Proteger las innovaciones en Europa

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Overview of the presentation

I. IP: a reminder on definitions

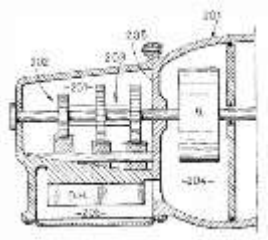
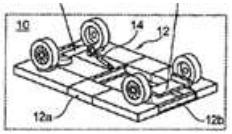
II. The European Patent Office

III. Patents and innovation in action

IV. Conclusion: Economic Value of Patents

I- IP: a reminder on definitions

The different types of IP (I)

Legal right	What for?	How?	
Patents	New inventions	Application and examination	
Utility models	New inventions	Application and registration	
Copyright	Original creative or artistic forms	Exists automatically	

The different types of IP (II)

Legal right	What for?	How?
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

One product = multiple patents and other IP rights

1 500 to 2 000 patents	Data-processing methods, semiconductor circuits, chemical compounds, etc.
	+
Registered design	Shape of phone
Registered trade marks	Brand name, start-up tone
Copyright	Software, ringtones and images

Patentability

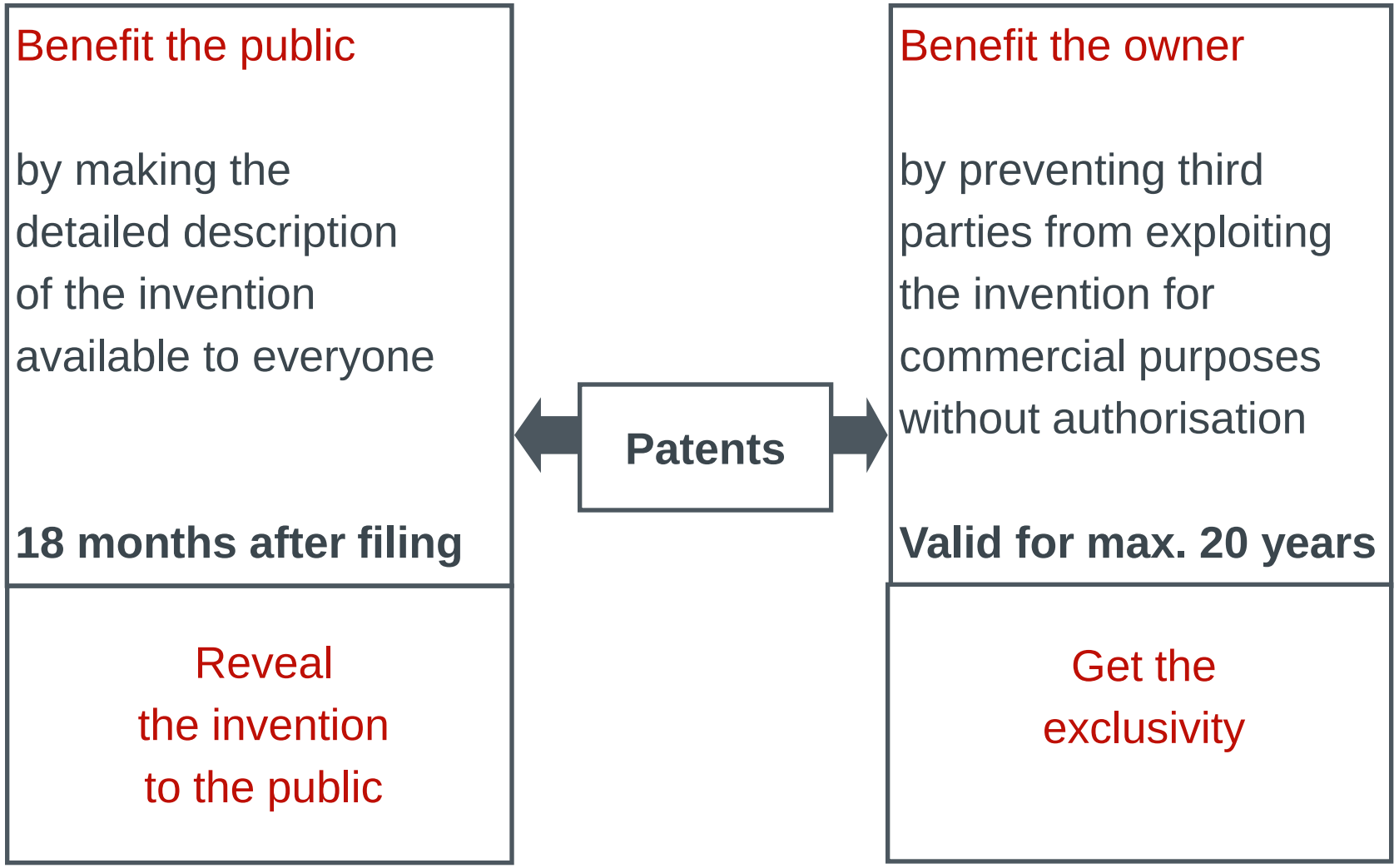
Patents are granted for inventions in all fields of technology

To be patentable, inventions must

- be **new**
- involve an **inventive step**
- be **industrially applicable**

They must relate to a product, process, apparatus or use.

The basic principle of the patent system



II- The European Patent Office

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.

European Patent Organisation

- Created in 1973
- 38 member states + 2 extension (Bosnia-Herzegovina and Montenegro + 2 validation states (Morocco and Republic of Moldova), including all EU
= more than 600 million inhabitants
- 34 nationalities, 7 000 employees (4 200 highly specialised engineers & scientists)
= 2nd largest European public service organisation
- Self financed budget via fees
= € 2 billion in 2014

Our five locations in Europe

Headquarters

Liaison office with the EU

Our staff

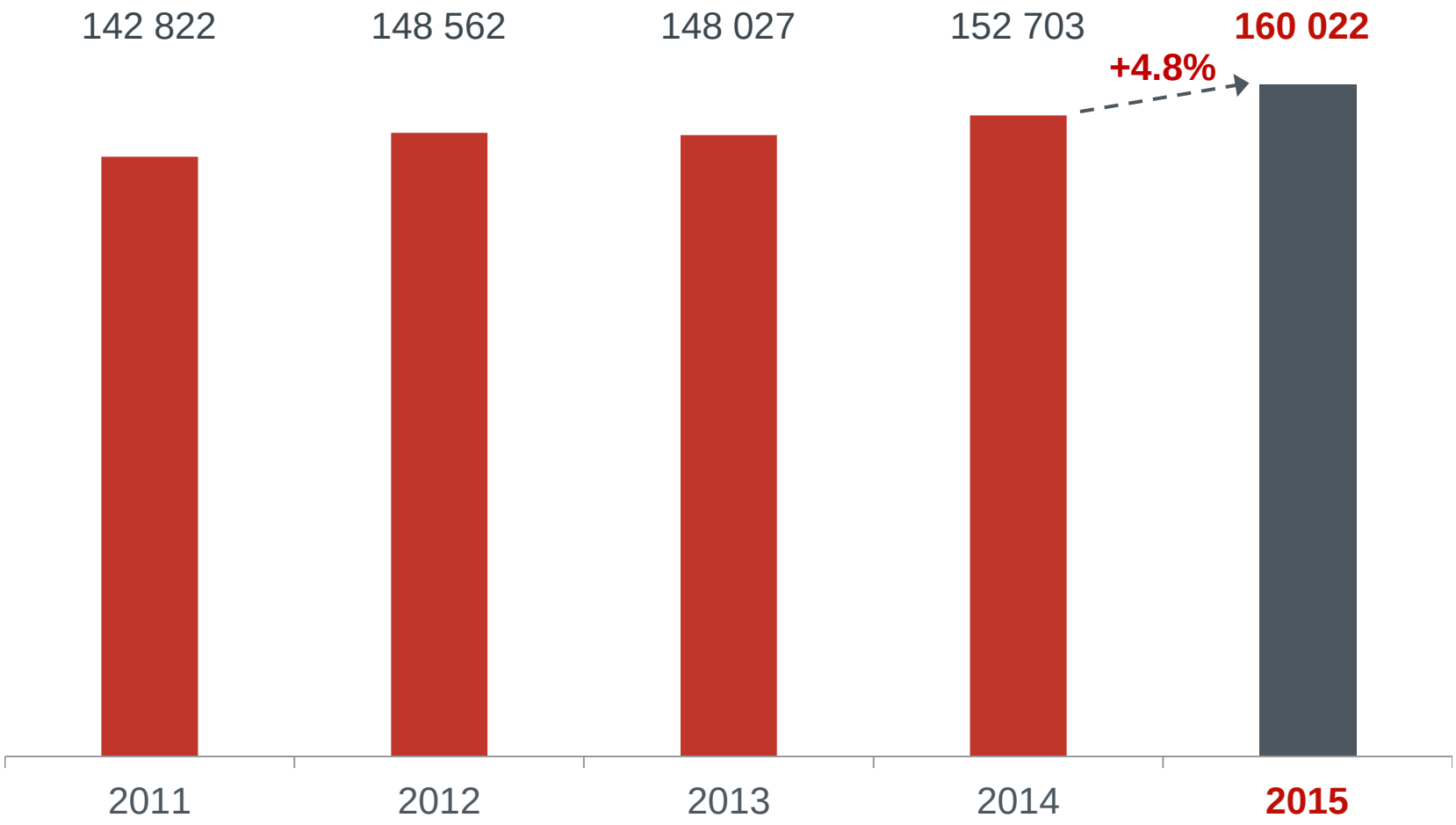
- 34 different nationalities
- Three official languages:
  - English
  - French
  - German

Munich	3 784
The Hague	2 659
Berlin	266
Vienna	102
Brussels	4
Total	6 815

Around 60% are patent examiners

Source: EPO data on 31.12.2015

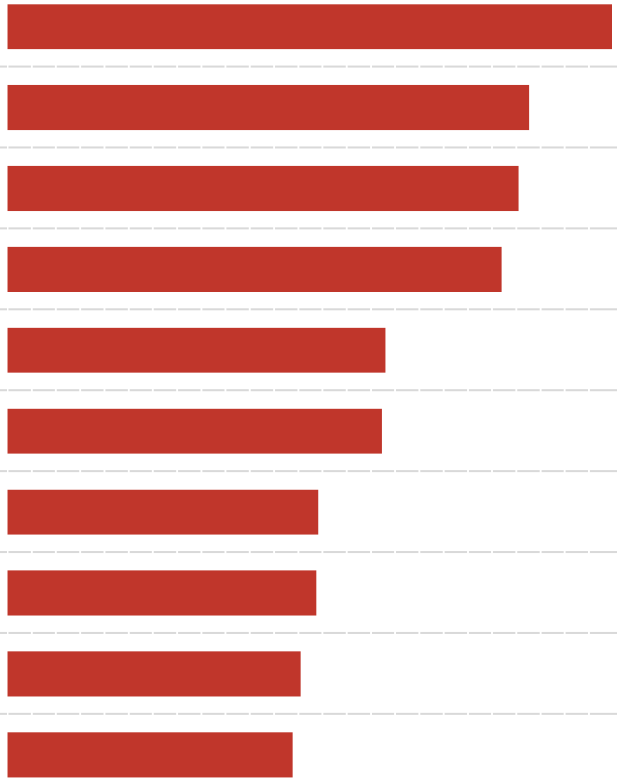
Total European patent applications in 2015



Applications are the files for which applicants have decided to request a European patent from the EPO. They are a direct measure of the explicit interest of innovating firms to assert their patent rights on the European technology market (Direct European applications and international (PCT) applications entering the European phase).

Technical fields with the most applications in 2015

TOP10

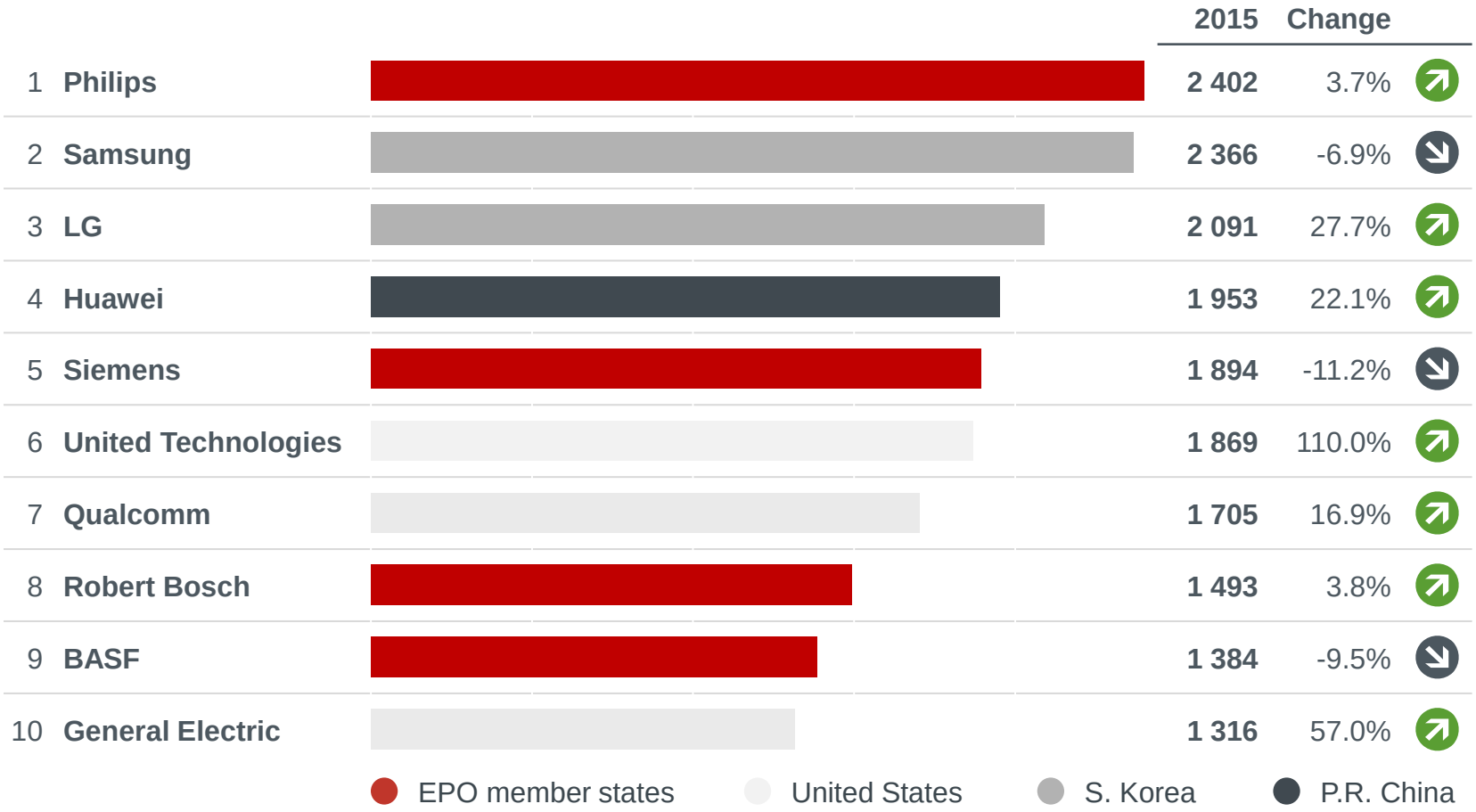


		2015	Change
1	Medical technology	12 474	11.0%
2	Digital communication	10 762	3.2%
3	Computer technology	10 549	7.8%
4	Electrical machinery, apparatus, energy	10 198	-1.8%
5	Transport	7 802	-1.6%
6	Measurement	7 727	8.0%
7	Organic fine chemistry	6 414	2.1%
8	Engines, pumps, turbines	6 374	17.9%
9	Biotechnology	6 048	5.1%
10	Pharmaceuticals	5 884	9.6%

Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase).

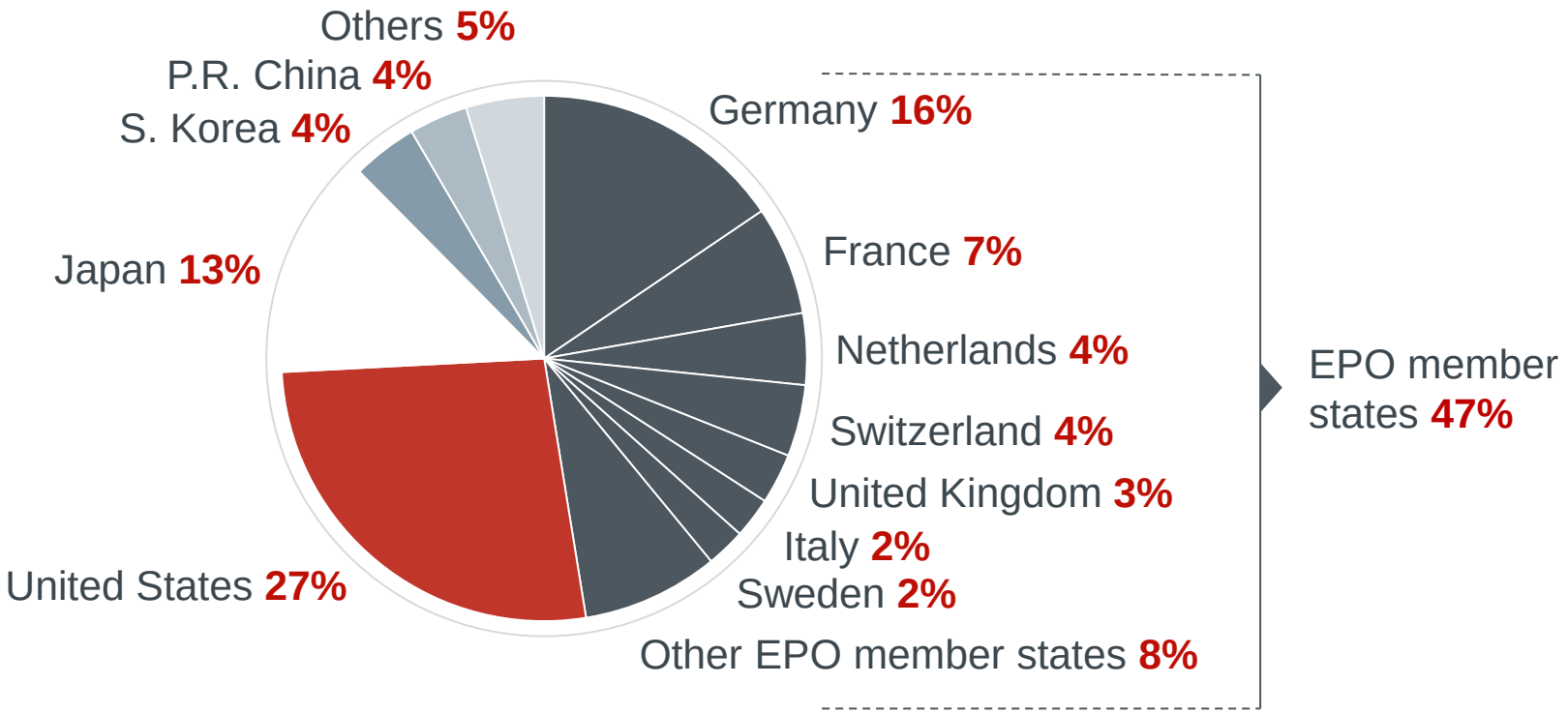
Top EPO applicants in 2015

TOP10



Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase). Statistics are based on the first-named applicant.

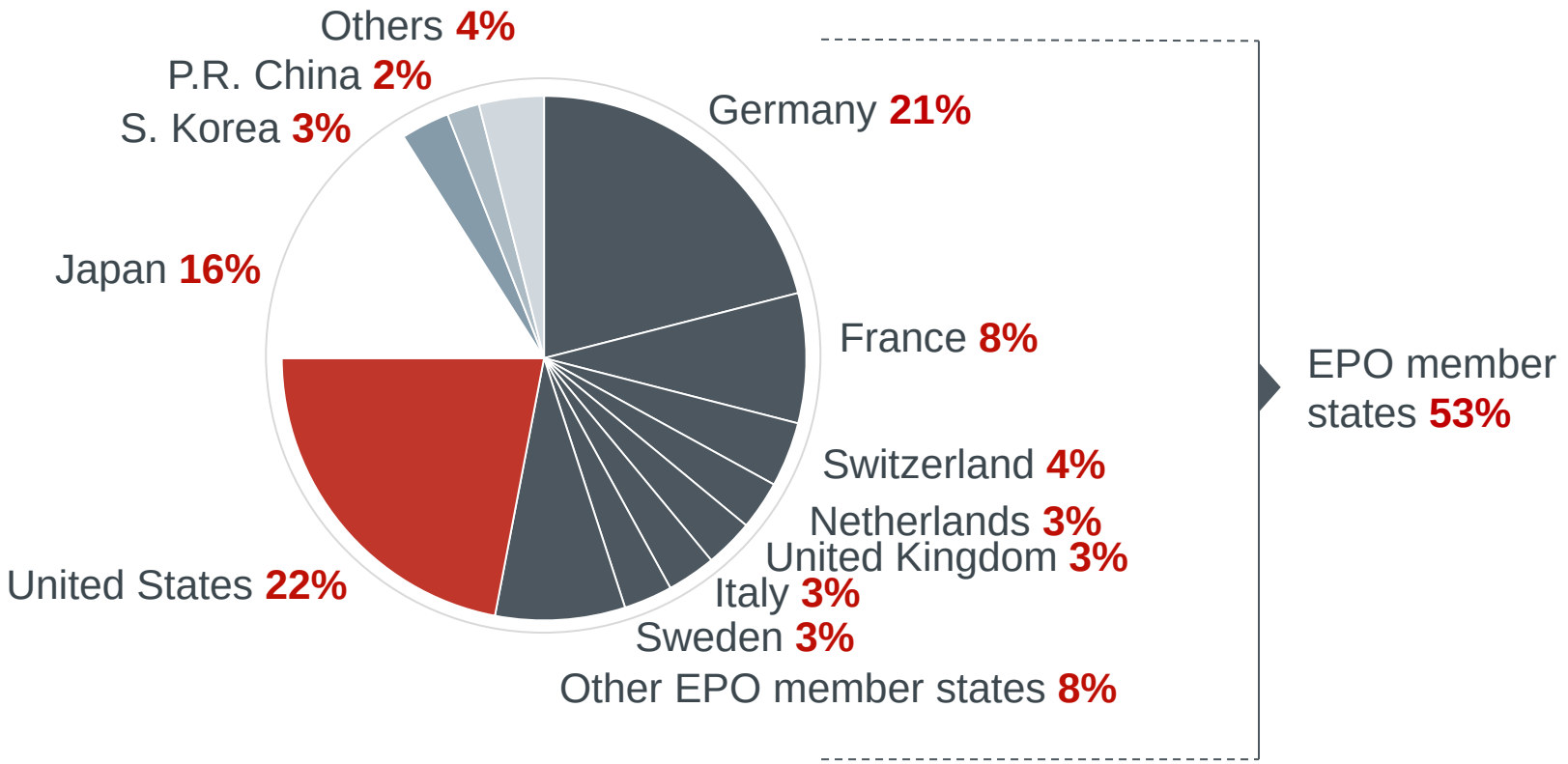
Origin of European patent applications in 2015



Patent Applications from Spain in 2015: 1.525 (+3,8%)

Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase).
Statistics are based on the first-named applicant.
EPO: the 38 member states of the European Patent Organisation, including EU28

Granted patents in 2015



Analysis based on granted patents published in 2015. Statistics are based on the first-named patentee.

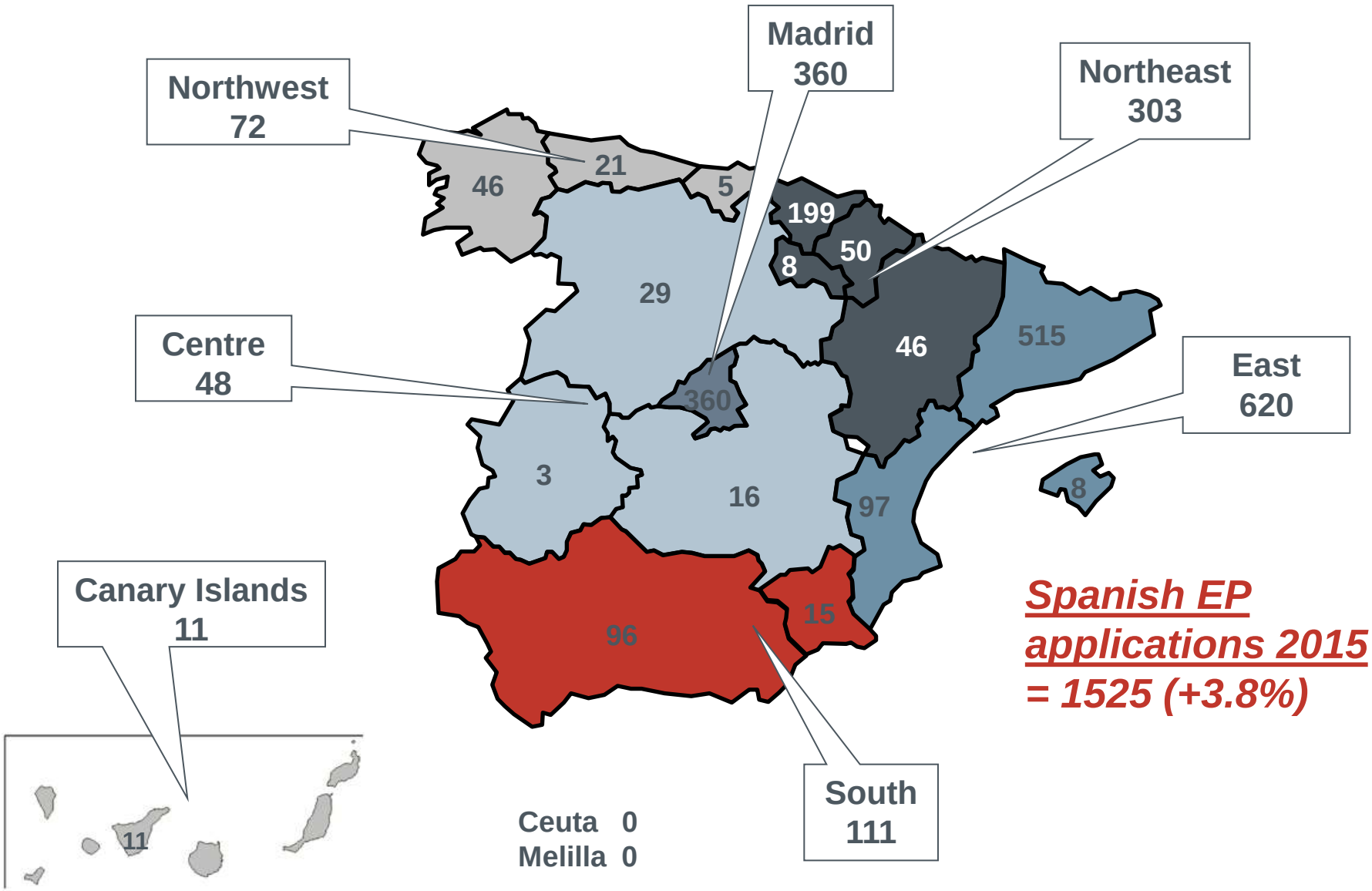
Top 15 technology fields in 2015 for EP applications coming from Spain

TECHNOLOGY FIELD	2014	2015	2015/2014
Pharmaceuticals	132	114	-13,6%
Transport	107	113	5,6%
Biotechnology	94	111	18,1%
Handling	62	108	74,2%
Medical technology	90	96	6,7%
Organic fine chemistry	72	94	30,6%
Civil engineering	73	81	11,0%
Other special machines	76	66	-13,2%
Electrical machinery, apparatus, energy	61	54	-11,5%
Measurement	32	50	56,3%
Basic materials chemistry	33	45	36,4%
Engines, pumps, turbines	66	44	-33,3%
Materials, metallurgy	44	44	0,0%
Computer technology	35	44	25,7%
Digital communication	44	40	-4,5%
Sub-total	1021	1106	8,3%
All fields	1.471	**1.525**	3,8%

Top ten Spanish applicants at EPO in 2015

Applicant	2015
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS (CSIC)	47
AMADEUS	34
TELEFONICA S.A.	31
LABORATORIOS DEL DR. ESTEVE S.A.	23
REPSOL, S.A.	23
UNIVERSIDAD AUTÓNOMA DE BARCELONA	18
ALMIRALL, S.A.	17
ABENGOA S.A.	16
ACCIONA S.A.	13
GALENICUM HEALTH S.L.	12

Spanish EP applications 2015: geographical distribution



III- Patents and innovation in action

The Social and Economical Impact of Patents:
"Inventors are the true heroes of modern times"

- Every year the EPO showcases the best and brightest in innovation at the European Inventor Award

- The award is presented by the EPO to recognise outstanding inventors from Europe and around the world, who have made an exceptional contribution to social development, technological progress and economic growth.

A concrete example of the importance of patents

- Anton van Zanten
- European Inventor Award 2016
- Winner of the “Life Time Achievement” Prize for his several inventions in the field of Safety Systems for vehicles, including the “ESP - Electronic stability control for cars”

A concrete example of the importance of patents (II)

- Helen Lee
- European Inventor Award 2016
- Winner of the Popular Prize for her invention: Diagnostic kits for developing countries

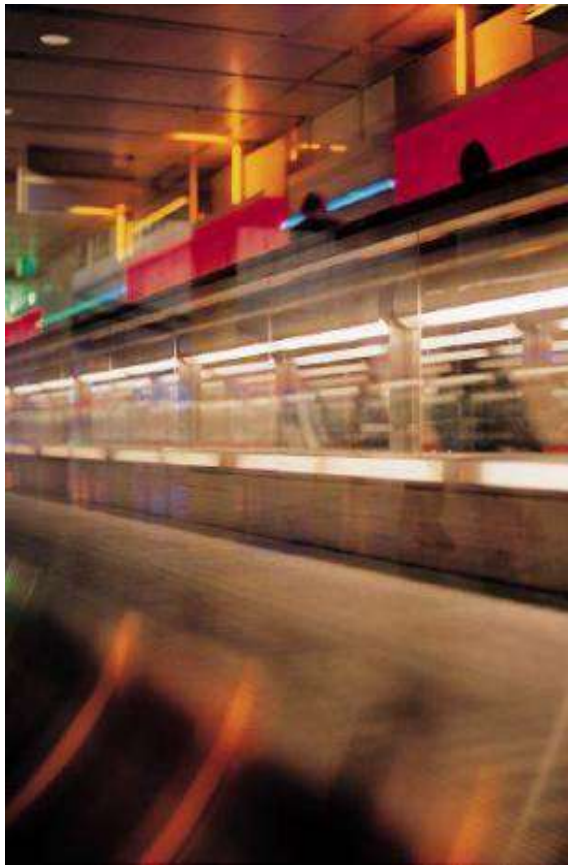
A concrete example of the importance of patents (II)

- José Luis López Gómez
- European Inventor Award 2013
- Nominated in the category “Industry”
- Winner of the Popular Prize for his invention “Independent wheel guidance for high speed trains”

IV- Conclusion: Economic value of Patents

An incentive for economic growth and innovation

- Incentivises R&D and innovation
  - New solutions for more social welfare
  - More choice and lower prices for consumers
  - Innovation as source of new growth
- Makes the latest technological knowledge available to the public
  - Prevents duplication of R&D
  - Helps identify new partners
  - Spurs cumulative innovation



"Standing on the shoulders of giants"

The benefits of patents (I)

For inventors, patents can:

- help safeguard financial returns
  from the commercial exploitation of the invention
- give holders time to recoup their development costs
- encourage further investment in R&D

The benefits of patents (II)

For the economy in Europe, patents are a prime source of new technical knowledge

Patents can help to:

- identify **new technological trends** and new business partners
- inspire **further inventions**
- **prevent the duplication of R&D** in industry and universities

European patents foster technical innovation, which is crucial to competitiveness and overall economic growth in Europe

Value of IP in a changing economic landscape

In a **fast**, **changing**, **global** economic environment where:

- knowledge increasingly plays a **key role** in generating new products,
- the **complexity** of new products is increasing and
- technologies are **overlapping**:

IP is turning into a strategic tool that creates <u>maximum value</u> from innovations.

Macro-economic value of patents

Economic indicator	Contribution of IPR-intensive industries		Contribution of patent-intensive industries	
	%	Value	%	Value
EU employment	**35%**	77 million	**16%**	36 million
- direct	*26%*	*57 million*	*10%*	*23 million*
- indirect	*9%*	*20 million*	*6%*	*13 million*
EU GDP	**39%**	4.7 trillion Euro	**14%**	1.7 trillion Euro
EU wage premium	**+ 41%**	715 Euro/week	**+ 64%**	+ 324 Euro/week
EU trade				
- % total EU imports	**88%**	1.4 trillion Euro	**69%**	1.0 trillion Euro
- % total EU exports	**90%**	1.2 trillion Euro	**71%**	1.0 trillion Euro

Source: joint study by EPO and OHIM: ***"IPR-intensive industries: contribution to economic performance and employment in the European Union"****, Industry-Level Analysis Report, September 2013*

Macro-economic value of patents (1/2)

IP right	Employment (direct)	Share of EU employment	GDP (€ million)	Share of EU GDP
Trade mark-intensive industries	45,508,046	20.8%	4,163,527	33.9%
Design-intensive industries	26,657,617	12.2%	1,569,565	12.8%
Patent-intensive industries	22,446,133	10.3%	1,704,485	13.9%
Copyright-intensive industries	7,049,405	3.2%	509,859	4.2%
All IPR-intensive industries	**56,493,661**	**25.9%**	**4,735,262**	**38.6%**

Source: joint study by EPO and OHIM: ***"IPR-intensive industries: contribution to economic performance and employment in the European Union"****, Industry-Level Analysis Report, September 2013*

Macro-economic value of patents (2/2)

IP right	Wage premium	Export (€ million)	Share of EU Export	Import (€ million)	Share of EU Import
Trade mark- intensive industries	42%	1,023,981	75.5%	1,158,860	75.7%
Design-intensive industries	31%	724,292	53.4%	703,586	46.0%
Patent-intensive industries	64%	957,748	70.6%	1,049,795	68.6%
Copyright-intensive industries	69%	57,051	4.2%	41,727	2.7%
All IPR-intensive industries	**41%**	**1,226,015**	**90.4%**	**1,351,890**	**88.3%**

Source: joint study by EPO and OHIM: ***"IPR-intensive industries: contribution to economic performance and employment in the European Union"****, Industry-Level Analysis Report, September 2013*

GRACIAS POR SU ATENCIÓN