

WHAT IS THE SUMMER SCHOOL ABOUT?

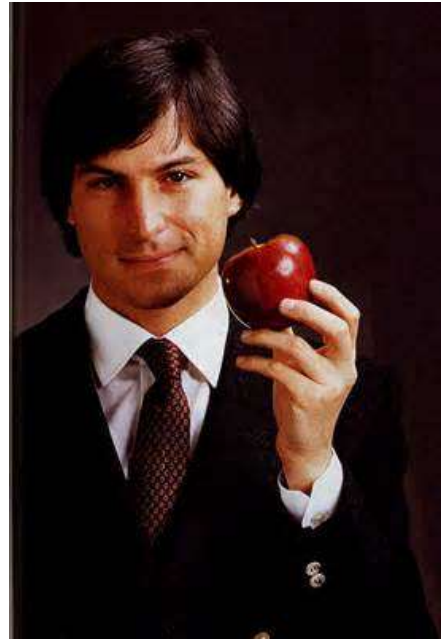
Understanding the understanding

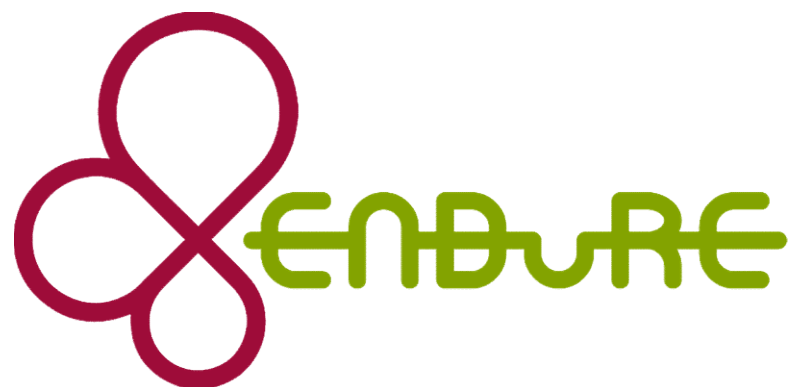
Goal

- The summer school is a **journey** through perspectives, ideas, tools and also opinions
- The journey is riddled of exercises, traps, challenges, mind funnels, etc..
- The exercises sometimes could appear weird, strange, useless, but **commit** yourself please
- The summer school is organized to push you in using the left and right encephalon, switching often from **analysis** to **creativity** and *vice versa*
- The final goal is to increase the **awareness** of what can happen and make you able to build your company's **destiny**

WHO ARE YOU?

Understanding yourself and your company





Problem statement and Idea understanding

Gualtiero Fantoni



UNIVERSITY OF
SURREY



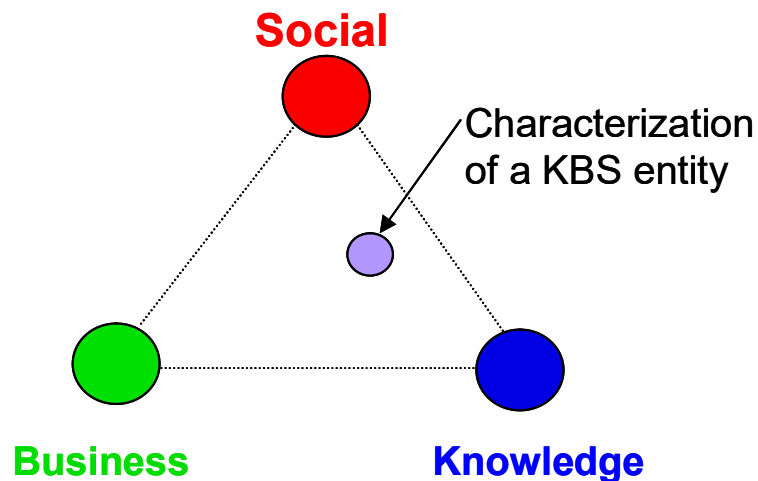
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The “KBS” framework



The KBS chromo-framework

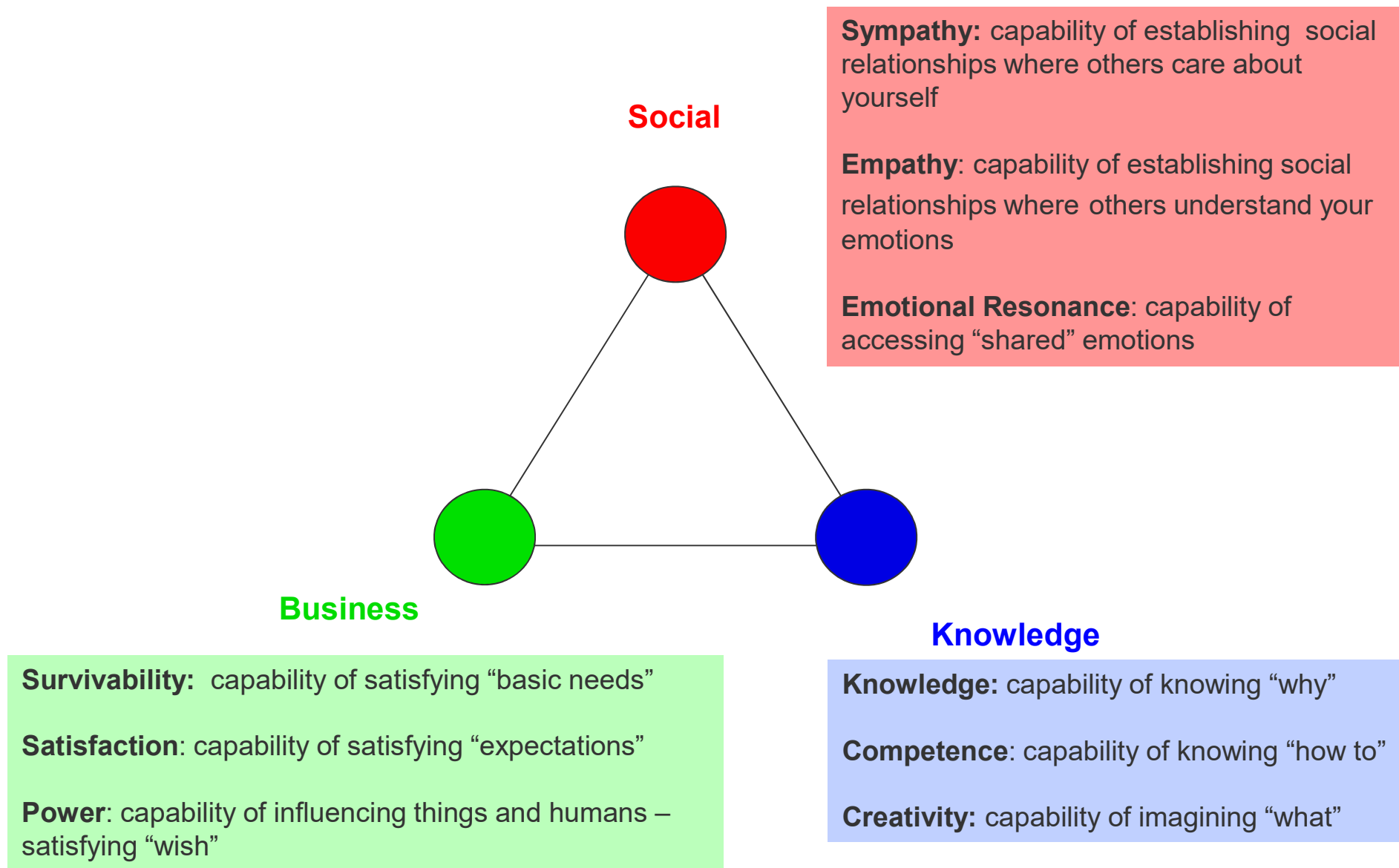
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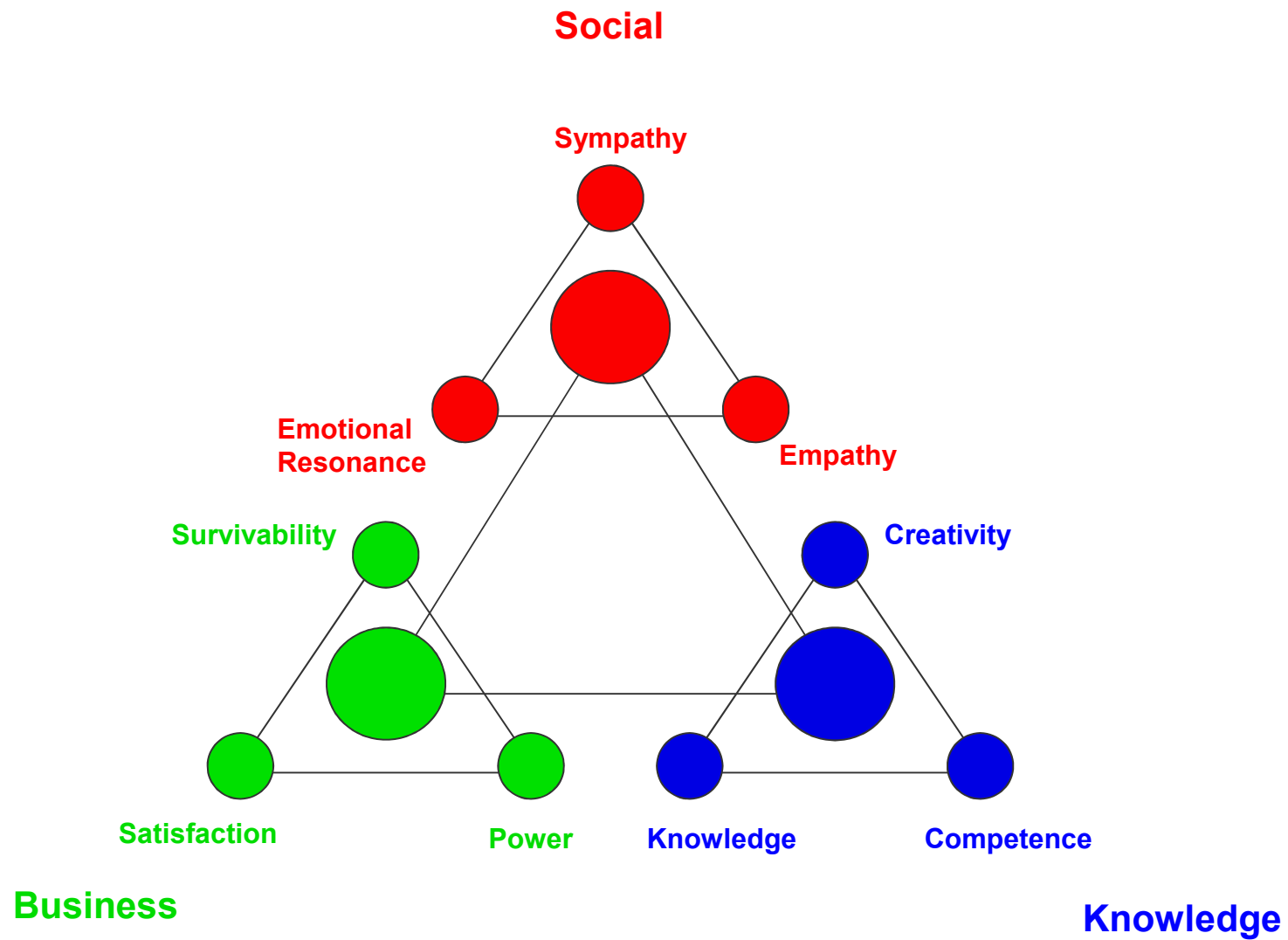
A company is a living organism where the “collective intelligence” emerges and grow only if three fundamental dimensions are simultaneously addressed in a comprehensive and balanced way. The three fundamental dimensions are:

1. Knowledge
2. Business
3. Social

The balance of the three fundamental dimensions is considered the key to the full deployment of knowledge workers creativity and productivity. The KBS (Knowledge-Business-Social) framework can be applied to all kind of companies from no profit to banks, from a single person consulting company to big organizations either public or private. They are sustainable, grow and endure only if a comprehensive and appropriate inclusion of the three dimensions is addressed.

The KBS framework: constituent elements





The KBS framework: the assets

Business “assets”

- **Capital** (money and properties) & **Financial income**
- **Business activities:** all remunerated activities related to employment, entrepreneurship, ..
- **Clients:** people satisfied by your previous professional services
- **Recognized Hierarchical Positions:** in institutional/ business/social organizations
- **Reputation:** esteem and recognition from others of reliability and capability in business relationships

Knowledge “assets”

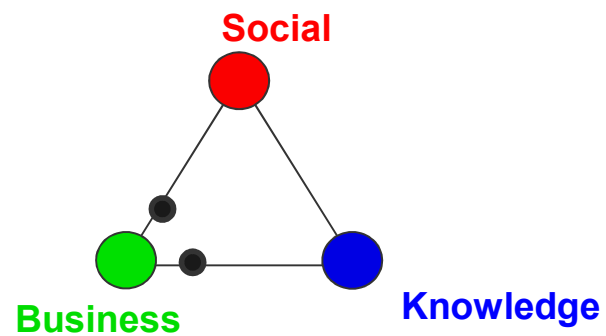
- **Knowledge:** knowledgeable information acquired in previous study and experience
- **Competences:** know-how capability of doing things, acquired through practical applications of knowledge
- **Reputation:** esteem & recognition from others of personal knowledge and competencies
- **Creativity, Imagination:** the ability to generate something new

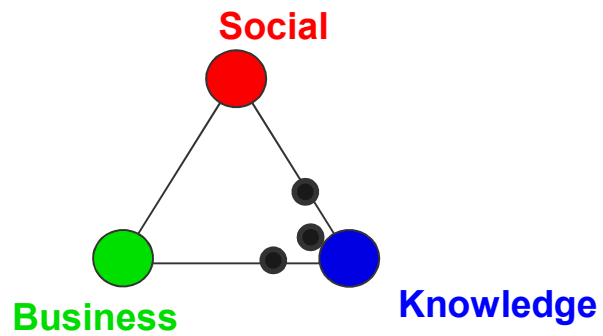
Social “assets”

- **Social links:** # of contacts
- **Knowledge of Contacts’ Profiles:** # of person “known” - knowing personal characteristics of contacts
- **Sympathetic relationships:** # persons who care about you
- **Empathetic relationships:** # persons who understand your emotions
- **Emotional sharing relationships:** # friendship, love relationships

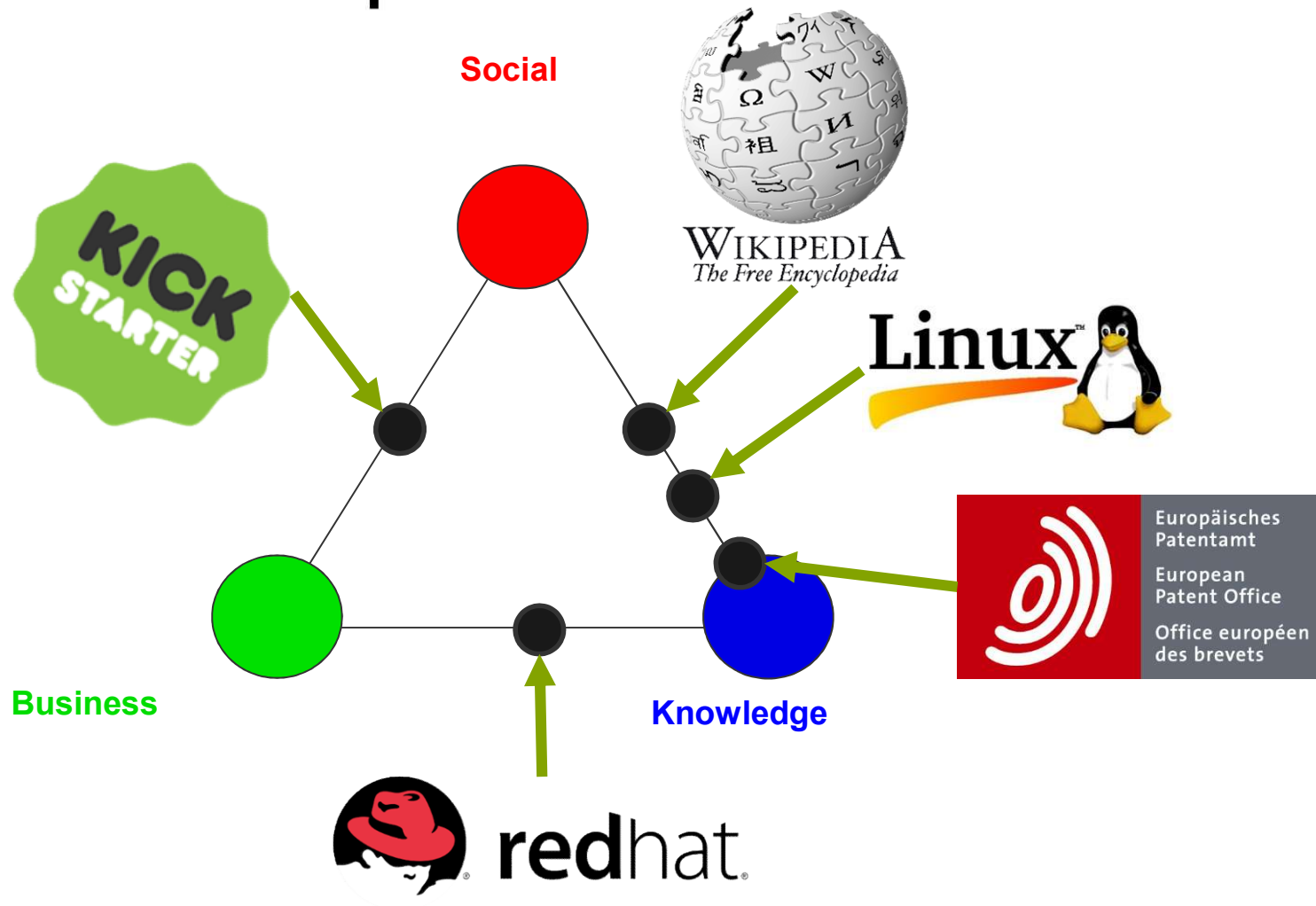


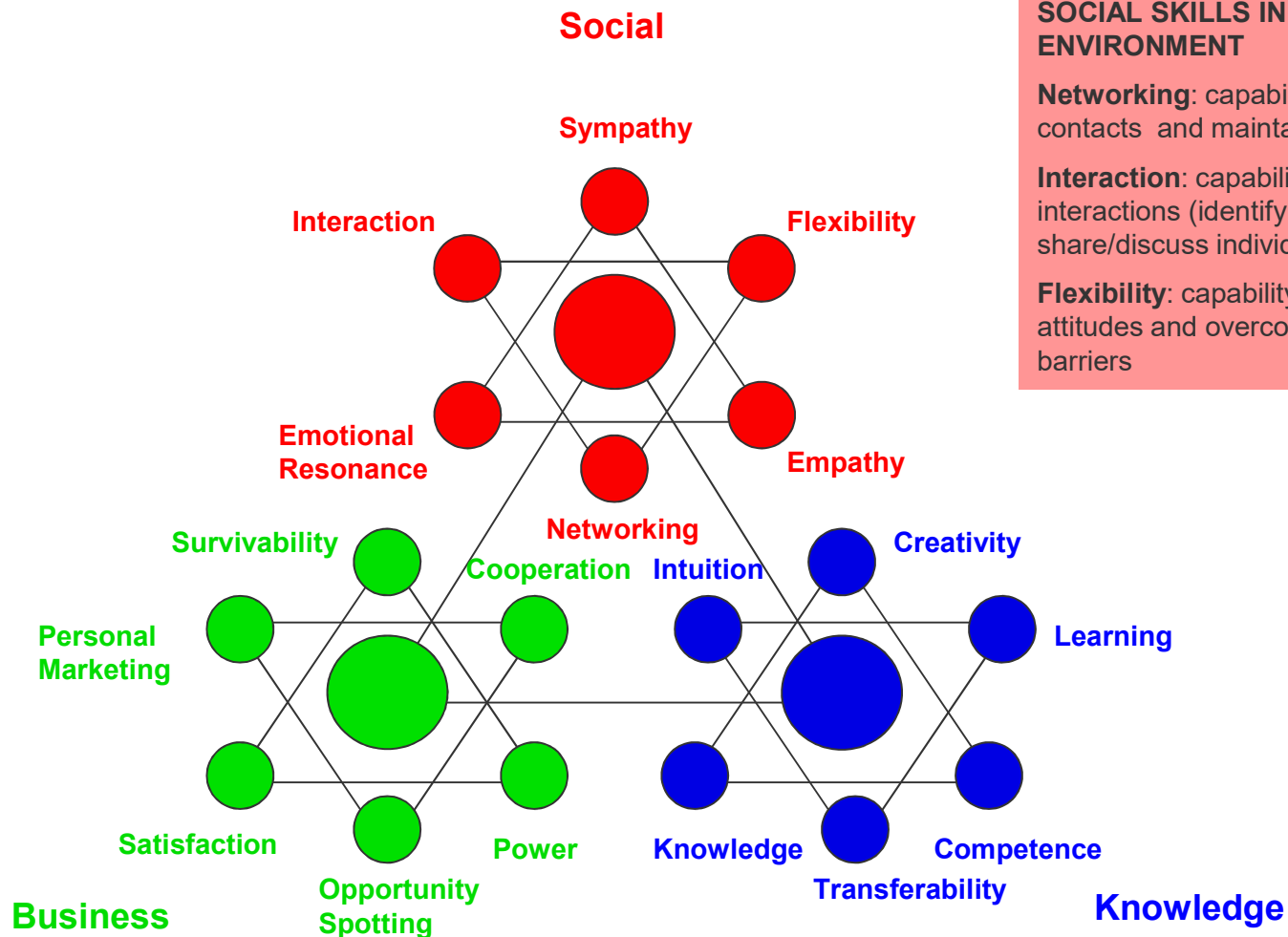
Exercise: Who are they?





JOLLOF sports club





SOCIAL SKILLS IN PROFESSIONAL ENVIRONMENT

Networking: capability of accessing new contacts and maintain contacts

Interaction: capability to establish relational interactions (identify common interests and share/discuss individual views)

Flexibility: capability of adapting to different attitudes and overcoming related social barriers

BUSINESS SKILLS IN PROFESSIONAL ENVIRONMENT

Personal marketing: capability of prospecting and selling your own technical abilities to partners and customers

Cooperation: capability to effectively and efficiently work together with others

Opportunity spotting: capability of identifying business opportunities

KNOWLEDGE SKILLS IN PROFESSIONAL ENVIRONMENT

Intuition: capability of developing new application of consolidated knowledge and developing new knowledge areas

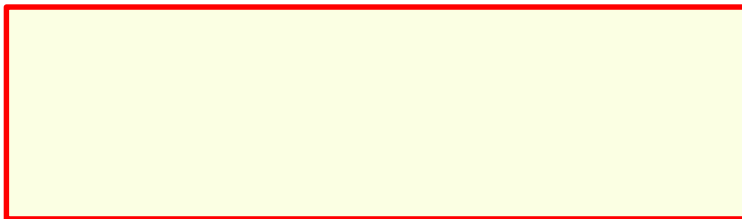
Learning: capability to quickly and easily acquiring consolidated knowledge & competence (not previously owned)

Transferability: capability of developing knowledge and competences fully usable for industrial applications

Assess your **Social** assets & capabilities

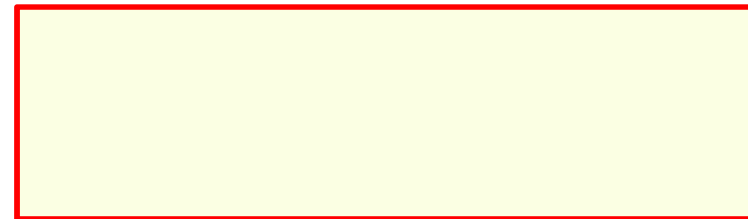
ASSETS

- **Social links:** simple contacts
- **Knowledge of Contacts' Profile:** persons of which we know personal characteristics
- **Basic relationships:** persons you have some in common with and share your time and views with
- **Sympathetic relationships:** persons who care about you



CAPABILITIES

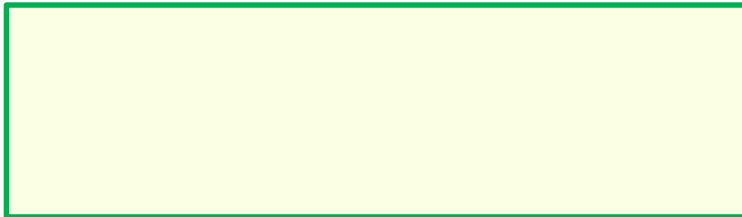
- **Networking:** capability of accessing new contacts and maintain contacts
- **Interaction:** capability to establish relational interactions (identify common interests and share/discuss individual views)
- **Flexibility:** capability of adapting to different attitudes and overcoming related social barriers



Assess your **Business** assets & capabilities

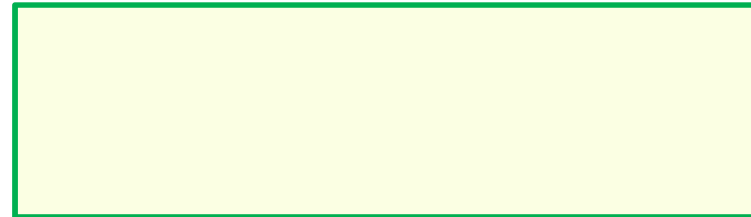
ASSETS

- **Business activities**
- **IPR, Patents, Trademarks**
- **Clients** people satisfied by your previous professional services
- **Reputation** esteem and recognition from others of personal reliability and capability in business relationships.



CAPABILITIES

- **Personal marketing:** capability of prospecting and selling own technical abilities to partners and customers
- **Cooperation:** capability to effectively and efficiently work together with others
- **Opportunity spotting:** capability of identifying business opportunities



Assess your **Knowledge** assets & capabilities

ASSETS

- **Knowledge:** knowledgeable information acquired in previous study and experience
- **Competences:** know-how capability of doing things, acquired through practical applications of knowledge
- **Reputation:** esteem & recognition from others of personal knowledge and competencies
- **Invention & Creations**



CAPABILITIES

- **Intuition:** capability of developing new application of consolidated knowledge and developing new knowledge areas
- **Learning:** capability to quickly and easily acquiring consolidated knowledge & competence (not previously owned)
- **Transferability:** capability of developing knowledge and competences fully usable for industrial applications



Assessment of enablers

SOCIAL	BUSINESS	KNOWLEDGE
1. Who's Who. Detailed personal information about competences, personal preferences and hobbies, characteristics etc. (TO KNOW personal characteristics) 2. Personal Networking management self assessment view of personal network of contacts. Capability of accessing new links through third party facilitation (as LinkedIn) 3. Social events interactions during physical events, virtual events not directly related to business or knowledge activities, dinners... 4. Memberships and committees attendance 5. Community networking community social capital development	1. Business opportunity market. Internal market for business activities where each member can access (and provide) business opportunities 2. Personal and Team marketing support 3. Customers management. After sales, customer listening, employee listening 4. Side business generated. Business or value generated within your network 5. IPR identification and management 6. Leadership in the field	1. Structured repository for your body of knowledge. Written procedures, documented code, documented choices, documented errors, etc.. 2. Scholarly and technical papers, books, reports 3. Easy access to the experts. Single degree of separation between you and the experts 4. Sharing information materials. Courses you provide, employee to employee training, webinar, podcasts, etc. 5. Technical committee attendance, conference organization, fair organization, etc..

Example: the superb laboratory

- Famous laboratory on robotics in Pisa
- Super high tech product

How does its KBS look like?

- The lab is in the process of being evaluated by an industrial venture capitalist.

What are the areas the lab fear?

On which subjects does the negotiation happen?

And later?

Example: the two guys

Alessandro Antonelli



Management engineer

- He sold #X of T-shirts right after the 2006 soccer championship in Piazzale Michelangelo (Florence)
- He sold #15 I-Phone covers (gold and diamonds) in 2010

Giacomo Tazzini



Management engineer

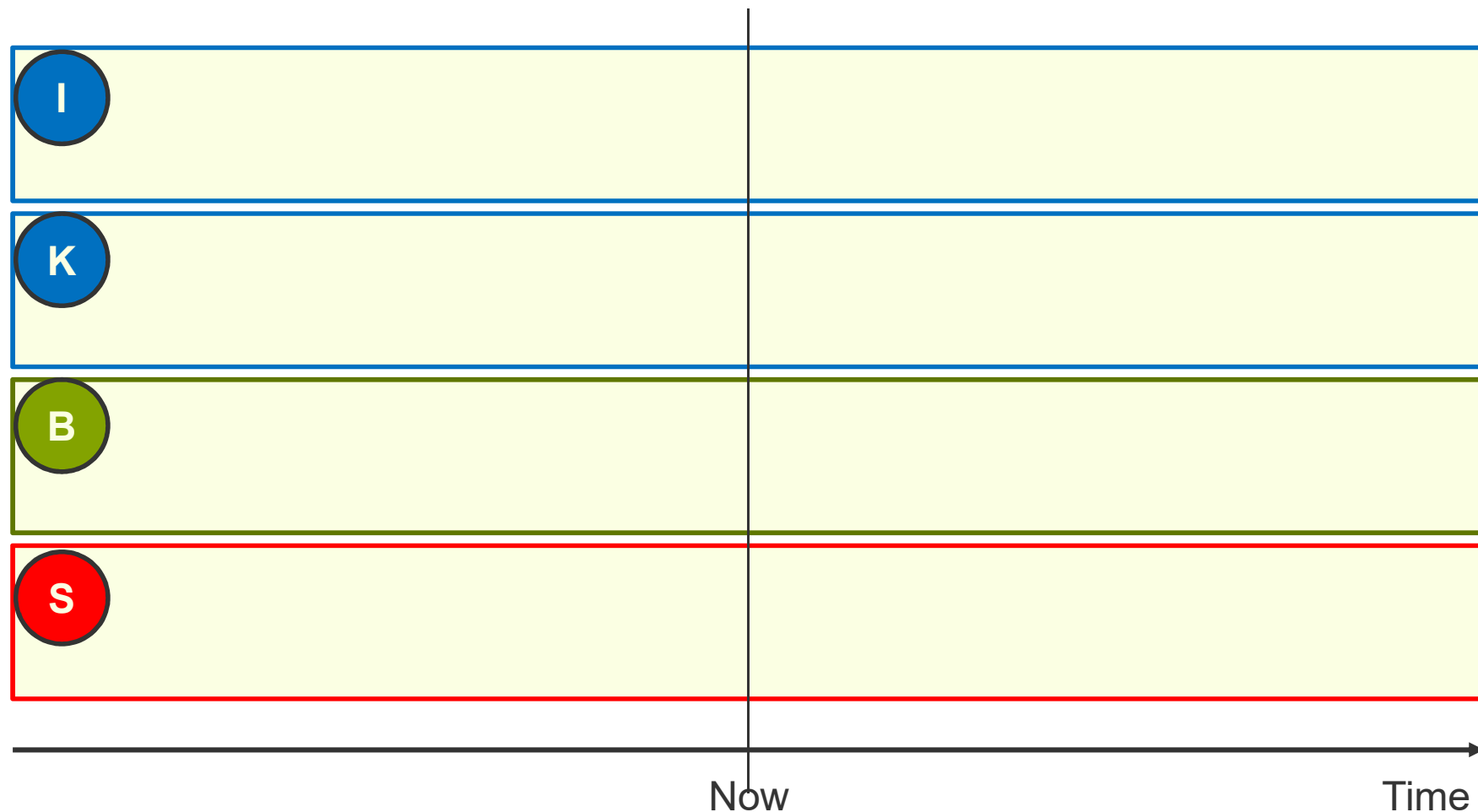
- He is selling 1.000.000€ contracts for IP services
- 30% are recurring customers within 2 years window

Comments and observation

- Alessandro is a business identifier, he spots and pursues opportunities in a sharp way and executes simple and «low cost» ideas really fast.
- He gambles and bets in a controlled manner.
- He does not work on ideas when a clear business does not exist.
- Giacomo is a calm person, very good in interacting with people, he remembers your mother's name after years and never asks you about your girlfriend (now ex-girlfriend)
- He looks like older and is very self confident, he reassures customers showing he is in control
- He works everyday finding for occasions to call and see customers

The KBS in practice

A component (Invention) can be isolated and examined as an independent variable



The summer school in the KBS space

Date	Time	Topic	K	B	S
30 May	14-16	Problem statement and Idea understanding			
	16-18	Grammars of creation			
31 May	09-13	Pretotyping: Pretotype it!			
	14-18	Pretotype it!: Hands On			
1 June	09-18	Pretotyping: Designing connected, devices			
3 June	09-13	Pain, and Gains, Value Proposition and Business Modeling			
	14-18	Business Modeling: Hands On			
4 June	09-13	Pretotyping: 3D Printing			
6 June	09-18	Social, Capital, Scalability and Global Thinking			
	18-20	Analise, plan and use your personal social network			
7 June	09-18	Implementation strategy and business planning			
8 June	09-13	Strategic Marketing			
	14-16	The Dallara Case Study			
9 June	09-13	Technology Foresight			
	14-16	Technology Intelligence			
	18-20	The Continuum process for Human Centered Innovation			
10 June	09-11	B2B Sales			
	11-18	Branding and Product Communication			

PROBLEMS

Finding for ~~problems~~ solutions

Problems: the baseline

- List the last 5 problems you had to solve during the last two weeks
- List the 5 bigger problems your company dealt with during the last year

5' exercise

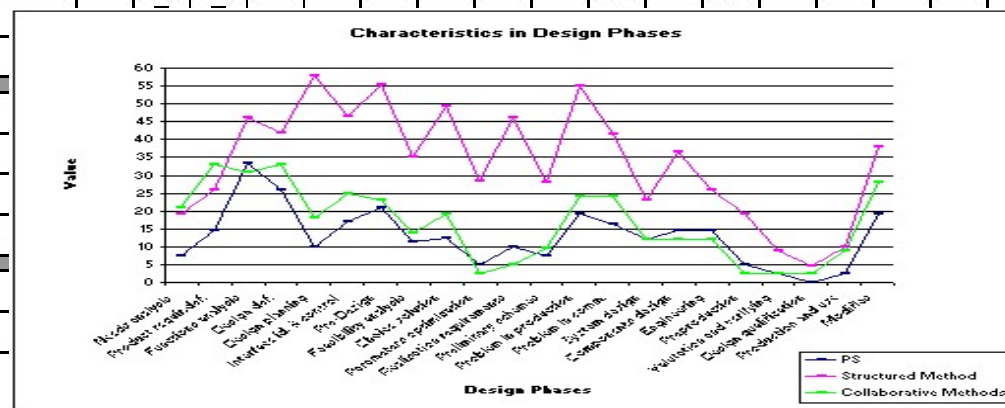
Problem solving

«A problem well-stated is half-solved» Charles Kettering, head of research for GM

1. Chose the right problem to solve
2. Chose the right method to solve it
3. Chose the right team to solve it
4. Analyze the problem and, when ready,...
analyze it again

Current methodologies

	QFD	TPC	TRIZ	FFT	AM	FCA	FAST	PS	BM	SWOT	AD	SDA	VE	TOC	RRM	CPM	DCF	VM	VA	...
0 : weak link																				
X : strong link																				
1.1a - Needs analysis	0	0			X				0	0		X								
1.1b - Product requirements definition	X	X	0	0	X				0					0						
1.2a - Functions analysis	0	0	X	X		X	X	0			0				0					
1.2b - Design definition	0	0	0	0		0	0	X		0	0		X			0				
2.1a - Design activities planning						0				X		0	0	0	0	X	0	0	0	0
2.1b - Interface identification and control			0	0		0				X			0	0	0	0		0	0	0
2.2a - Pre-Design (economic, constructive, productive)		0	X			0		0			0		0			0	X			0
2.2b - Feasibility analysis			0					0					0		0		X			0
2.3a - Choose of the solution									X		0	0					0	X	X	
2.3b - Design parameters optimization											0	0					0	0	0	
3.1a - Identification of requirements for realisation						0					0					0				
3.1b - Development of preliminary design schemes						0														
3.2a - Elimination problem causes in production			X			0				0	0	0								0
3.2b - Elimination problem causes in commercialization			X							0		0								0
3.3a - System design																		0	0	
3.3b - Components design																		0	0	
4.1a - Engineering																				
4.1b - Preproduction																				
4.2a - Design valuation and verifying																				
4.2b - Design qualification																				
5.1a - Production and use																				
5.1b - Modifies dues to production and market																				



N	Description	Metrics
1	Problem Identification	The problem can be identified from the beginning: (1) Exactly (5) No
2	Multidisciplinarity	Single domain team (1) in general consisting of one or few people Multidisciplinary team (5) in general consisting of many different people
3	Robustness of the background	A robust discipline for problem definition exists (problem definition $\exists!$) (1) yes - (5) no
4	Level of Constraints	(1) High - (5) Low
5	Level of breakthrough	(1) Low - (5) High
6	Theoretical-Empirical	Theoretical (1) - Empirical (5)
7	Typology of solution	(1) Only one well defined solution exists; (2) More than only one solution exist; (3) More than one concept can be explored; (4) Solution depends on the point of view (e.g.: lawyers); (5) No solution has been found yet.
8	Replicability of the output with different teams	(1) Total replicability; (2) Similar solutions; (3) Different solutions; (4) Absolutely improbable; (5) Impossible.

TYPES OF PROBLEMS	PARAMETERS	Problem Identification	Multidisciplinarity	Robustness of the background	Level of Constraints	Level of breakthrough	Theoretical-Empirical	Typology of solution	Replicability of the output with different teams
Matematical problem		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
FEM		1,0	1,0	1,0	1,0	1,0	2,0	1,0	1,0
Problem fixing		1,0	1,0	1,0	1,0	1,0	3,0	2,0	2,0
Building design		1,0	3,0	1,0	2,0	1,0	2,0	3,0	
Maintenance Management		2,0	2,0	1,0	2,0	1,0	3,5	2,5	
Legal		3,0	1,0	3,0	1,0	1,0	2,5	4,0	
Product variants		2,0	2,0	2,0	2,0	3,0	3,0	2,0	3,0
Medicine - definition		4,0	2,0	4,0	2,5	1,0	3,0	1,0	2,5
Product versions		2,0	3,0	2,0	3,0	3,5	3,0	2,5	
Medicine - choose		3,0	2,0	3,0	3,5	2,0	3,0	3,0	
Product design		2,0	3,0	3,0	3,0	3,5	2,5	3,0	
Writing (not novel)		1,5	1,0	2,0	3,5	3,0	4,0	4,0	5,0
Didactics		3,0	3,5	4,0	2,5	2,0	3,5	4,0	
Product architecture		3,5	3,5	3,5	4,0	4,0	3,5	3,0	
Advertisement		1,0	5,0	3,0	3,0	5,0	4,0	5,0	5,0
Needs within context		3,0	4,0	4,0	4,0	5,0	4,0	4,0	
Industrial or Fashion Design		4,0	4,0	4,0	3,5	4,5	4,0	4,0	
Naming		3,0	5,0	3,0	4,0	5,0	4,0	5,0	
Painting (or novel writing)		5,0	1,0	5,0	5,0	5,0	4,0	5,0	5,0
Needs without constraints		4,0	5,0	5,0	5,0	5,0	4,0	5,0	5,0
Jazz		5,0	3,0	5,0	5,0	5,0	5,0	5,0	5,0
TOTAL		55,0	56,0	60,5	61,5	62,5	68,5	69,0	72,0
Average		2,6	2,7	2,9	2,9	3,0	3,3	3,3	3,4

1-2 : cyan

2,5-3,5 : yellow

4-5 : green

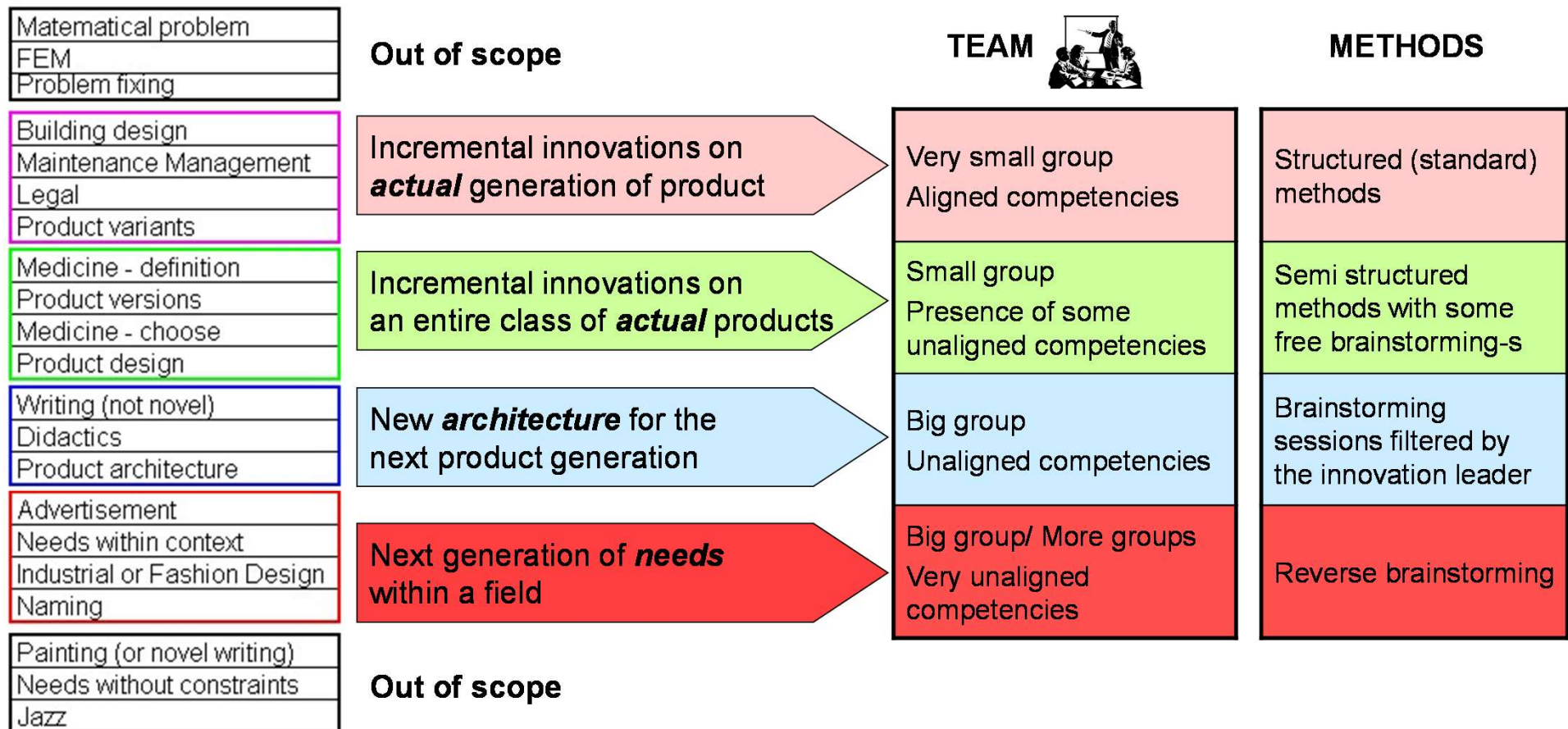
Product Variants

Product Design

Product Architec.

Product Needs

Problem vs. Method to solve it



Reduce the complexity

Mathematical problem
FEM
Problem fixing

Out of scope

Building design
Maintenance Management
Legal
Product variants

Incremental innovations on
actual generation of product

Standard jobs

Medicine - definition
Product versions
Medicine - choose
Product design

Incremental innovations on
an entire class of **actual** products

Writing (not novel)
Didactics
Product architecture

New **architecture** for the
next product generation

Advertisement
Needs within context
Industrial or Fashion Design
Naming

Next generation of **needs**
within a field

Painting (or novel writing)
Needs without constraints
Jazz

Out of scope



«Do **not** disrupt!»
Peter Thiel

On the real nature of problems

Problems do not exist in the form you believe since:

- 90% of problems are problems because not well stated
- 90% of problems have already been solved (by someone else)
- 90% of your problems are considered standard work by someone else
- 90% of problems are due to an uncorrect analysis and if analysed properly their solution is evident

... but if you have a problem to solve

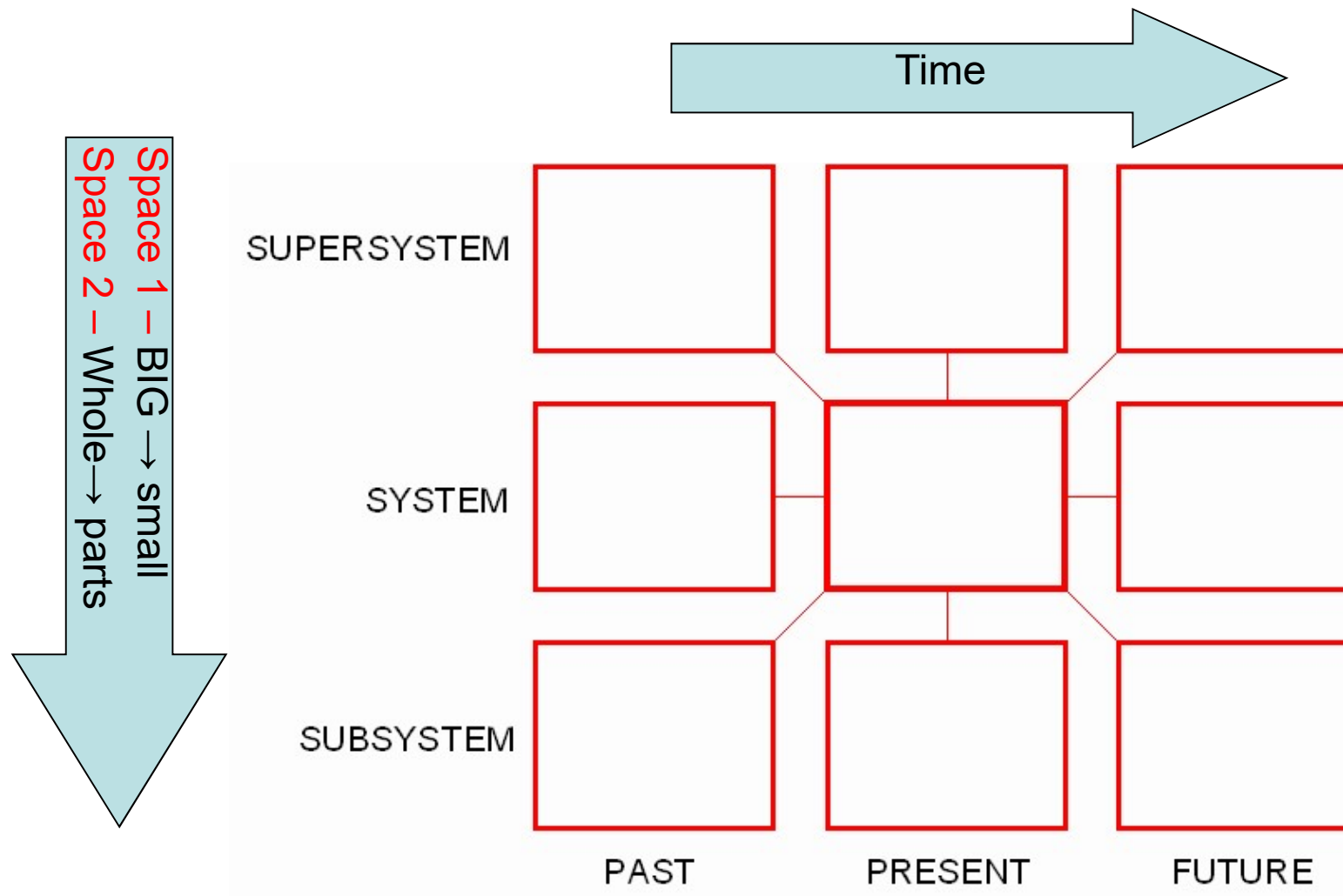
- Use the following rule

preparation:brainstorming:wrapping

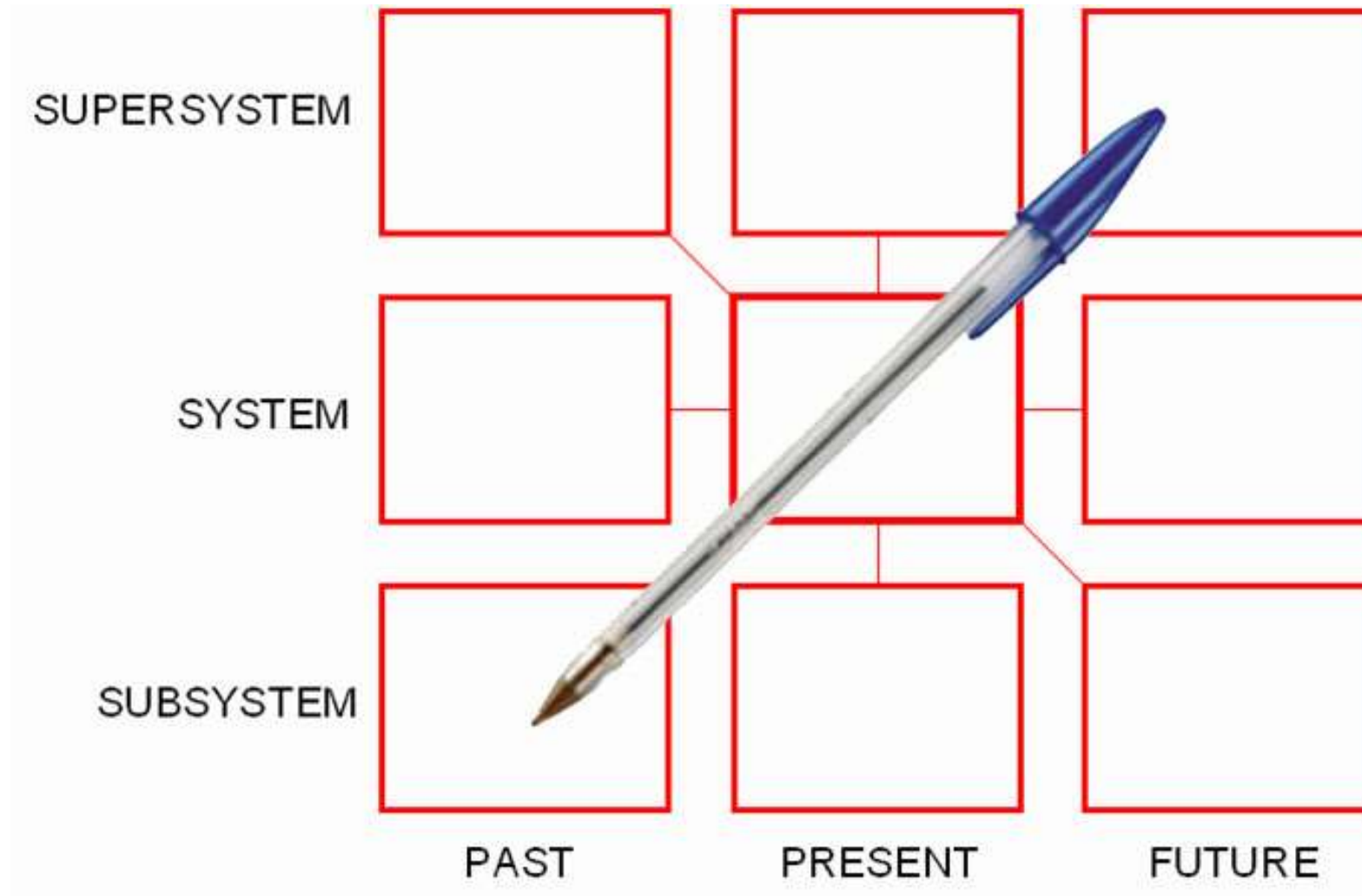
12 (+3) : 1 : 5

- Split the preparation into 2 sessions (at least).
Thinking twice improves the clarity.
- Ask someone, who thinks different, for
doublechecking the preparatory material (+3)
- Use the lowest even number of people you can
(3) and choose them carefully

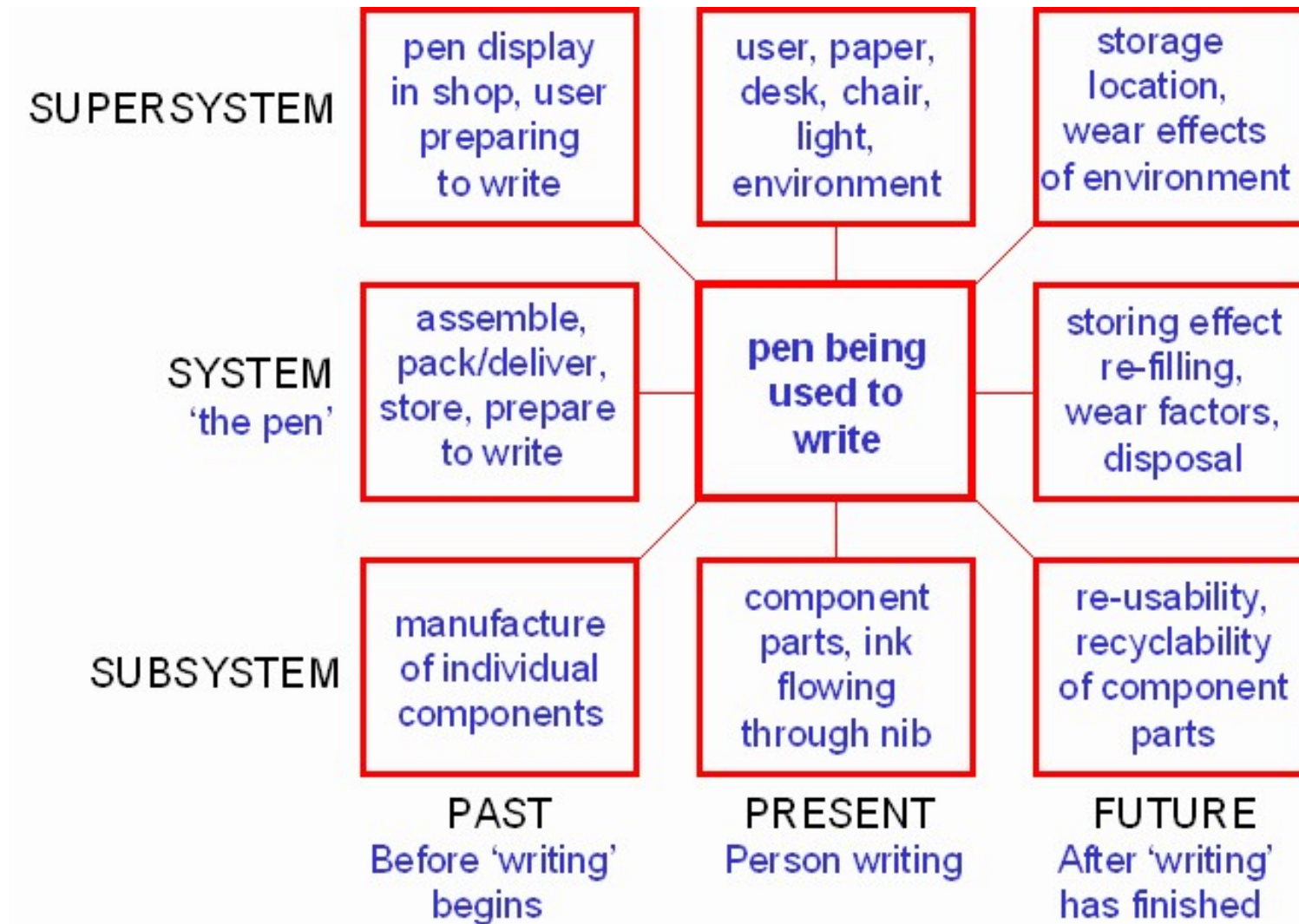
Euristics: the nine screens



Euristics: the nine screens



Euristics: the nine screens



Contraddictions: how to solve them

Contraddictions are either **technical** **physical**:

- **Technical**: they are related to **two different parameters** with opposite trends
(more powerful engine but lower consumption)
- **Physical**: when **the same parameter** must have opposite properties
(car with a wide loading space but easy t be parked)

The **Innovative Solution** it the one that allows **to overcome the contraddictions** by satisfying simultaneously all the requirements



Contraddictions: how to solve them

PROBLEM

Finding a system able to protect from hits **but** able to guarantee the higher degree of freedom to the rider

CONTRADDICTION



SOLUTION

Dynamize the problem itself
by using a material whose viscosity parameter
can change suddently

Contraddictions: how to solve them

Physics and chemistry can help us!

SOLUTION



Tixotropic Liquids:

The change of viscosity happens when there is a motion

Esamples: blood, wine, majonaise, ketchup, paints, quicksands.

Do fluid with an opposite behaviour exist?

Contradictions: how to solve them

Dilatant Fluids !

SOLUTION



Contradictions: how to solve them

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gel protegge impatto

Cerca: nel Web pagine in Italiano pagine provenienti da: Italia

Web Risultati 1 - 10 su circa 20.800 per gel protegge impatto. (0,07 secondi)

Beta gel: i giapponesi inventano l'antiurto perfetto - Geltec ...
Geltec brevetta un gel isotropo per proteggere gli oggetti dagli urti ... Il Beta Gel in grado di azzerare lo shock dell'impatto salvando il fragile guscio ...
ingegneria.lesionline.it/ingegneria/ notizia.jsp?id=1160 - 28k - Copia cache - Pagine simili

Giappone: in un video il gel miracoloso - Corriere della Sera
21 set 2007 ... Il Beta Gel in grado di azzerare lo shock dell'impatto prezioso equipaggiamento usato dagli astronauti ...
www.corriere.it/Primo_Piano/Scienze_e_Tecnologie/2007/09_Settem
Copia cache - Pagine simili

Beta gel: i giapponesi inventano l'antiurto perfetto
Geltec brevetta un gel isotropo per proteggere gli oggetti dagli urti

[24/09/2007]



Un foglio del nuovo prodotto della società giapponese, già sul mercato per prodotti colloidali utilizzati per ammortizzazione, inertizzazione e floating, è stato utilizzato per un test che ha risvolti più sensazionalistici che pratici: è stato lasciato cadere un uovo dall'altezza di 22 metri ed è "atterrato" sul Beta gel (così si chiama la nuova sostanza) senza rompersi e senza alcuna crepa.

Il Beta Gel in grado di azzerare lo shock dell'impatto salvando il fragile guscio è prodotto dalla giapponese Geltec, società che realizza materiali morbidi e flessibili, dedicati alle più svariate applicazioni: dall'assorbimento delle vibrazioni in macchinari industriali alla creazione di materassi ortopedici in grado di ridistribuire il peso su tutto il corpo, dai caschi per motociclisti agli attrezzi sportivi come le scarpe, dove è necessario minimizzare le collisioni con il terreno, fino alle pellicole antiurto utili per proteggere tutti i gadget tecnologici da un danno irreparabile.

Un'altra importante funzione prevista per il Beta Gel sarà essere parte di nuovi tutori in grado di salvaguardare i pazienti anziani con il femore fratturato, consentendo loro una veloce riabilitazione nella sicurezza di non andare incontro ad altri incidenti. Realizzato con materiali non tossici e resistenti all'acqua, il Beta Gel è l'evoluzione dell'Alpha Gel, che per le sue particolari capacità di resistenza ai colpi è stato portato anche sullo Space Shuttle, per proteggere il prezioso equipaggiamento usato dagli astronauti.

Contraddictions: how to solve them

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Forse cercavi: [blocca acqua lasciapassare vapore](#)

[LG WD 14440 FDS - Opinione - Il vapore... che lava il bucato!](#)
25 mar 2008 ... Se rileva una perdita d'acqua dal tubo o dalla macchina, ferma quest'ultima, **blocca** l'acqua in entrata e fa illuminare l'allarme **acqua** sul ...
[www.ciao.it/LG_WD_14440_FDS__Opinione_969429 - 70k](#) - [Copia cache](#) - [Pagine simili](#)

[Nuovo blocco in calcestruzzo cellulare](#)
25 set 2007 ... I componenti utilizzati (sabbia, calce, cemento e **acqua**), ... Comportamento in relazione al **vapore** acqueo in tutte le stagioni ...
[www.infobuild.it/mecgi/dr/7tHome&mod=modInnovazioneSheet&IDMENU=28&MENU_INDEX=6&UID=43219 - 49k](#) - [Copia cache](#) - [Pagine simili](#)

[RONCO ALPINISMO - TORINO](#)
Allo stesso tempo, è 700 volte più largo di una molecola d'**acqua**: il **vapore** generato dal sudore può dunque **passare** facilmente attraverso di esso, ...
[www.roncoalpinismo.it/tessuti.htm - 60k](#) - [Copia cache](#) - [Pagine simili](#)

[Sniperseal :: Vipera Sod Shell](#)
Il Gore-Tex è impermeabile e traspirante, **lascia passare** il **vapore** acqueo ma **blocca** le gocce d'**acqua**, più grosse. E' usato come strato esterno per ...
[www.migliorforum.com/sniperseal-vp4735.html - 43k](#) - [Copia cache](#) - [Pagine simili](#)

[Come cuocere un uovo? - alFemminile.com](#)
Lascia passare sei minuti, senza aspettare che l'ebollizione riprenda: fuori l'uovo dall'**acqua** e immergilo nell'**acqua** fredda per **bloccare** la cottura. ...

Contraddictions: how to solve them

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blocca acqua lascia passare vapore

Cerca

Cerca: nel Web pagine in Italiano pagine provenienti da: Italia

Web Risultati 1 - 10 su circa 46.500 per blocca acqua lascia passare vapore. (0,33 secondi)

Forse cercavi: [blocca acqua lasciapassare vapore](#)

[LG WD 14440 FDS - Opinione - Il vapore... che lava il bucato!](#)

25 mar 2008 ... Se rileva una perdita d'acqua dal tubo o dalla macchina, ferma quest'ultima, blocca l'acqua in entrata e fa illuminare l'allarme acqua sul ...
[www.cao.it/LG_WD_14440_FDS_Opinione_969429-70k](#) - [Copia cache](#) - [Pagine simili](#)

[Nuovo blocco in calcestruzzo cellulare](#)

25 set 2007 ... I componenti utilizzati (sabbia, calce, cemento e acqua), ... Comportamento in relazione al vapore acqueo in tutte le stagioni ...
[www.infobuild.it/mecpl/div?file=mod/modinnovazioneSheet&IDMENU=28&MENU_INDEX=6&UID=43219-49k](#) - [Copia cache](#) - [Pagine simili](#)

[RONCO ALPINISMO - TORINO](#)

Allo stesso tempo, è 700 volte più largo di una molecola d'acqua: il vapore generato dal sudore può dunque passare facilmente attraverso di esso.
[www.roncoalpinismo.it/tessuti.htm](#) - 50k - [Copia cache](#) - [Pagine simili](#)

[Sniperseal - Viper Sod Shell](#)

Il Gore-Tex è impermeabile e traspirante, lascia passare il vapore acqueo ma blocca le gocce d'acqua, più grosse. È usato come strato esterno per ...
[www.migliorforum.com/sniperseal/vp4735.html](#) - 43k - [Copia cache](#) - [Pagine simili](#)

[Come cuocere un uovo? - alFemminile.com](#)

Lascia passare sei minuti, senza aspettare che l'ebollizione riprenda, ... fuori l'uovo dall'acqua e immergilo nell'acqua fredda per bloccare la cottura. ...

Gore-tex®: la membrana

Un pollice quadrato di membrana Gore-Tex contiene 9 miliardi di pori. Ogni poro è 20.000 volte più piccolo di una goccia di pioggia: impossibile per acqua e neve penetrare. Allo stesso tempo, è 700 volte più largo di una molecola d'acqua: il vapore generato dal sudore può dunque passare facilmente attraverso di esso, disperdendosi verso l'esterno.

Gore ha sviluppato accordi particolari con un numero limitato di produttori specializzati ai quali è stato concesso il diritto di licenza per l'utilizzo dei tessuti Gore-Tex. Ogni fase del processo produttivo deve soddisfare severi standard qualitativi prima che il prodotto possa essere lanciato sul mercato. Il personale addetto ai processi produttivi deve pertanto seguire un training approfondito volto alla conoscenza delle tecniche di lavorazione dei tessuti Gore, dei processi di nastatura e delle apparecchiature necessarie alle procedure di test.

CARATTERISTICHE:
Protezione totale
Range di comfort esteso
Traspirabilità
Costruito con i tessuti più resistenti e tenaci
Testato sul campo

Strati

Nella costruzione a 2 strati la membrana GORE-TEX® viene unita ad un tessuto altamente performante. La fodera rimane libera.

Nella costruzione a 3 strati, la membrana da un lato viene fissata alla fodera mentre dall'altro è fissata al tessuto esterno.



GORE-TEX XCR 3 strati

Il tessuto GORE-TEX XCR offre un livello di traspirazione superiore rispetto al tradizionale tessuto GORE-TEX. Tra i tessuti più resistenti, impermeabili e traspiranti attualmente presenti sul mercato, GORE-TEX XCR 3-strati è caratterizzato da un livello di traspirazione quasi doppio rispetto al tradizionale GORE-TEX 3-strati.



Gore-tex® PRO SHELL

più leggero, più morbido, più traspirante del vecchio Gore-tex tre strati.

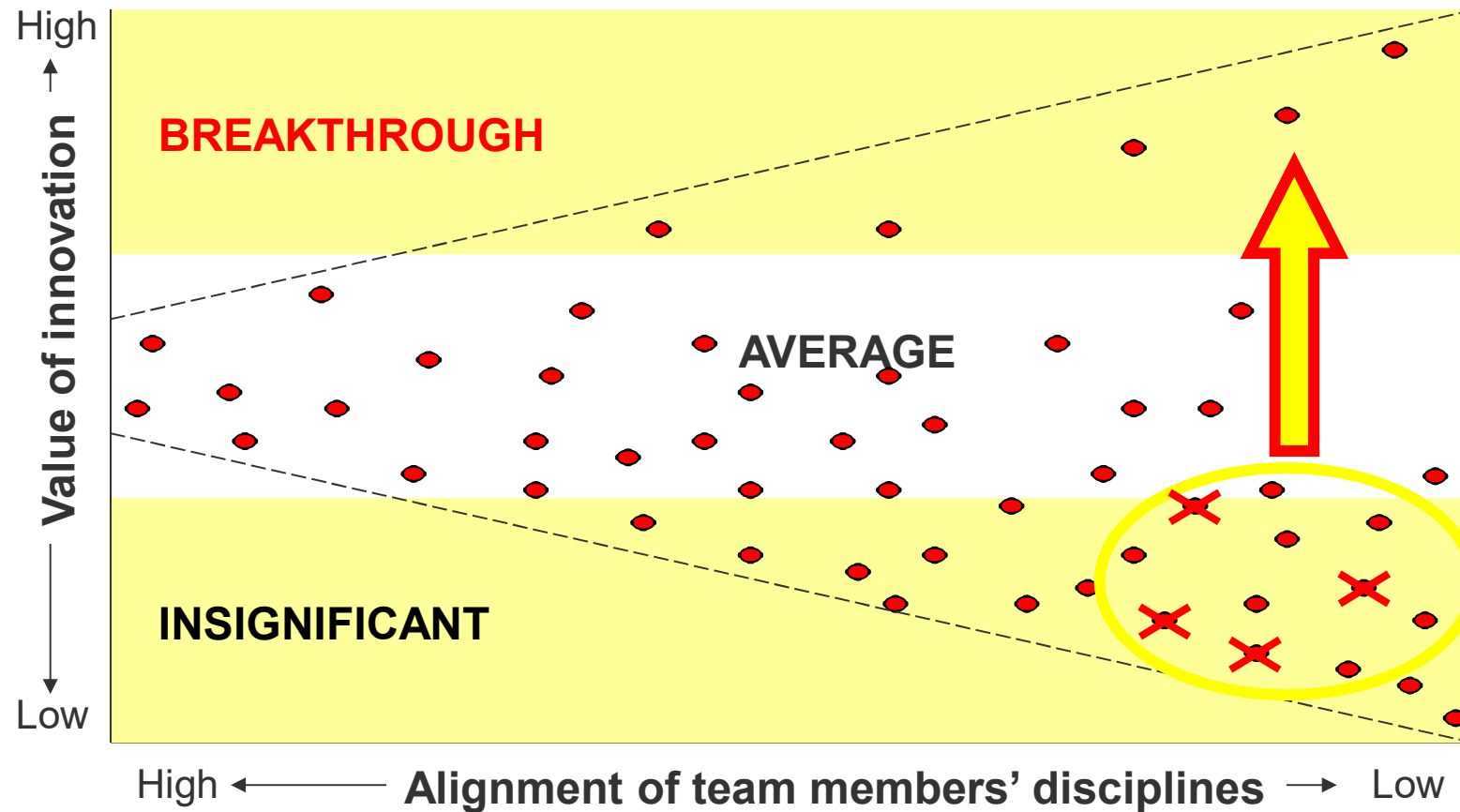


Che cosa è cambiato? Il terzo strato interno è ora realizzato con un filato più fine e più leggero. Risultato: il nuovo Gore-tex PRO è più leggero, più soffice, meno ingombrante e più traspirante. Altro particolare: le nastature del Gore-Pro sono praticamente dimezzate, ridotte a meno di un centimetro di larghezza e

SOLUTION

On the search/understanding of solutions

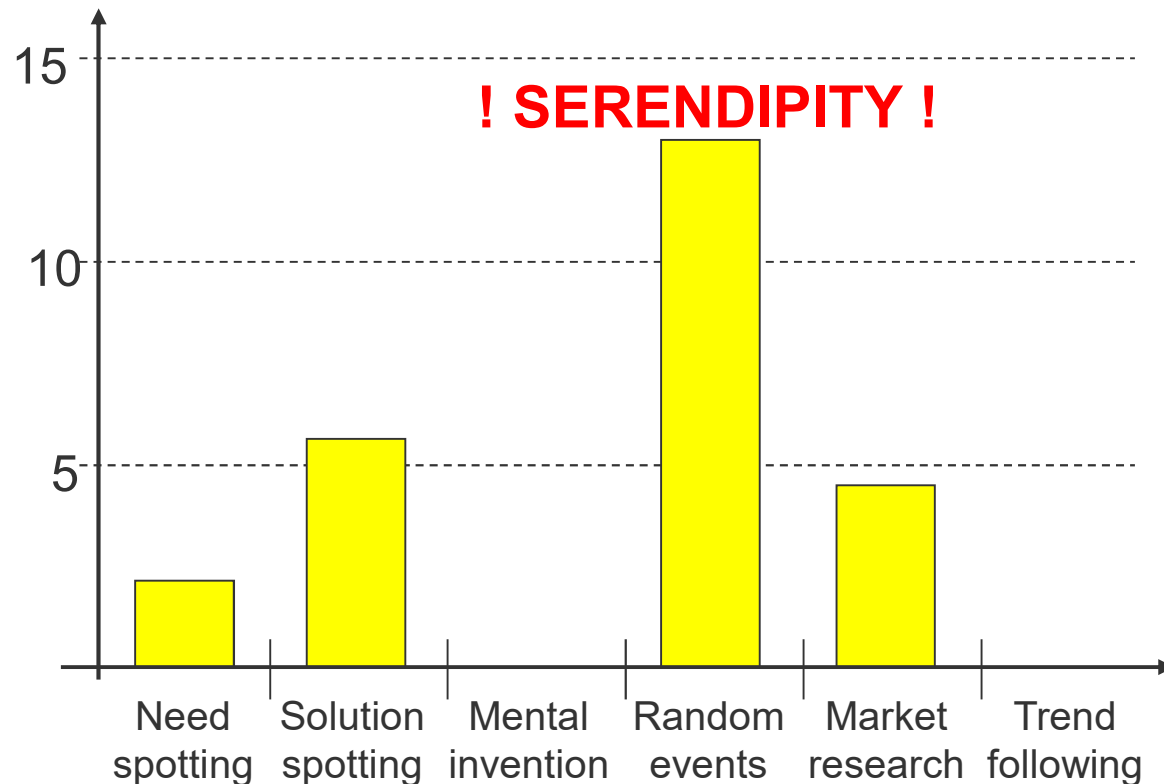
Diversity & Breakthrough



Adapted from "Lee Fleming, Perfecting Cross-pollination. Harvard Business review September 2004".

Wait for the UNEXPECTED

Lehmann, Goldenberg and Mazursky [2001] studied 197 examples of product innovations, of which 111 were successes and 86 failures. The successful innovations have been stratified according with six different idea factors: *need spotting*, *solution spotting*, *mental inventions*, *random events*, *market research*, and *trend following*.



Goldenberg, J., Lehmann, D. and Mazursky, D., (2001), The Idea Itself and the Circumstances of Its Emergence as Predictors of New Product Success, *Management Science* 47, n.1: 69-84.

Design or not desing this is the question .. But I can not

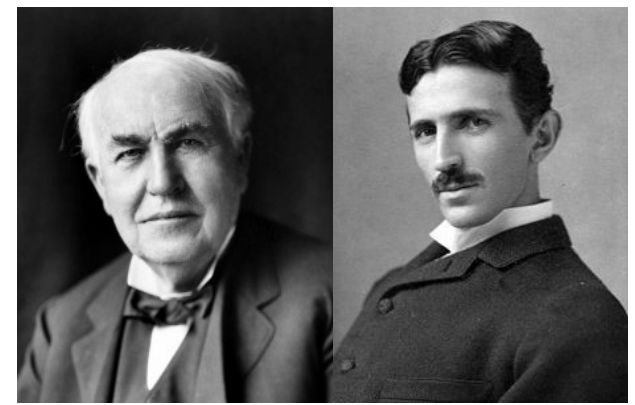
Build a shower
for enhancing
innovation



Offer you a beer
and let you talk
with your friends



Ask Thomas and
Nicolas for advices



Am I right?



Conclusion and learning goal

- You can be the source of unsolvable problems
 - Your company KBS now and in future
- Keep it simple
 - Spot the right problem
 - Do not be distracted by not relevant problems
- Decompose each problem and deal only with those you can swallow