

# Job opportunities for scientists and engineers

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Christophe Quesson, examiner

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Santiago, 29 & Vigo, 30  
September 2014



# **Part I : About us**

**Presentation of the EPO**

# **Part II : Job opportunities as patent examiner**

# **Part III : Job opportunities as internships**

# **Part IV : The Pre-Interviews today**

# **Part I**

## **About us**

### **Presentation of the EPO**

# Our mission



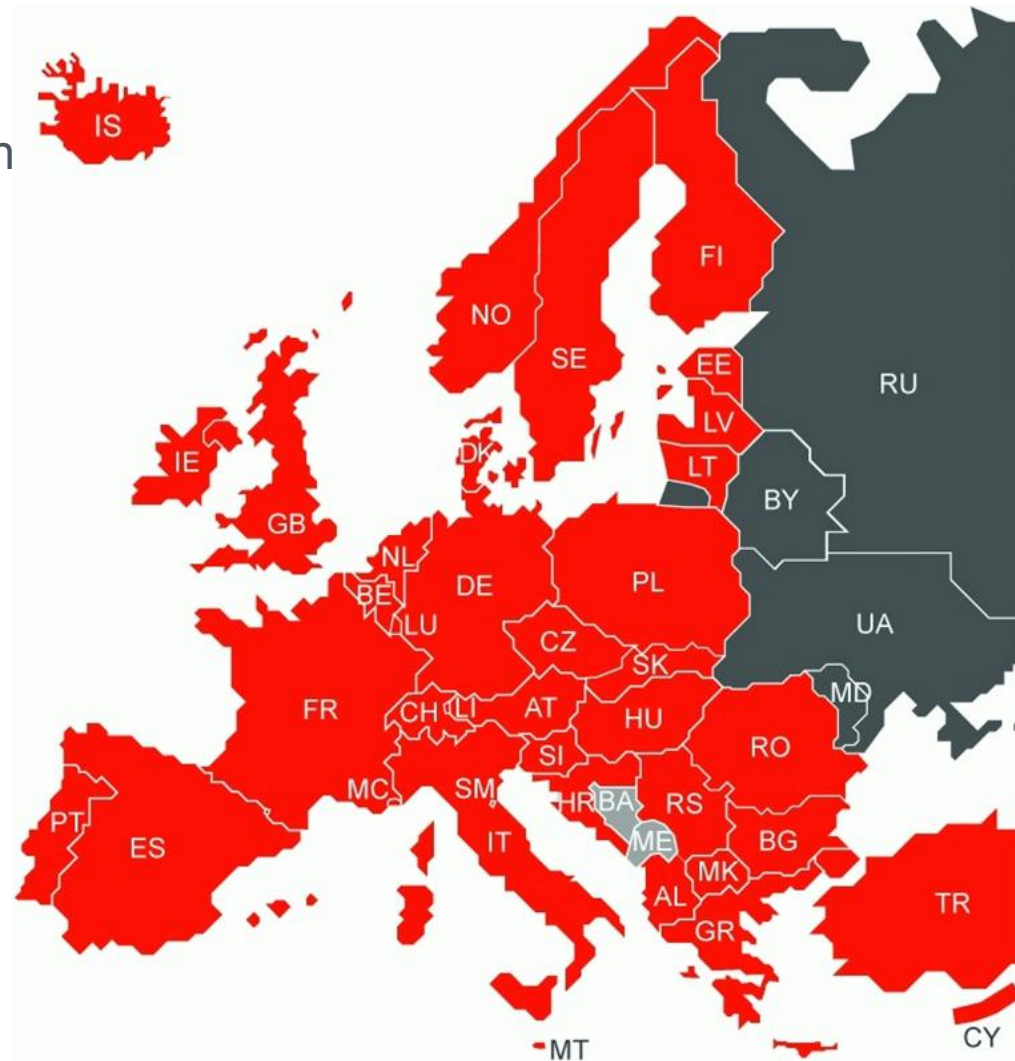
As the patent office for Europe,  
we support **innovation, competitiveness  
and economic growth** across Europe  
through a **commitment to high quality  
and efficient services** delivered under  
the European Patent Convention.

## 38 member states

Albania • Austria • Belgium • Bulgaria • Croatia • Cyprus • Czech Republic • Denmark • Estonia • Finland • France • Germany • Greece • Hungary • Iceland • Ireland • Italy • Latvia • Liechtenstein • Lithuania • Luxembourg • Former Yugoslav Republic of Macedonia • Malta • Monaco • Netherlands • Norway • Poland • Portugal • Romania • San Marino • Serbia • Slovakia • Slovenia • Spain • Sweden • Switzerland • Turkey • United Kingdom

European patent applications and patents can also be extended at the applicant's request to the following states:

Bosnia-Herzegovina • Montenegro

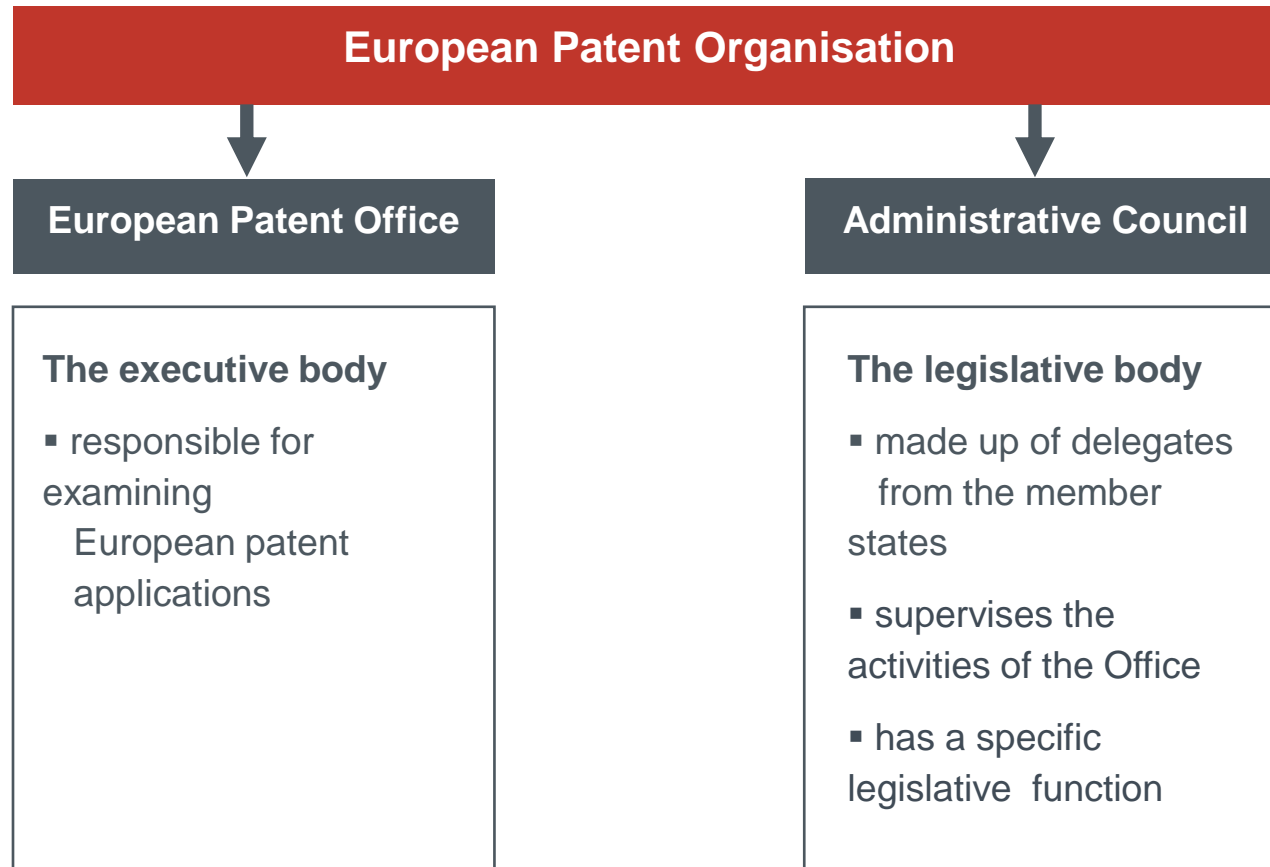


# Autonomy



- Second largest intergovernmental institution in Europe
- Not an EU institution
- Self-financing, i.e. revenue from fees covers operating and capital expenditure

# Structure of the European Patent Organisation

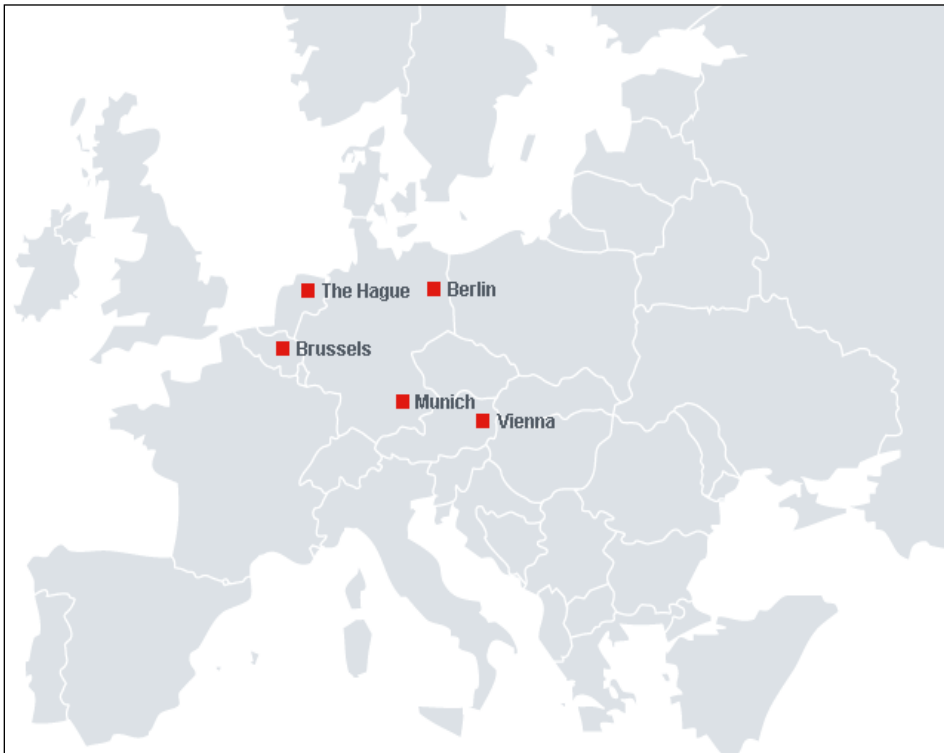




# Locations

The EPO has offices at  
five different locations.

Its headquarters are in Munich.





# Number of staff (01.01.2013)

Munich	3 682
The Hague	2 587
Berlin	275
Vienna	106
Brussels	6
<b>Total</b>	<b>6 656</b>



**Around 60% are  
patent examiners**

# Staff from 31 different countries (01.01.2013)

	Country	Number of staff
AT	Austria	228
BE	Belgium	326
BG	Bulgaria	39
CH	Switzerland	70
CY	Cyprus	9
CZ	Czech Republic	23
DE	Germany	1 817
DK	Denmark	69
EE	Estonia	7
ES	Spain	462
FI	Finland	47
FR	France	1207
GB	United Kingdom	478
GR	Greece	166
HR	Croatia	3
HU	Hungary	29
IE	Ireland	76

	Country	Number of staff
IS	Iceland	1
IT	Italy	506
LT	Lithuania	4
LU	Luxembourg	60
LV	Latvia	6
MT	Malta	2
NL	Netherlands	556
PL	Poland	66
PT	Portugal	94
RO	Romania	126
SE	Sweden	119
SI	Slovenia	14
SK	Slovakia	18
TR	Turkey	28
	Others	0
	<b>Total</b>	<b>6 656</b>

# Overview of intellectual property

## Legal right

## What for?

## How?

Patents

New inventions

Application and examination

Copyright

Original creative or artistic forms

Exists automatically

Trade marks

Distinctive identification of products or services

Use and/or registration

Registered designs

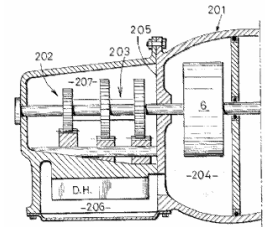
External appearance

Registration

Trade secrets

Valuable information not known to the public

Reasonable efforts to keep secret



# Some IP found in a mobile phone

## TM ® Trade marks:

- Made by “Samsung”
- “SAMSUNG DIGITall Everyone's invited”
- Product “Samsung Galaxy S5”
- Software “Android” , “KitKat”



## Patents:

Devices e.g. a touch screen device  
Methods e.g. a data-processing method  
Semiconductor circuits  
Chemical compounds

...

## © Copyrights:

Software code  
Instruction manual  
Ringtone

...

## Designs (some of them registered):

Form of overall phone  
Arrangement of button in oval shape

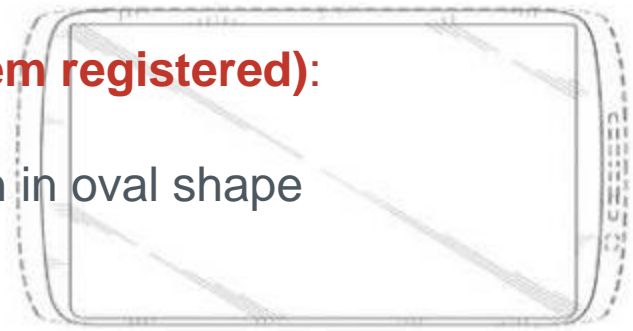
...





© Samsung

## Trade secrets:

?



# What is a patent?

(19)  **EP 1 741 472 A2**  
 (11) 

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication: 10.01.2007 Bulletin 2007/02 (51) Int. Cl.: A62B 17/00 (2006.01) A41D 13/00 (2006.01)

(21) Application number: 06122328.5

(22) Date of filing: 15.02.2001

(84) Designated Contracting States: DE FR GB IT

(30) Priority: 03.03.2000 US 517919

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 01912744.8 / 1 259 294

(71) Applicant: LION APPAREL, INC.  
 Dayton, OH 45413-0576 (US)

(72) Inventors:  
 • Aldridge, Donald  
 New Carlisle, OH 45344 (US)

(74) Representative: Asquith, Julian Peter  
 Marks & Clerk,  
 4220 Nash Court,  
 Oxford Business Park South  
 Oxford OX4 2RU (GB)

Remarks:  
 This application was filed on 16 - 10 - 2006 as a  
 divisional application to the application mentioned  
 under IN/D code 62.

(54) **Firefighting garment**

(57) A protective garment comprises an outer shell of an abrasion, flame and heat resistant material a thermal barrier/moisture barrier composite positioned between the outer shell and a wearer of the garment, the thermal barrier/moisture barrier composite including a substantially liquid-impermeable membrane bonded to one surface of a heat and flame resistant fabric substrate, and a first layer of heat and flame resistant insulating material attached to an opposite surface of the fabric substrate; a face cloth positioned between the thermal barrier/moisture barrier composite and a wearer of the garment; and a second layer of heat and flame resistant insulating material attached to the face cloth and positioned between the thermal barrier/moisture barrier composite and face cloth.

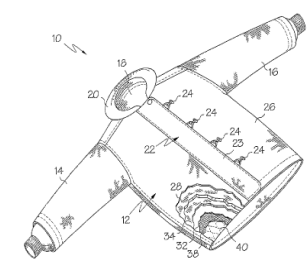


FIG. 1

Printed by Jouve, 75001 PARIS (FR)

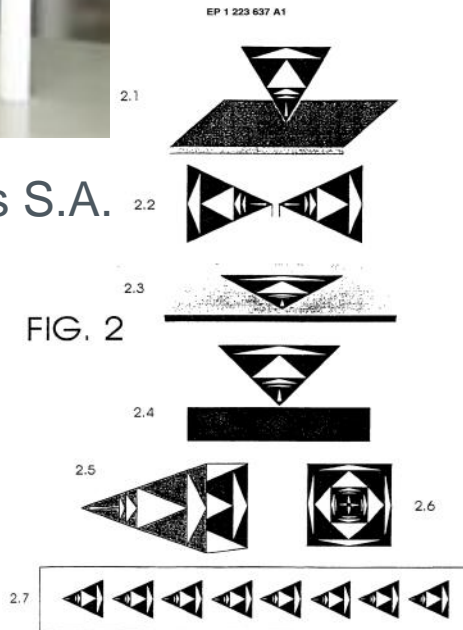
EP 1 741 472 A2

- A patent is a legal title granting its holder the right to prevent third parties from commercially using a technical invention without authorisation.
- In return for this protection, the holder has to disclose the invention to the public.
- Protection is granted:
  - for a limited period, generally 20 years
  - for a specific geographic area

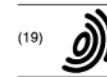
# Fractal-based antennae for mobile phones



Company: Fractus S.A.



10



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) EP 1 223 637 A1

(12) EUROPEAN PATENT APPLICATION  
published in accordance with Art. 158(3) EPC

(43) Date of publication:  
17.07.2002 Bulletin 2002/29

(21) Application number: 99974041.8

(22) Date of filing: 20.09.1999

(51) Int Cl. 7: H01Q 1/36, H01Q 5/00

(86) International application number:  
PCT/ES99/00296

(87) International publication number:  
WO 01/22526 (29.03.2001 Gazette 2001/13)

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE  
Designated Extension States:  
AL LT LV MK RO SI

• BORJA BORAU, Carmen  
E-08024 Barcelona (ES)  
• ANGUERA PROS, Jaume  
E-12500 Vinarós (ES)  
• SOLER CASTANY, Jordi  
E-08302 Mataró (ES)

(71) Applicant: Fractus, S.A.  
08034 Barcelona (ES)

(72) Inventors:  
• PUENTE BALIARDA, Carles  
E-08034 Barcelona (ES)

(74) Representative: Carpintero Lopez, Francisco  
HERRERO & ASOCIADOS, S.L.  
Alcalá, 35  
28014 Madrid (ES)

(54) MULTILEVEL ANTENNAE

(57) Antennae in which the corresponding radiative element contains at least one multilevel structure formed by a set of similar geometric elements (polygons or polyhedrons) electromagnetically coupled and grouped such that in the structure of the antenna can be identified each of the basic component elements. The design is such that it provides two important advantages: the antenna may operate simultaneously in several frequencies, and/or its size can be substantially reduced. Thus, a multiband radioelectric behaviour is achieved, that is, a similar behavior for different frequency bands.

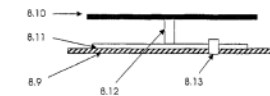
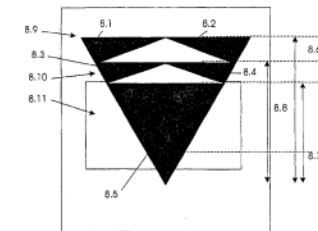
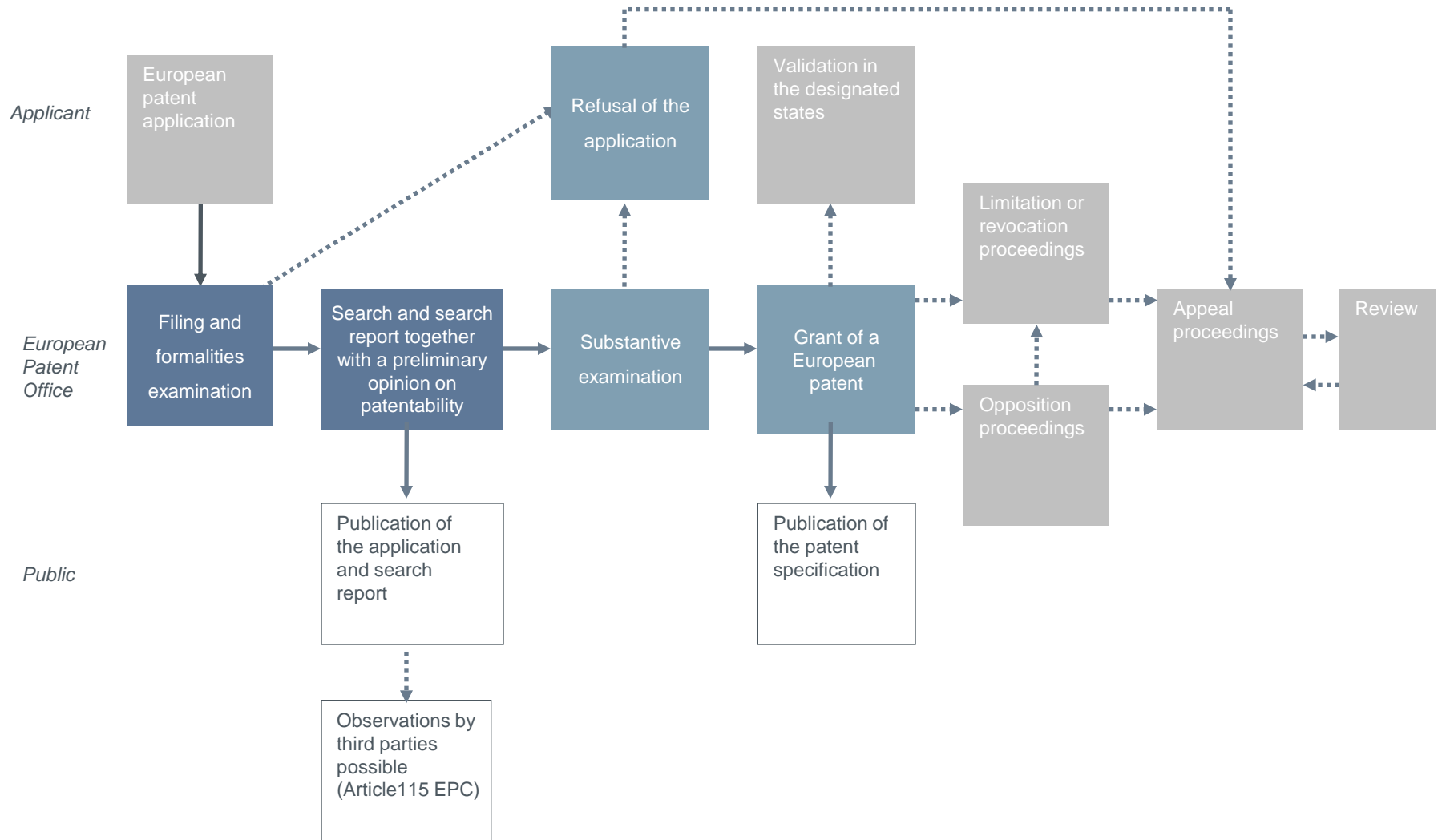


FIG. 8

EP 1 223 637 A1

# The grant procedure at a glance





# **Part II**

## **Job opportunities as patent examiner**

# Work as a patent examiner

Watch a short film about working as a patent examiner at the EPO



[http://www.youtube.com/watch?feature=player\\_embedded&v=ML2qiA63-k0](http://www.youtube.com/watch?feature=player_embedded&v=ML2qiA63-k0)

# What does a patent look like?

## ***Not so far from a Scientific article***

- Bibliographic information: Inventor, proprietor, priority date, date of filing, technology class, etc.
- Abstract : Around 150 words as a search aid for other patent applications
- Description :
  - Summary of prior art (i.e. the technology known to exist)
  - The problem that the invention is supposed to solve
  - An explanation and at least one way of carrying out the invention
- **Claims : Define the extent of patent protection**
- Drawings : Illustrate the claims and description

ESPACENET: [www.espacenet.com](http://www.espacenet.com)

GOOGLE PATENTS: [www.google.com/patents](http://www.google.com/patents)

Fig 2: Sample  
patent application  
front page

Classification

Filing date

Priority date

Applicant


Inventor

Title


(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau

(43) International Publication Date  
16 August 2001 (16.08.2001)



PCT



(10) International Publication Number  
**WO 01/58654 A1**

(51) International Patent Classification: **B28B 3/08**

(21) International Application Number: PCT/IB01/00155

(22) International Filing Date: 9 February 2001 (09.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2000/0609 9 February 2000 (09.02.2000) ZA

(71) Applicant (for all designated States except US): **HY-DRAFORM INTERNATIONAL LIMITED [BW/BW]**; Deloitte & Touche House, Plot 50664, Fairground Office Park, Gaborone (BW).

(72) Inventors; and  
(75) Inventors/Applicants (for US only): **KOFAHL, Joachim** [ZA/ZA]; 23 Sirius Street, 1459 Sunward Park (ZA).

**BOOYSEN, Quintin** [ZA/ZA]; 18 Kelvin Avenue, Highway Gardens, 1609 Germiston (ZA).

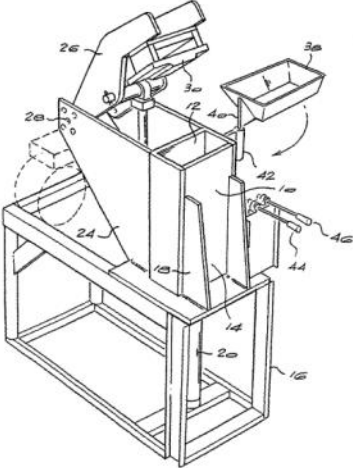
(74) Agents: **GILSON, David, Grant et al.**; Spoor and Fisher, P.O. Box 41312, 2024 Craighall (ZA).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: **BLOCK FORMING APPARATUS**



(57) Abstract: Block forming apparatus comprises a compression chamber with upper and lower ends. A main ram extends into the compression chamber from the lower end, while an auxiliary ram is mounted on a pivoting arm and can be moved into the upper end of the compression chamber. A soil/cement mixture is introduced into the compression chamber and a precompression stroke is carried out by the upper ram (30), before a main compression stroke is carried out by the lower ram (30). The operating force applied by the upper ram is substantially less than that applied by the lower ram.

Designated states

Abstract

# Work of an examiner

- The main tasks of a patent examiner are to **search** and **examine** patent applications received by the EPO, applying the articles and rules of the EPC.
- Examiners communicate with counterparts, which are patent attorneys and applicants (in writing, by telephone, and during oral proceedings)
- Plays a key role (within a division of 3) in the decision of granting a patent
- Participates in opposition cases when required (i.e. when patent contested)



*"In my job I work at the forefront of technology.*

*I see a lot of new inventions, and it's a very dynamic field."*



the touch sensor (12); and  
a control unit (15) for recognizing the first predetermined operation from the  
first detection unit (13) and the second predetermined operation from the second  
detection unit (14);



## ZWEITER TEIL MATERIELLES PATENTRECHT

### Kapitel I Patentierbarkeit

#### Artikel 52<sup>38, 39</sup>

#### Patentierbare Erfindungen

(1) Europäische Patente werden für Erfindungen auf allen Gebieten der Technik erteilt, sofern sie neu sind, auf einer erfinderischen Tätigkeit beruhen und gewerblich anwendbar sind.

(2) Als Erfindungen im Sinne des Absatzes 1 werden insbesondere nicht angesehen:

- a) Entdeckungen, wissenschaftliche Theorien und mathematische Methoden;
- b) ästhetische Formschöpfungen;
- c) Pläne, Regeln und Verfahren für gedankliche Tätigkeiten, für Spiele oder für geschäftliche Tätigkeiten sowie Programme für Datenverarbeitungsanlagen;

d) die Wiedergabe von Informationen.

(3) Absatz 2 steht der Patentierbarkeit der

## PART II SUBSTANTIVE PATENT LAW

### Chapter I Patentability

#### Article 52<sup>38, 39</sup>

#### Patentable inventions

(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

- (a) discoveries, scientific theories and mathematical methods;
- (b) aesthetic creations;
- (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

(d) presentations of information.

(3)

## DEUXIEME PARTIE DROIT DES BREVETS

### Chapitre I Brevetabilité

#### Article 52<sup>38, 39</sup>

#### Inventions brevetables

Art. 54, 56, 57,  
R. 26, 27, 29

(1) Les brevets européens sont délivrés pour toute invention dans tous les domaines technologiques, à condition qu'elle soit nouvelle, qu'elle implique une activité inventive et qu'elle soit susceptible d'application industrielle.

(2) Ne sont pas considérés comme des inventions au sens du paragraphe 1 notamment :

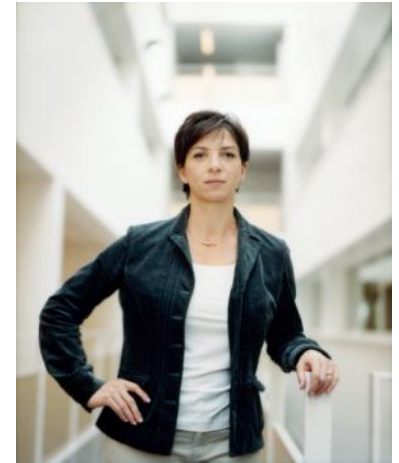
- a) les découvertes, les théories scientifiques et les méthodes mathématiques ;
- b) les créations esthétiques ;
- c) les plans, principes et méthodes dans l'exercice d'activités intellectuelles, en matière de jeu ou dans le domaine des activités économiques, ainsi que les programmes d'ordinateur ;

d) les présentations d'informations.

(3) Le paragraphe 2 n'exclut la brevetabilité

# Work as a patent examiner

- **Top-level engineers and scientists**
  - high degree of technical expertise
  - knowledge of the EPO's three official languages
- **Training during first two years**
  - extensive legal and procedural training
  - individual coaching by experienced examiners
- **Continuing professional development throughout career**
  - language courses
  - legal, technical, tools updates





# Who are we looking for?

- **Citizenship** of one of the member states
- Diploma of completed studies at university level (**Masters Degree**) in e.g. engineering, physics, informatics, chemistry, pharmacy.
- **Solid technical skills** in one of the areas where we currently recruit
- **English, French and German:**
  - Excellent knowledge of one, ability to understand the other two.
  - Or, excellent knowledge of one, good knowledge of a second, the third will be taught after recruitment on 3 years language contract
- Work experience is not required but would be an advantage

# What do we offer?

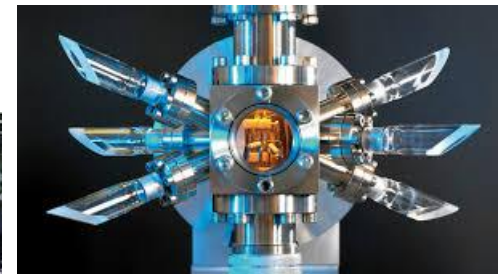
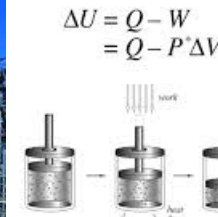
- Long-term employment in an **international environment** at the **forefront of technology**
- Good work/life balance
- Autonomy
- Professional development opportunities
- Attractive salary, pension scheme, social security package and good working conditions



# Current vacancies

- [Applied physics](#)
- [Applied thermodynamics](#)
- [Audio video media](#)
- [Civil Engineering](#)
- [Computers](#)
- [Electrical and electronic technology](#)
- [Industrial chemistry](#)
- [Mechanical engineering](#)
- [Medical technology](#)
- [Polymer chemistry](#)
- [Telecom](#)

More details online, with frequent updates



# How to apply?

- All our vacancies are posted online:  
[www.epo.org/jobs](http://www.epo.org/jobs)
- **online application form** linked from each vacancy notice

# **Part III**

## **Job opportunities**

### **internships**

# Internships

## Science & Engineering

### Requirements

You must

- be a **national** of one of the **EPO member states**
- hold a **technical bachelor's** (or equivalent level) degree
- have a very good knowledge of technical **English**. Knowledge of technical German and/or technical French is an advantage.
- your degree should have been obtained no more than **2 years prior** to the date of application or you should still be enrolled at a University.

# Internships

## Science & Engineering

### What do we offer?

- three to **six-month** internships
- per default **40 hours/week** (minimum requirement is 20 hours a week)
- training** on patents and IP in general, various aspects of an examiner's work, the patent granting process and classification systems as well as the tools used by examiners
- work side by side with examiners** who tutor them throughout the internship
- complex **re-classification** work on patent applications under the supervision of an examiner



# Internships

## Science & Engineering

**In which Technical fields in Munich, The Hague and Berlin are placements possible?**

- mechanical engineering, in particular: materials, watches mechanism, plastics
- chemistry, in particular: polymers, chemical engineering, organic chemistry, textiles
- electricity, in particular: cables and connectors
- physics
- computers, in particular: computer architecture, error correction/detection
- telecommunications, in particular: protocols, network, wireless communication

### More info

<http://www.epo.org/about-us/jobs/vacancies/internships/science-engineering.html>

# Internships

## Science & Engineering

Project N°	Symbols	cluster	location	Required Languages Skills	Required Technical Skills
R11-0014	G06F11	Computers	MU	EN High Level	Computer Science student
R11-0163	H04L29	Telecom	MU	EN high level DE medium FR low	Telecommunication protocols Telecom Network - Wireless Communication
R11-0229	D06N7	Polymer	MU	EN/DE High Level FR Medium	Chemistry / Textile Polymeric Coating of textiles

# Internships

## Science & Engineering

Project N°	Symbols	cluster	location	Required Languages Skills	Required Technical Skills
R12-0083	B29C66/40	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R12-0084	B29C66/40	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0002	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0003	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0004	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0005	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining

# Internships

## Science & Engineering

Project N°	Symbols	cluster	location	Required Languages Skills	Required Technical Skills
R14-0006	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0007	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0008	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0009	B29C66	H&P	MU	EN/DE High Level FR Medium	Mechanical Engineering Chemistry knowledge Materials especially Plastics Joining
R14-0033	G08B25	EET	MU	EN/DE High Level FR Medium	Electronic Engineering Telecom basic knowledge
R14-0038	E04F11-21	CET	MU	EN / DE High Level FR/good	Civil Engineering Buildings; Stairs and Floors; Thermodynamics

# Internships

## Science & Engineering

Project N°	Symbols	cluster	location	Required Languages Skills	Required Technical Skills
R11-0024	G04B, G04F	AP	TH	FR high medium EN/DE	<b>Fine mechanics</b> , especially mechanism & production processes; Horology
R11-0085	B23B	Polymer	TH	EN/DE high FR medium	Chemistry / polymers. Layered products
R12-0005	B01D39	IC	TH	EN/DE high FR medium	Chemistry, Material Science. Filtering material for liquid of gaseous fluids.
R12-0070	G06F15/00, G06F15/16, G06F15/76	Comp	TH	EN high	Computer Architecture. <b>Hardware knowledge</b>
R12-0073	G06F15/16, G06F15/76	Comp	TH	EN high	Computer Architecture. <b>Hardware knowledge</b>

# Internships

## Science & Engineering

Project N°	Symbols	cluster	location	Required Languages Skills	Required Technical Skills
R13-0026	H01R	EET	TH	EN high DE/FR medium/low	Connectors/cables. Electricity with <b>mechanical background</b> . <b>Reading technical drawings</b> .
R14-0014	C07C	PAOC	TH	EN high DE medium FR low	Organic chemistry. <b>Very good knowledge of organic reactions and nomenclature</b>
R14-0025	G06K9	AVM	TH	EN high DE/FR low	Electrical engineering, physics or computer science
R14-0027	A61J	MCT	TH	EN/DE high FR medium	Mechanical Engineering, medical background. <b>Reading technical drawings</b> .
R14-0039	C07K	Biotech	TH	EN high DE/FR medium	Molecular Biology - Bioinformatics, sequence search

•Application procedure for the session **starting on 19 January 2015** is now open and will close on **17 October 2014**.

# Internships Science & Engineering

•videos:

[https://www.youtube.com/watch?v=A6\\_sAqB7ets](https://www.youtube.com/watch?v=A6_sAqB7ets)

[https://www.youtube.com/watch?feature=player\\_embedded&v=mKvxzp3dDk8](https://www.youtube.com/watch?feature=player_embedded&v=mKvxzp3dDk8)



# The Pre-Interviews today

# The Pre – Interviews today

- Short (15-30min) discussion about technical skills and languages
- Will be conducted in your preferred EPO official language, **not in Spanish.**
- Semi-formal procedure
  - It does not replace the official recruitment process via the EPO website
  - Possible outcomes:
    - Invite to apply officially
    - Advice on what to improve before applying
- No final decision, no promises

# Need more information?



- Visit [www.epo.org](http://www.epo.org)
- Contact us at [www.epo.org/contact](http://www.epo.org/contact)
- Follow us on



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[www.youtube.com/EPOfilms](http://www.youtube.com/EPOfilms)



[www.linkedin.com/company/european-patent-office](http://www.linkedin.com/company/european-patent-office)

# Thank you for your attention