

Futbol Club Barcelona

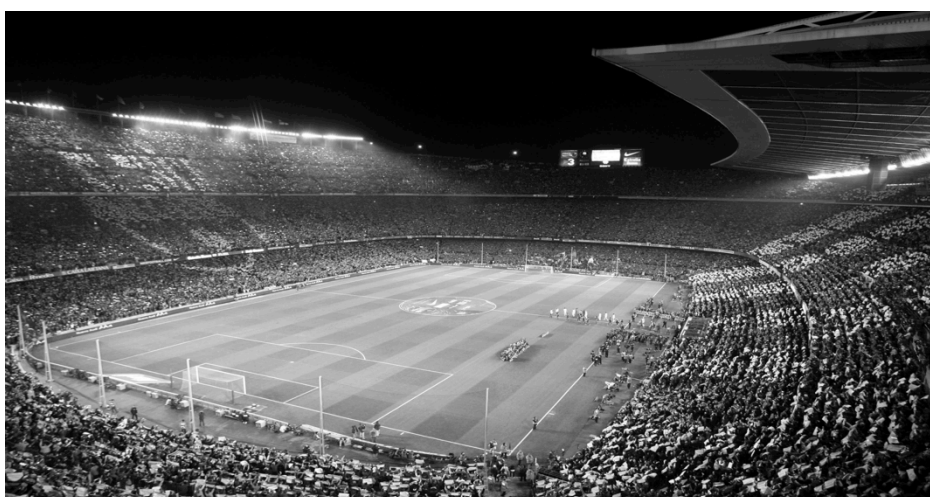
Winning Strategies

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Mes que un Club.....(not just football?)



2013-2014 CENSUS SUMMARY



SECTIONS	ATHLETES	PERSONNEL	TOTAL	CATEGORIES	TEAMS
1. ATHLETICS	210	7	217	18	18
2. BASKETBALL	170	37	207	14	16
3. WHEELCHAIR BASKETBALL	13	4	17	1	1
3. BASEBALL	107	16	123	6	7
4. FOOTBALL	283	42	325	12	17
5. LADIES FOOTBALL	75	17	92	4	4
6. FUTSAL (indoor football)	146	36	182	6	12
7. HANDBALL	80	27	107	3	5
8. ICE HOCKEY	130	7	137	6	6
9. FIELD HOCKEY	95	10	105	6	6
10. ROLLER HOCKEY	36	15	51	4	5
11. FIGURE SKATING & ICE DANCE	79	7	86	8	7
12. RUGBY	206	20	226	7	8
13. VOLLEYBALL	59	9	68	4	4
14. BARCELONA VOLLEYBALL CLUB	24	-	24	2	2
	1713	254	1967	101	118

More than 4,000 matches a year.

FINANCIAL DATA (Med Dept.)



2013/2014 BUDGET..... 6.8200.000 Euros

90% Expenditure on services and wages

Human Resources:

Structural

20 Physicians (Sports Medicine, Traumatology, Cardiology, Nutritionist).

26 Physiotherapists/Qualified nurses (Nursing, Osteopathy).

2 Podiatrist (Foot biomechanics)

Youth football physiotherapists (matches)... 16/20

Services

HR – Match days at Camp Nou ... 17/30

HR – Weekend coverage... 20/25 matches

ASSISTENCIAL CARE DATA



- MEDICAL CENTER VISITS 6.740
- PREPARTICIPATION EXAMS 1.641
- SURGICAL INTERVENTIONS 32
- PHYSIOTHERAPY SESSIONS 57.755

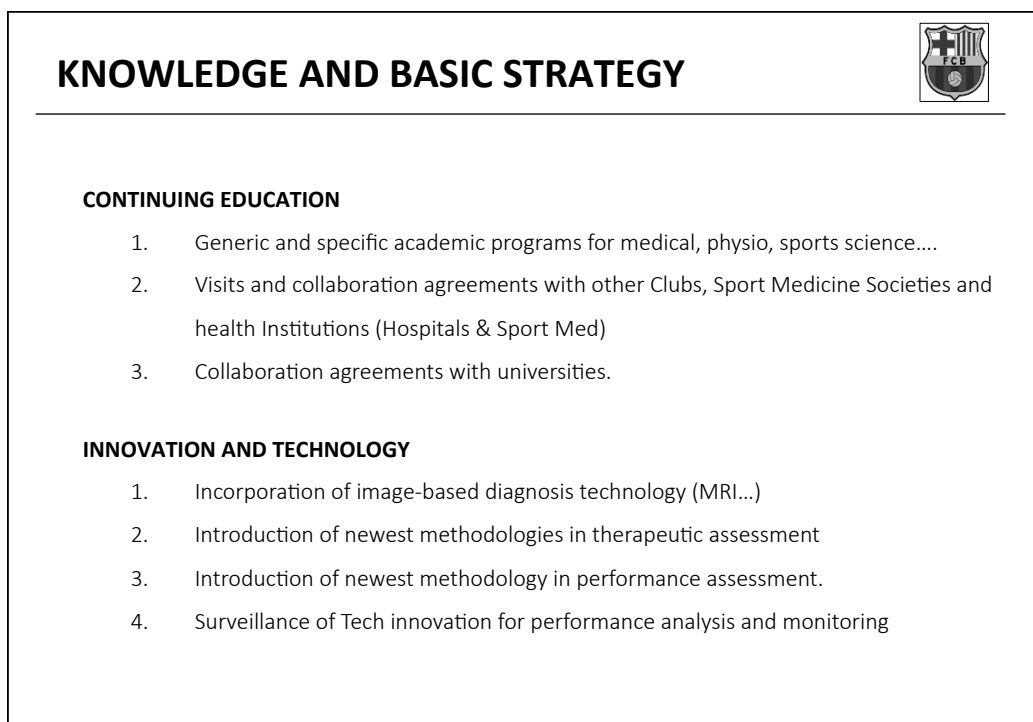
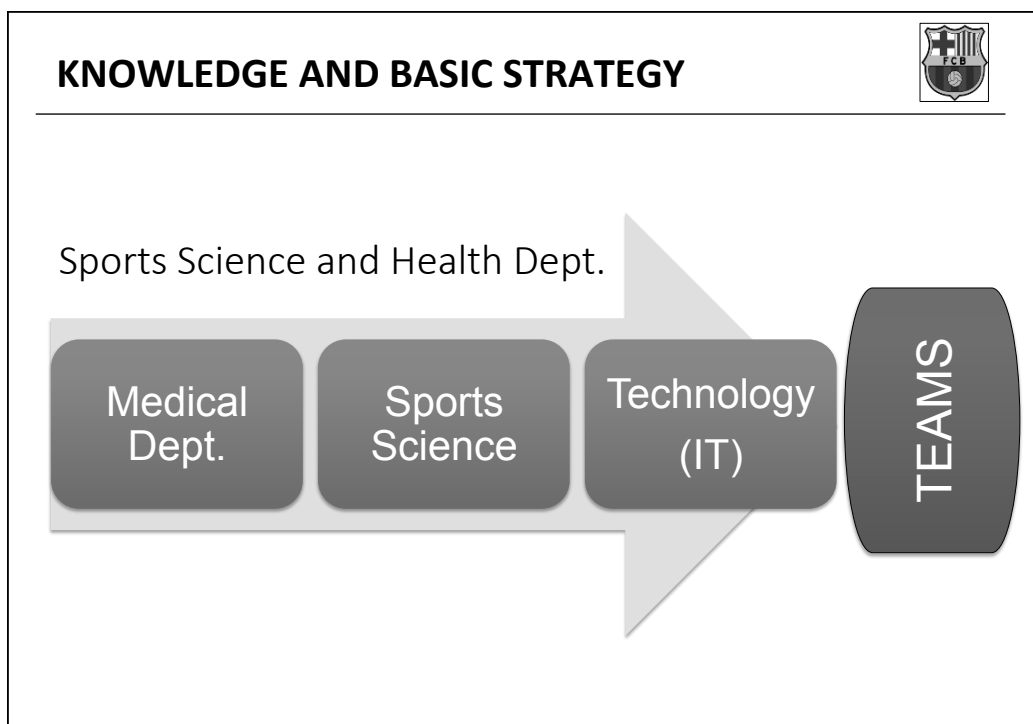
FIFA CERTIFICATION 2012



FIFA Medical Centres of Excellence



- | | | | | | |
|------------------|-----------------|-----------------|---------------|--------------------|--------------|
| Zurich '05 | Doha '08 | Durham '10 | Stockholm '10 | Clairefontaine '12 | New York '13 |
| Auckland '07 | Oslo '08 | Guadalajara '10 | Cardiff '12 | Istanbul '12 | Tokyo '13 |
| Johannesburg '07 | Regensburg '08 | Prague '10 | Bangkok '12 | Pachuca '12 | |
| Kawasaki '07 | Bologna '09 | Zest '10 | Melbourne '12 | Porto '12 | |
| Munich '07 | Saarbrücken '09 | Brage '10 | Lyon '12 | Innsbruck '13 | |
| Santa Monica '07 | Sao Paulo '09 | Budapest '10 | Barcelona '12 | London '13 | |
| Cape Town '08 | Algiers '10 | Rome '10 | Brasilia '12 | Murcia '13 | |

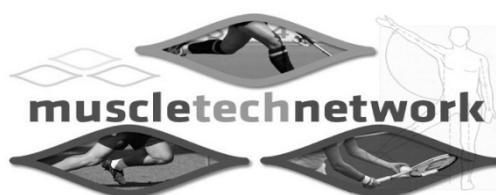


KNOWLEDGE AND BASIC STRATEGY



RESEARCH: MUSCLE –TECH NETWORK

- Foster Knowledge of muscles and tendons
 - Participating bodies.(FCB, Consell Català de l'Esport, Leitat, Fund Messi)
 - 32 projects.
 - 7 international workshops organized: www.muscletechnetwork.org



KNOWLEDGE AND BASIC STRATEGY



RESEARCH: MUSCLE –TECH NETWORK

- 32 projects.
 - 11 externally financed.
 - Areas of study:
 - Epidemiology and Injury Monitoring .
 - Injury Prevention and Return to play.
 - Training Loads monitoring.
 - New technologies.
 - Cardiology.
 - Body composition: nutrition and maturation



WHERE ARE WE RIGHT NOW?



“SOCIETY OF KNOWLEDGE”

- It must BE a CULTURAL change NOT a TECHNOLOGICAL change.
- Learning (science/data) is not enough, goal is to add value.



Conocimiento, Organizacion y Rendimiento



SPORTS SCIENCE AND HEALTH DEPT.

BIG DATA IS LIKE TEENAGE SEX.....



Everyone talks about it.....

Nobody really knows how to do it.....

Everyone thinks everyone else is doing it....

So everyone claims they are doing it!

Dan Ariely



Big Data vs. Data Science

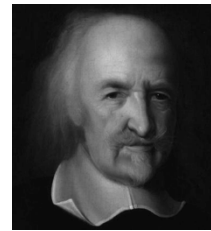
...AGE OF TECHNOLOGY, OCCAM'S RAZOR STILL APPLIES



- English Franciscan friar (1280-1349)
- Law of parsimony

“The principle states that among competing hypotheses that predict equally well, the one with the fewest assumptions should be selected”

- Encourage innovation but EFFECTIVE practices
- Main risk
 - Overuse of technology and it’s data

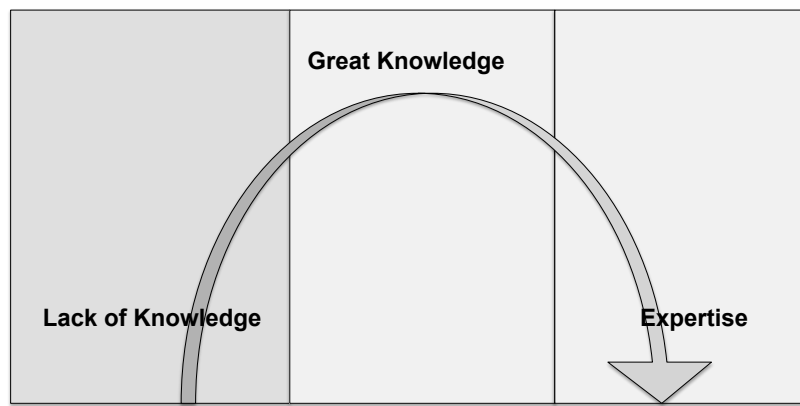


Aaron Coutts . International Journal of Sports Physiology and Performance. 2014.

Decision Making



Analytics



Intuitive

-

Knowledge

+

Predictive Analytics



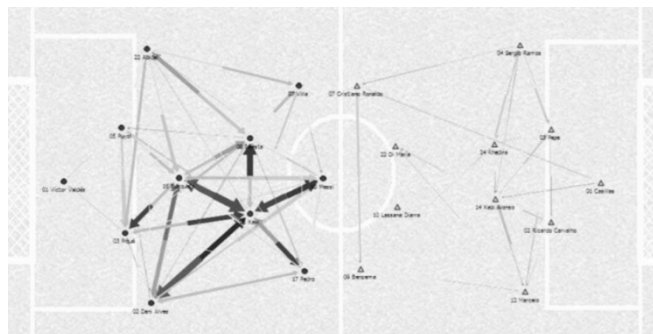
Football is the game of the games: complexity



Complexity



Football data is result of the game....NEVER
viceversa

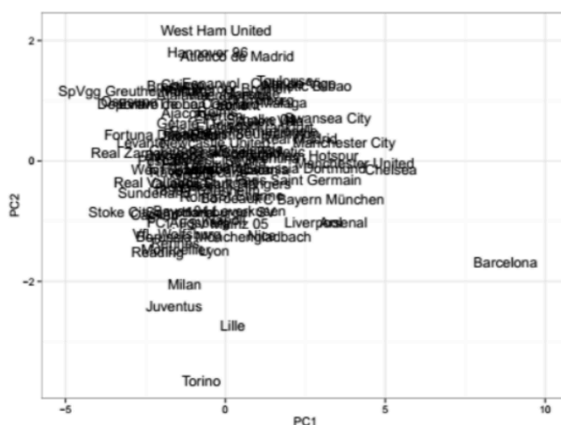


Analytics



Searching for a Unique Style in Soccer

Laszlo Gyarmati,
Haewoon Kwak,
Pablo Rodriguez



At the end...suitability of training



“Preferred Simulated Situations”

- ✓ Between 3 and 9 meters
- ✓ Between 3 and 6 seconds.



WHAT ARE WE DOING RIGHT NOW?



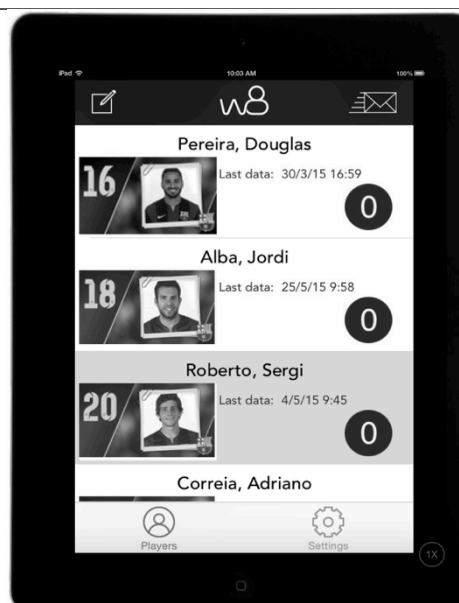
BASIC MONITORING TOOLS TO ADD VALUE TO KNOWLEDGE/EXPERIENCE

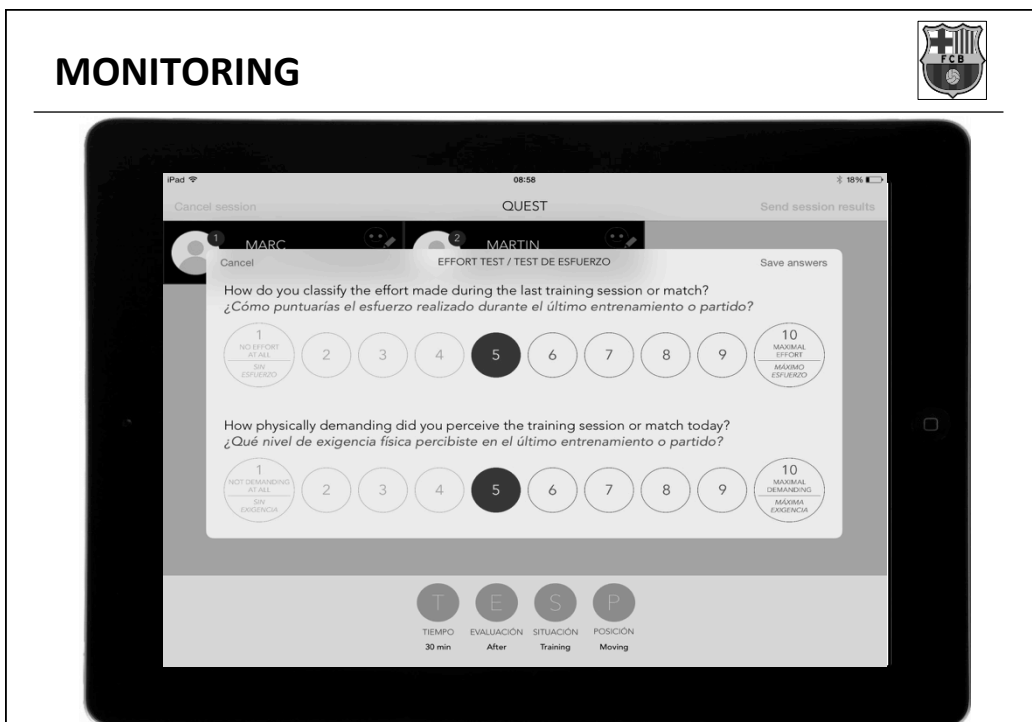
- WEIGHT
- EXTERNAL LOADING (so called "GPS")
- INTERNAL LOADING (Rate of Perceived Exertion)
- RECOVERY/ADAPTATION (Wellness Questionnaires)
- GAMIFIED FEEDBACK TO ATHLETES (FCBMe)
- INTEGRATIVE DATA ANALYSIS (COR)

PERSONALIZATION (Team Sports)


- NUTRITION AND HIDRATION
- TRAINING LOADS

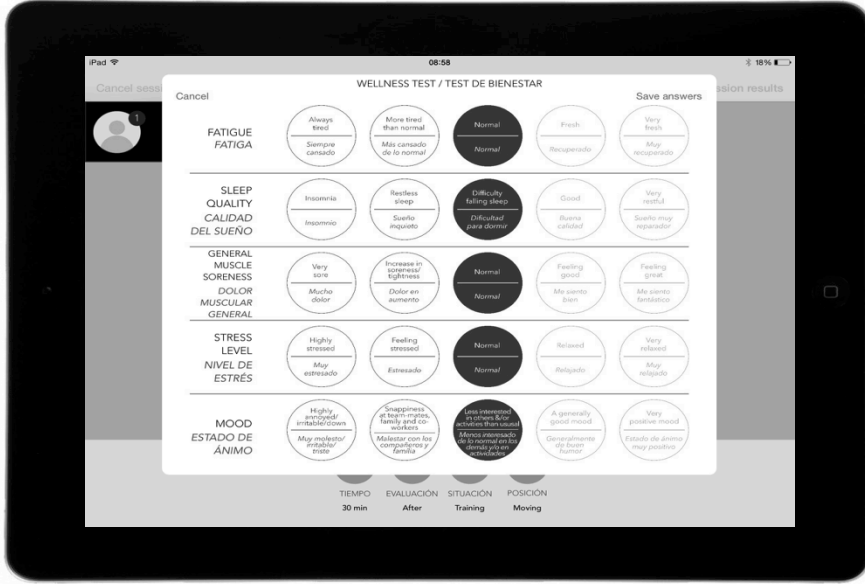
MONITORING






MONITORING






PERSONALIZED MONITORING



130 PLAYERS RECORDED DAILY

VIPER



FIRST TEAM

JUVENILE A

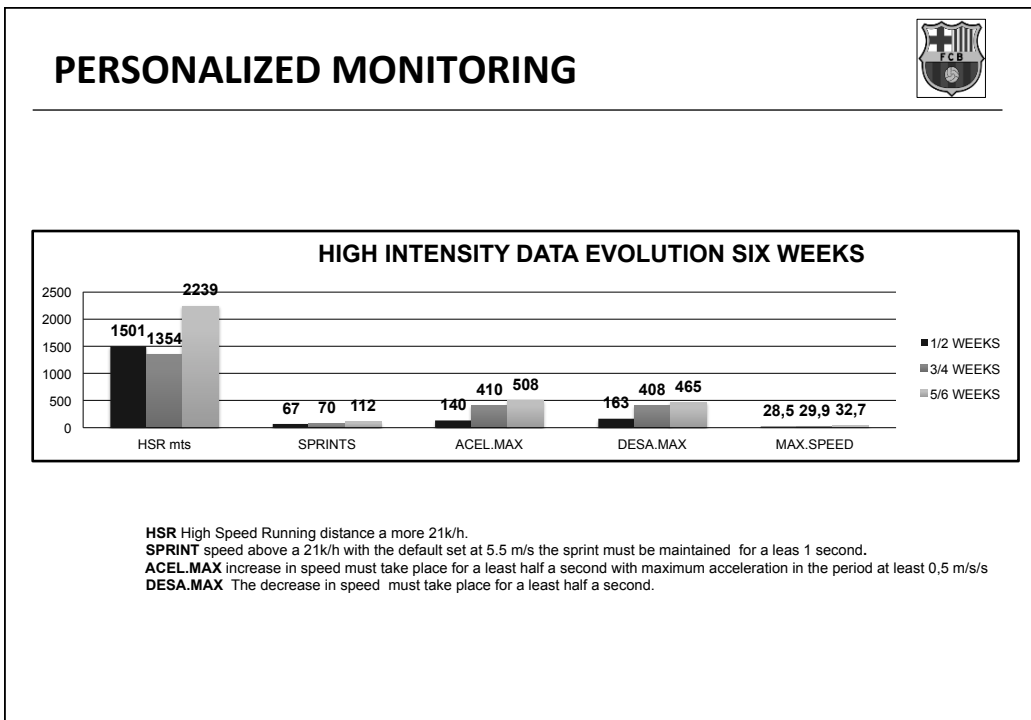
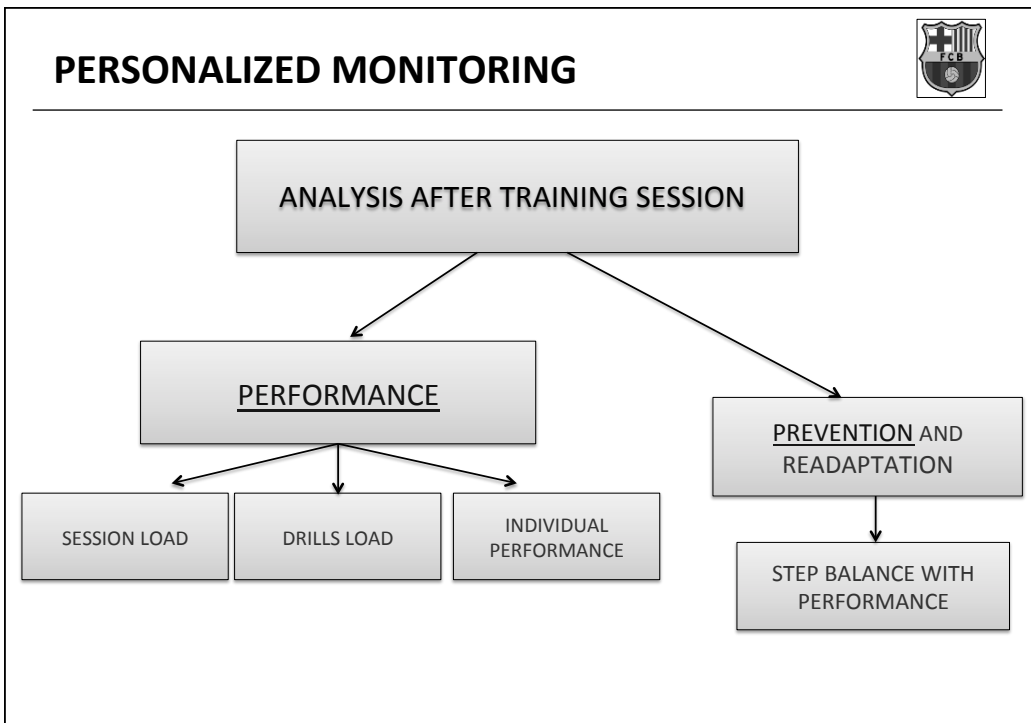
FIRST TEAM BASQUETBALL

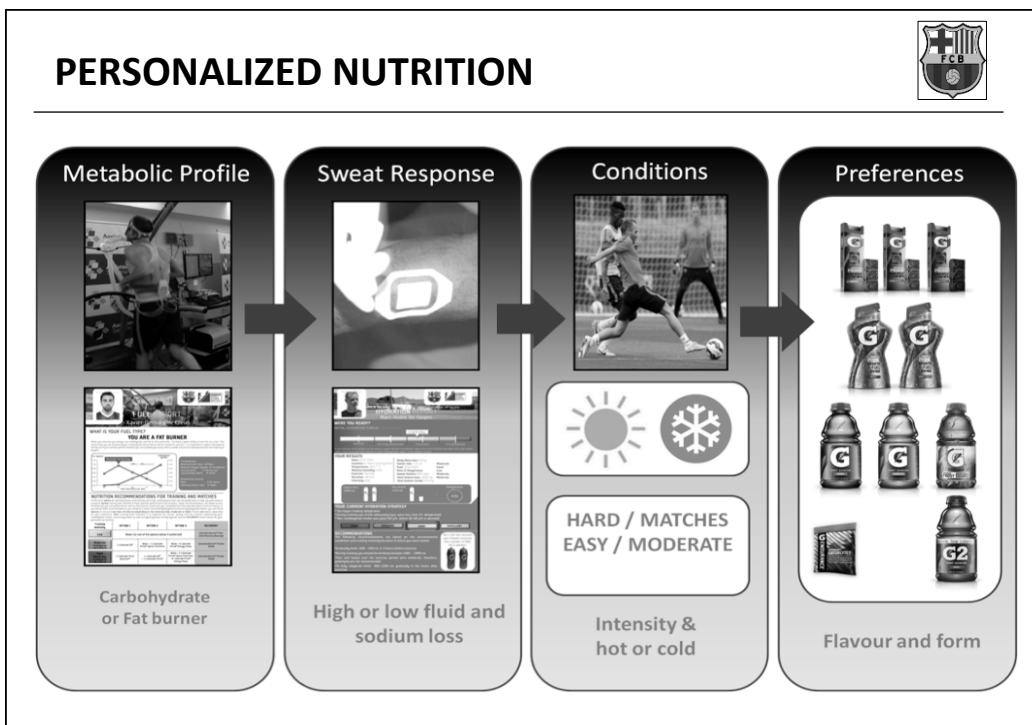
TEAM B


JUVENILE B

FIRST TEAM FUTSAL

MONITORING FCB JUNE 12, 2015














NUTRITION RESULTS

Martín Montoya Torralbo






NUTRITION RECOMMENDATIONS FOR **LOW – MODERATE INTENSITY TRAINING**

	OPTION 1	OPTION 2	OPTION 3
COOL CONDITIONS	 500 mL AquaRade: Lemon & Lime	 600 mL G2: Lemon & Lime	 1 Prime Fuel Drink: Berry 500 mL Water
WARM CONDITIONS	 500 mL AquaRade: Lemon & Lime 700 mL Water	 1 Prime Fuel Drink: Berry 1000 mL G2: Lemon & Lime	 1200 mL G2: Grape

DEPENDING ON THE AMBIENT TEMPERATURE CHOOSE ONE OPTION AND CONSUME THIS AMOUNT PER HOUR OF TRAINING.

GSSI©2015












NUTRITION RESULTS

Martín Montoya Torralbo



NUTRITION RECOMMENDATIONS FOR HIGH INTENSITY TRAINING AND MATCHES


	OPTION 1	OPTION 2	OPTION 3
COOL CONDITIONS	 700 mL Aquarade: Lemon & Lime	 1 Prime Fuel Drink: Berry 700 mL G2: Lemon & Lime	 500 mL GTQ: Grape 200 mL Water
WARM CONDITIONS	 700 mL Aquarade: Lemon & Lime 800 mL Water	 1500 mL G2: Lemon & Lime	 1 Prime Fuel Drink: Berry 350 mL GTQ: Lemon & Lime 1000 mL Water



DEPENDING ON THE AMBIENT TEMPERATURE CHOOSE ONE OPTION AND CONSUME THIS AMOUNT PER HOUR OF TRAINING/MATCHES.

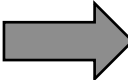
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Next Step: Athletes engagement...













Posters



TV

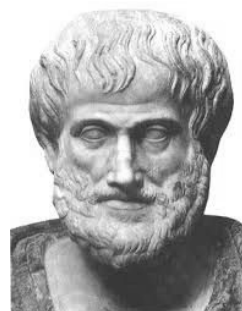




At last.....



**"The whole is
more than the sum
of its parts."**



Aristoteles



THANK YOU

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@MedinaDoc