national A-team of AUT during the World Championship in China in December 2010 under Herbert Müller, the brother of the coach of the Juniors. In attack Sonja was the playmaker.

In defense Sonja Frey mostly played on the second left position of the 6-0 defense. She usually went out deeply in defense with the idea of intercepting balls (sometimes she took the

initiative to shift to a 5 -1 defense). Frey had following the Cum statistics 9 steals and 13 attack interruptions, but she had no defense blocks. Frey steered her opponents in the direction of her teammates Ivancok (182 cm) who had 7 blocks and Kaiser (181 cm) who had 19 defense blocks (*photo 6 and photo 12*).



Photo 6: Defensive block of AUT against Abbingh (NED).

In attack AUT played without a left-handed right back player. Julia Mauler was a right handed right wing player. By their way of playing AUT changed this disadvantage to an advantage by clever team tactics directed by Frey. They often played a transition from 3-3 to 4-2 by running in of the physical strong right back player Martina Goricanec or the right wing Julia Mauler.

In their attack play, the right handed back players used the space between the wing defender and the second defender for break throughs. In the match for the bronze medal right wing Julia Mauler scored 7 goals. The coach played almost all the matches with his basis team, see Table 3. Six players of AUT played more than 300 minutes during the tournament. All these players showed a great performance also in the last match for the bronze medal, so these players were in good physical and mental condition.

The fourth place team SERBIA

SRB lost the first match of GER (16-21) after a cold start (6-13). In the second match they defeated FRA in the second half (33-31, half time score 17-18). In the third match SRB had a suprising win over defending World Champion under 17 SWE (27-26, half time score 14-17). They showed a great fighting spirit, in the second half. The win over SWE gave them the points needed to reach the semi-finals. Finally SRB finished on the 4th place. Like AUT also SRB played with a basis team of 7 players who played more than 240 minutes in the

tournament, see Table 7. They played with one defense specialist Pavlovic to give rest to back player Filipovic. The back players Georgijev (38 goals) and Filipovic (37 goals) were very effective in break throughs and 9M shots (more than 50%). Also the first line players scored a lot of goals: the pivot Vasic (31 goals) and the left wing L. Popovic (30 goals) and right wing the left handed N. Popovic (22 goals). The defense of SRB was standard 6-0 and was greatly supported by an excellent goalkeeper Risošvic (51% stops for 9M shots), who was nominated in the ALL STAR team. She had a great role in the win over SWE.

In the 6-0 defense of Serbia the wing players were on the second position. Back player Filipovic was often substituted in defense or she was defending at the wing position.



Photo 7: cooperation in attack of SRB between CB Georgijev and PI Vasic against AUT.

In attack SRB (*photo 7*) was successful in the cooperation in small groups especially between the Centre Back (Georgijev) and the pivot (Vasic).

In attack like AUT- team SRB played with a right-handed right back player, but both Filipovic and Georgijev had a lot of break throughs. Both players have good knicked jump shots from the right back position. Besides these players had a lot of assists (23/25) both to the pivot and directly from the CB position to the LW or RW.

Following the CUM statistics SRB forced the most of 7M's (45) before AUT (43). This has to do with the fact that most teams who play in 6-0 leave the space open between the second defender and the wing defenders. They often close the space too late often standing in the goal area or the defenders push the attacker while shooting. The finalists DEN (22) and NED

(31) did not have so many chances to score from the 7M mark. SRB scored from the 7M mark 33 goals. DEN and NED both played with a left-handed right back player.

The 5-th place SWEDEN

Defending World Champion Women'17 Sweden (SWE) lost in the group phase the last match against the team of Serbia (SRB) after a lead of 14-11 at half time with 26-27 and this result made it almost impossible for them in the main round to reach the semi-finals. In the match against SRB the team lost their rhythm by some substitutions. The score changed from 16-15 to 17-20 for SRB. The Serbian team showed a great fighting and team spirit in the final phase of the match. SWE could not come back in the match. Later in the tournament SWE showed that they belong to the top in this age by reaching the 5th place. They defeated ROM with 30-20 (15-11). SWE had with Maria Adler (53 goals, 71%) the left back of the All Star Team on the field. In the main round they had a close loss against the later champion Denmark (25-26) after a lead of 13-12 at half time.

The play in attack and defense of SWE is schematic, based on physical tall and athletic players. From a stable defense in front of a good goalkeeper they scored a lot of fast break goals (39/54). Only Holland with 45/64 had more fast breaks. SWE is a team where almost all the players catch the ball with one hand. The wing players of SWE use this technical skill at full speed of running receiving a long pass from their goalkeeper.

SWE often brought in defense specialist Lagerquist (173 cm tall) for left or right back player, depending on the side of the bench. When Stromberg was on the centre back position, SWE played with 3 shooters in the second line.



Photo 8: left back Perianu (ROM) in match against RUS.

The 6-th place ROMENIA

ROM started the tournament with a tight match against RUS, which they won 26-25. In the second match they won against ESP by a robust 6-0 defense. In the third match of the group, they had problems in attack by the aggressive 4-2 defense of Slovenia, *see photo 11*.

In the main round ROM had the problem that their back player Perianu (*photo 8*) had an ankle injury. She was playing in the match against NED although she was injured. It were her last minutes playing time in the tournament. With her length she was an important player in the centre of the 6-0 defense of ROM and she was a good distance shooter in attack. ROM had with forty 2M most suspensions of all the teams, so they played a lot of time in minority.

During the tournament the ROM coaches did a lot of changes in the team on the court, they were not satisfied with the results and were always looking for a more effective formation. They consequently substituted players between attack and defense, *see photo 13*. In the match in the main round against NED, NED used these substitutions by playing a second wave through the centre.

In the attack ROM used crossing with and without ball. After a crossing of the CB with the LB, the LB immediately returned the ball to the CB who tried to break through in the space between the wing and the second defender.

ROM had tall pivots and the back players and the LW had a good cooperation with the pivot. They scored a lot of goals 58/89 from the 6M but ROM scored only 17/23 fast breaks.

The teams in the intermediate round

In the preliminary round the 5 best ranked teams of the 2009 Women'19 European Handball Championship Norway (NOR), Hungary (HUN), Russia (RUS), Germany (GER) and France (FRA) were already eliminated for the places 1-8. The reason for that surprise is difficult to analyse in general from outside the teams. It will differ of course for each individual team. We heard that the Norwegian team had injuries of key players before the tournament. They had won the preparation tournament in April in Leek against RUS and NED. In the second half of the second match against AUT, NOR also lost their Centre Back player Henriksen with a severe knee injury. Before the tournament NOR was one of the favourites, so their final ranking was far from that expected.

The Russian team started the tournament with in their squad 5 players born 1994 who also played the 2011 Women's YOUTH European Handball Championship in Czech and the European Youth Olympic Festival in Trabzon (TUR). For these young girls it was perhaps too heavy. They lost the match against Spain in the second half time (20-24) in the last 20 minutes after a red card (three times 2 minutes) for their key player Vedekhina (born 1994) (central defender and back player, who played 340 minutes this tournament and scored 32 goals). In the crucial part of the match in majority RUS missed two 7M's. This gave a feeling of FLOW to the Spanish team and especially goalkeeper Esteban (19/39 saves).

This positive feeling was amplified when the Spanish supporters started to generate a lot of noise in the hall to give their team the spirit to fight for the surprising victory over RUS. By this win ESP was qualified for the main round. RUS played with a very flexible 6-0 defense, with a lot of initiative of the defenders, *photo 9*. In attack they had tall back players who often

used fast running shots instead of jump shots. The efficiency of the RUS attack was with 59 %, higher than champion DEN.



Photo 9: Position defenders RUS in 6-0 against ESP, when ball is played from LB to CB.

GER who started with a win of 21-16 against SRB lost of SWE 25-27 and FRA 13-26. FRA in the group phase only had a win in their last match against GER. In this match the GER team had a lot of problems with scoring, due to a great performance of goalkeeper Glauser (56%), while the goalkeepers of GER (38%) were less effective.

Due to these eliminations in the preliminary round, the matches in the intermediate group were also of high level and very interesting. We can say there was a kind of tournament in the tournament for sportive revenge, but for these teams this could never result in a higher place than the 9th. RUS and FRA won all their matches in the intermediate round. RUS won against GER in the cross matches with 38-26 and FRA had in their cross match a close win against NOR with 20-19. Finally RUS won the placement match for place 9 against FRA with 29-23.

HUN and POL disappointed in results over the whole tournament. HUN had two top scorers in their team (Hornyak 42 goals (59%) and Klivinyi, 43 goals (52%)). HUN lost also their last match against POL with 27-23. Both teams had very tall left handed right back players but they moved relatively slow. This was perhaps a handicap in defending the turnover play of the other teams.

General qualitative analysis

The physical pillar

Handball is a physical sport and the result may be influenced by some physical parameters of the players. One of these parameters is length. Some countries (RUS, ROM) have a tradition to use length as one of the main aspects of player selection. In Holland this is not the case.

Height and weight characteristics

We did not calculate the average height and weight of the players. These physical parameters were the subject of a separate study by the University of Bratislava (SVK). We do not have these numbers available yet, we only know it for the teams who specified it on their teamlist. Because most teams used a 6-0 as their standard defense set-up dependent on their way of playing within this defense length was an important parameter especially for the defensive blocking.

The defense specialist of SWE (Lagerquist) who was an aggressive type, very fast on her feet was just 173 cm and 63 kg, while the defense specialist of ROM and DEN looked at least 10 cm taller (no exact numbers available). We will now mention some players at certain positions who had an extraordinary length.

Tall right back players in this Championship were Anouk van der Wiel (NED, 187 cm, 75 kg), Klaudia Wata (POL, 181 cm, 66 kg), Ewa Andrezejewska (POL, 180 cm, 68 kg), Anne Hubinger (GER, 185 cm, 78 kg), Planete Szimonetta (HUN, 193 cm, 74 kg), Anais Loznzieme (180 cm, 68 kg), Linnea Claesson (SWE, 180 cm, 74 kg).

Tall left back players in this Championship were Maria Adler (SWE, 183 cm, 86 kg), Protsenko (RUS, 182 cm, 68 kg), Evgenija Minevskaja (GER, 183 cm, 78 kg), Kristine Breistoel (NOR, 189 cm), Karla Ivancok (AUT, 182 cm), Lara Gonzalez Ortega (ESP, 183 cm).

Tall Pivot players were Stefanie Kaiser (AUT, 182 cm, 79 kg), Paula Garcia (ESP, 189 cm, 72 kg), Celina Bouchard (FRA, 186 cm, 76 kg), Fruzsina Palko (HUN, 180 cm, 72 kg), Mie-Sophie Sando (NOR, 182 cm), Elizaveta Krasnitskaya (RUS, 184 cm, 75 kg), Linn Blohm (SWE, 180 cm, 74 kg).

The Dutch pivots were relatively small (*photo 10*), but good runners. Sabrina van der Mast (NED, 168 cm, 75 kg), Celine Michielsen (NED, 174 cm, 68 kg). They scored 11 goals in the fast break.



Photo 10: small pivot Van der Mast (NED, no. 8) defending tall pivot Kaiser (AUT, no. 3).

We give here also the lengths of the goalkeepers which were specified on the delegation lists: Jovana Risovic (SRB, 171 cm), Oleksandra Krebs (UKR, 175 cm), Verona Flöck (AUT, 181 cm), aria Esteban Dorado (ESP, 168 cm), Veith (174 cm), Voigt (173 cm). Regina Hrankai (181 cm), Lariassa van Dorst (NED, 175 cm), Tess Wester (NED, 177 cm).

This tournament there were 4 teams with a twin in their squad: GER (Hummel), POL (Macza), SLO (Amon) and SWE (Larsson).

The tactical pillar

Organised defense systems

Almost all the teams had the 6-0 defense as primary defense formation. The 4 central defenders help each other and try to close and safe the space behind the defenders who step forward against passes to the pivot. A remarkable thing was that most teams played with defenders at the wings who did not help (or too late) the second defenders when there was a break-through. They often closed the space too lately often standing in the goal area or pushing the attacker while shooting. This led to a lot of 7M's decisions. We did not observe wing defenders who moved to the space in front of the four central defenders to prevent this outnumbering of the defense.

We observed the well-known two different variants of the 6-0 system. NOR, SWE, DEN used the Scandinavian 6-0. In this defense the centre defenders play offensive and the second defenders are more defensive and have to make the defense compact. This system was successfully introduced by the SWE men's team. NED, ESP, ROM, AUT, CRO, POL SRB played with offensive second defenders and tall players in the centre of the defense for

blocking, the traditional Russian 6-0 defense. The present RUS team played a 6-0 defense with a lot of initiative of the centre and second defenders to slow down the passing between the back players. They had most defensive blocks and attack interruptions of the tournament, see Table 5.

During the matches the defense set-up was sometimes changed to 5+1 when the team was lagging behind or in the case of majority play. NED and NOR switched between 6-0 and 5-1. In the final against DEN, NED used a 4+2 defense to try to break the Danish rhythm.

Team	steals	Defense blocks	Attack interruptions	% goal keeper
DEN	31	36	103	36%
NED	37	9	64	37%
AUT	21	29	60	38%
SRB	9	9	106	39%
RUS	34	40	127	35%

Table 5: results in defense by top 4 and RUS WECH19_2011.

SLO was the only team who started their matches with different defense systems against different opponents (they started with a 6-0 against ESP, used a 5-1 against RUS, they defeated ROM and UKR(placement match for the 15th place) with a 4-2 defense.



Photo 11: 4-2 defense SLO against ROM.

The coach of Austria put the playmaker (Sonja Frey) on the second position left or right of the 6-0 defense. Frey seemed to play in defense with the intention of snatching balls (sometimes she took the initiative to shift to a 5 -1 defense. Frey had following the Cumulative statistics 9 steals and 13 attack interruptions, but no defense blocks. Frey steered her opponents in defense in the direction of the centre of the defense with her tall teammates Ivancok (182 cm) who had 7 blocks and Kaiser (181 cm) who had 19 defensive blocks.



Photo 12: 6-0 defense AUT against NOR, Frey (nr. 5) disturbing the attack play NOR

In the 6-0 defense of NED the playmaker Estavana Polman also played on the second position left in defense. Following the Cumulative statistics she had 6 steals and 8 attack interruptions, but also 4 defensive blocks. Problem for Estavana was that defenders in the centre besides her Abbingh (176 cm) only had 3 defensive blocks and Van de Wiel (187 cm) following the statistics only had 1 defensive block. Due to their physical strength, Polman and Frey were both not able to win always 1 on 1 situations. Frey (395 minutes) and Polman (342 minutes) were key players in the turnover play of their teams, therefore they had to stay on the court also in defense, so they could start the fast break with every turnover immediately. They both used often dribbling to cross the field in the second wave. Their greatest quality is that they are able while they are running at full speed, to take very fast decisions. Both players have a very good acceleration, which makes it so difficult to defend them.

Performance goalkeepers

The effectiveness of the goalkeepers is usually a crucial factor for the final result of the team. Nowadays with the high speed of the matches and a lot of goals, it is crucial to have two equivalently good goalkeepers. In the final against DEN, NED used two goalkeepers in the first half (Van Dorst) and second half (Wester), DEN only used Greve in the final.

If we look at the cumulative statistics for the goal keepers of this championship it looks as if the influence of the goal keeper on the final result in the tournament was not so great. Eliaz reports for the WECH19_2009 an effectiveness of more than 40% for the best teams. The only goalkeeper with an effectiveness of more than 40 % in this tournament was Toemmerbakke of NOR. She had a much better performance than all the other goalkeepers, but NOR ended on a disappointing 12th place. The percentage of the goalkeeper of the team on the 16th place UKR is the same as that of the champion DEN, see table 4. All the team had good goalkeepers, only the goalkeepers of CRO (27%) and HUN (28%) scored under the 30%.

In this case statistics are again misleading. The crucial last matches in the preliminary round RUS-SPA, FRA-GER and SWE-SRB were all greatly decided by the performance of the goalkeepers. The efficiency of the goalkeepers of the winning teams in these matches was much higher than their overall efficiency (Esteban-SPA (49% /overall 36%), Glauser-FRA (56%, overall 36%) and Jeremic-SRB (50%, overall 39%)). This was also the case for the final Greve-DEN (40%, overall 36%).

TEAM	SAVES / SHOTS	%
AUT	111/294	38
DEN	89/254	35
NED	111/301	37
SRB	97/305	32
NOR	129/299	43
UKR	103/295	35

Table 6: Comparison of the overall efficiency of the goalkeepers WECH19_2011
Girls born 1992 or later.

Organised attack systems

Table 6 shows the efficiency of the organised attack play for the 16 teams. SWE and RUS had a better efficiency in attack than the finalists DEN and NED. This shows again that there may be a difference between the statistics and the final result of a tournament: you become champion by winning the matches. DEN won all their matches during this tournament and NED only lost the final.

TEAM	SHOTS	GOALS	%
DEN	355	207	58
NED	410	237	58
AUT	346	184	52
SRB	357	192	54

SWE	328	197	60
ROM	298	167	56
CRO	356	178	50
ESP	294	166	56
RUS	346	204	59
FRA	334	184	55
GER	309	163	53
NOR	327	158	48
POL	339	175	52
HUN	336	180	54
SLO	316	155	49
UKR	314	146	46

Table 7: Efficiency in attack WECH19_2011.

We analysed the cumulative statistics for the attack in a lot of aspects, especially the effectiveness in all types of shots, particularly from 9 and 6 meters and the wing position, together with the 7M shots, see Table 8.

AUT and SRB played without a tall left-handed right back player, but had a successful playing strategy in forcing a lot of 7M goals by using the free space between the wing defender and the second defender of the 6-0 defense of their opponent, after simple tactical moves.

TEAM	wings	FB	9M-shots	6M-shots	7M's
DEN	35/63	29/38	67/143	44/68	17/22
NED	11/19	45/64	51/119	89/154	24/31
AUT	6/11	25/39	40/110	75/129	29/43
SRB	35/71	11/17	40/109	64/105	33/45
SWE	10/25	39/54	60/136	50/67	22/28
RUS	15/39	28/35	83/155	52/77	20/33

Table 8: Cum statistics goals /shots for different situations, top 4 teams and RUS and SWE.

We see that DEN and SRB due to their excellent wing players scored a lot of goals from the wings (Woller/Popovic). The wing players also score most of the fast breaks. For NED and AUT also the centre backs (Frey and Polman) score a lot of fast breaks. For NED the pivots Michielsen and Van der Mast are good runners, also playing in defence and involved in the fast break. DEN brings the pivot often after substitution of the defence specialist Bjerregaard, who had a bad efficiency in attack (22%).

Most teams use the same tactical elements against the defence system 6-0. A very frequently used concept was the crossing between the CB and the wing player creating a dynamic movement of the LB or RB for shooting. Sometimes the shooter made a crossing with the back at the other side or with the wing.

Most teams preferred short and long crossing above playing with the pivot in the space between the defenders. Exceptions were the teams of DEN (Burgaard 25 assists), NED (PM Polman had 76 assists which was three times so much as the other players) ESP (PM

Fernandez) and SRB (PM Georgijev) who all showed a great cooperation with the players at the 6M line.

Playmakers dominate tournament.

In our observation this championship was dominated by the rule of the centre back players (Playmakers). In the top 40 of goal scorers there are a lot playmakers. On the second place is Sonja Frey, the centre back of AUT with 63 goals (61 %), on the 15th place Georgijev the centre back of SRB with 39 goals (54%) and on the 18th place are Polman the centre back of NED (52%) and Metelska the center back of UKR (49%) with 34 goals (52%). One of the most dynamic center back players was Fernandez (ESP), she scored 26 goals (70%).

Champion DEN did not really play with a playmaker as centre back . Mostly the left-handed shooters Burgaard and Kristensen started the attack at the centre back position. A lefthanded centre back offers a lot tactical variations, especially in combination with a lefthanded RB and RW.

For most of the teams it was not the tournament of the wing players. Only the left wings of DEN Woller, 32 goals (70%) and SRB Popovic 30 goals (58%) and the right wing of NED Malestein 31 goals (55%) are in the top 40 of goalscorers. If we look at the team statistics of the top 4 teams.

Following Prokajac (2009), one of the consequences of modern handball is that the game gets faster and this results very often in a bigger number of goals. The number of scored goals has become a quality criteria and the proof of following modern tendencies. NED scored in all three group matches at least 30 goals. In the main round they scored 39 goals against ROM, but only 29 goals against ESP. In the semifinal the result against SRB was 42-33 after a score of 18-17 at half time. DEN scored in two group matches 30 goals. In the main round they scored 31 goals against SRB and 26 goals in the key match against SWE (26-25). In the semi-final the result against AUT was 29-17. From the other teams RUS also scored in 7 matches 3 times at least 30 goals. In the final between NED and DEN there was less high speed handball of both sides and that resulted in a 29-27 score.

Substitutions between attack and defence

In our observation most teams used in certain phases of the matches substitutions (defence/attack). It was always a smart substitution to use the different quality of the players. DEN, SWE and FRA changed their relatively small centre back (playmaker) for a taller centre defender in the 6-0 defensive block. DEN had with Bjerregaard a defence specialist, who had 8 defensive blocks, 3 steals and 18 attack interruptions. The defence specialist of SWE Lagerquist had 2 defensive blocks, 2 steals but 66 attack interruptions, with only three 2M suspensions. SWE, SRB and SLO mostly changed one back player to bring on the court their defence specialist.



Photo 13: Substitution players ROM after goal SLO.

ROM always tried to change 2 players between attack and defence. This sometimes led to chaotic situations in the centre of the defence when defending the counter attack. NED made successfully use of this situation with their high speed handball in the main round. As a consequence ROM did not use Fast Throw Off.

The technical pillar

Catching of the ball

Neukun (2009) wrote in his analysis that the Scandinavian teams (NOR, SWE, DEN) catch the ball with only one hand and pass or shoot as soon as possible. This technical skill of catching a ball at full speed of running receiving a long pass from the goalkeeper with one hand is observed for most of the teams in this tournament. In the organised attack also the pivots of most team catch the ball with one hand.

The left wings of DEN Woller, and SRB Popovic and the right wing of NED Malestein showed that they are also able to give a spin shot. In this respect we were surprised by a young very fast left wing player of SWE (Sand), 5 goals of 12 shots. She impressed with a lot of trick shots. Her efficiency was not so high and she played 40 minutes this tournament.



Photo 14: Danish right wing Pedersen catching the ball with one hand.

The social pillar

Handball is a team sport and that means a lot of interactions between people under great pressure. The result of a team, especially women will largely be influenced by the coherence in the group. Of great influence on the coherence in a group is the leader of the group and his style of directing. In handball that is usually the trainer-coach. Besides knowledge of the handball sport, a trainer-coach also needs to have knowledge about the interactions between human beings. In Holland a popular approach is the use of a typology of people based on motorical and brain characteristics. An example is the use of the so-called ACTION TYPE (Myers-Briggs). Very important for a group is the style of coaching.

Styles of coaching

In this tournament we saw different styles of coaching. Firstly the reactive coaches, who confronted their players with their mistakes and sometimes they immediately made a substitution after a missed action/shot. Their way of communication seems to be related with the authoritarian coach style, where the coach makes (during the game) all the decisions without input from his players.

The second group of coaches were more quietly and more focussed on the playing strategy. They gave their players a lot responsibility during the games. Helped where necessary, let the players talk during the time-outs. So, the more empowered coaches.

The third group of coaches had a mixed style, sometimes emotional, but also focussed on the match, but always with positive energy to their teams. They prepare their players in a tactical meeting before the match and give the players a lot of responsibility. Players are substituted to give them rest, or to do a tactical substitution in defence. Players are involved in the decision-making process. This way of coaching fits the 'Nederlandse Handbalvisie', because it helps the young players to develop their thinking skills. It also is a part of our culture, for example our vision of teaching is based on the same ideas.



Photo 15: Coach. of SRB sitting, while coach AUT is standing

In our opinion it is impossible for a sportsman to reach the mood state of FLOW (Csikszentmihalyi, 1997), when the first approach is used to communicate with these young female players. In the mood state of FLOW (you can usually see it in the faces of the players) they react faster and do not have to think about their actions, because they are completely focussed on their task. During this tournament the players of NED in some phases of the matches seemed to have reached this mood state for some minutes (the goalkeepers held 100% open chances of the opponent and the centre Back Estavana Polman played successfully at full speed the most trick full passes to their teammates) and that was enough to break their opponent. On the opposite you saw some teams mentally break down, obviously due to the negative stimulation (chaotic substitutions) by their coaches. It is in our opinion impossible to reach the mood state of FLOW if you are substituted after every mistake.

We realise that you have to act out of your own beliefs, values and cultural aspects. So it is not a right or wrong.

The coaches of SLO were the youngest of the tournament, only 32 years old. On the other side there were also the experienced coaches of RUS, ROM and UKR, who were older than 60 years. Traditionally these countries have a culture with an authoritarian coach style. This coach style brought these countries a lot of success in international handball, because the teams were always focussed and there was a clear direction how to develop.

On the final party to end the tournament all the girls were dancing and jumping together on the same music, you could watch that there is no difference in the interests of the youth all over Europe.

Fair-play

The performance of the referees was good. They were consequent. For holding or pushing of opponents there was always progressive punishment applied. The EHF spent a lot of effort in educating the referees using video material.

For the promotion of handball it is important that the effectiveness and creativity in the sport is based on fair play and Handball is a sport with physical contact, but it is important that the defenders are able to check the attackers in a correct way, by technical correct defensive movements. Situations that can lead to injuries should be avoided. In watching the matches one could see the number of defensive faults from the side and from behind have been reduced. We were glad to see that there were no faults against wing players after they jumped into the goal area or against players in the fast break. There was only one exclusion with a direct red card (UKR). Also there was correct behaviour to the referees after a suspension, so the tournament ended without 2+2-minute suspensions.

Some coaches were too emotional in direction of the referees and had to be warned by the EHF-observer with a yellow card. All coaches stopped their complaining after this official warning. The greatest problem for the EHF-observers was that sometimes two coaches of the same team were standing and coaching in the substitution area.

If we make an order of fair play of the teams based on the number of 2 Minute suspensions, we see that DEN was not only the champion of this WECH19_2011 but with only 13 suspensions the team had the best score in fairplay too. ROM had with 40 times 2M suspensions most suspensions of all teams. The player with most 2 minute suspensions was Krsnik (CRO) (9).

The mental pillar

Effect of age

If we look to the most games, the mental conditions showed by the players belongs to the age group of this championship. The behaviour we saw varied from extremely stress-full till relaxed. From fighting till accepting the loss of a situation or match. In the matches it happened sometimes that teams (players) started great, went down in their mental status during the match, and came back in the match on the end. Of course there was a big difference between the personalities of the individual players, most teams had the typical fighters in combination with the helpers and builders.

If we look to the participating teams champion DEN looked very stable. They played their matches step by step always calm and with trust in the final result. This brought them to the final. DEN used their experience in playing and winning Championship-finals.

During this championship the Dutch team looked sometimes in FLOW, this helped them to reach a high level of playing very fast handball.

ALL STAR TEAM WOMEN's 19 EURO 2011



Photo 16: All Star Team, European Championship Women under 19, 2011

Goalkeeper (GK)	: Jovana Risosvic (SRB)
Left Wing (LW)	: Fie Woller (DEN, 15)
Left Back (LB)	: Maria Adler (SWE)
Center Back (CB-Playmaker):	Estavana Polman (NED)
Right Back (RB)	: Louise Burgaard (DEN, 19)
Right Wing (RW)	: Angela Malestein (NED)
Line Player (LP)	: Katarina Jezic (CRO)

Best Defense Player	: Mathilde Bjerregaard (DEN, 24)
Most Valuable Player	: Sonja Frey (AUT)
Top Scorer	: Lois Abbingh (NED) 65 goals

Conclusions

- All teams use 6-0 as primary defence set-up. We see two different variants. NOR, SWE, DEN use the Scandinavian style, successfully introduced by the SWE men's team and SPA, NED, ROM, AUT, CRO, POL SRB play with offensive second defenders, the traditional Russian one. During the game the defence was changed when the team was lagging behind or the team played in majority.
- In the 6-0 defence formation the 4 central defenders help each other and try to close the space behind the defenders who step forward against passes to the pivot. Most teams played with defenders at the wings who did not help (or too late) the second defenders when there was a break-through. They often closed the space too late often standing in the goal area or pushing the attacker while shooting. This led to a lot of 7M's decisions.
- AUT and SRB were successful in this tournament without a tall left-handed right back player. They had a successful playing strategy in forcing a lot of break through and 7M goals by using the free space between the wing defender and the second defender in the 6-0 defence, after simple tactical moves.
- In this tournament there were only a few teams (NED, DEN, NOR) who played consequently high speed handball. All teams used the break out after an attack interruption. But only a few teams play with a second wave and use the fast throw off. One of the reasons is that most of the teams want to change a player between attack and defence.
- Most of the teams use the same moves against a 6-0 defence. These moves are only a dynamic start of an attack. After the change of positions there is a continuity in the play with pressure on the defenders before the final pass or shot.
- An interesting phenomenon was that in all the matches we observed jump shots of the back players, while they were heavily hindered by their direct opponent, which led to shots which could be handled very fast by the goalkeeper and led to a perfect fast break of the opponent. The attackers were not able to control their body and keep the ball in their team.
- During a 7M throw all the teammates of the thrower go back to defence. Most of the teams do not have attackers at the 9M to catch the ball when it bounces from the post or goalkeeper back into the field. We think it has to do with the fear for a Fast Throw Off by the defence. The only attacker who can handle the rebound is the thrower himself. Usually it is also the thrower who has the best timing on the ball bouncing back. Only in the case the ball bounces back from the post the ball sometimes bounces to the sides of the goal area.



Photo 17: Position teammates of 7M-thrower SWE

- Both RUS (59%) and SWE (60%) had the highest efficiency in attack. Even a little bit higher than the finalists DEN and NED (58%). For the teams of RUS (against ESP) and SWE (against SRB) the final ranking was determined by 5 bad minutes in the preliminary round. This shows again that handball is a complex sport, where the final ranking depends on a lot of conditions.
- Although the CUM Statistics of the goalkeepers of this tournament are not so impressive, the winner of some matches with surprising result was completely determined by the performance of the goalkeeper. The goalkeepers of NOR had the highest efficiency but in the final ranking NOR, who started as one favourites of this tournament, ended on a disappointing 12th place.
- Only a few teams (GER, RUS) use sometimes tactical moves after a free throw. All the teams use a tactical move when they have free throw with the pressure of passive play. Most of the teams then use a screen by the pivot and second attacker, followed by a crossing without ball of two back players. The wing players already start running back.
- DEN did not only win the tournament with technical and tactical excellent attack play. Their handball is also based on fair play. DEN had the least number of 2 M suspensions of all the teams.
- Elias (2009) concludes about the characteristics of the teams ranked places 1-8 in the WECH17_2009 that successful teams should have a tall left-handed back player. In this tournament AUT and SRB did not use a left-handed back player, but their right-

handed back players used the space between the wing defender and the second defender to break through. They forced in this way a lot of 7M throws. Both the teams of POL and HUN had a tall left-handed back player with a strong throw from the distance, but these teams were not very succesfully. In this tournament also the teams of SWE, NOR, RUS and GER with tall and physically efficient players did not reach the top 4.

- We did not see new elements in the organised attack play. Globally speaking, you see that the different teams use very much similar concepts against 6-0, sometimes with small adaptations to profit optimally from the qualities of individual players.
- We did not find new ideas regarding majority and minority play. Most of the teams use in minority a transition of the opposite wing or the transition of the CB. In majority most teams start the attack by widening the defense.
- In this tournament most teams did not use a transition of the wing player as move against 6-0 defence. May be this was caused by fear for the fast turnover play of most of the teams.

Analysis team

This analysis is written by 4 Dutch handball trainers, who worked together in the past with national men's team. We wrote this analysis with an Orange look and we do not restrict ourselves just to describing statistical data and tactical systems. This has to do with the Dutch handball philosophy, the so-called '*Handbalvisie*' (Dutch idea on playing and training handball).



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Positions

Goalkeeper (GK), Left wing (LW), Left back (LB), Center back (CB), Right back (RB), Line player (LP).

Summary

Handball at this tournament was completely in line with the positive international trend that women's handball is a fast and dynamic teamsport. In our observation a lot of the matches were even near the adult international level. A few of the players in the ALL STAR team are already playing there.



Photo 18: DEN celebrating the gold medal of European Championship under 19, 2011

The tournament was nicely organized due to the work of a lot of volunteers. We want to thank the organizers, the teams and everybody who supported this event to help it succeed.

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