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Patent Inspiration: New Insights, Inspiration and Ideas

Gijs Bakker & Joris Craandijk

25-8-2015

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Who are we?

Innovative Partners is a small consulting & training firm based in Amsterdam

We generate with & for our clients New Insights, Inspiration & Ideas in relation to complex challenges

We apply the TRIZ Methodology as we are convinced solutions can be found in other domains. Hence we are looking for unusual relevant connections: i.e. a person, company or institution which operates in an other sector, industry or domain and does, knows or owns something what is of any value for our challenge.

To find unusual relevant connections Aulive's Patent Inspiration is the most powerful, cost effective and intuitive tool

Next to using Patent Inspiration in our daily work, we sell licenses and train users

Patent Inspiration

Patent Inspiration is a visual driven, user friendly web-enabled tool for experts like R&D staff, engineers, product developers, scientists and innovators enabling them to:

1. Gather information about recent developments in their “own” domain (i.e. sector, industry, competitors and institutes) regarding technologies, techniques, inventions and innovations,
2. Scout for specific information about the area of interest of the user like material, technology, process, application etc.
3. Generate New Insights and Ideas regarding one’s complex challenges i.e. finding inspiration in unusual domains other than the usual domain

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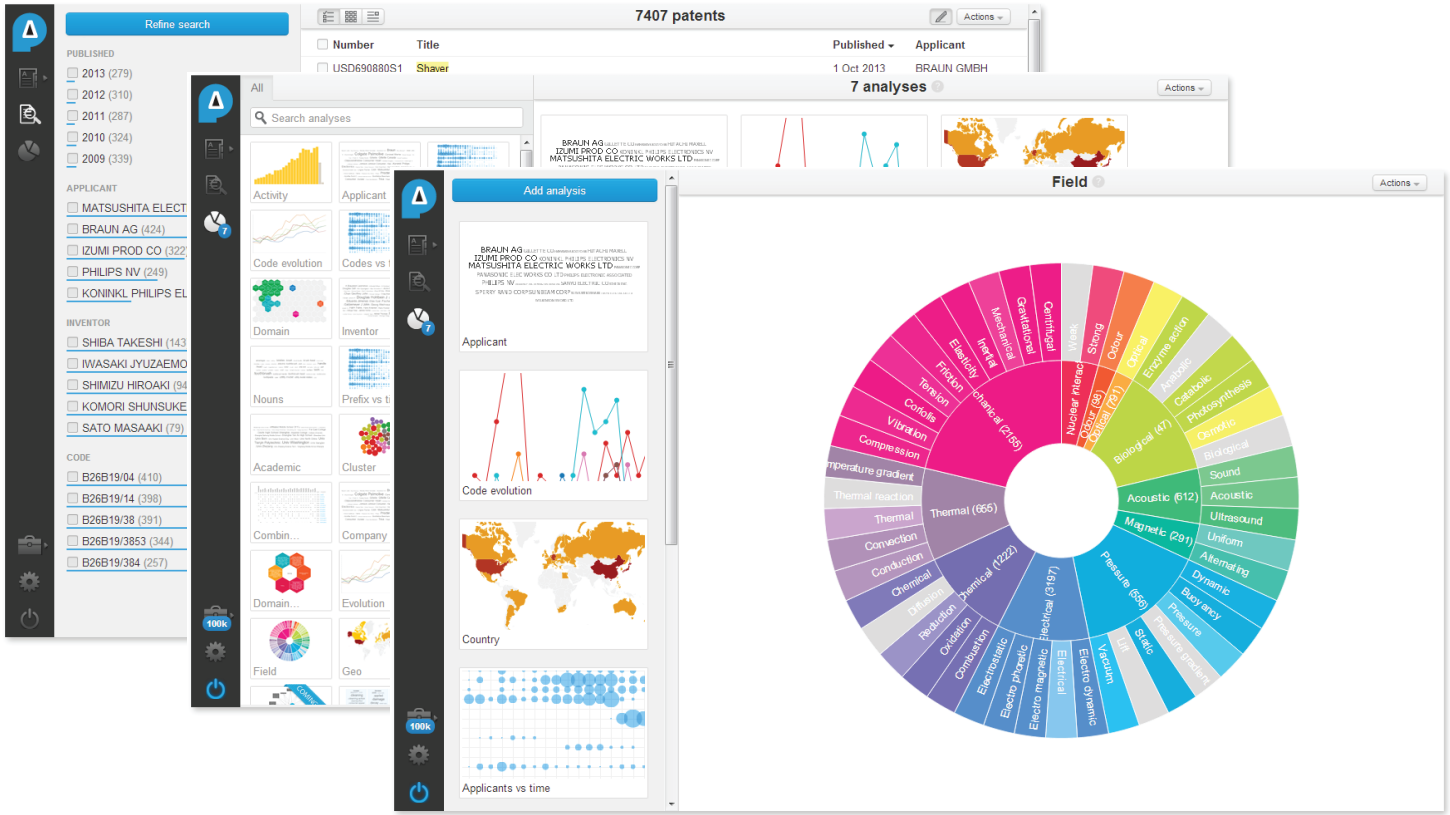
Patent Inspiration

Stop searching, start finding



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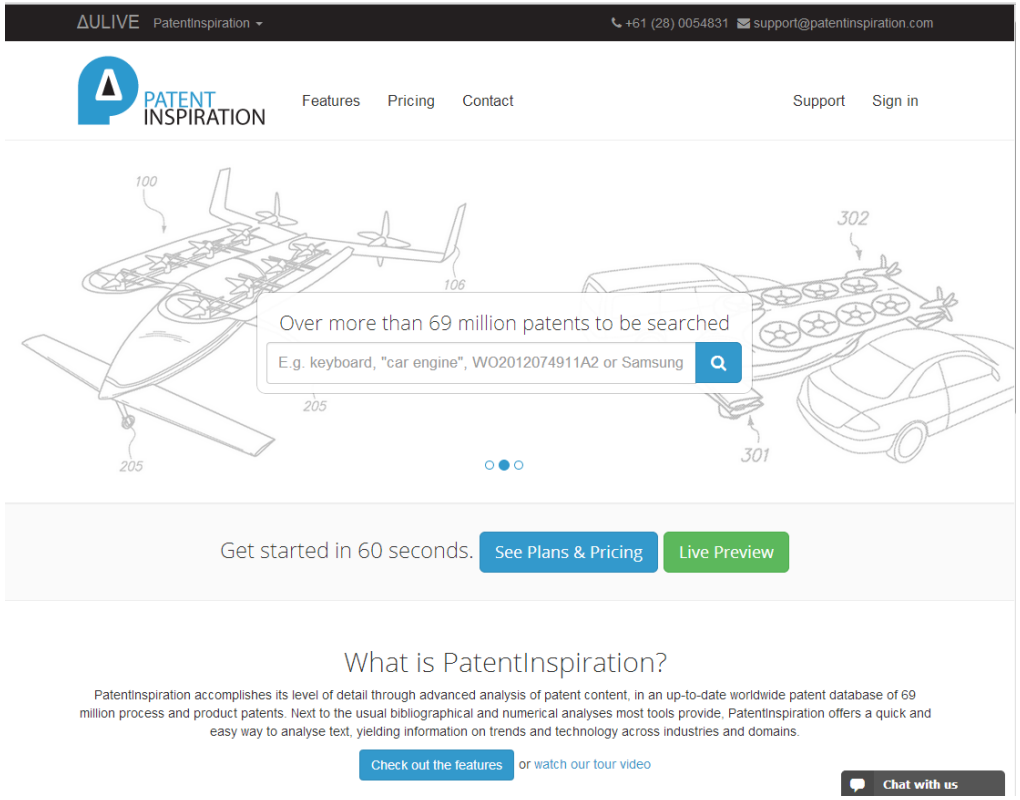
PATENT INSPIRATION



PatentInspiration accelerates your R&D process

- **Supporting the innovation process**
- **Obtaining competitive intelligence in great detail**
- **Technology mapping and discovering technology transfer opportunities**

STRENGTHS

- Unique in text analysis
- Powerful visualizations
- Internally developed (30 man years)
- Hands-on interface
- No background patent knowledge required
- Unique systematic innovation method
- Continuous development
- 69 million patent database engine
- Database updated weekly

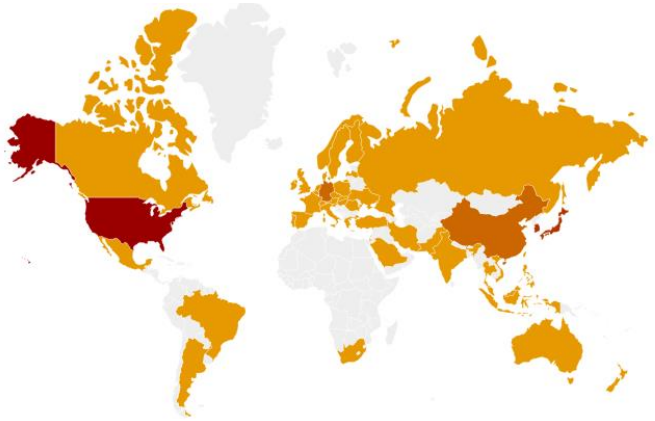
FOR WHOM

- R&D managers
- Innovation managers
- Marketing managers
- Strategic managers
- Technology managers
- Scientists

Data coverage

The PatentInspiration database

- based on the DOCDB database from the EPO (European Patent Office)
- contains bibliographic data from over 90 countries
  - Titles
  - Abstracts
  - Applicants
  - Inventors
  - Citations
  - literature citations
  - code classications
  - family info
- updated on a weekly basis
- contains full text (claims & descriptions) of the main searched authorities (WO,EP, US, CA, …)
- Patent images are also available of more than 10 authorities (WO, EP, US, GB, …)

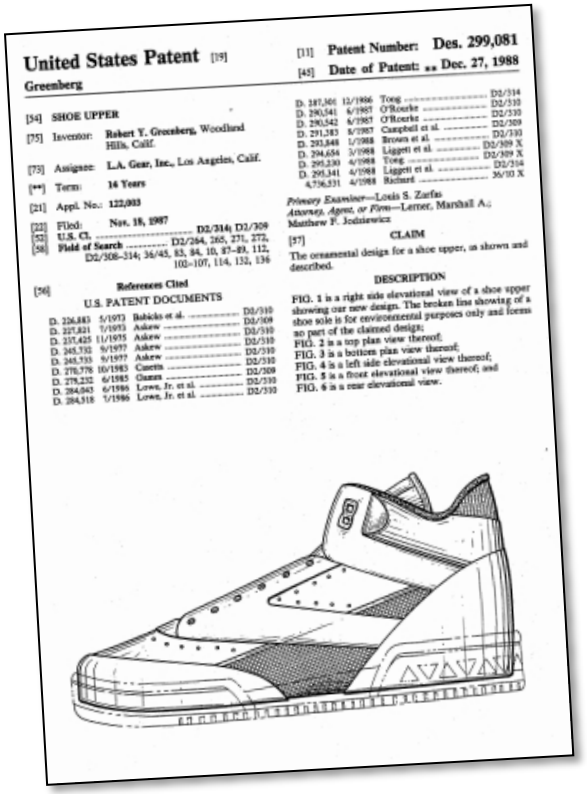


A detailed coverage can be found at http://www.epo.org/searching/data/data/tables/weekly.html, see "Contents and coverage of the DOCDB bibliographic file".

Why patents?

Patents are a great source of knowledge to explore:

- Well defined problems with well defined solutions
- Last year over 2 million were published
- Lots of data available (now 69 million in our database)
- Current state of the art of products and processes
- Patents are a window to the future as well
- English text often available
- Well structured by title, abstract, claims, description and mosaics: ideal for algorithms to data mine with clustering and Natural Language Processing technologies
- Easy to use for cross industry searches (TRIZ)
- Extracting meaningful patterns and evolutions (TRIZ)



United States Patent [19]
Greenberg

[11] Patent Number: Des. 299,081
[45] Date of Patent: ** Dec. 27, 1988

[54] SHOE UPPER
[75] Inventor: Robert Y. Greenberg, Woodland Hills, Calif.
[73] Assignee: L.A. Gear, Inc., Los Angeles, Calif.
[**] Term: 14 Years
[21] Appl. No.: 122,033
[22] Filed: Nov. 18, 1987
[52] U.S. Cl. D2/314; D2/309
[58] Field of Search D2/284, 285, 271, 272, D2/308-314; 36/45, 83, 84, 10, 87-89, 112, 102-107, 114, 132, 136

[56] References Cited
U.S. PATENT DOCUMENTS

D. 226,883	5/1973	Bobicks et al.	D2/310
D. 227,831	7/1973	Askew	D2/309
D. 237,425	11/1975	Askew	D2/310
D. 245,732	9/1977	Askew	D2/310
D. 245,733	9/1977	Askew	D2/310
D. 270,778	10/1983	Caserta	D2/309
D. 279,232	6/1985	Ganza	D2/310
D. 284,043	6/1986	Lowe, Jr. et al.	D2/310
D. 284,518	7/1986	Lowe, Jr. et al.	D2/310
D. 287,301	12/1986	Tong	D2/314
D. 290,541	6/1987	O'Rourke	D2/310
D. 290,542	6/1987	O'Rourke	D2/309
D. 291,583	8/1987	Campbell et al.	D2/310
D. 293,848	1/1988	Brown et al.	D2/309 X
D. 294,656	3/1988	Liggett et al.	D2/309 X
D. 295,230	4/1988	Tong	D2/314
D. 295,341	4/1988	Liggett et al.	36/93 X
4,736,531	4/1988	Richard	

Primary Examiner—Louis S. Zarfas
Attorney, Agent, or Firm—Lerner, Marshall A.; Matthew F. Jodziewicz

[57] CLAIM
The ornamental design for a shoe upper, as shown and described.

DESCRIPTION
FIG. 1 is a right side elevational view of a shoe upper showing our new design. The broken line showing of a shoe sole is for environmental purposes only and forms no part of the claimed design;
FIG. 2 is a top plan view thereof;
FIG. 3 is a bottom plan view thereof;
FIG. 4 is a left side elevational view thereof;
FIG. 5 is a front elevational view thereof; and
FIG. 6 is a rear elevational view.

Solvable questions in PatentInspiration

How can I survey growing or declining competitors?

Who are the competitors of my clients?

Can I identify the high quality patents?

Can I detect or be alerted for new players?

Can I detect high temperature ranges or other units?

Who are the competitors of my suppliers?

Can I scan the values or characteristics of companies that are working in my domain?

On which components is my competitor working?

How can I be visually inspired by designs?

Solvable questions in PatentInspiration

What is the relevant knowledge for my company?

Which other industries have solved my problem?

Which other domains need my technology?

Are there any neighbouring companies or institutions?

Who is working on the same topics as me?

What are clients in other or new domains?

Which other products can inspire my own developments?

What are potential academic partners and contacts?

Can I find new products for my existing machine park?

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Solvable questions in PatentInspiration

How can I be visually inspired by designs?

Are there new production processes for my product?

What has been the trend of research directions in my domain?

How can I find new materials?

Which new directions are patented and what is whitespace?

What has been the trend of research directions in my domain?

In which direction can my product or process still evolve?

What are other ways to perform my (cleaning) process?

In which direction can my product or process still evolve?

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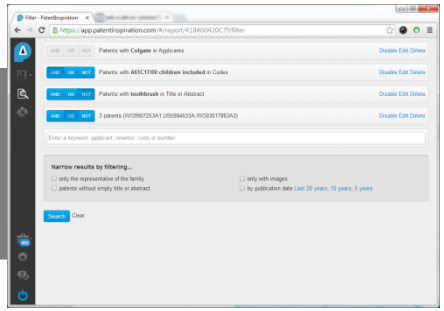
Typical workflow

Refining your filter based on results

New report based on results

Step 1: Defining a patent pool

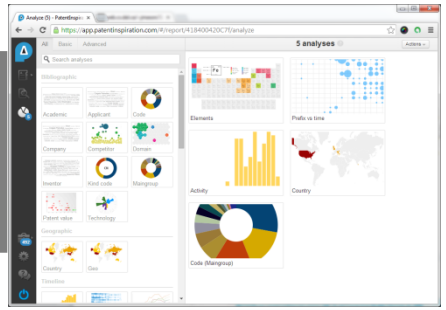
Filtering patents



Step 2: Analyzing data

Analyzing relevant filtered data

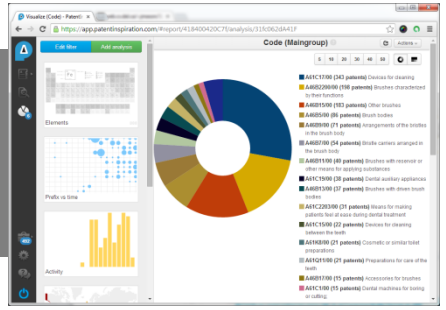
(Applicants, Domains, Activity, Inventors, Country, Problems, Fields etc)



Step 3: Processing information

View and study the results of the analysis or export

(graphics, PowerPoint, Excel)



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Defining a patent pool

Applicant filter

AND OR NOT Patents with **Colgate** in Applicants Disable Edit Delete

Code filter

AND OR NOT Patents with **A61C17/00 children included** in Codes Disable Edit Delete

Keyword filter

AND OR NOT Patents with **toothbrush** in Title or Abstract Disable Edit Delete

Number filter

AND OR NOT 3 patents (WO9907253A1,US5884633A,WO03017863A3) Disable Edit Delete

Combine operators

Combination of filters

AND OR NOT Patents with **Colgate** in Applicants Disable Edit Delete

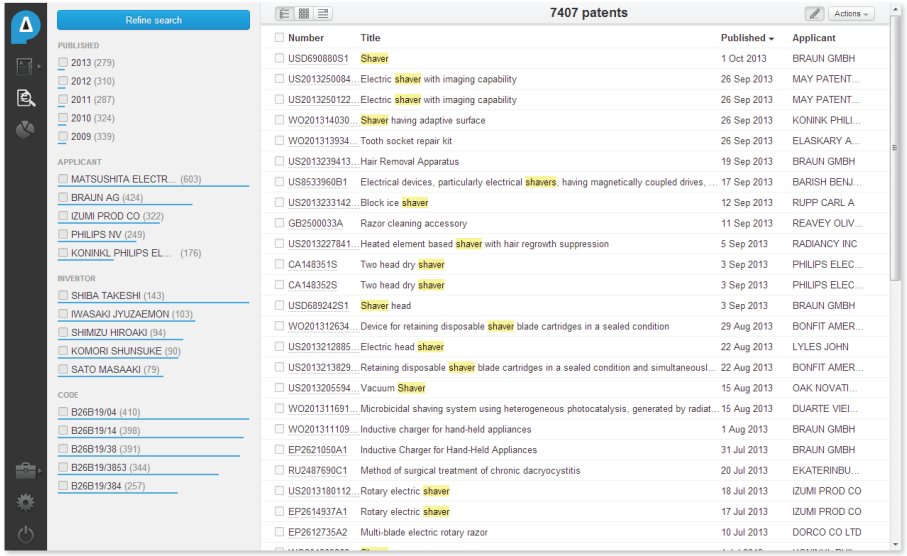
AND OR NOT Patents with **A61C17/00 children included** in Codes Disable Edit Delete

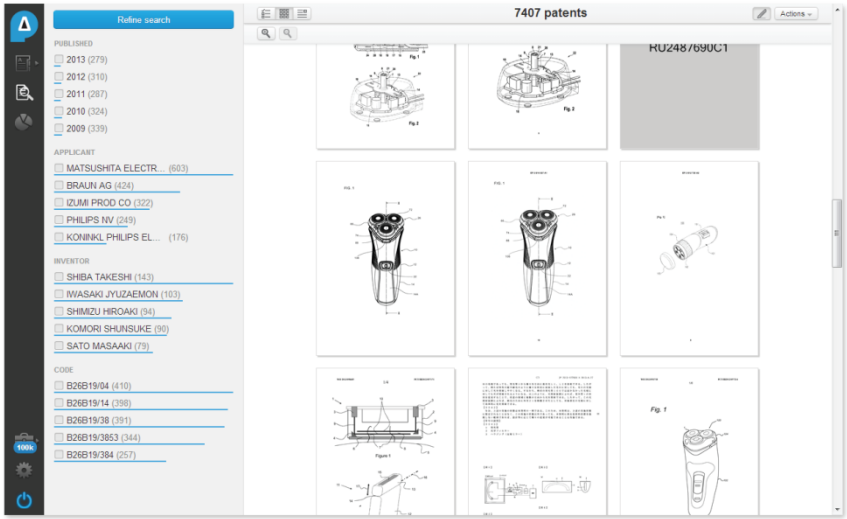
AND OR NOT Patents with **toothbrush** in Title or Abstract Disable Edit Delete

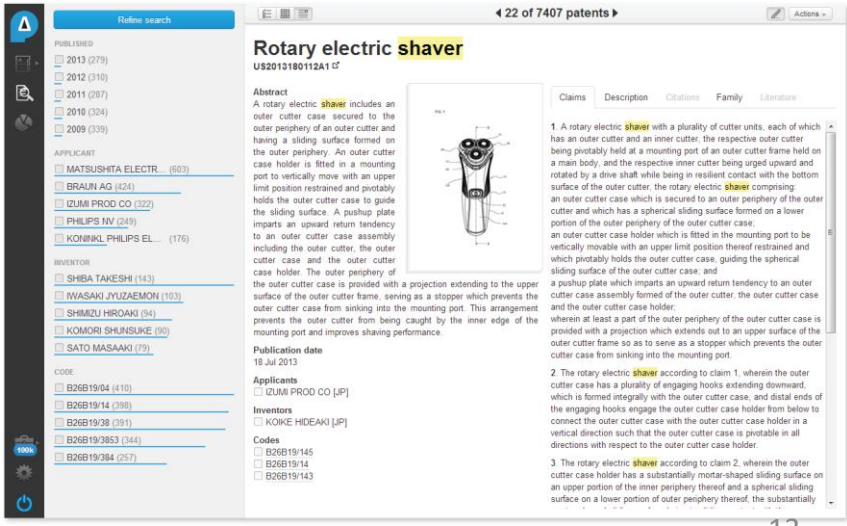
AND OR NOT 3 patents (WO9907253A1,US5884633A,WO03017863A3) Disable Edit Delete

Viewing results

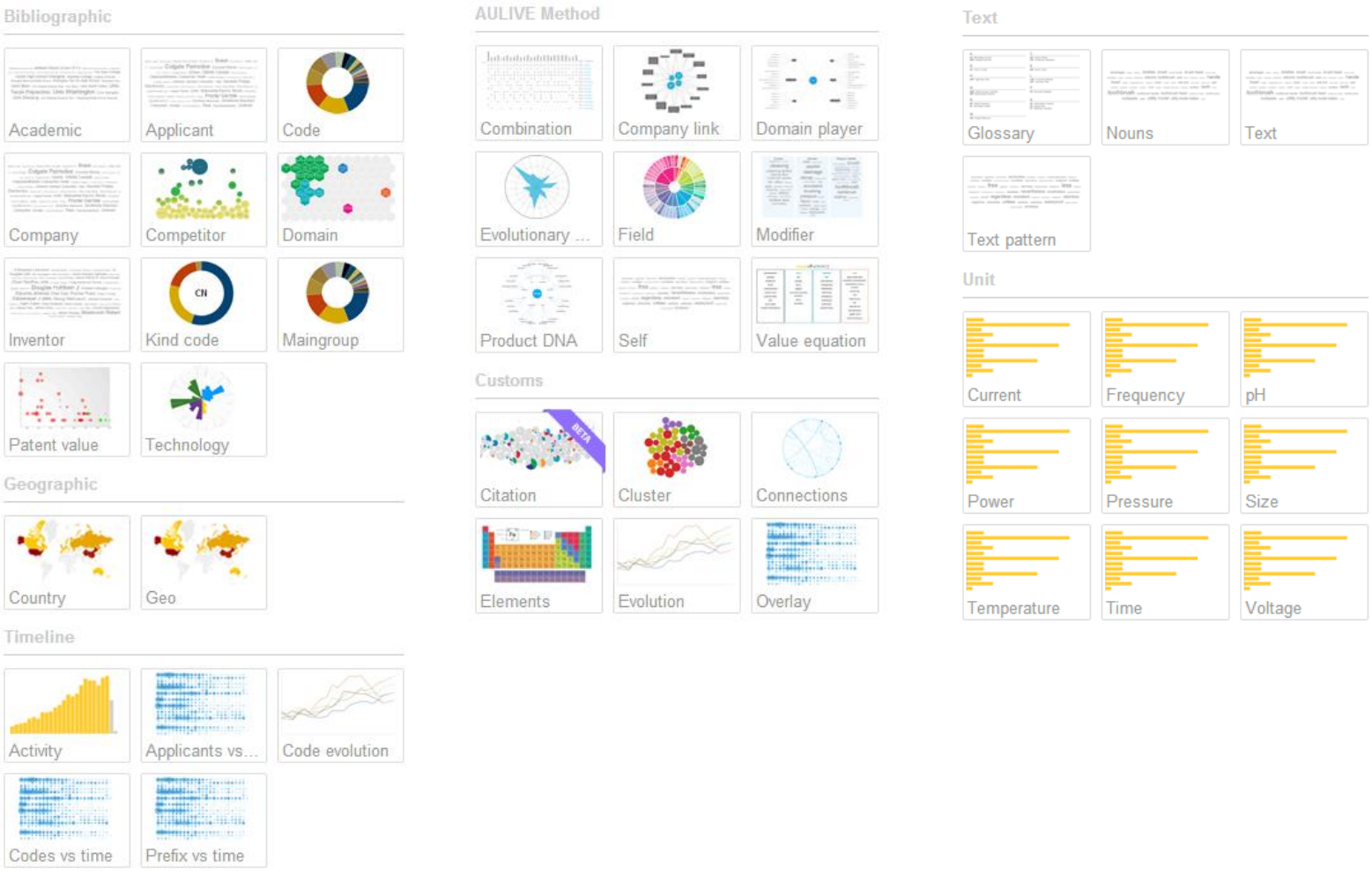
- 3 different views







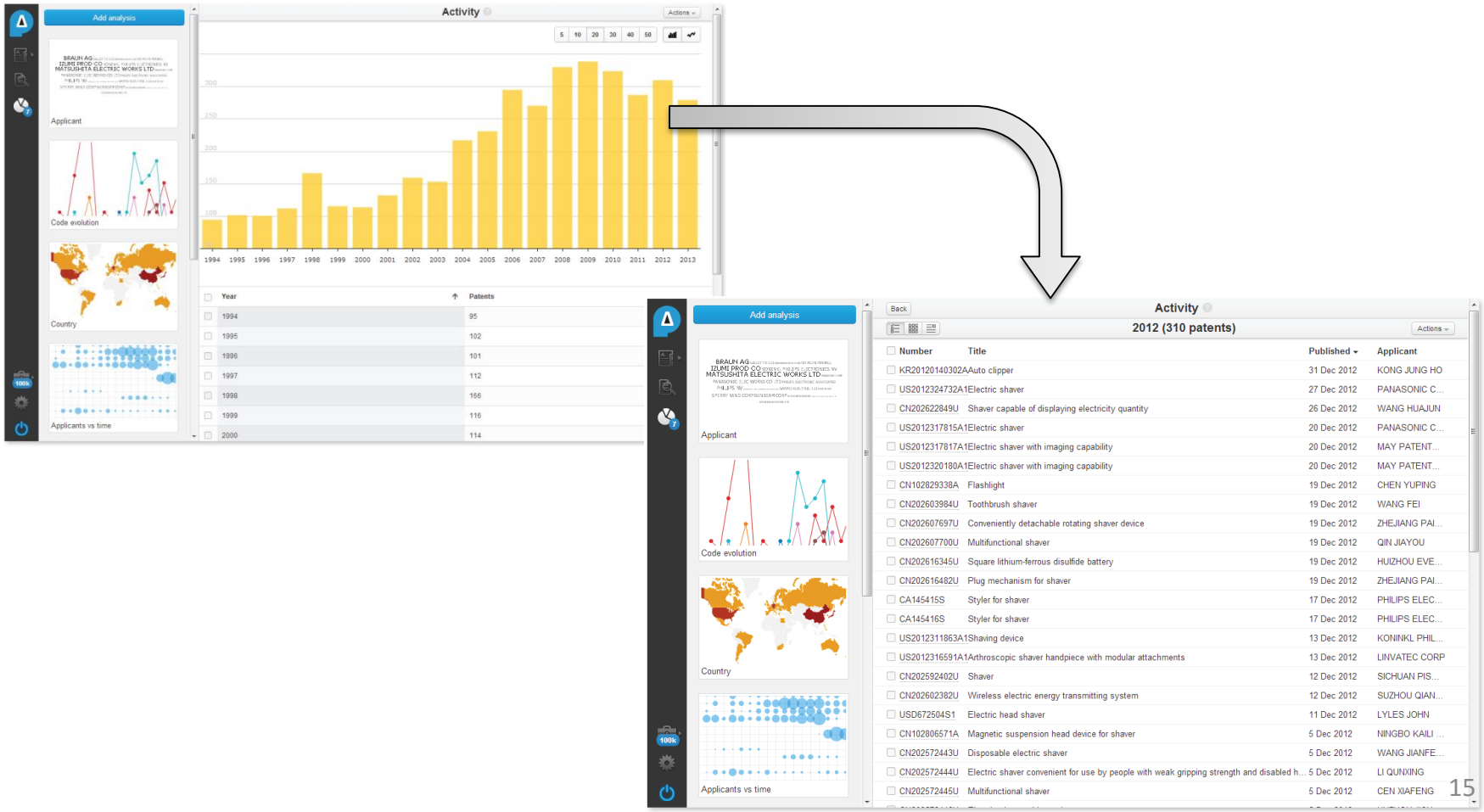
Processing information



Exporting to other software:

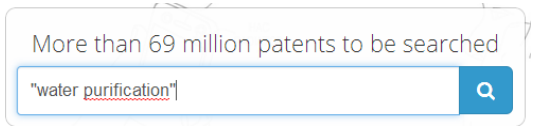
Viewing analysis results

- Each visualisation is interactive
- Quickly explore data of an analysis

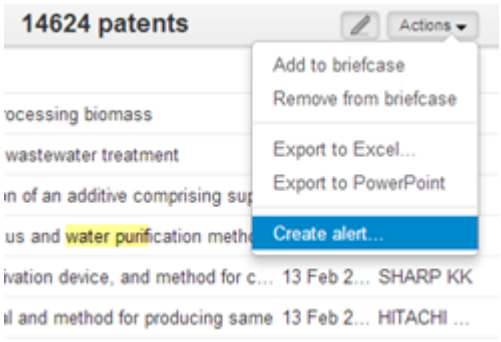


Example: Get each week the new patents related to “water purification”

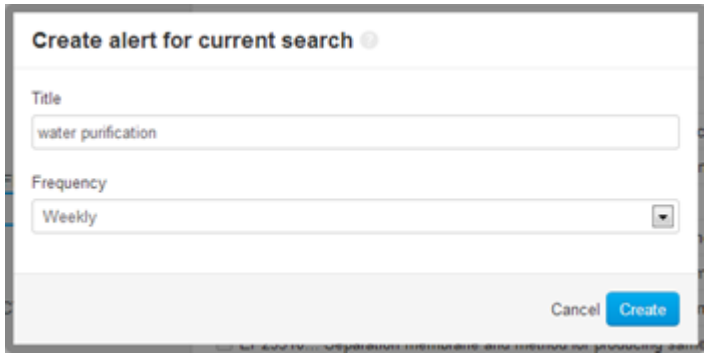
1.Type “water purification” and click on *Search*



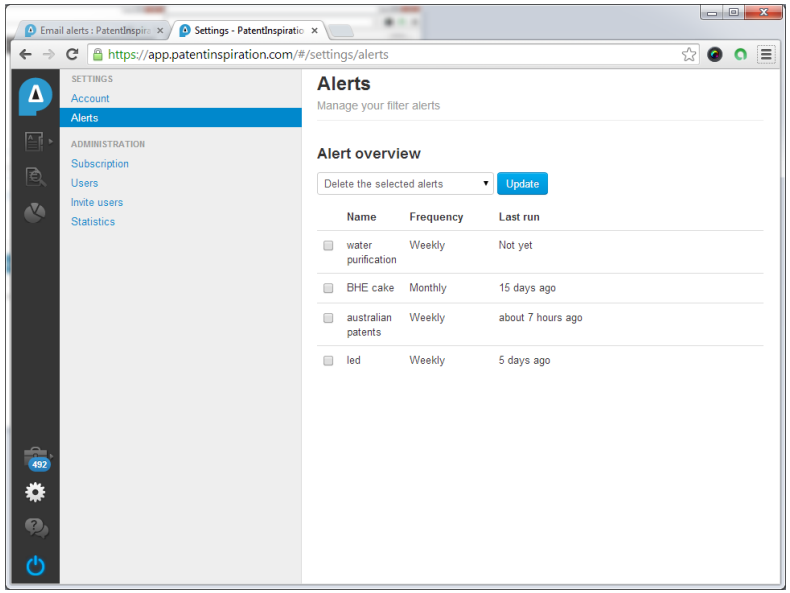
2.Go to Actions and select Create Alert



3.Type ‘water purification’ as Title and choose Weekly as Frequency

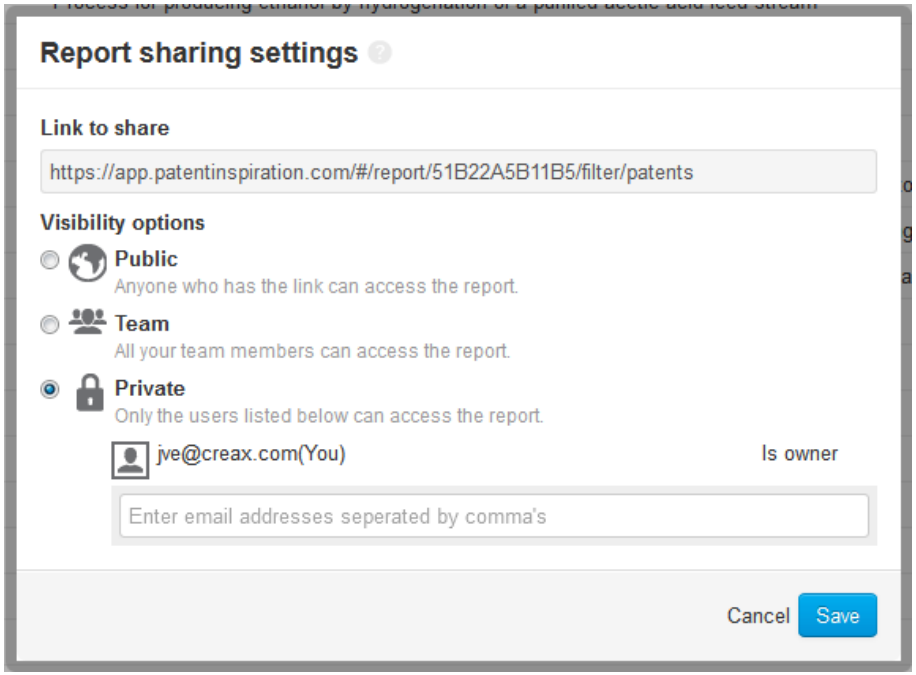


4. Goto settings and click on Alerts to get an overview

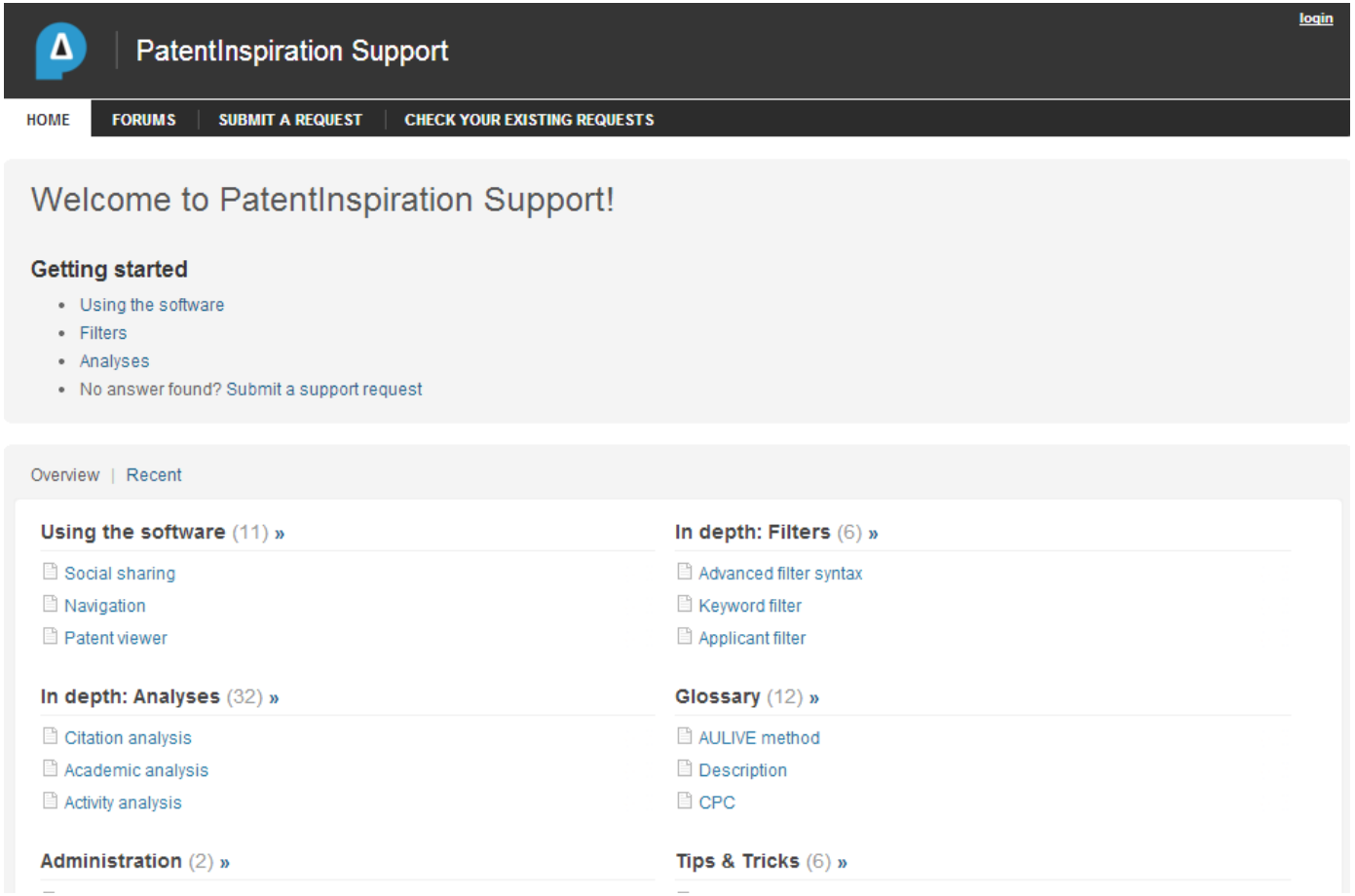


Share reports

- Public
- Team (only for Team and Company license)
- Private (default)
  - Option: give list of users that may view/edit report



http://support.patentinspiration.com



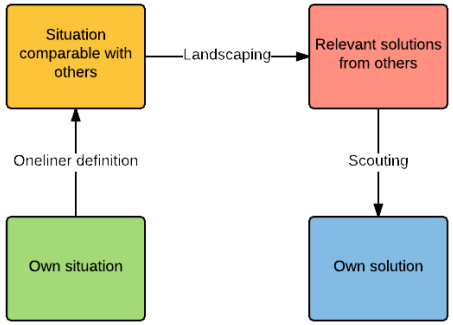
Based on TRIZ

Patent Inspiration is based on TRIZ. TRIZ includes a practical methodology, tool sets, a knowledge base, and model-based technology for generating innovative solutions for problem solving. It is intended for application in problem formulation, system analysis, failure analysis, and patterns of system evolution (next generation product or market).

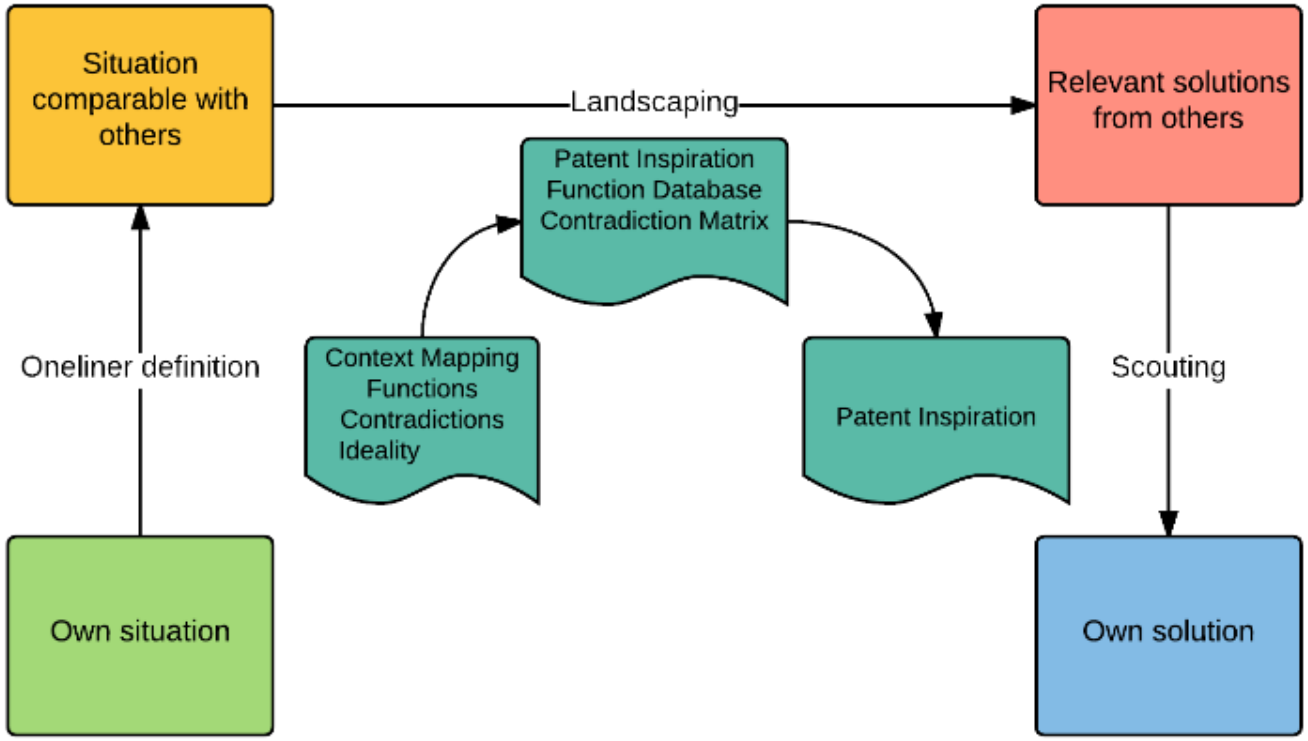
The research has produced three primary findings:

- problems and solutions are repeated across industries and sciences
- patterns of technical evolution are also repeated across industries and sciences
- the innovations used scientific effects outside the field in which they were developed

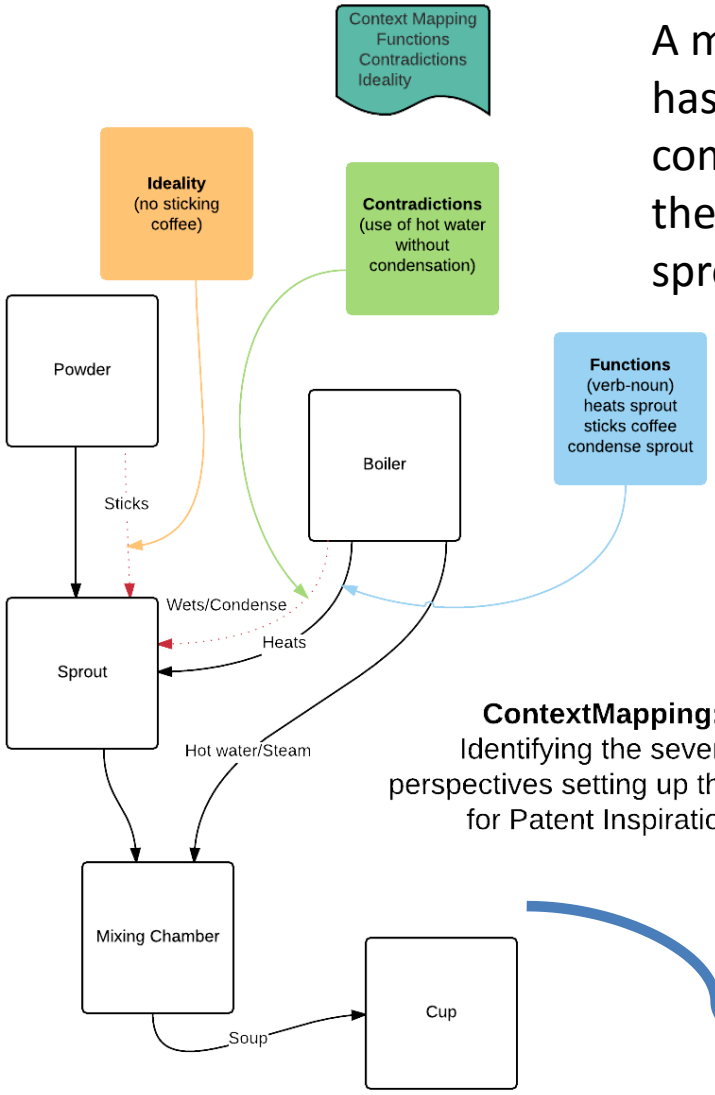
TRIZ presents a systematic approach for understanding and defining challenging problems: difficult problems require inventive new perspectives, and TRIZ provides a range of strategies and tools for finding these. One of the earliest findings of the massive research on which the theory is based is that the vast majority of problems that require inventive solutions typically reflect a need to overcome a dilemma or a trade-off between two contradictory elements. The central purpose of TRIZ-based analysis is to systematically apply the strategies and tools to find superior solutions that overcome the need for a compromise or trade-off between the two elements.



The process


Situation comparable with others
Landscaping
Relevant solutions from others
Patent Inspiration
Function Database
Contradiction Matrix
Oneliner definition
Context Mapping
Functions
Contradictions
Ideality
Patent Inspiration
Scouting
Own situation
Own solution

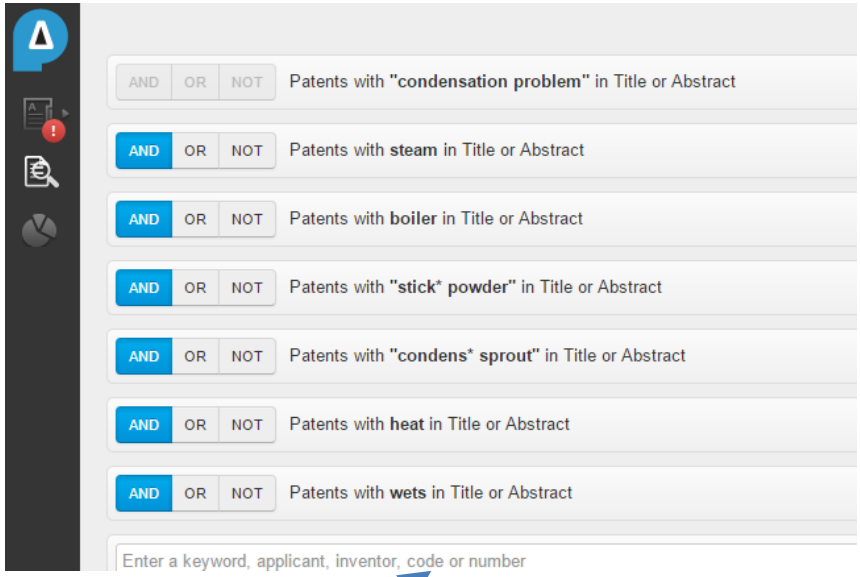
Landscaping – finding unusual domains



A manufacturer of coffee machines has a problem with condensation coming from the steam. Due to this the coffee powder sticks on the sprout

ContextMapping:
Identifying the several perspectives setting up the filters for Patent Inspiration

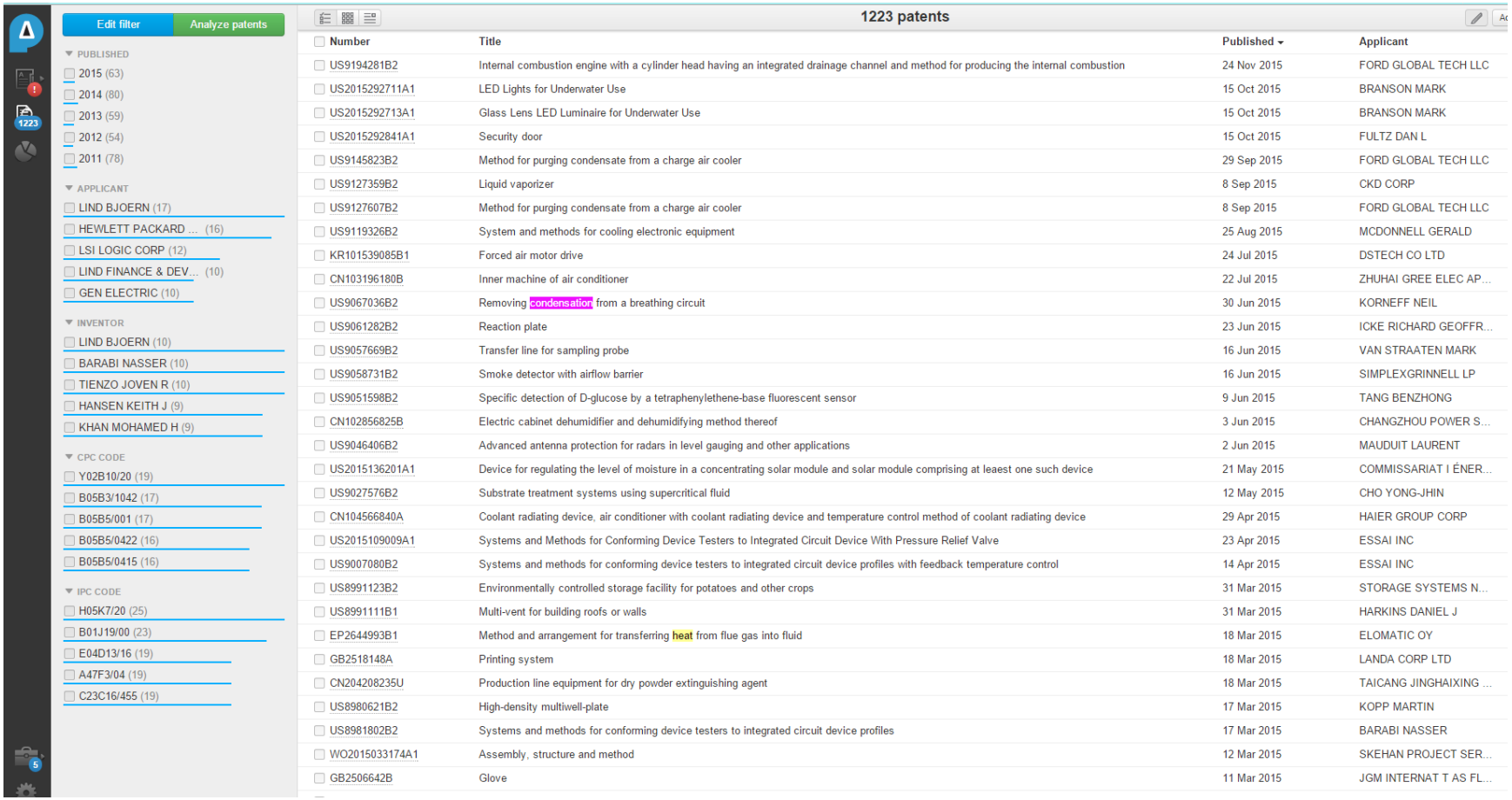
Patent Inspiration



the Filter

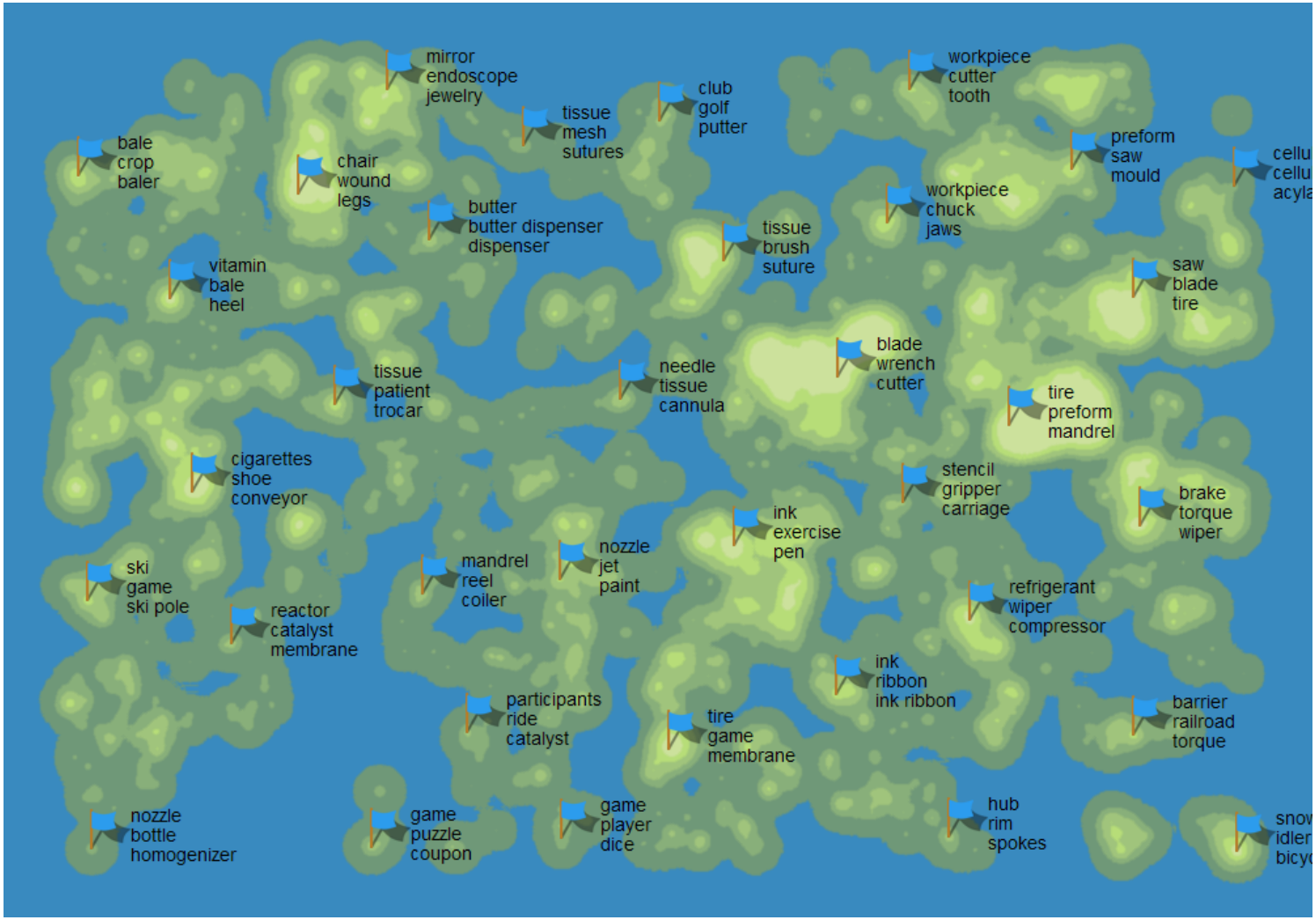
Landscaping – finding unusual domains

Looking for unusual domains with a similar condensation problem



Number	Title	Published	Applicant
US9194281B2	Internal combustion engine with a cylinder head having an integrated drainage channel and method for producing the internal combustion	24 Nov 2015	FORD GLOBAL TECH LLC
US2015292711A1	LED Lights for Underwater Use	15 Oct 2015	BRANSON MARK
US2015292713A1	Glass Lens LED Luminaire for Underwater Use	15 Oct 2015	BRANSON MARK
US2015292841A1	Security door	15 Oct 2015	FULTZ DAN L
US9145823B2	Method for purging condensate from a charge air cooler	29 Sep 2015	FORD GLOBAL TECH LLC
US9127359B2	Liquid vaporizer	8 Sep 2015	CKD CORP
US9127607B2	Method for purging condensate from a charge air cooler	8 Sep 2015	FORD GLOBAL TECH LLC
US9119326B2	System and methods for cooling electronic equipment	25 Aug 2015	MCDONNELL GERALD
KR101539085B1	Forced air motor drive	24 Jul 2015	DSTECH CO LTD
CN103196180B	Inner machine of air conditioner	22 Jul 2015	ZHUHAI GREE ELEC AP...
US9067036B2	Removing condensation from a breathing circuit	30 Jun 2015	KORNEFF NEIL
US9061282B2	Reaction plate	23 Jun 2015	ICKE RICHARD GEOFFR...
US9057669B2	Transfer line for sampling probe	16 Jun 2015	VAN STRAATEN MARK
US9058731B2	Smoke detector with airflow barrier	16 Jun 2015	SIMPLEXGRINNELL LP
US9051598B2	Specific detection of D-glucose by a tetraphenylethene-base fluorescent sensor	9 Jun 2015	TANG BENZHONG
CN102856825B	Electric cabinet dehumidifier and dehumidifying method thereof	3 Jun 2015	CHANGZHOU POWER S...
US9046406B2	Advanced antenna protection for radars in level gauging and other applications	2 Jun 2015	MAUDUIT LAURENT
US2015136201A1	Device for regulating the level of moisture in a concentrating solar module and solar module comprising at leaest one such device	21 May 2015	COMMISSARIAT I ÉNER...
US9027576B2	Substrate treatment systems using supercritical fluid	12 May 2015	CHO YONG-JHIN
CN104566840A	Coolant radiating device, air conditioner with coolant radiating device and temperature control method of coolant radiating device	29 Apr 2015	HAIER GROUP CORP
US2015109009A1	Systems and Methods for Conforming Device Testers to Integrated Circuit Device With Pressure Relief Valve	23 Apr 2015	ESSAI INC
US9007080B2	Systems and methods for conforming device testers to integrated circuit device profiles with feedback temperature control	14 Apr 2015	ESSAI INC
US8991123B2	Environmentally controlled storage facility for potatoes and other crops	31 Mar 2015	STORAGE SYSTEMS N...
US8991111B1	Multi-vent for building roofs or walls	31 Mar 2015	HARKINS DANIEL J
EP2644993B1	Method and arrangement for transferring heat from flue gas into fluid	18 Mar 2015	ELOMATIC OY
GB2518148A	Printing system	18 Mar 2015	LANDA CORP LTD
CN204208235U	Production line equipment for dry powder extinguishing agent	18 Mar 2015	TAICANG JINGHAIXING ...
US8980621B2	High-density multiwell-plate	17 Mar 2015	KOPP MARTIN
US8981802B2	Systems and methods for conforming device testers to integrated circuit device profiles	17 Mar 2015	BARABI NASSER
WO2015033174A1	Assembly, structure and method	12 Mar 2015	SKEHAN PROJECT SER...
GB2506642B	Glove	11 Mar 2015	JGM INTERNAT T AS FL...

Landscaping – finding unusual domains

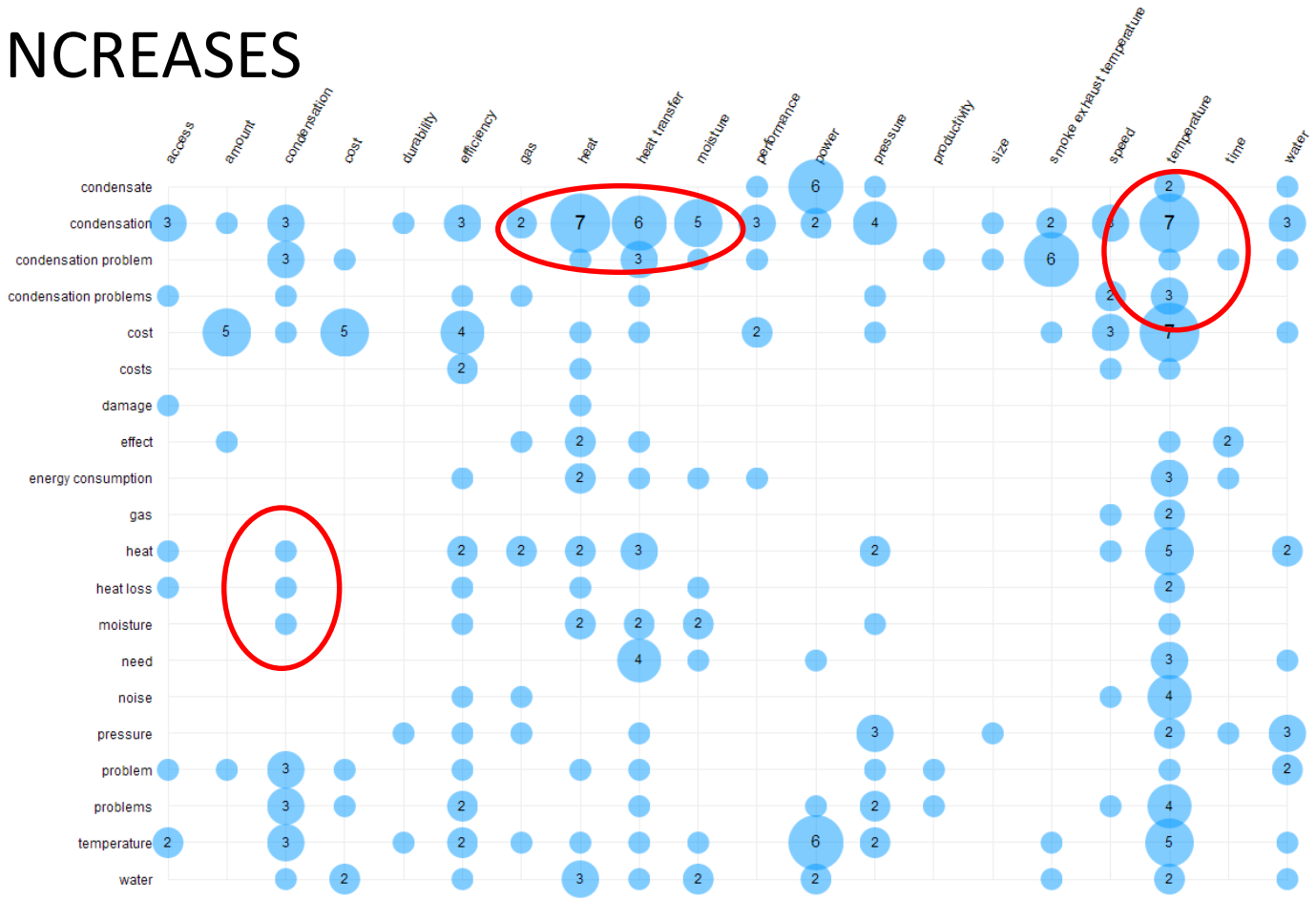


In which other domains do they have condensation problems

Landscaping – finding unusual domains

VS INCREASES

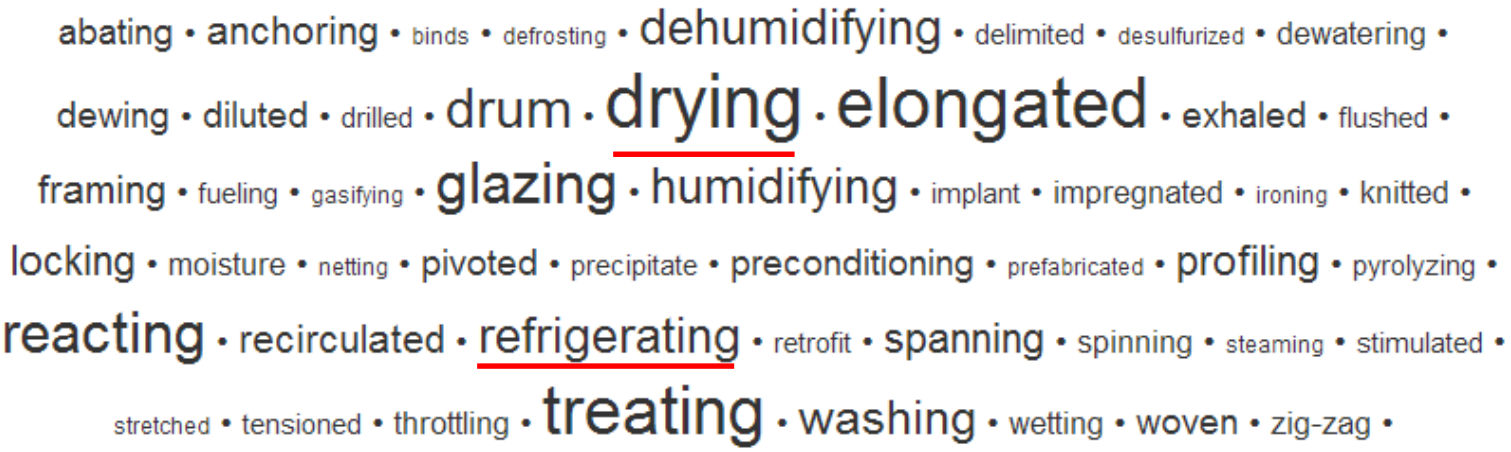
DECREASES



Finding similar condensation contradiction for updating the filter decreasing versus increasing parameter

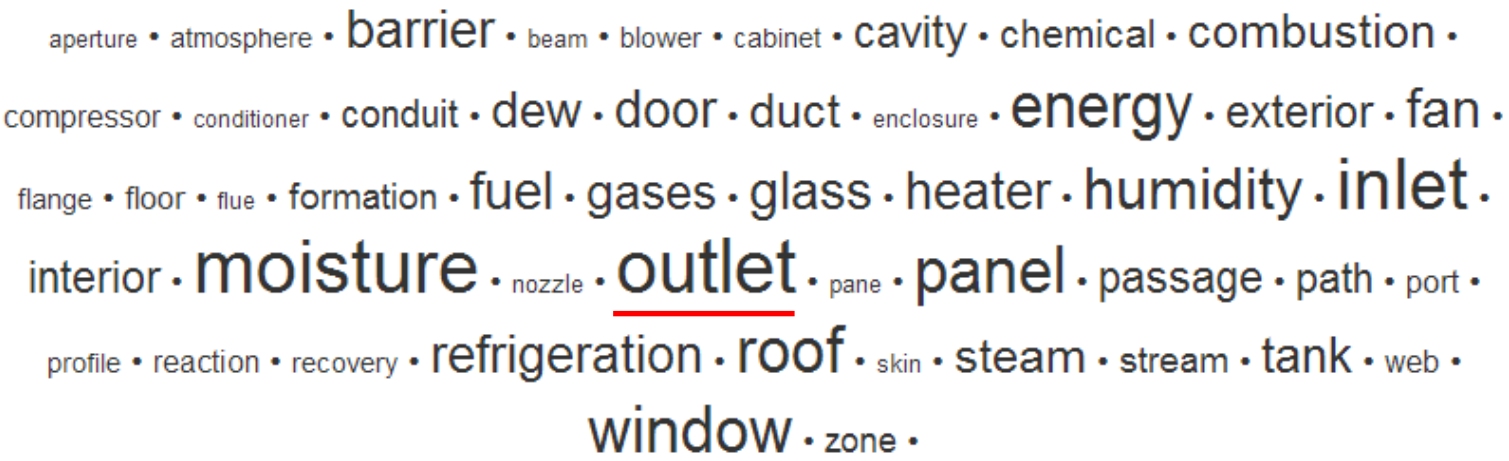
PATENT INSPIRATION

Landscaping – finding unusual domains



Finding new nouns (perspectives) for updating the filter

Landscaping – finding unusual domains

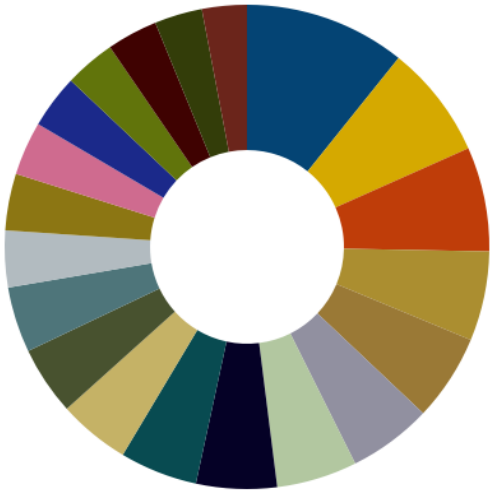


Finding new verbs (perspectives) for updating the filter

Landscaping – finding unusual domains

Finding new ideality (perspectives) for updating the filter

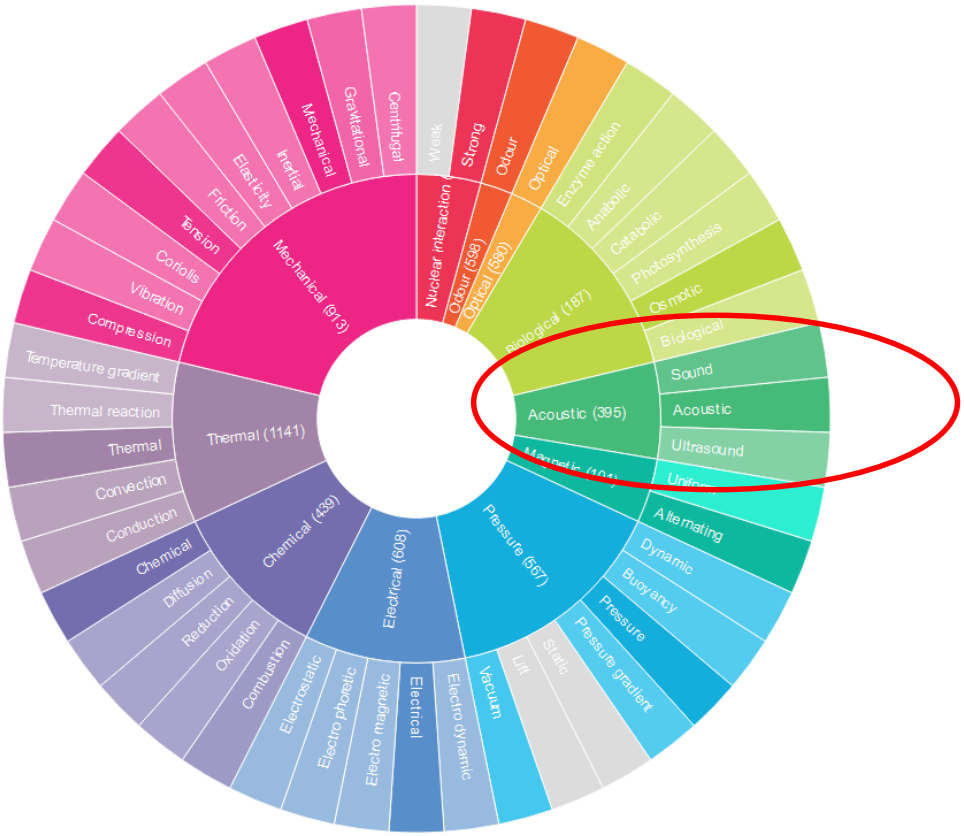
Landscaping – finding unusual domains



- **E06B3/00 (54 patents)** Window sashes
- **E04D13/00 (38 patents)** Special arrangements or devices in connection with roof coverings;
- **E04B1/00 (35 patents)** Constructions in general;Structures which are not restricted either to walls
- **Y10T428/00 (30 patents)** Stock material or miscellaneous articles
- **Y02T10/00 (29 patents)** Road transport of goods or passengers
- **F24F13/00 (28 patents)** Details common to
- **B01D53/00 (27 patents)** Separation of gases or vapours;Recovering vapours of volatile solvents from gases;Chemical or biological purification of waste gases
- **Y02B30/00 (27 patents)** Energy efficient heating
- **Y10T137/00 (26 patents)** Fluid handling
- **F24F7/00 (24 patents)** Ventilation
- **H01L21/00 (23 patents)** Processes or apparatus adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof
- **Y02E10/00 (22 patents)** Energy generation through renewable energy sources
- **F25D21/00 (19 patents)** Defrosting;Preventing frosting;Removing condensed or defrost water
- **Y10T29/00 (19 patents)** Metal working
- **G01N33/00 (18 patents)** Investigating or analysing materials by specific methods not covered by the preceding groups
- **F24J2/00 (18 patents)** Use of solar heat
- **E06B7/00 (17 patents)** Special arrangements or measures in connection with doors or windows
- **A61M16/00 (17 patents)** Devices for influencing the respiratory system of patients by gas treatment
- **F24F3/00 (16 patents)** Air-conditioning systems in which conditioned primary air is supplied from one or more central stations to distributing units in the rooms or spaces where it may receive secondary treatment;Apparatus specially designed for such systems
- **F24F11/00 (15 patents)** Control or safety systems or apparatus

Finding new domains & industries (perspectives) for updating the filter

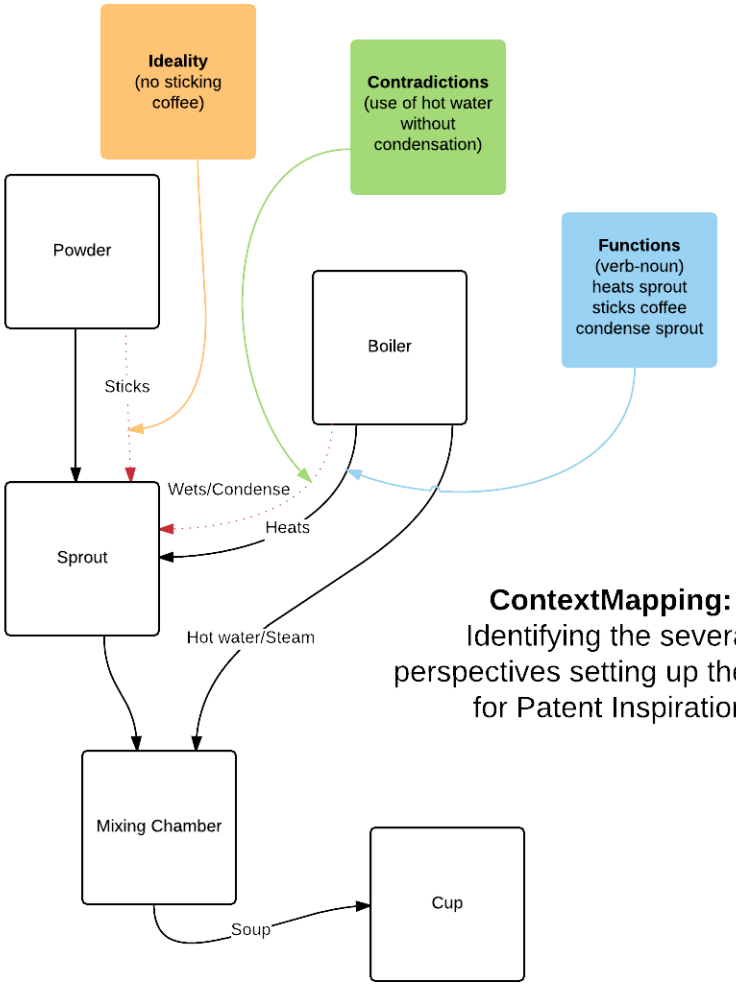
Landscaping – finding unusual domains



Finding new fields(perspectives) for updating the filter

PATENT INSPIRATION

Landscaping – finding unusual domains

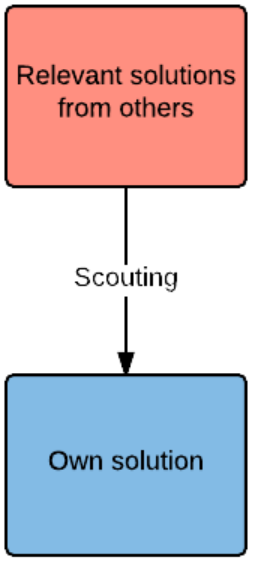


ContextMapping:
Identifying the several perspectives setting up the filters for Patent Inspiration

Results of Landscaping - a list of unusual domains

Self-cleaning
Medical devices
Defrosting
Hydrofobic
Ultrasound
……

Scouting – finding unusual relevant domains



unusual domains

Self-cleaning
Medical devices
Defrosting
Hydrofobic
Ultrasound
……

What is relevant?

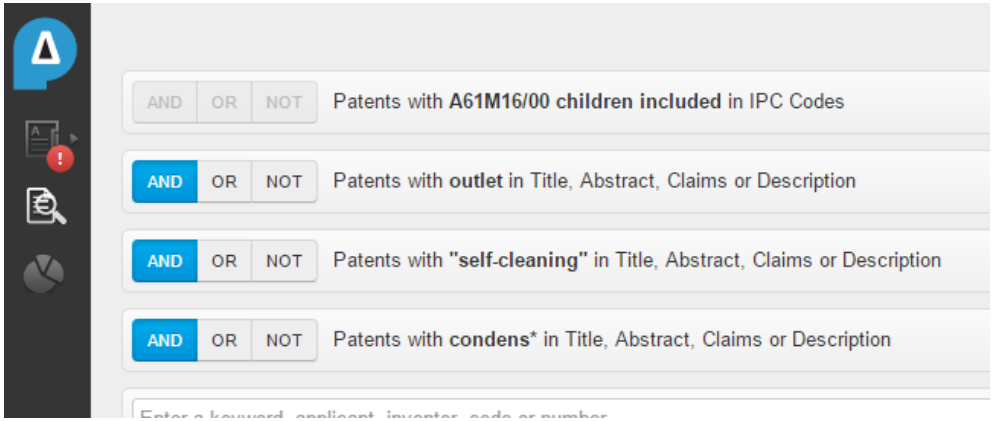
Scouting – finding unusual relevant domains

unusual

Medical devices

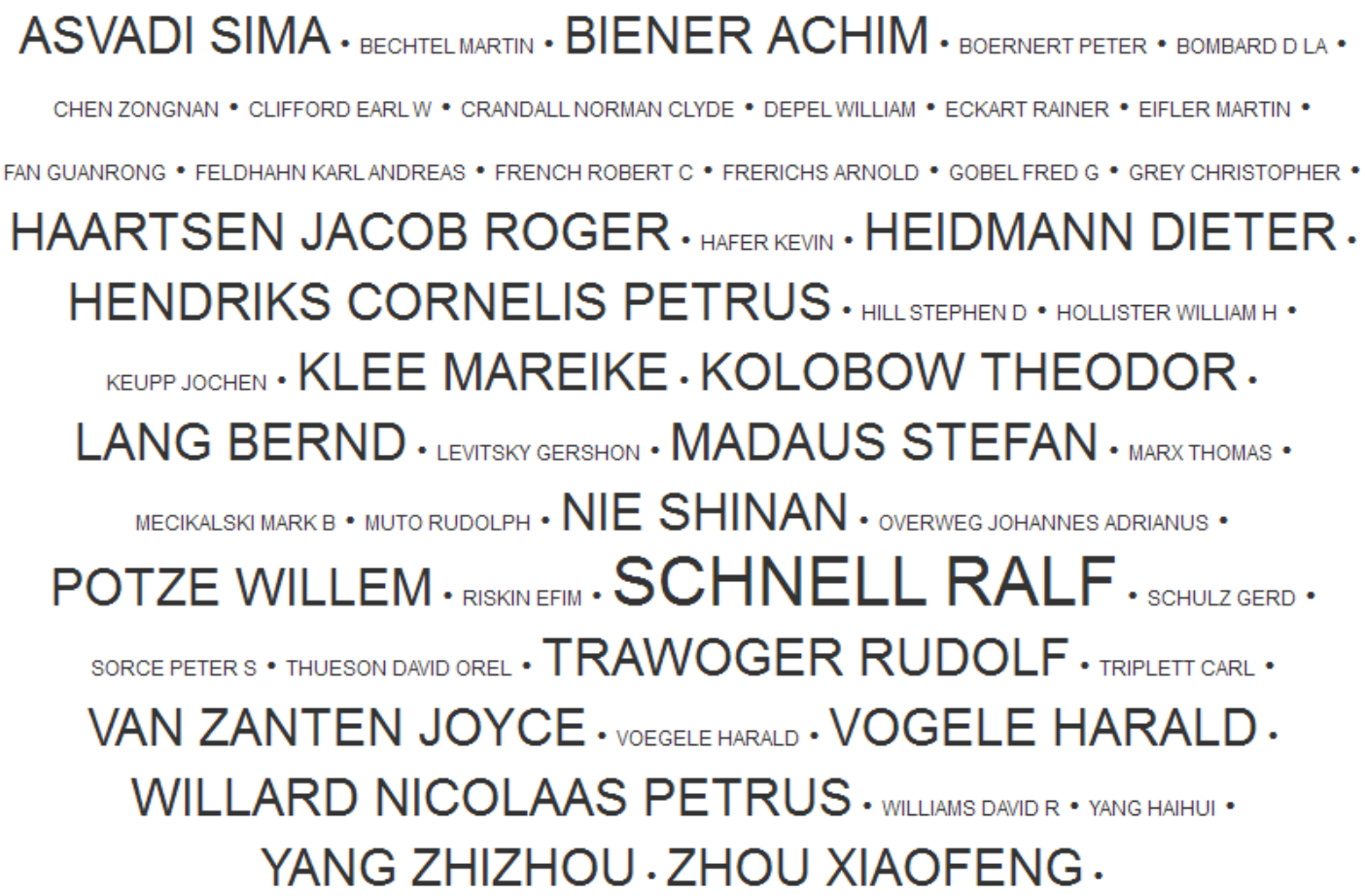
relevant

Filter
condensation
self-cleaning
flow
Outlet
IPC-code A61…
…..



What is relevant?

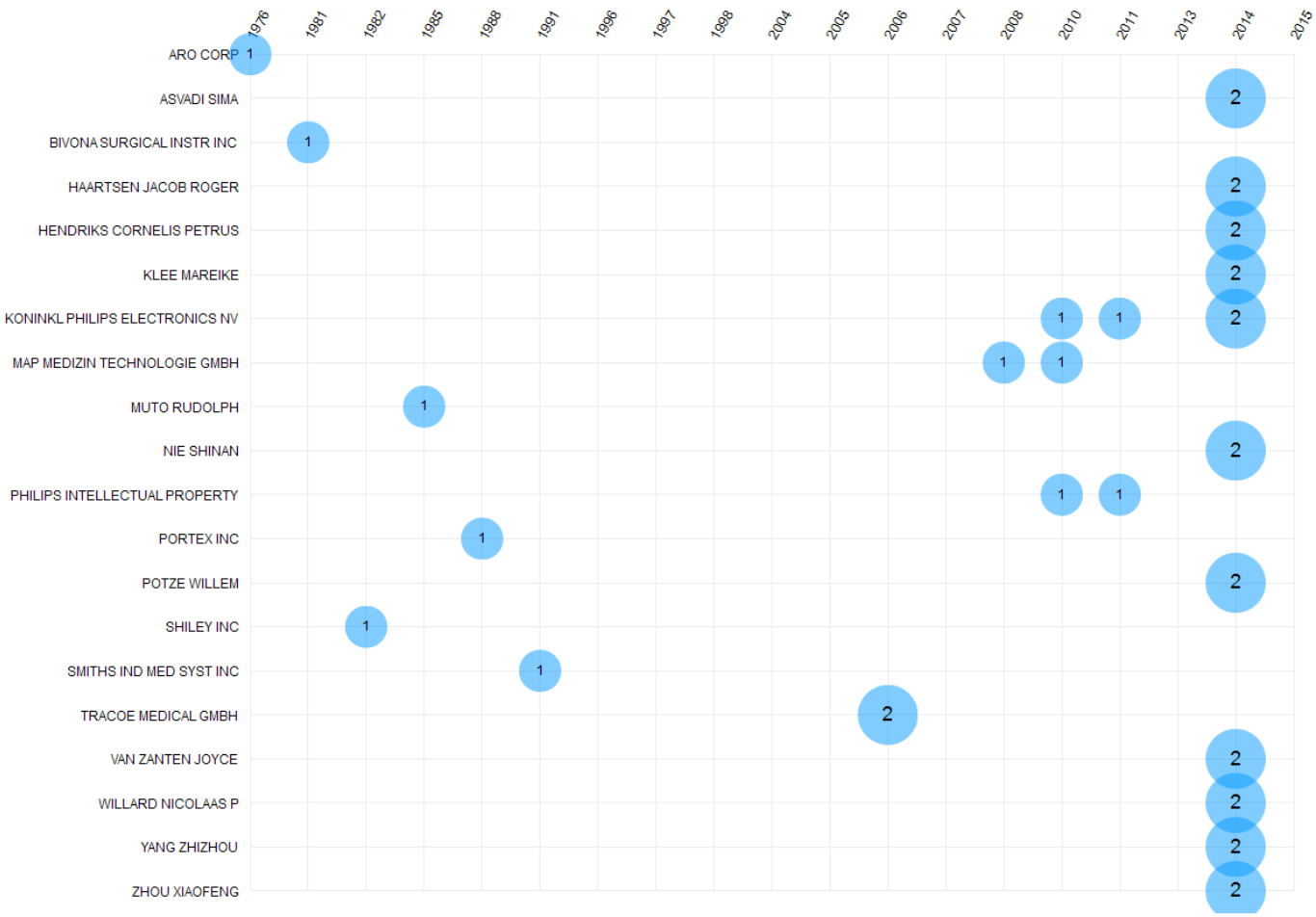
Scouting – finding unusual relevant domains



Find out who are the main inventors in this domain

PATENT INSPIRATION

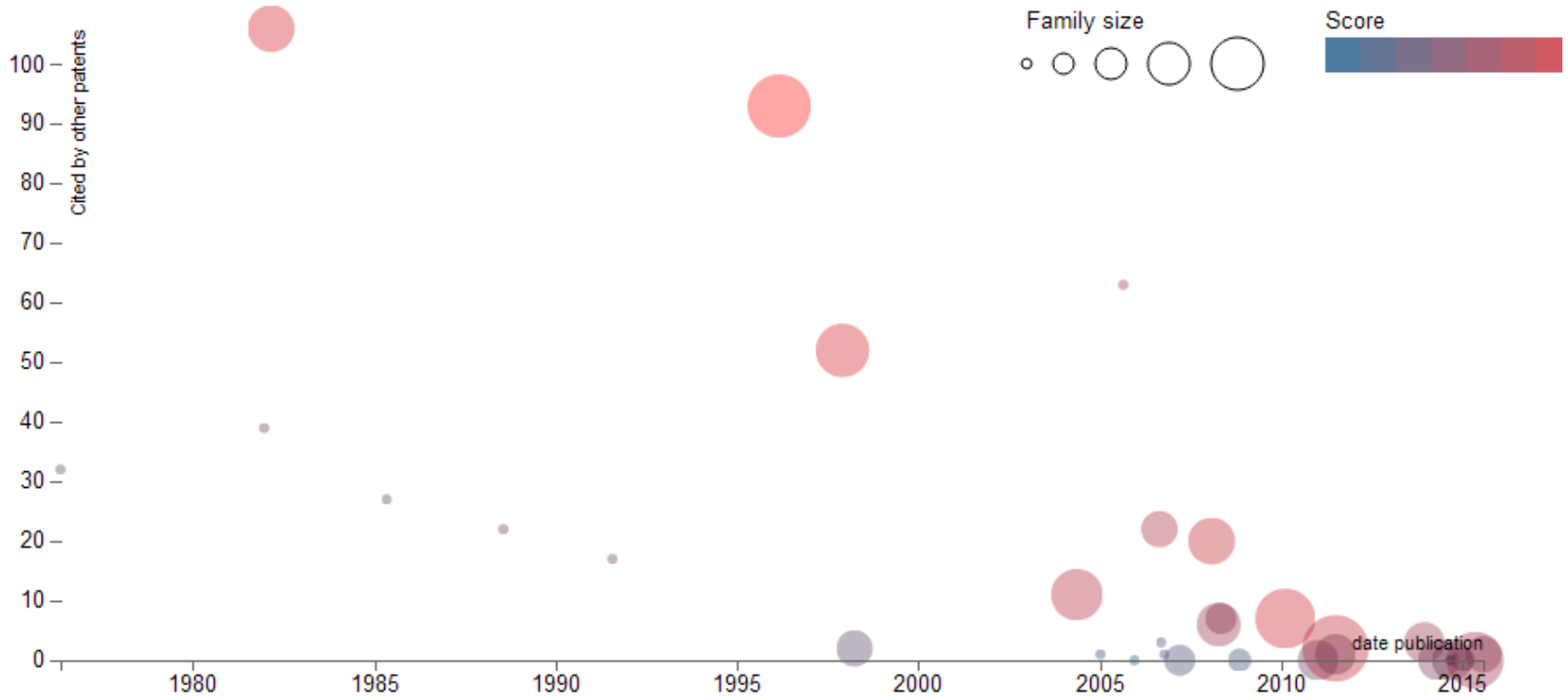
Scouting – finding unusual relevant domains



The number of patents per applicant versus time in years in this domain.

PATENT INSPIRATION

Scouting – finding unusual relevant domains



Which of the patents in your patent pool are most valuable

PATENT INSPIRATION

innovative PARTNERS

Scouting – finding unusual relevant sources

◀ 3 of 33 patents ▶ Actions

	Title	Abstract	Claims	Description
condens...	1	8	131	493
condens...	0	0	0	2

Filter Hits

< condens* problem*,outlet*,self*-... 633 >

User Defined Hits Edit

< condensation 1 of 2 >

Outlet connection assembly and method of making the same

Abstract

A connection assembly for a respiratory therapy system, comprising: an outlet assembly, said outlet assembly including an outlet housing and a swivelling disc located on said outlet housing, said outlet housing and said swivelling disc defining, at least in part, a recess; an outlet connector located at an end of a tube portion, said outlet connector including an electrical connector; and a cable having a first end to connect to the electrical connector and a second end to connect to at least one electrical component of the respiratory therapy system, said cable having a slack portion, wherein said outlet connector and said swivelling disc are rotatable in unison between a first position and a second position, and wherein the slack portion of the cable extends from the recess and wraps around the swivelling disc as the swivelling disc is rotated from the first position to the second position.

Publication
WO2014205513A1 (31 December 2014)

Application
AU2014050089W (24 June 2014)

Granted
No

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[+]

IPC Codes
- A61M16/16

CPC Codes
- A61M16/0816
- A61M16/0051
- A61M16/0825
- A61M16/0875
- A61M16/1085

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Claims | Description | Citations | Family | Literature | Notes

4100 is configured to prevent occurrence of an condensation, especially in the air circuit 4100. To this end, the air circuit 4100 may be provided with a heating element as wil l be described in greater detail below. The humidifier 500 and the air circuit 41 0 may be further configured to allow the patient 1000 to arrange the air circuit 4100 to improve their sleeping comfort. Further, the humidifier 5000 and the air circuit 4100 are configured to allow cleaning of the air circuit 4100 and/or the humidifier 5000, and to prevent ingress of water into any electronic components, such as in the humidifier 5000, the air circuit 4100 or the RPT device 4000.

[279] An example of a humidifier 5000 which is integrated with an RPT device

4000 is shown in Figures 3b- 3d. Another example of a humidifier 500 is show in Figs. 3g-3h.

6.6 AIR CIRCUIT-OUTLET CONNECTION

6-6.1 Comiecti n overview

[280] As described in some detail above, a respiratory therapy system ma

include certain components such as RPT device 4000, a humidifier 5000, and a patient interface 3000, The RPT device 4000 and humidifier 5000 ma be combined into a single, integrated unit as shown in Fig. 3h-3d. Alternatively, the RPT device 400 and the humidifier 5000 may be separable such that the patient can use the RPT device without the humidifier. In either scenario a connection must be made to the patient interface 3000 so that the patient can receive the flow of gas from the RPT device 4000 and/or the humidifier 5000. An air circuit 4100, as described above, may be provided to pneumatically connect the patient interface 3000 to th RPT device 4000 and/or the humidifier 5000, As shown in Fig. 4a, the air circuit 4100 may include a tube portion 4102 and an outlet connector 4106 to connect the air circuit to the RPT device 400 and/or the humidifier 5000. The tube portion 4102 ma also include helical coil 41 3 to provide support for the tube portion. The air circuit 4100 may also incorporate a heating element, which may be provided within the helical coil 41 3. The heating element in the air circuit 4100 may heat the air circuit 410 and the flow of gas travelling therethrough in order to prevent rainout (condensation of water vapor, for example, within the tube portion 4102 or the patient interface 3000). When a heating element is provided in the helical coil 4103 electrical power and or signalling may be necessary if, for example, the heating element is an electrical resistance heater. In some instances, an electrical connection may be required between the patient interlace 3000 and the RPT device 4000 and or the humidifier 5000 for electrical power and/or communication therehet een . 1] Fig. 20a and Fig. 20b show an example of the RPT device 4000 and a humidifier 5000 that has been combined into a single, integrated unit, wherein a wate reservoir is not shown. Fig. 20a shows an air circuit 4100 separated from the RPT device 4000 in an exploded view, and Fig. 20b shows the air circuit 4100 assembled with the RPT device 4000.

6,6.1.1 Pneumatic and electrical connections with a single connector

] The air circuit 4100 may require both pneumatic and electrical connections to be formed to the humidifier 5000 (or the RPT device 4000), as well as a mechanical connection. These connections may be formed through the outlet connector 4106 to allow the pressurized gas to flow to the patient: interface 3000, to provide electrical power and signalling t the heating element in the helical coil 4103 and to locate and secure the air circuit 4100 relative to the humidifier 5000 (or the RPT device 4000). These connections may be formed simultaneously or in series such that one of the mechanical, pneumatic or electrical connections i completed before others. The air circuit 41.00 may comprise on another end a patient interface connector 4107

Which patent is interesting & relevant for you

PATENT INSPIRATION

Scouting – finding unusual relevant connections

Outlet connection assembly and method of making the same

Inventors (Standard names) ?
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CPC Codes
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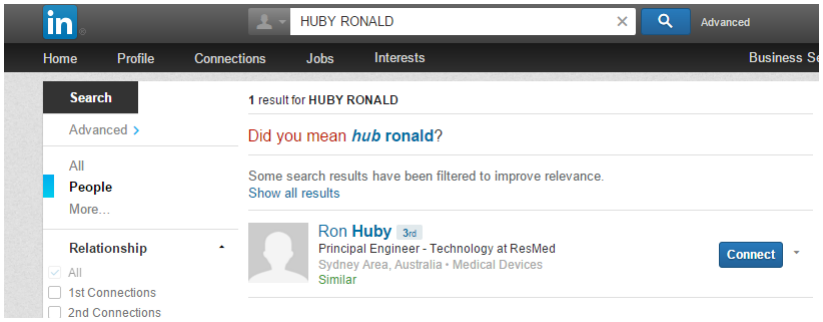
- A61M16/0825
- A61M16/0875
- A61M16/1085

[+]

View on LinkedIn



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Which person is interesting & relevant for you to contact

PATENT INSPIRATION