

Supporting creative participation

A tale from Pisa-
a (relatively) human smart city

Forum P.A.
May 29, 2013

Andrea Bonaccorsi (a.bonaccorsi@gmail.com)

Riccardo Apreda, Gualtiero Fantoni, Donata
Gabelloni, Giacomo Tazzini

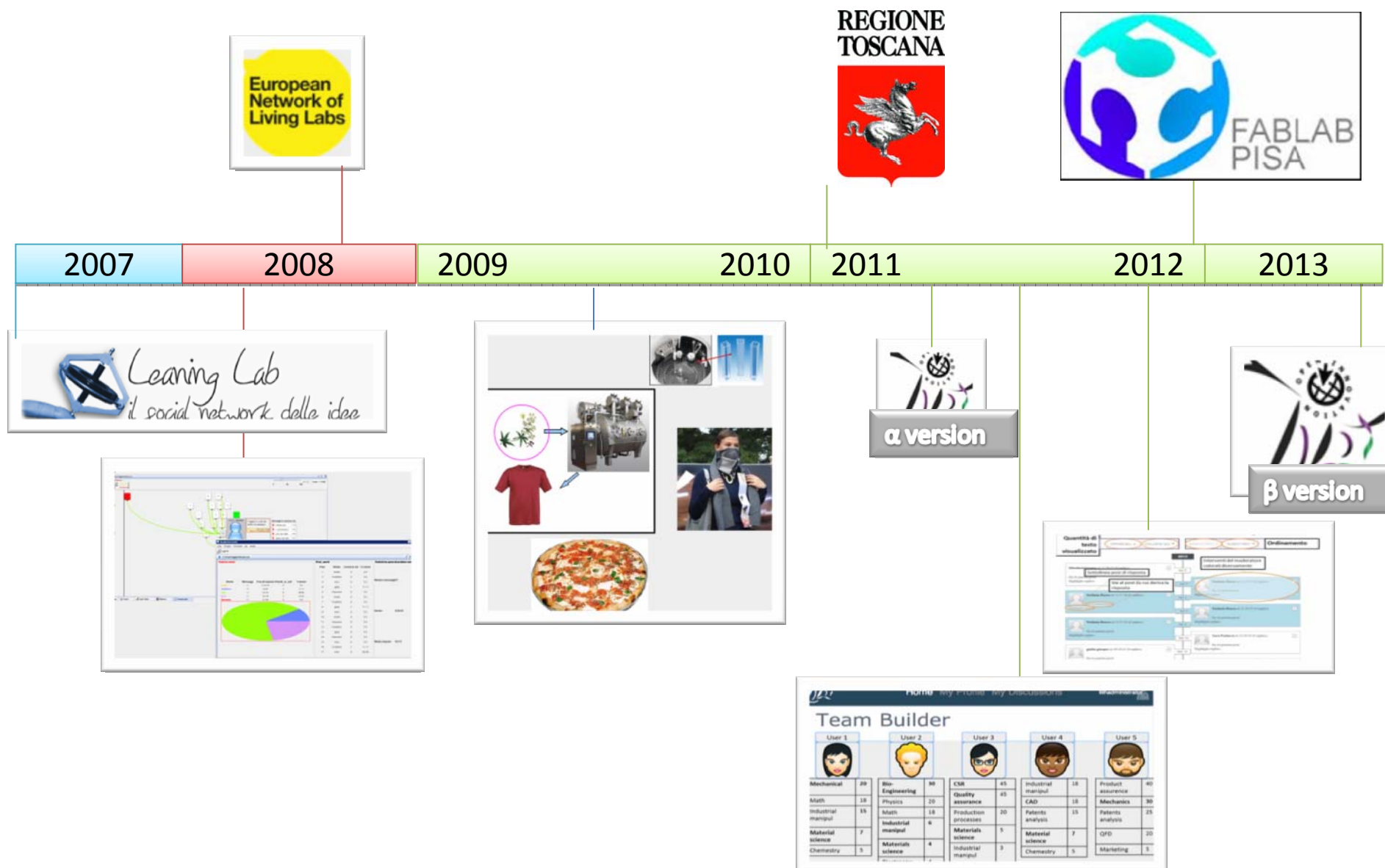
Main theme

**participation in human smart cities must
be supported**

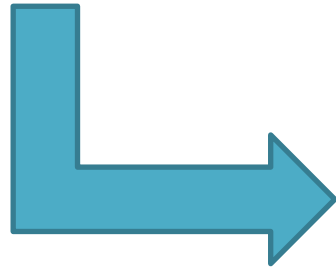
creativity is difficult

**need for advanced methodologies and
tools to support creative participation**

Time line



Partners



University of Pisa



CNR Pisa

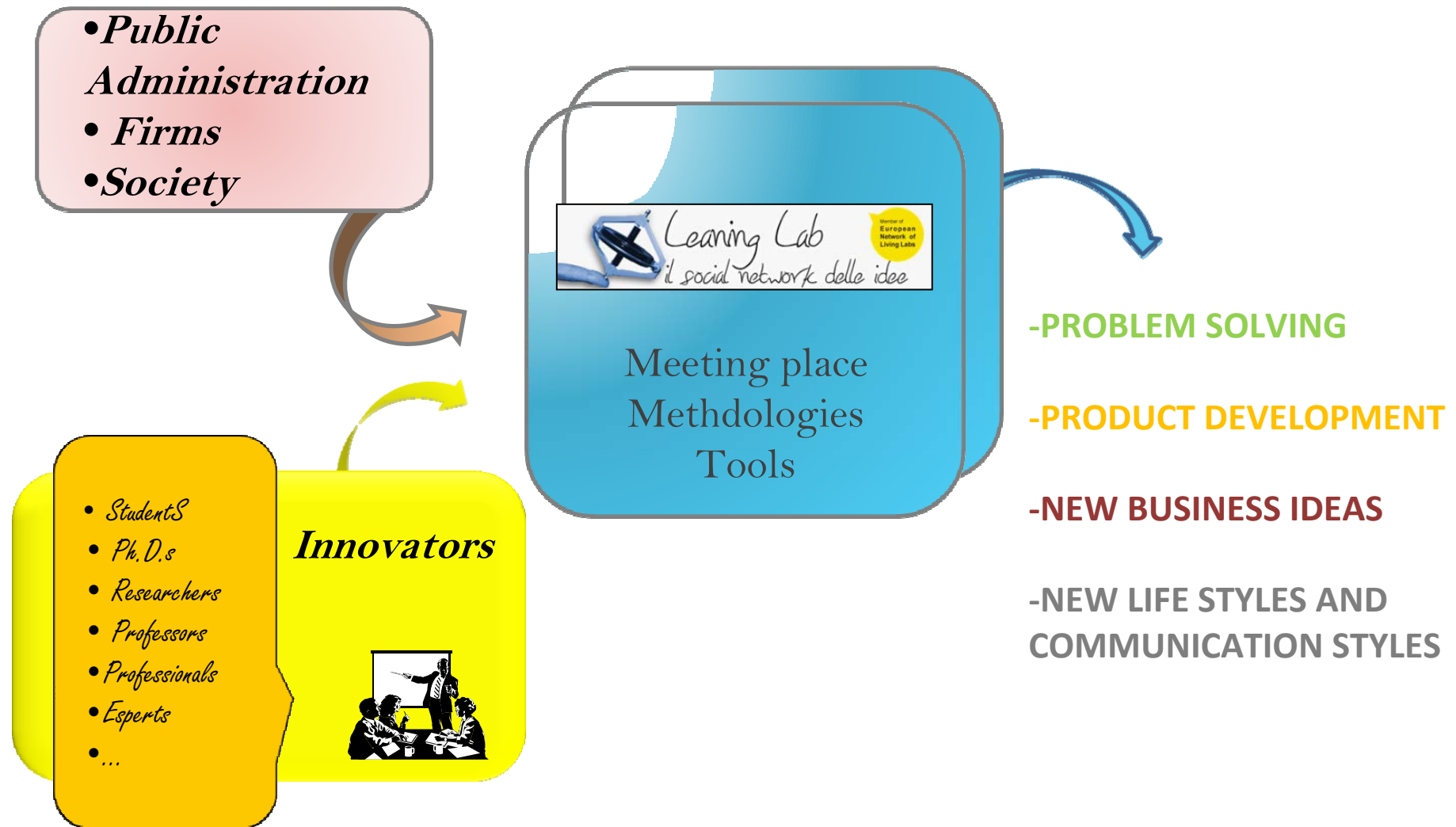


Spinoff companies



Tuscany Regional
Government

The overall model



Meeting place

Il Social Network delle Idee

8° f t



Leaning Lab

il social network delle idee

[Home](#) [L'idea](#) [Blog](#) [FABLAB Pisa](#) [Forum](#) [Il progetto LILIT](#) [Contatti](#)

Home

L'interazione sociale ha ormai contagiato tutti! Esistono social network dove postare le proprie foto, i propri video e le proprie passioni. perchè non farne proprio lo scopo del Leaning Lab (il Living Lab di Pisa): una comunità dove i problemi che le vengono posti e delle proprie risorse di fantasia, i



Mettiti in gioco!

OneldeaXDay

prodotto realizzato in poco tempo con tecniche di prototipazione e con l'aiuto di un team di veri maker!!

Far parte del Leaning Lab nel forum e Registrati per proporre di nuove tue contributi! Molte idee trovano il loro spazio qui.

In fine se sei un vero "maker" puoi unirti a FABLAB Pisa, dove potrai vedere il tuo progetto in azione.



Leaning Lab & Fab Lab

Building Ideas

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It is currently Mon May 13, 2013 4:15 pm

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AREA GENERALE	TOPICS	POSTS	LAST POST
 Leaning Bar Spazio per la discussione libera fra gli iscritti	13	40	by floyd  Tue Mar 12, 2013 2:06 pm
 Una società migliore Idee, spunti e riflessioni per migliorare la nostra società : applichiamo il buon senso in maniera estensiva!	3	14	by dukegb  Sun Jan 16, 2011 11:28 pm
 Presentazioni Sei nuovo? E' il posto giusto per raccontarci qualcosa di te.....	18	29	by Flavia  Sat May 09, 2009 11:57 am
 Chiedi a... Hai una domanda che le tue conoscenze non riescono a soddisfare? Chiedi a... : spiegaci di cosa si tratta e il Leaning Lab ti aiuterà	1	3	by Franco  Sat Nov 21, 2009 2:45 pm

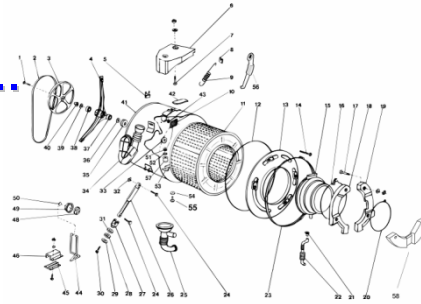
COSTRUIAMO IL LEANING LAB	TOPICS	POSTS	LAST POST
 Modello e architettura del Leaning Lab Discussioni e proposte sull'organizzazione del Leaning Lab	6	29	by Franco  Mon Jan 12, 2009 10:53 pm
 Marketing, Pubblicità e Vendita Tutto ciò che vi passa per la testa e pensate valga la pena di tentare per rendere il Leaning Lab sempre più attivo	4	10	by JappoKarma  Mon Feb 18, 2008 12:43 pm



How would you describe a washing machine?

Methodologies

1) Structure and system..
how is it done?



Incremental innovation

2) Needs and aesthetics..
how large?
how expensive?



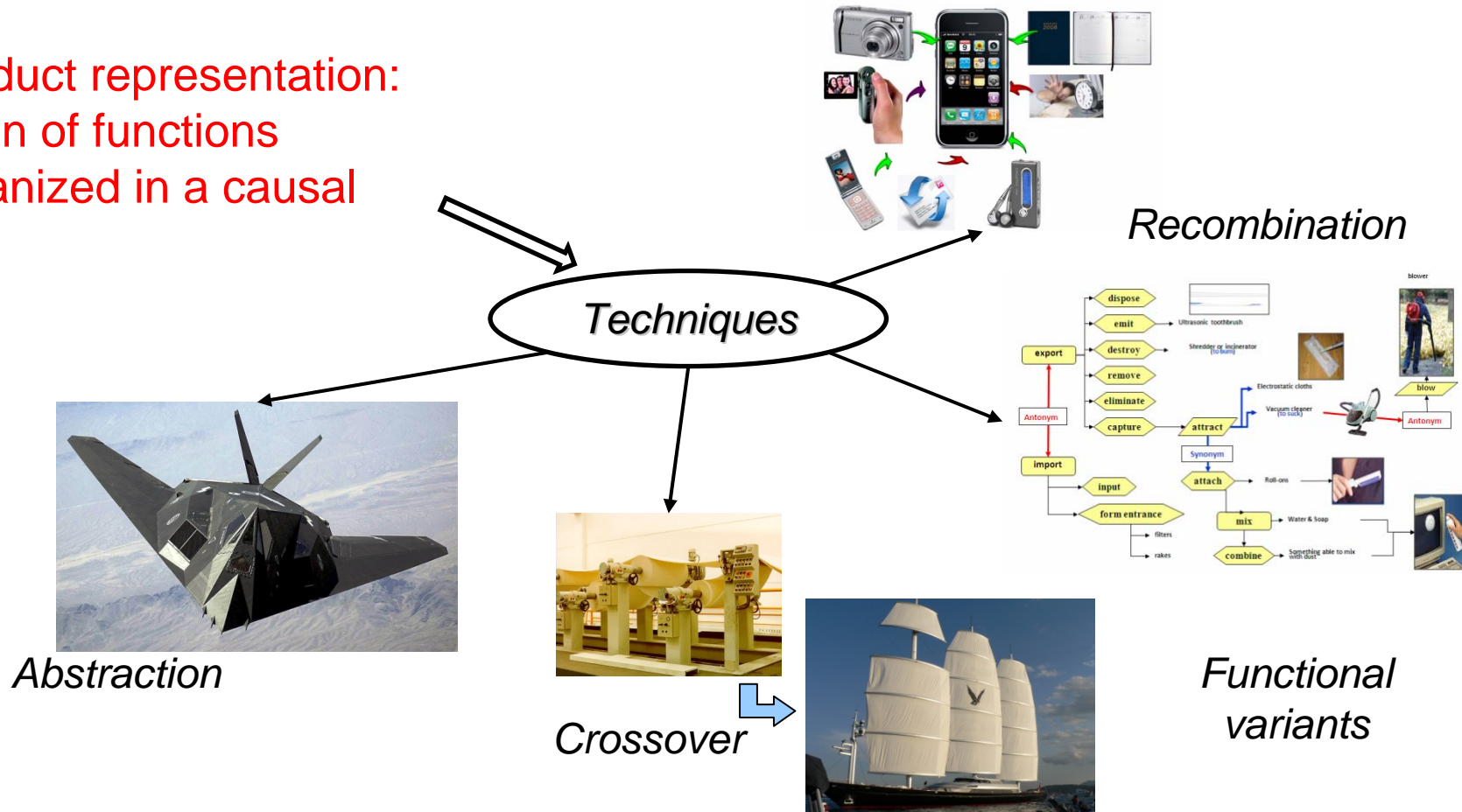
3) FUNCTIONS -
why is it built that way?
what does it do?



Radical innovation

Advanced creative techniques

Product representation:
chain of functions
organized in a causal
way



Booster: The initial thrust towards innovation



PAST Pro:

Idea validation:

- State of the art
- Support to patenting
- Technology foresight

L.I.L.I.T. Patents Database

Home	Query	This App	Resources
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Classes:

A61F2/14 (2276)	A61F9/007 (615)	A61F2/16 (468)	A61L27/00 (352)	A61F9/00 (272)	A61F9/013 (227)	G02C7/04 (204)	A61F2/00 (169)
A61N1/38 (113)	B20D11/00 (95)	A61F9/08 (92)	A61H9/00 (91)	G02B1/04 (84)	A61N1/05 (82)	A61F9/01 (77)	A61L27/34 (74)
A61L27/16 (71)	B20D11/02 (87)	A61L27/38 (64)	G02C7/02 (83)	A61B17/00 (81)	A61B17/32 (56)	A61F9/008 (50)	A61L27/64 (50)

Assignees:

KERAVISION INC (US) (32)	NIDEC CO LTD (14)
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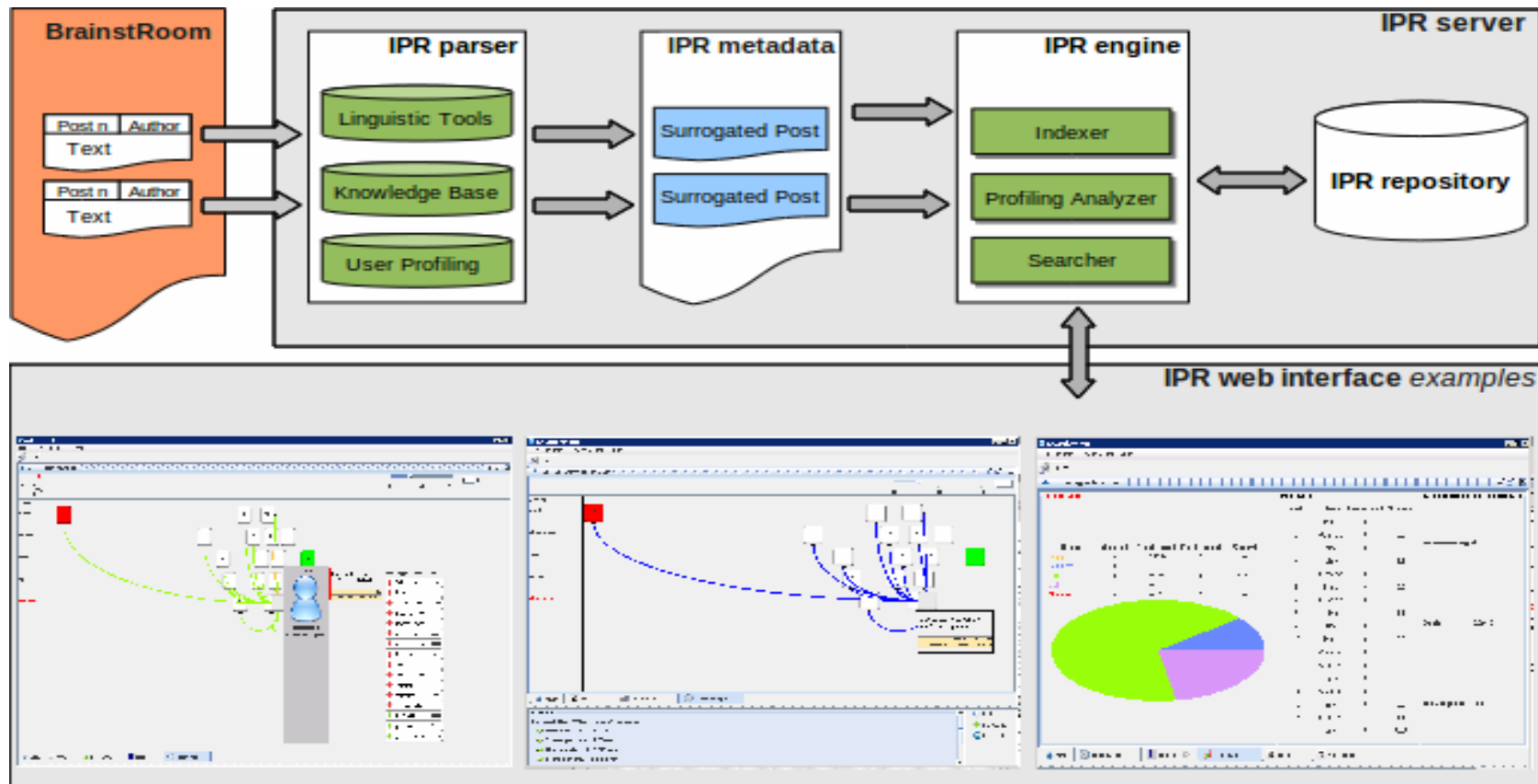
Matches 1 - 50 out of 2276

◀ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 ▶

Identifier:	6982090	Type:	United States Patent 6982090	Filing:	10/05/2001
Publication:	036712096	PDF:	6982090.pdf		
Classes:	A61B3/16 A61B9/10 A61F2/14 A61F9/007				
Title:	More easily visualized punctum plug configurations				
Abstract:	An improved punctum plug is more easily visualized when positioned within a punctal canal of a recipient. The body of the plug features an outwardly exposed surface when properly positioned, and a substance causing at least the outwardly exposed surface to contrast with surrounding tissue, such that the use of the substance causes the plug to be more easily visualized than if the substance were not present. The substance, which may be disposed on the outwardly exposed surface or within the body...				

Identifier:	20100179652A1	Type:	United States Patent Application 20100179652	Int Code:	A1
Publication:	15/07/2010	PDF:	20100179652A1.pdf	Filing:	05/10/2009
Classes:	A61F9/007 A61B9/00 A61B9/00 A61B9/10 A61F2/14				
Title:	Treatment of ocular disease				
Abstract:	The invention relates to a novel apparatus for the treatment of ocular disease, particularly glaucoma. The apparatus consists of a locating device to locate Schlemm's Canal within the anterior portion of the eye and a surgical tool to access the canal for treatment. The apparatus allows for guided, minimally invasive				

Rewind: tracking of Intellectual Property Right





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Team Builder

User 1

User 2

User 3

User 4

User 5

Mechanics	20	Production processes	30	CSR	45	Industrial manipulation	18	Product assurance	40
Math	18	Physics	20	Quality assurance	45	CAD		Mechanics	30
Industrial manipulation	15	Math	18	Production processes	20	Patents analysis	15	Patents analysis	25
Materials science	7	Industrial manipulation	6	Materials science	5	Materials science	7	QFD	20
Chemestry	5	Materials science	4	Industrial manipulation	3	Chemestry	5	Marketing	5
		Electronics	4						

Home My Profile My Discussions Giacomo Tazzini

La Barilla che vorrei - The Barilla I would like

EXPAND ALL COLLAPSE ALL NEWEST FIRST OLDEST FIRST

2012

Giacomo Tazzini at 10:50:33 (0 replies)

Go to parent post

Oct 5

Go to parent post

Oct 5

Gabriele Montelisciani at 10:50:33 (0 replies)

Go to parent post

Oct 4

Donata Gabelloni at 8:35:01 (0 replies)

Go to parent post

Oct 3

Giacomo Tazzini at 11:43:46 (0 replies)

Go to parent post

Oct 3

Giacomo Tazzini at 11:39:59 (1 reply)

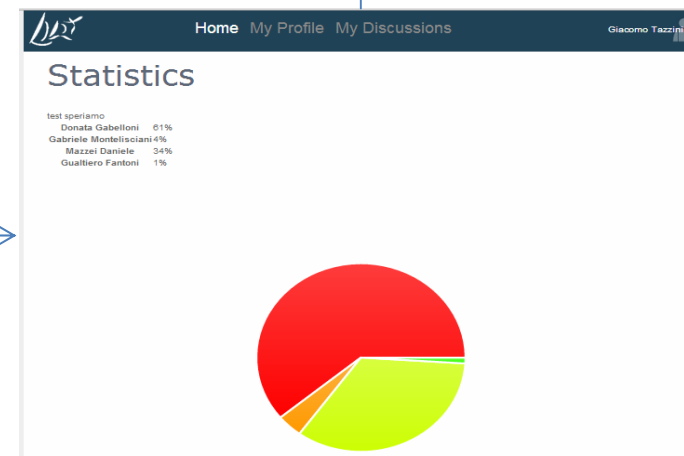
Go to parent post

Highlight replies

Oct 3

Gabriele Montelisciani at 11:08:50 (0 replies)

Go to parent post



Control System for Brushes Product

Class	A. Incremental innovations on actual generation of product
Purpose	Identify a new system to check the quality of industrial brushes. The control station will be installed in the end of a production line.
Tasks	To define ideas about a control system to measure and detect the flatness of industrial brushes
Teams size	6 solvers
Solvers skills	Mechanics Robotics Computer Science
Session duration	7 days
Solvers contributions	25

LILIT: Case studies (2)

Problem Title	2. Gripper for deformable thin objects handling	3. The Barilla I would like
Class	B. Incremental innovation on an entire class of current products	D. Next generation of needs within a field
Purpose	Delineate a new concept of industrial gripper basing on precise technical requirements.	Provide Barilla some ideas to meet customers (and not only) needs in terms of: offered products and services; internal processes; and, in general, a 360 degrees experience with the company.
Tasks	To define an on-demand switchable adhesion technology that can rapidly pick up objects on one side, transport these and fast release them by reversing the adhesion/gripping effect.	To post and discuss any idea about Barilla's products, services, business models
Teams size	6 solvers	6 solvers
Solvers skills	Mechanics Materials science Robotics	Management Mechanics Marketing Bio-Engineering
Session duration	4 days	12 days
Solvers contributions	19	24

LILIT: Case studies (3)

Problem Title	4. Can we look into products' life?	5. F.A.C.E. (Facial Automaton for Conveying Emotions)
Class	C. New Architecture for the next product generation	D. Next generation of needs within a field
Purpose	Identify strategies to raise food-companies transparency, honesty, as well as customers fidelization.	Discover new fields of application of an human android able to perform several different facial expressions.
Tasks	To define: <ul style="list-style-type: none"> - Who is the target consumer; - What kind of product is more suitable with the "investigation"; - How: specify the means of collection, elaboration and communication of the information to consumers. 	To define the field of application and to indicate for which specific tasks the android could be used.
Teams size	8 solvers	13 solvers
Solvers skills	Management Mechanics Electronics Logistics Marketing	Management Mechanics Electronics Logistics Bio-Engineering Innovation Marketing Computer Science
Session duration	7 days	17 days
Solvers contributions	30	52

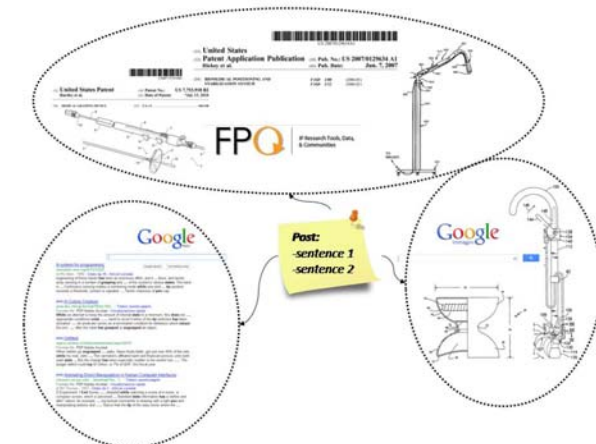
LILIT: Developments

POST	USER	HEURISTICS	
		EXPLAINED BY USERS	DEDUCED BY THE TEAM
P.1 – Inflatable pen	A	<i>Design by analogy (Crossover); Do it in reverse (TRIZ 13)</i>	
P.2 – Not in the pocket	C		
P.3 – Constraint/Ring	B	<i>Local Quality (TRIZ 3)</i>	
P.4 – Pencil	B		<i>Paradox/Contradiction</i>
P.5 – Sliding clip	C		<i>Do it in reverse (TRIZ 13)</i>
P.6 – Internal Rubber	B	<i>Design by analogy (Crossover); Features and functions</i>	<i>Feedback (TRIZ 23)</i>
P.7 – Elastic cap	D	<i>Local Quality (TRIZ 3);</i>	
P.8 – Excessive force	C		
P.9 – Finger ring	D	<i>Segmentation (TRIZ 1)</i>	
P.10 – Overturned cap	B	<i>Do it in reverse (TRIZ 13)</i>	<i>Asymmetry (TRIZ 4)</i>
P.11 – Shortened pen	E		

You solve, I learn:
knowledge managment



Wiki for cooperative writing with an associated tracking document



*Automatically
generated hints*



The Ideas Factory

 **FABLAB PISA**
THE IDEAS FACTORY

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A close-up photograph of a white, 3D printed pulley with a central metal bearing, resting on a blue textured surface. The image is part of a carousel, with navigation arrows visible on the left and right sides.

 FABLABPisa - La mappa italiana della nuova manifattura @FraMazzocchi <http://t.co/MOIZ0xhvvY> 17 hours ago

Case study

From IDEA to PROTOTYPE

*The process of ideation, prototyping and
communication*


Problem definition

SOME (Social emotional device- The Internet of things)

<p><i>Title</i></p> <p>SOME: Social emotional <i>device</i> - The Internet of Things.</p>	<p>The Discussion title. The title is displayed on the personal “My Discussions” page. TIP: A descriptive and captivating title is more likely to entice a solver to participate in the Discussion.</p>
<p><i>Discussion Abstract:</i></p> <p><i>The object of the discussion is SOME, a smart device that through a connection to the most famous social networks, can provide services to users by using information from multiple domains. The challenge is to develop a dynamic object that can not only communicate its status, but it can also change it depending on the stimuli detected from the environment and from the connected network.</i></p> <p><i>The purpose of this discussion is to identify ideas for possible uses and applications of SOME given the constraints described.</i></p>	<p>A brief description of the challenge. It is used on the expanded “My Discussions” listings, and also appears in the emailed invite.</p> <p>TIP: Provide a description that better focuses the discussion. Avoid here the introduction of confidential details that will be accessible to Solvers once they have agreed to the terms of the Discussion.</p>
<p><i>Problem Overview:</i></p> <p><i>The development of computer technology has made possible the extension of the Internet to the world of objects, through which they acquire the ability to communicate and share information with each other, reacting with a behavior that is apparently emotionally.</i></p> <p><i>The team wants to build a physical smart device that through a connection to the most famous social networks, can provide services to users by using information from multiple domains.</i></p> <p><i>The purpose of this discussion is to identify ideas for possible uses and applications of SOME given the constraints described below.</i></p> <p><i>SOME consists of an RGB LED and computer libraries that link it to social networks (twitter, facebook, etc..). It Has several sensors that detect environmental conditions.</i></p> <p><i>Possible Input: light, temperature, sound, touch, information from social networks.</i></p> <p><i>Possible Output: Lights, sounds, smells, information to social networks.</i></p> <p><i>The output is modulated by an interpolation of the acquired sensorial variables, including data from the network (such as color, intensity and frequency of flashing LED). In addition SOME itself is able to share preset sentences on its profile.</i></p> <p><i>The success of SOME, which is born as an open source project, will be able to mold to the user's needs who can change its behavior to suit every purpose.</i></p>	<p>Problem detailed scope and description. This may include: context; overview of the involved technologies; existing limits and issues.</p> <p>TIP: note that a good challenge has Limited Scope and is Specific. If the problem seems to be too broad, try to break it into different and more specific discussions, or ask the team.</p>
<p><i>The successful solution will:</i></p> <p><i>collect new ideas and opinions focusing on the design and possible "emotional" behaviors that each of us might want from the use of SOME. With regard to these choices suggest us its application context.</i></p>	<p>Detail here, if needed, the list of requirements that the final solution is expected to fulfill.</p>
<p>The following elements are not of interest:</p> <p><i>A study of the technical aspects and design is not requested in this phase of the project.</i></p>	<p>Detail here, if needed, constraints and restrictions that bind solvers to keep their focus on problem scope.</p>

Participation

Posted: 13/03/2013 23:34


View Properties  Reply Hints

Roberta Dicarlo

SOME can help parents with their very nice capricious newborns. During night, when the baby is in his cradle and begin to complain or cry, it can: release his mum's perfume, cast suffused lighting, be soft and have the taste of a pacifier, play a sweet song or tell a story to send him to sleep.

Show Quoted Messages

Posted: 13/03/2013 23:39

View Properties  Reply Hints

Lina Parziale

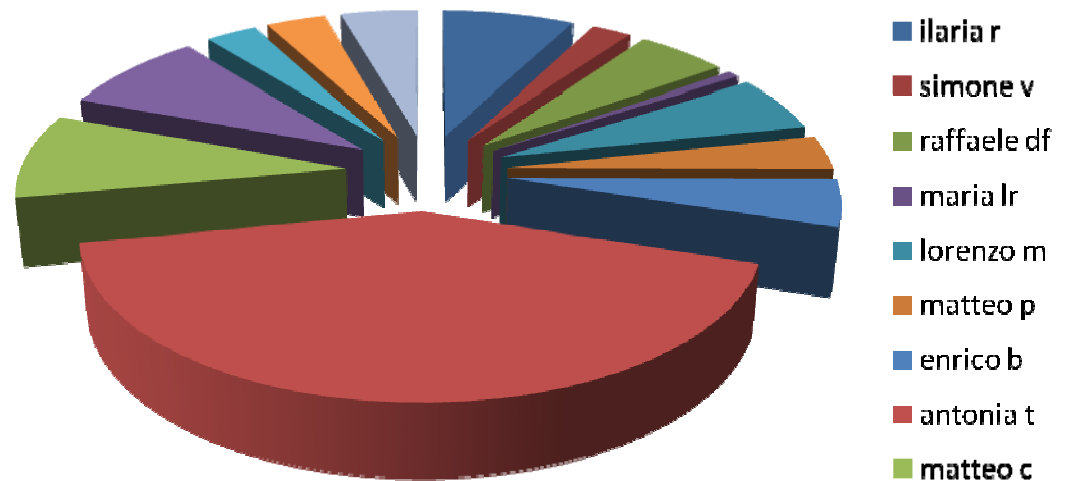
SOME can be used as a device installed on a massage armchair. Using it everyone can decide not only the type of the massage but he can also set the temperature of the chair and he can decide which music to listen from the headphones installed on the chair. The optimal place for this device would be a waiting room.

Invitees	105
Active participants	64
Main skills	Management, Bio-Engineering, Mechanical
Session duration	7 days
Number of new ideas generated	93

IPR tracking for solution no. 1

In my opinion SOME could be a very useful tool to **evaluate the level of the stress** (through the several information gathered from the sensors) and which provide warnings and motivating feedbacks to the user. I hypothesize a scenario with the user in front of a PC, he is a little bit stressed because he has to work and the weather is very hot. **SOME detect the level of the stress and release a good smell, reduce the level of temperature in his room, play some relaxing music.** Moreover if his stress level his very high, SOME can **send a message giving some useful suggestions according his profile collected from social networks** like: "Your stress level is high, why don't you go out for a walk (or running) half an hour?"

Name	Solution 1
Antonia t	42%
Matteo c	9%
Saverio c	8%
Ilaria r	8%
Lorenzo m	6%
Raffaele df	5%
Enrico b	5%
Roberto p	4%
Matteo p	3%
Davide do	3%
Alessio dr	3%

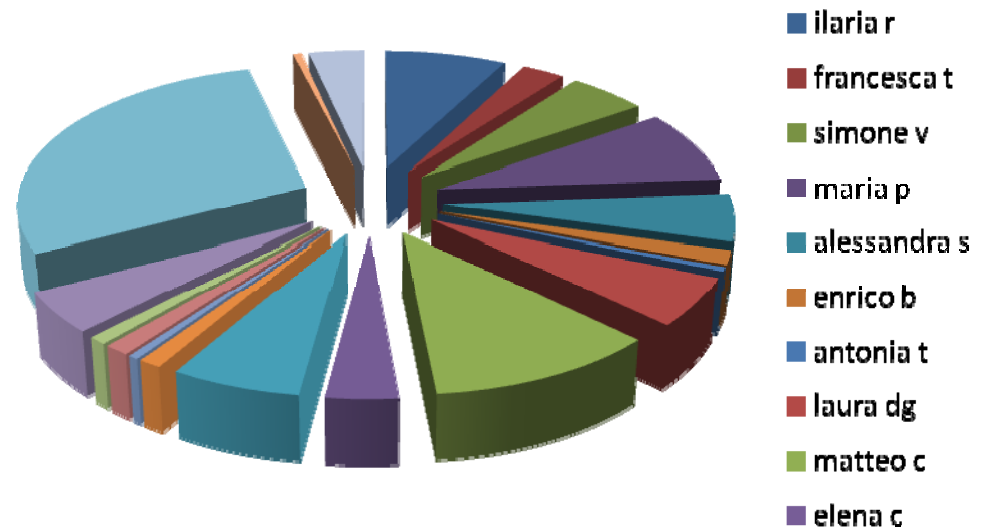


IPR tracking for solution no. 2

SOME can be used for direct communication between people with the support of social networks (the social network indicates that a user has SOME and gives you the ability to send a smell among those available, an audio (song or recording), a video, a picture, without this being visible to all other users). The user that has SOME receive directly to the device, without the need to open the social network, its personal "sensory message".

Name solution 2

Giuseppe t	29%
Matteo c	11%
Maria p	8%
Ilaria r	8%
Saverio c	6%
Laura dg	6%
Alessandra s	6%
Simone v	5%
Daniele g	5%
Elena c	4%
Tommaso c	3%
Francesca t	3%

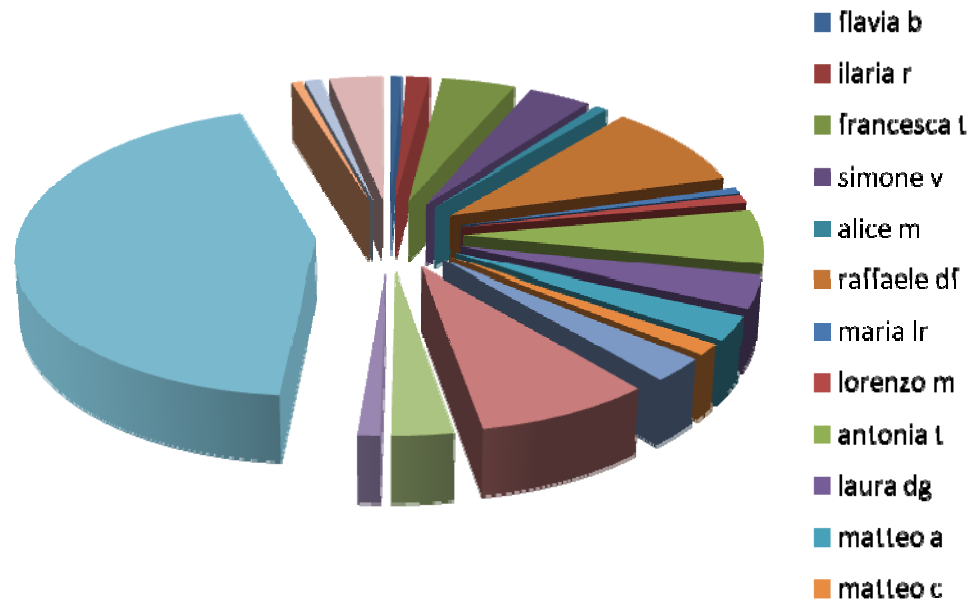


IPR tracking for solution no. 3

SOME can help **parents** with their very nice capricious newborns. During night, when the **baby is in his cradle and begin to complain or cry**, it can: **release his mum's perfume, cast suffused lighting**, be soft and have the taste of a pacifier, **play a sweet song or tell a story** to send him to sleep.

Name solution 3

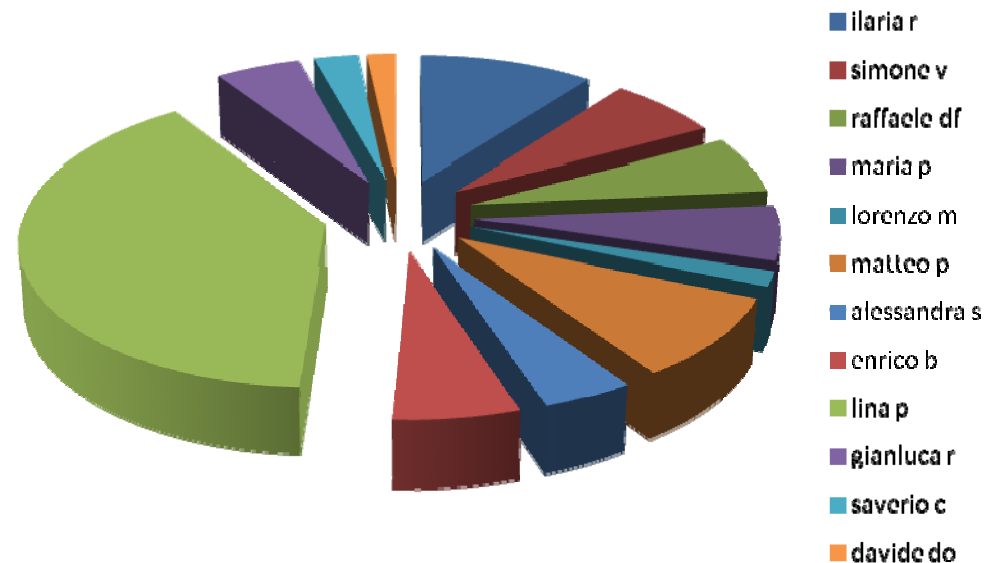
Roberta dc	42%
Raffaele df	9%
Saverio c	8%
Antonia t	6%
Francesca t	4%
Simone v	4%
Laura dg	3%
Fabio der	3%
Francesca v	3%
Matteo a	3%
Elena c	3%



IPR tracking for solution no. 4

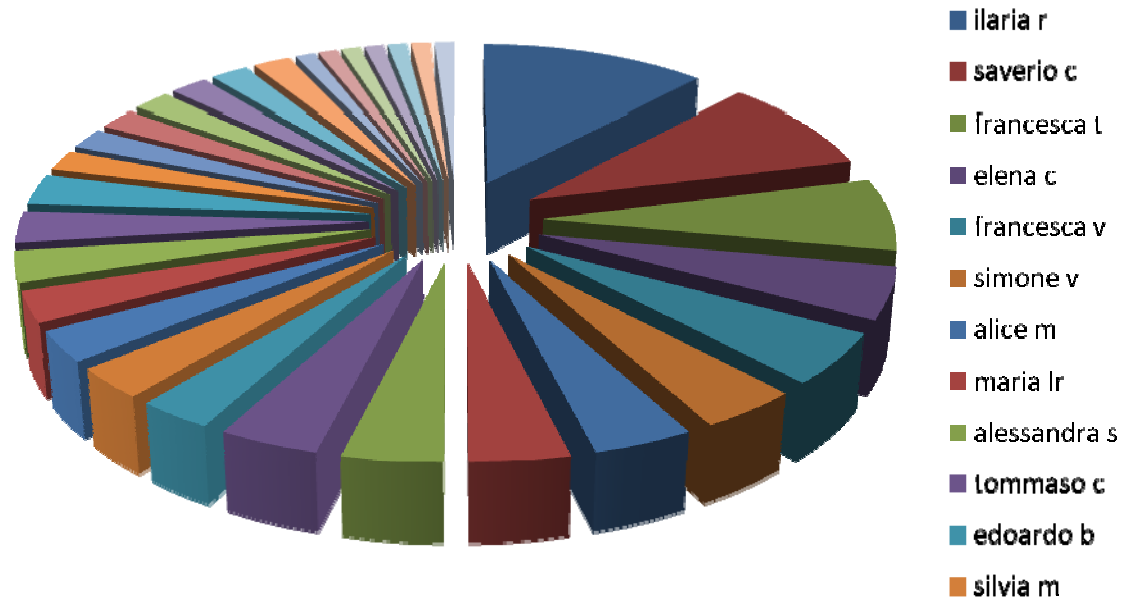
SOME can be used as a device installed on a **massage armchair**. Using it everyone can decide not only the **type of the massage but he can also set the temperature of the chair and he can decide which music to listen** from the headphones installed on the chair. The optimal place for this device would be a waiting room.

Name	solution 4
Lina p	39%
Ilaria r	10%
Matteo p	9%
Simone v	7%
Raffaele df	6%
Maria p	6%
Enrico b	6%
Gianluca r	5%
Alessandra s	4%
Saverio c	3%



IPR tracking for solution implemented

Name	Final solution
Ilaria r	12%
Saverio c	9%
Francesca t	7%
Elena c	5%
Francesca v	5%
Simone v	4%
Alice m	4%
Maria lr	4%
Alessandra s	4%
Tommaso c	4%
Edoardo b	3%
Silvia m	3%
Andrea p	3%
Lorenzo m	3%
Enrico b	3%
Davide do	3%
Michele c	3%



Final ranking

Name	Final score (%)
Antonia t	9,61%
Roberta dc	8,66%
Lina p	7,85%
Ilaria r	7,78%
Saverio c	6,89%
Giuseppe t	5,74%
Matteo c	4,68%
Simone v	4,32%
Raffaele df	4,14%
Enrico b	3,18%
Matteo p	2,99%
Maria p	2,96%
Francesca t	2,89%
Alessandra s	2,83%
Lorenzo m	2,24%
Elena c	2,23%
Laura dg	2,02%

Spotted: UNIPi
9 ore fa

INGEGNERIA
Ma cosa succede oggi?????



Mi piace · Commenta · Condividi

A 29 persone piace questo elemento.



Someday
di Fablab Pisa
4 video

Spotted: UNIPi
11 minutes ago

UNIPi

#SOME

Hai un account? Accedi

#mesDUSPasLuanSantafabriz

#PomPoms4

#JcCaylenFollowMe

BüyükBaşkan SüleymanSeba

Soraya Jiménez

QB Tony Romo

Ayasofyalgin EzanVakti

Jerry Jones

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Università di Pisa @Unipisa 8h
Arriva **#SOME**, il nuovo prodotto elettronico made in ING
@FABLABPisa
bit.ly/XgD94R
Espandi

Tommaso Petrolito @geminus89 8h
Arriva **#SOME**, il nuovo prodotto elettronico made in ING: Da qualche giorno sulle lavagne di molte aule di Inge... bit.ly/11WhRYp
Espandi

Spotted Unipi @SpottedUnipi 9h
#SOME
ecco dove lo potrete vedere!!!! fb.me/GLCU0djr
Visualizza il contenuto multimediale

Davide A. Cecchini @davidcchn 9h
#SOME la radice degli oggetti, l'internet delle cose.: linkd.in/R75dnP
Espandi

FABLAB Pisa @FABLABPisa 10h
#SOME la radice degli oggetti wp.me/p2YWd4-cD
Visualizza il contenuto multimediale

Spotted Unipi @SpottedUnipi 27 Mar
UNIPi **#SOME**
Il virus è mutato. Adesso è musica!
SO#Eone have music?
QUALCHE_ANONIMO... fb.me/14SuNzEtU
Visualizza il contenuto multimediale

Salvatore Balestrino @aggadaway 27 Mar
#some che vede se stessa. Impazirà? pic.twitter.com/hKkCcnQgc9
Visualizza la foto

2033
di Fablab Pisa
162 visualizzazioni

Somewhere
di Fablab Pisa
495 visualizzazioni

Spotted Unipi @SpottedUnipi 27 Mar
PISA
Ma tutte ste scritte **#SOME**...io ci piscio sopra come le trovo, faccio bene?
Espandi

Davide A. Cecchini @davidcchn 26 Mar
@FABLABPisa @MazzeiDaniele Ho scoperto che presenterete **#SOME** al @greentechfest. sembra qualcosa di über-cool!! Sabato non mancherò!
Visualizza conversazione

Spotted Unipi @SpottedUnipi 26 Mar
UNIPi
Spotted! Ma cos'è questo **#SOME**?
Scrivete frasi che contengano la parola SOME, la migliore sarà premiata.... fb.me/NECvEVY1
Espandi

La Mimi @MimiCimm 25 Mar
qua spopola il **#SOME**
Espandi

Daniele Mazzei @MazzeiDaniele 24 Mar
Volete anche voi fare la foto I Love **#SOME**? Scrivetelo, scattate e via su facebook e twitter del FabLab Pisa. ppt: docs.google.com/file/d/0B1i6cE...
Espandi

FABLAB Pisa @FABLABPisa 22 Mar
@apintux siamo provando @parampu con **#some**. Spettacolo!! Domani se dobbiamo modificare qualcosa ti chiamiamo!!
@MazzeiDaniele
Espandi

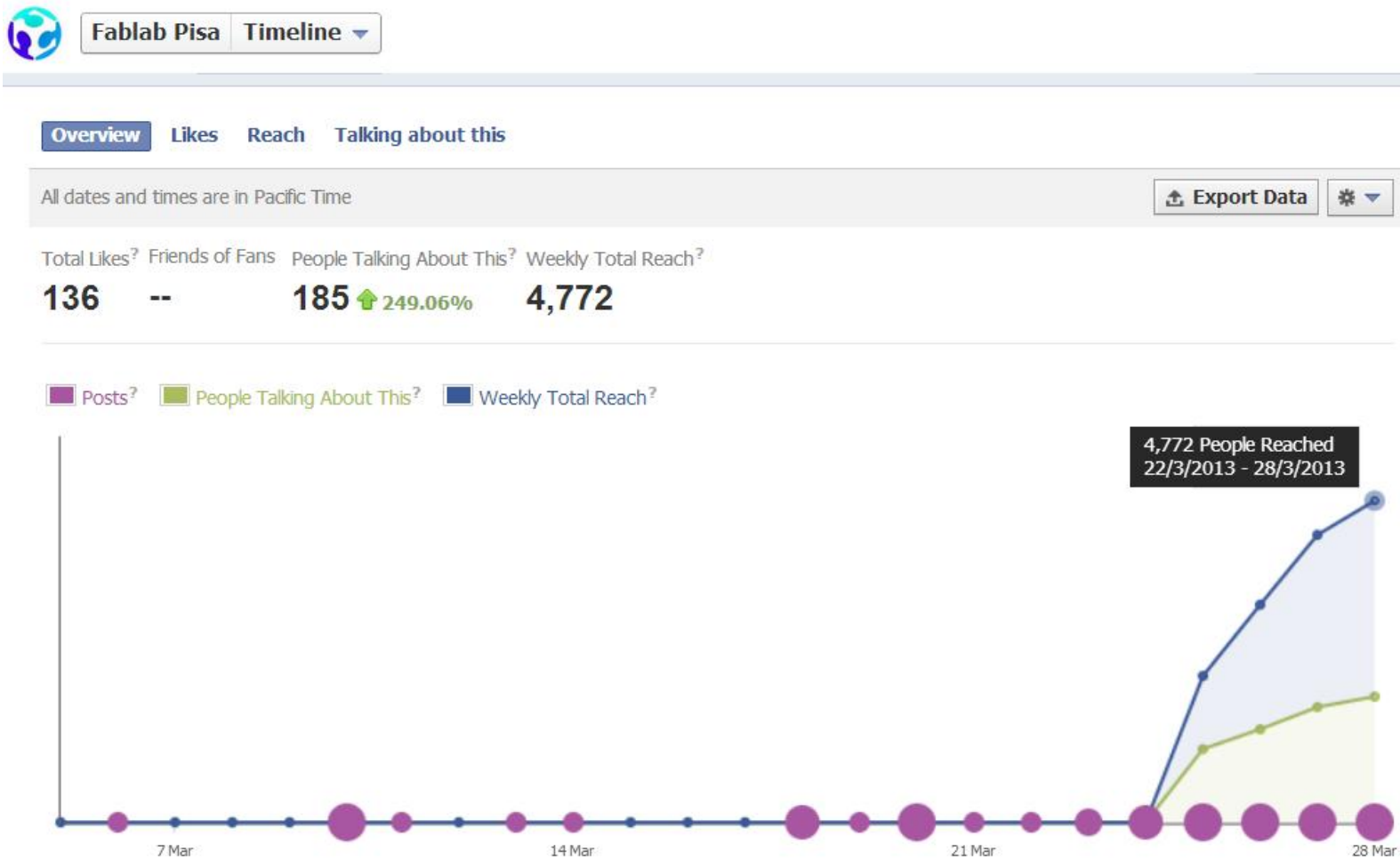


Viral campaign of Leaning Lab

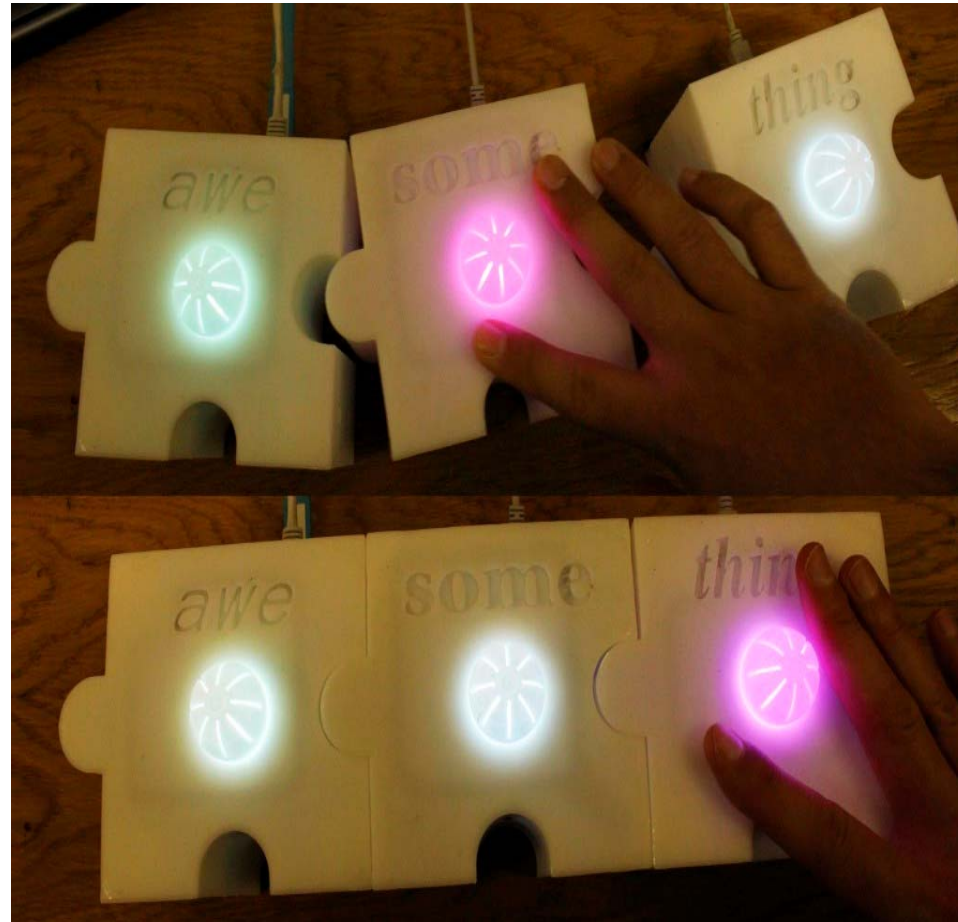
2179 accesses in just one day



Results of the viral campaign of Leaning Lab



Prototype of Fab Lab Pisa



Other experiences

- Feeder, moto, automotive...
- Biomedical equipment
- New textile process for Shangai
- New materials, new devices
- Advertising campaigns
- Design and development of new services
- Technology foresight
- ...