## HOW "HOME GROWN EFFICIENCY INDEX" COULD ADD VALUE TO THE RECENT ITALIAN ROSTER FORMATS REFORM

This essay is focused on the target of adding value to Italian basketball, creating a statistical tool to evaluate the growth of "home grown" players and incentivising the development of young talents by Italian small teams.

My sources of inspiration for this project are the German League *"home grown players"* model and the Australian *"player value system"*.

According to the German rule, it is possible for every team to choose among different roster formats: in the Beko BBL League, every team needs at least four German players, if the team is made up by 10 people. The number of German players needed increases up to 5, if the Club has a 11-men roster, and up to 6, if the team chooses a 12-men roster.

For the "6+6" format the German league has introduced an intriguing rule: every foreign player who has played for five consecutive years for a German Club, including at least three years in the youth leagues, will be qualified as a German player. This rule has its roots into multicultural German social connecting tissue and represents a strong incentive for both the players and the teams. The first ones are motivated to reach the a "home grown" status that they will retain even if they move to a foreign country, the second ones are prized for their work with foreign youngsters with the possibility to make them count as German.

The recent Italian roster format reformation, put into effect by federal council's resolution n.25/2018, takes inspiration from this German rule and gives to Italian teams the opportunity to choose between two roster formats: "5+5" and "6+6". In this way every Italian team needs at least five "home grown" players, and if there are some teams that want to sign six not "home grown" players, those teams will need a sixth "home grown" talent and, therefore, they will also pay a 40.000€ additional tax.

In our country, a player is considered "home grown" when he has played at least four seasons in the youth leagues. This means that the most of the "home grown" players will be Italian born.

This rule has the clear intents to encourage the growth of young Italian talents and to discourage the choice of foreign players: the most of Italian teams can't afford the 40.000€ additive tax, so they will try to reach their goals using the "5+5" format.

**The idea is very good but falls into a contradiction:** the richest teams could easily afford the payment of the additive tax and the salary of six foreign players, relegating the "home grown" players to a marginal role.

In this way the effort of the smallest teams in developing Italian talent is not supported by the whole movement. In this scenario, in a very short time we'll see Clubs trying to escape this rule, for example signing cheap not "home grown" players that could decrease our League's average level.

I found interesting the Australian way to solve this problem: the *player value system* is a coefficient assigned by a Contract Review Committee that frames players' values in the league. This tool blocks the "stockpiling of talent" on the benches of NBL's best teams, redistributing the talent among League's teams.

The Italian League couldn't afford the introduction of a gear that redistributes directly talents, but Serie A could treat itself to a mechanism that prizes teams that endorse the growth of young talents. **How?** Introducing two implements connected to each other: -The first one is a statistical tool to evaluate the "home grown player development" and reward the teams who accomplish the best results with "home grown players". I was inspired by "player value system" but, differently to this one, my index is not going to be determined by a committee, it's going to be all data-based. I called it "**Home Grown Efficiency Index"** (HGEI).

-The second one is a **"Mutual Fund for the Home Grown Development"** created by summation of the additive taxes, paid basically by the teams that select "6+6" format. All the money in that common fund will be divided proportionally among the four teams scoring the best HGEI value at the end of every year. If a team chooses the "6+6" format for several straight years, the amount of its additive tax will be increased of 5000€ every year. Furthermore, those Clubs are sidelined by the redistribution of their money. Briefly: a team that picks the 6 foreign-player-format for several years pays more taxes and it is excluded from the possibility to receive an incentive for "home grown" players.

For example: Team "A" chooses the "6+6" format for 4 consecutive years.

Team "A" is going to pay an additive tax of 60.000€. Those money will go to the mutual fund and "Team A" is automatically excluded by the redistribution of the fund.

## Now I'm going to explain how these two elements could work together.

The "Home Grown Efficiency Index" can be calculated in a very simple way: it's a coefficient, made of the amount of some selected statistical voices, that will be assigned to every Italian League team, dependently to the performances of their "home grown" players.

**How does it work?** Several statistical categories are selected and put together in a new analytic model. Not just points, rebounds and other common stats will be taken in consideration: advanced categories will make part of the coefficient and could (eventually) be evaluated more than common stats.

Let's think about advanced stats like *"win shares"* and *"real plus minus":* those analytics, not so common in Italy, are very important to have a picture of the real impact of a player on the games he plays. Introducing a coefficient that uses advanced categories like those to estimate the value of a player for his team could help both the study of the evolution of young talents and the developing of advanced statistical models in our country. In the following table I created there's a small example of how "home grown efficiency index" can be calculated.

Keys for the table:

HG=Home Grown

Real +/- = Real plus minus

Avg=Average

HGEI= Home Grown efficiency index

	Avg Pts	Avg total Rebs	Avg ast	Avg Real +/-	Win Shares	HGEI total
HG Player 1	10.0	3.2	4.4	+3.4	0.9	21.9
HG Player 2	12.4	4.3	2.6	-2.6	2.1	18.8
HG Player 3	7.2	5.0	3.7	+4.3	0.2	20.4
HG Player 4	8.8	2.5	3.2	-4.6	0.9	10.8
HG	13.6	5.7	1.8	+7.3	3.2	31.6

Player 5						
HG	52.0	20.7	15.7	+7.8	7.3	103.5
Team						100.0
Total						

The table shows a very exemplificative version of HGEI: the stats used in the index could be easily modified, adding other statistical categories or giving different values to every stat.

If a stat is considered particularly important to identify the impact of the players, the value of that stat could be increased. In the same way, the value of a stat could be decreased if that category is considered less important.

**Example:** in the table below there are the same team stats but the importance of real plus minus and win shares is doubled.

	Avg Pts	Avg total Rebs	Avg ast	Avg Real +/- (x2)	Win Shares (x2)	HGEI total
HG Team Total	52.0	20.7	15.7	+(7.8 x 2)= 15.6	(7.3 x 2)= 14.6	118.6

Why do we need a statistical tool to evaluate "home grown players" development? Because stats and analytics are the basically maths: we can take them for facts. And we need the factual truth to give an economic prize to some teams. *That leads us to the second point of this essay.* 

At the end of the year, the four teams that have reached the the best value of its "home grown efficiency index" will receive a prize, consisting in part of the money from the "Mutual Fund for the Home Grown Development".

The money will be divided proportionally to the HGEI every team has reached. The best team will receive the 40% of the whole mutual fund, the second team will receive the 30% of the fund, the third will have the 20% and the fourth will have the 10% of it.

If, at the end of the year, two teams have the same HGEI rating, the major amount of money will be given to the team that has reached the best average HGEI rating in the past three seasons. (This criterion could be considered very similar to the one used to determine which team deserves more chances to get a better pick in the NBA Draft between two team with the same record.)

**Why four teams?** Because Italian League is made of sixteen teams. Exactly the 25% of the teams will be prized. That will make the whole League try to accomplish a good result in HGEI standings.

In this way, no team will be forced to choose a specific format: the richest teams could keep signing strong foreign players paying additional taxes, but the Clubs that will focus their energy on the development of the "home grown" players will be rewarded.

The goal is clear: develop young talent and improve the level of the foreign players playing in the Italian League. If Italian executives are stimulated to choose a format that makes them focus on young "home grown talent" and forces them to select carefully foreign players, all the movement will restart its growth.

The great coach John Wooden once said: "Winning takes talent, repeating takes character."

This project is not only about creating a single winning generation of home grown players. The aim of this project is to create a new school of thought that will remain for a long time: the objective is to make every single executive and every single coach in the Italian League bet on home grown talents for generations. And betting on young talent takes character.

Rocco Jacopo Gramegna