

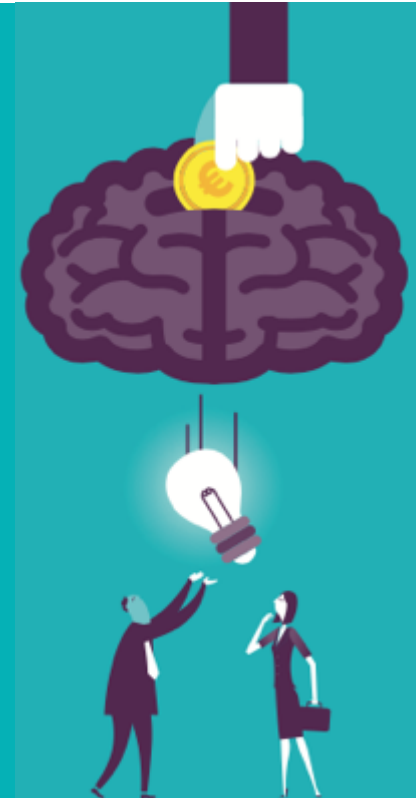


Rigorous empirical
research on
intellectual property


The status and acceleration of green technology innovation in Europe and beyond

- Dr. Peter Oksen, Senior Program Officer at WIPO GREEN
- Tamara Nanayakkara, Counsellor at WIPO's SMEs and Entrepreneurship Support Division
- Arnaud de la Fouchardière, founder and CEO at Vitirover

5 May 2020




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Rigorous empirical research on intellectual property


Types of IP
Benefits of IP
IP for Business Growth
4 Reasons to Patent
4 Reasons 4 Copyright
4 Reasons 4 Trademarks
SME Features
Research



4 REASONS TO PATENT

- 1 - MARKET ACCESS
- 2 - NEGOTIATING
- 3 - FUNDING
- 4 - STRATEGIC VALUE


Explore how patents add value with our [interactive guide](#).



4 REASONS 4 COPYRIGHT

- 1 - COMPETITIVE EDGE
- 2 - REPUTATION
- 3 - COLLABORATION
- 4 - FUNDING

Explore the benefits of copyright with our [interactive guide](#).



4 REASONS 4 TRADEMARKS

- 1 - DIFFERENTIATION
- 2 - PROTECTION
- 3 - REPUTATION
- 4 - REVENUE


Explore the benefits of trademarks with our [interactive guide](#).

4 REASONS 4 DESIGN REGISTRATION

Coming soon.

Stay informed






To receive alerts for regular research reports, news and interviews from 4iP



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Which types of intellectual property do you need?

Filter table columns

	 PATENTS	 COPYRIGHTS	 DESIGNS*	 TRADEMARKS	 TRADE SECRETS
What do they protect?	An invention: a new and innovative way of doing something, or solving a technical problem. See also: Here Here Here	A work: an original intellectual creation See also: Here Here Here	A new and original visual appearance of a product. See also: Here Here Here	Distinctive signs that identify brands of products/services See also: Here Here	Any type of useful information for business that is secret and kept confidential See also: Here Here
Examples of what is protected	Inventive products and processes in all lines of business For examples of successful inventions by SMEs see Here	Audio-visual works, pictures, graphics, architecture, databases, software, designs, literature, novels, poems, plays, music and video, dramatic works	Packages, containers, furnishings, graphic symbols, computer icons, typefaces, graphical user interfaces, logos and maps More on designs Here	Words, personal names, designs, letters, numerals, colours, shapes, packaging, sounds More on TMs Here See also Here Here	Any confidential information: business methods, customer lists, R&D data, financial information, cooking recipes, software, datasets, know-how, algorithms More on trade secrets Here
How are my rights protected?	Prevents unauthorised making, using or selling of the patented invention	Prevents the work being (without authorisation) copied, published, distributed or made available online Protects the integrity and attribution of the work Related rights: Public performance and display of the © work See also Here	Prevents unauthorised use of an identical or similar visual appearance for the same kind of products and/or services See also Here	Prevents unauthorised use of distinctive signs for the same or related products or services See also Here Here	Prevents others from using the confidential information, as long as it remains secret Allows to claim monetary compensation in case of unlawful disclosure of the confidential information
How long is my innovation protected?	Up to 20 years	Lifetime of the author +50 to 70 years after death (depending on the country)	Up to 25 years for registered designs	Indefinitely, subject to use in commerce and renewals	Indefinitely, provided it is not revealed
Do I have to register it?	Yes, filing an application to a patent office is required More on patent applications in: EPO EPO DPMA (DE) INPI (FR) UK IPO (UK)	No, copyright protection arises automatically with its creation See also Here	No, but it is highly advisable: Unregistered designs are protected only from unauthorised copying and they have shorter term of protection (up to 3 years versus up to 25) More info in: EU IPR Helpdesk EUIPO	Yes. Three routes to registration: National protection: GERMANY FRANCE UK EU-wide protection: EUIPO International protection: WIPO Madrid System	No
How long does it take?	3 to 5 years	n/a	3 to 12 months, depending on the country	3 to 24 months, depending on the country	n/a
How much does it cost?	Medium to high (from 6000€)	If registered: low (from 15€)	Low to medium (500€)	Medium (1000€)	Nothing
How do I start?	IPR Guide in Europe Patent Basics	IPR Guide in Europe Understanding Copyright and Related Rights	Design Basics Designs	Trademark Protection in the EU Trademarks Basics	Trade Secrets in the EU How to manage confidential business information

* Depending on the national law and the type of design, they may also be protected as works of art under copyright. In some countries, designs are protected under patent law as "design patents".

How do I use intellectual property to grow my business?

[Click HERE to download as PDF](#)





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Entrepreneurship Support
Division, WIPO



**Arnaud de la
Fouchardière**, CEO and
Founder, Vitirover



UN specialized agency (1967)

192 member states

Dedicated to the promotion of **innovation and creativity** of the economic, social and cultural **development** of all countries through a balanced and effective international intellectual property system.

Global registration system for trademarks, industrial designs, appellations of origin, and global filing system for patents.

Strong capacity development mandate.

The Evolving Risk Landscape - WEF

Top 5 Global Risks in Terms of Likelihood

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1st	Infrastructure breakdown	Blow up in asset prices	Asset price collapse	Asset price collapse	Storms and cyclones	Income disparity	Income disparity	Income disparity	Interstate conflict	Involuntary migration	Extreme weather	Extreme weather	Extreme weather	Extreme weather
2nd	Chronic diseases	Middle East instability	China economic slowdown	China economic slowdown	Flooding	Fiscal imbalances	Fiscal imbalances	Extreme weather	Extreme weather	Extreme weather	Involuntary migration	Natural disasters	Climate action failure	Climate action failure
3rd	Oil price shock	Failed and failing states	Chronic diseases	Chronic disease	Corruption	Greenhouse gas emissions	Greenhouse gas emissions	Unemployment	Failure of national governance	Climate action failure	Natural disasters	Cyberattacks	Natural disasters	Natural disasters
4th	China hard landing	Oil price shock	Global governance gaps	Fiscal crises	Biodiversity loss	Cyberattacks	Water crises	Climate action failure	State collapse or crisis	Interstate conflict	Terrorist attacks	Data fraud or theft	Data fraud or theft	Biodiversity loss
5th	Blow up in asset prices	Chronic diseases	Deglobalization (emerging)	Global governance gaps	Climate change	Water crises	Population ageing	Cyberattacks	Unemployment	Natural catastrophes	Data fraud or theft	Climate action failure	Cyberattacks	Human-made environmental disaster

Top 5 Global Risks in Terms of Impact

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1st	Blow up in asset prices	Blow up in asset prices	Asset price collapse	Asset price collapse	Fiscal crises	Financial failure	Financial failure	Fiscal crises	Water crises	Climate action failure	Weapons of mass destruction	Weapons of mass destruction	Weapons of mass destruction	Climate action failure
2nd	Deglobalization	Deglobalization (developed)	Deglobalization (developed)	Deglobalization (developed)	Climate change	Water crises	Water crises	Climate action failure	Infectious diseases	Weapons of mass destruction	Extreme weather	Extreme weather	Climate action failure	Weapons of mass destruction
3rd	Interstate and civil wars	China hard landing	Oil and gas price spike	Oil price spikes	Geopolitical conflict	Food crises	Fiscal imbalances	Water crises	Weapons of mass destruction	Water crises	Water crises	Natural disasters	Extreme weather	Biodiversity loss
4th	Pandemics	Oil price shock	Chronic diseases	Chronic disease	Asset price collapse	Fiscal imbalances	Weapons of mass destruction	Unemployment	Interstate conflict	Involuntary migration	Natural disasters	Climate action failure	Water crises	Extreme weather
5th	Oil price shock	Pandemics	Fiscal crises	Fiscal crises	Energy price volatility	Energy price volatility	Climate action failure	Infrastructure breakdown	Climate action failure	Energy price shock	Climate action failure	Water crises	Natural disasters	Water crises

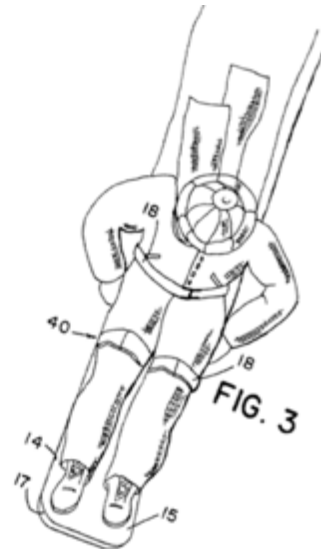
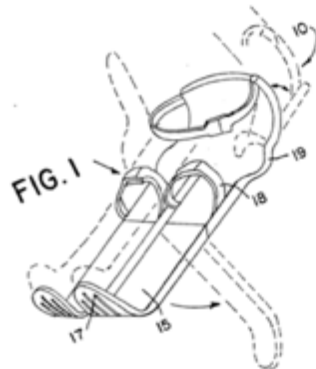
IPR and innovation

- IPRs (Intellectual Property Rights) part of larger innovation ecosystem
- The innovation ecosystem has many elements:
 - Investment in education & R&D
 - Access to capital (private, gov't, venture etc.)
 - Professional services (technology managers, lawyers, business managers etc.)
 - IP laws & enforcement
 - Laws & policies supporting research and tech dev., licensing, branding, marketing, distribution etc.
 - Entrepreneurial willingness and more..

Intellectual Property Assets

- Innovative products/processes
 - ▶ Patents
 - ▶ Trademarks
 - ▶ Design rights
 - ▶ Copyright
 - ▶ Trade secrets
 - ▶ Geogr. indications
- Distinctive signs
- Creative designs
- Cultural, artistic, literary work
- Confidential business info
- Geographical origin

BRENT L. FARLEY
SLED PANTS
Patented November 12, 1996
No. 5,573,256



Patent Protection – the essentials

Invention: a product or process that provides a new way of doing something, or that offers a new technical solution to a problem

- Patent is granted for fixed time in exchange for publication of knowledge
- Once a patent granted in a country, no third party can apply patent for same invention
- In country where patent granted, patent owner decides who can use the invention and how
- In other countries, third party can copy and use/sell the invention, but cannot patent it
- If no patent is granted, risk that third party will try to patent the invention and use/sell it
- In other words:
 - Patent protects against third party patenting and against copy in country of patent
 - Only real alternative is trade secret

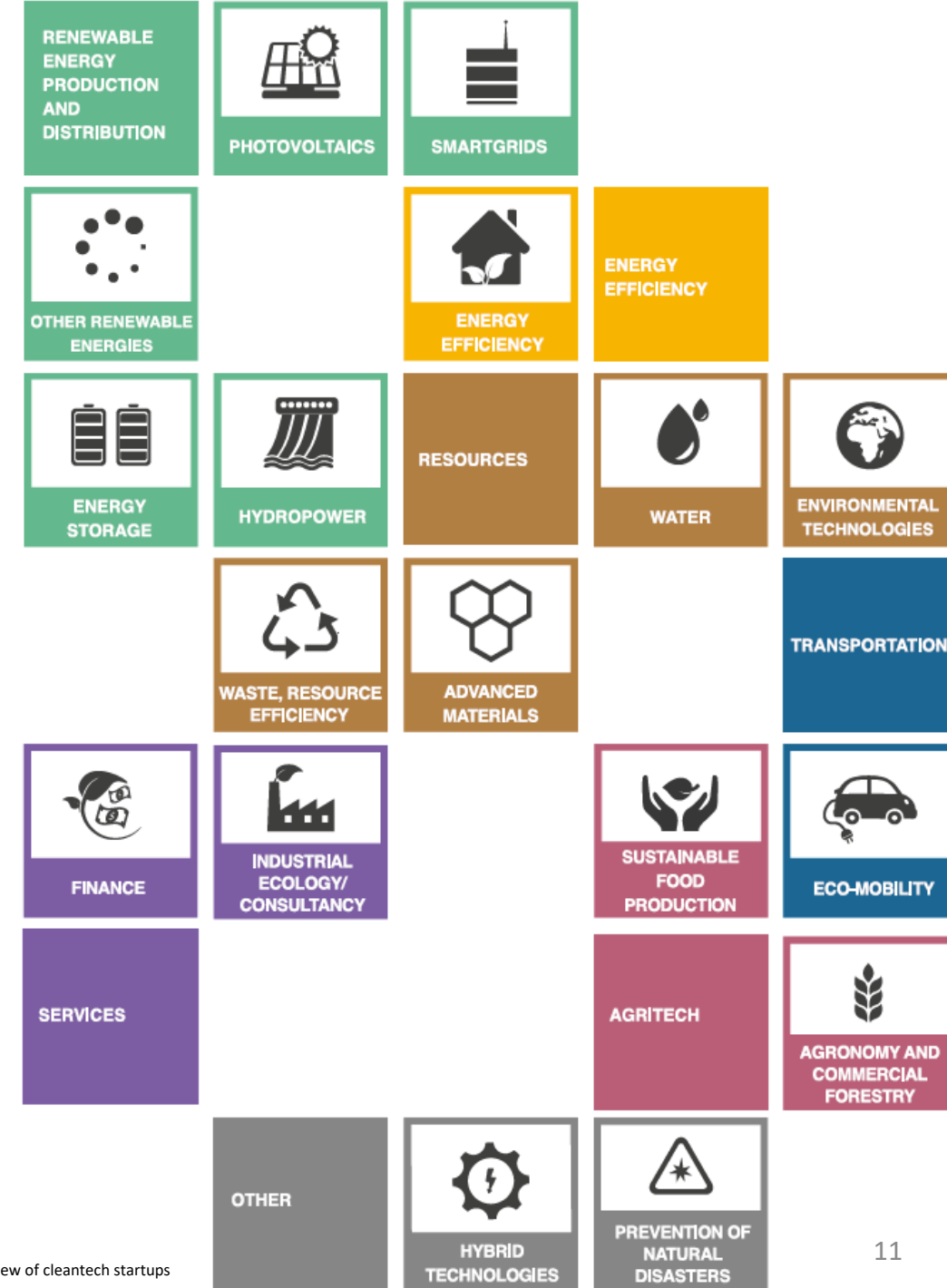
When to think about IPR

- Soonest possible
- In R&D phase a R&D agreement may specify ownership of potential outcome
- Before deployment, patent should be applied for (reverse engineering not illegal)
- Patentability test (by a consultant / law firm)
 - Can help decide which elements of an invention to patent where – business development advise
- Once granted it can be basis for sale, transfer, production license, non-commercial free use etc.
- If wish is to grant free licenses, can protect against unwanted third-party commercial exploit.

Greentech/ Cleantech market

Technologies which increase performance, productivity and efficiency of products and services while waste and pollution and consumption of resources is decreased

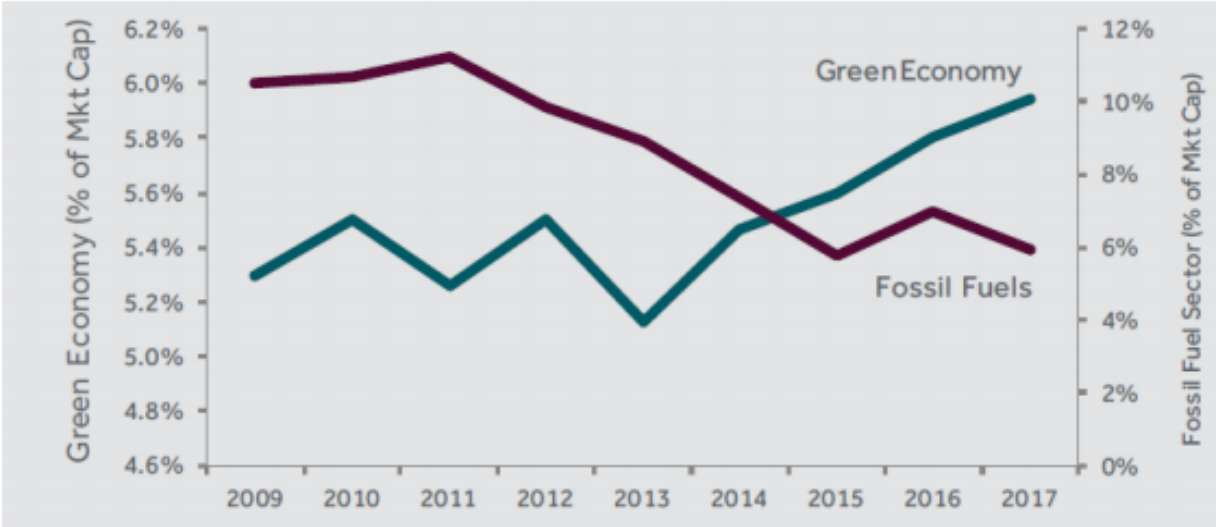
Typically a technology area within environment, energy, transport or climate



Green Economy

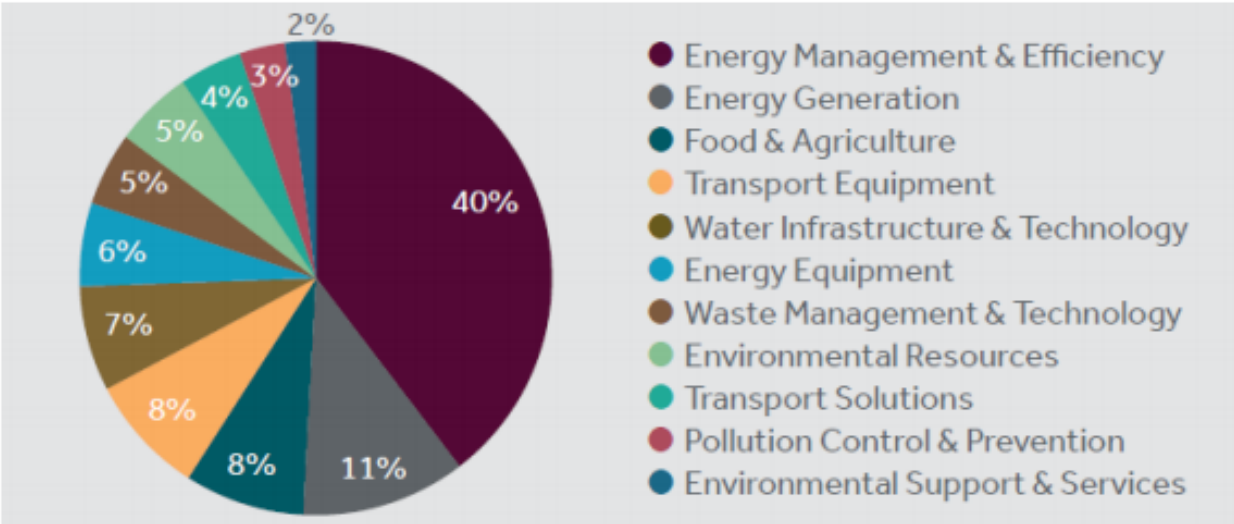
(defined as products and services in renewable and alternative energy, energy efficiency, water, and waste and pollution)

Figure 4: Growth of the green economy vs fossil fuel sector



Source: FTSE Russell (2018^[33])

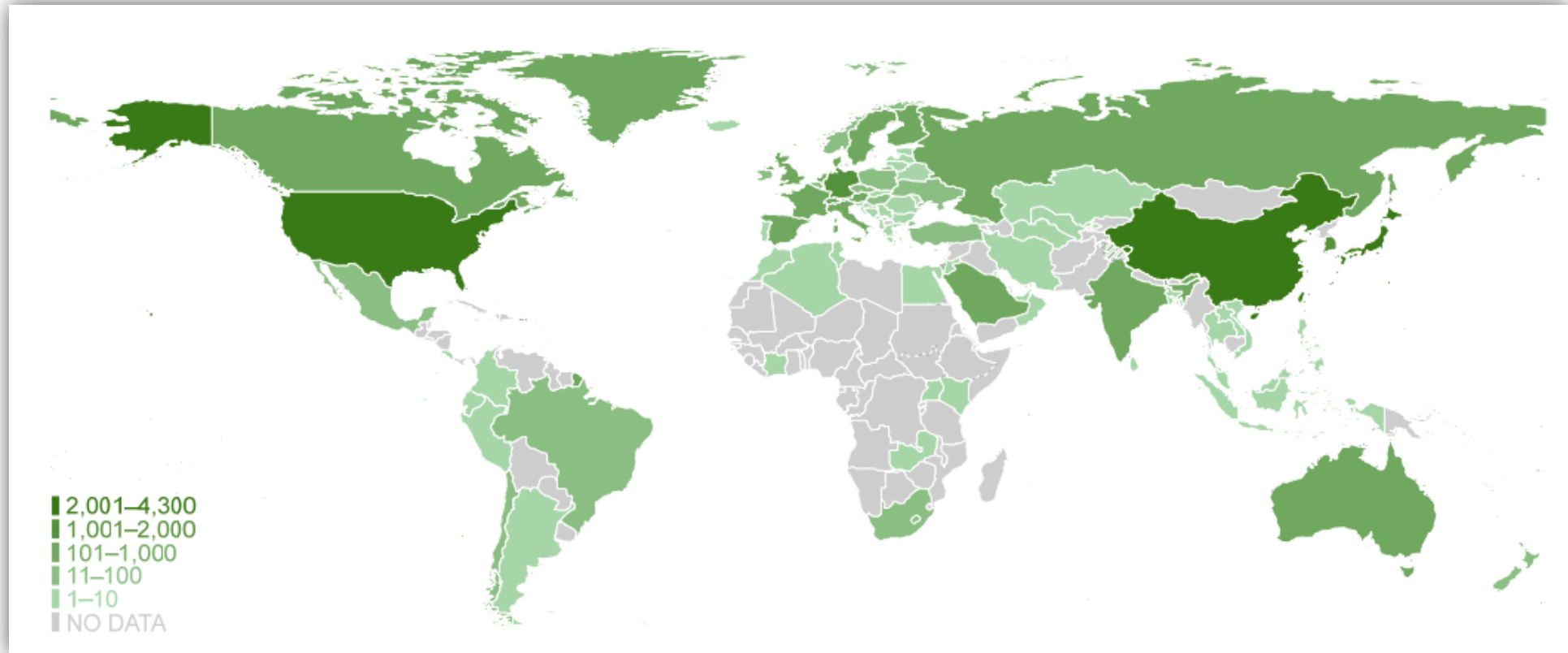
Figure 5: Green economy by green sector



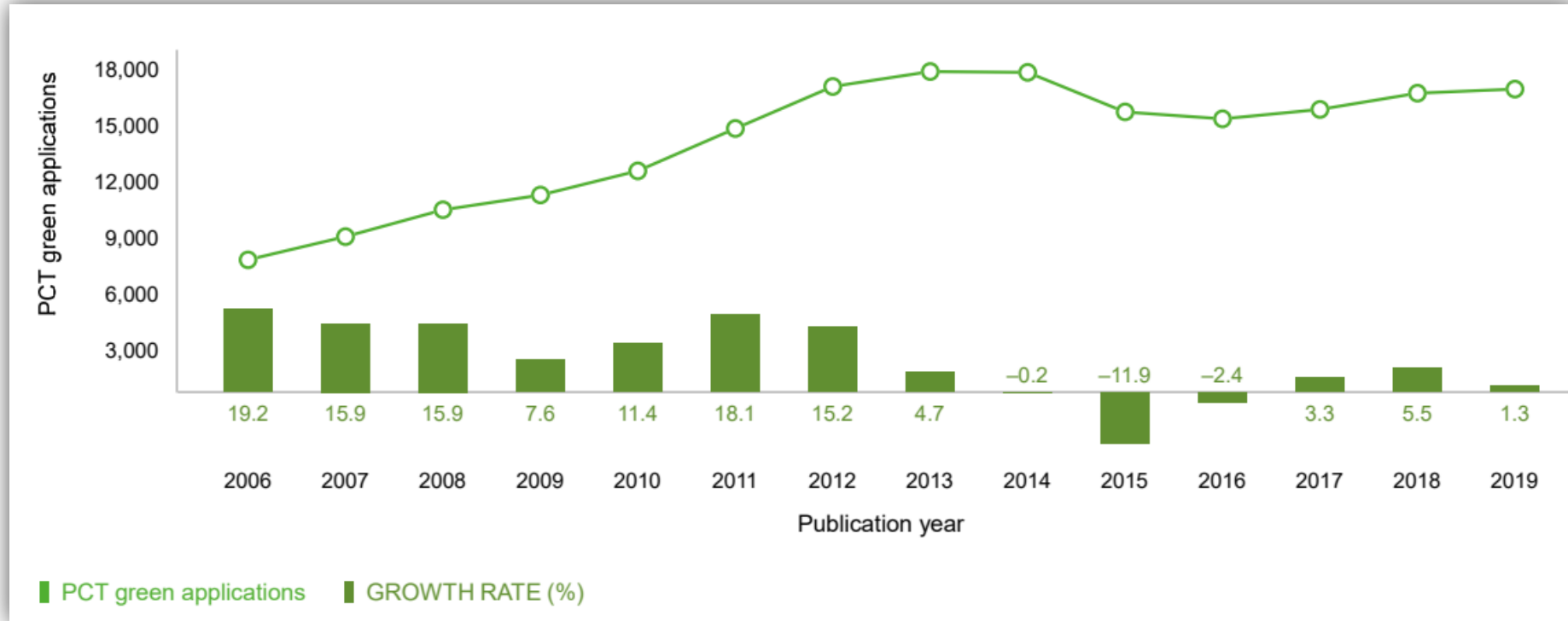
Source: FTSE Russell (2018^[33])

Using Patent Intelligence

Greentech patent filings PCT 2019



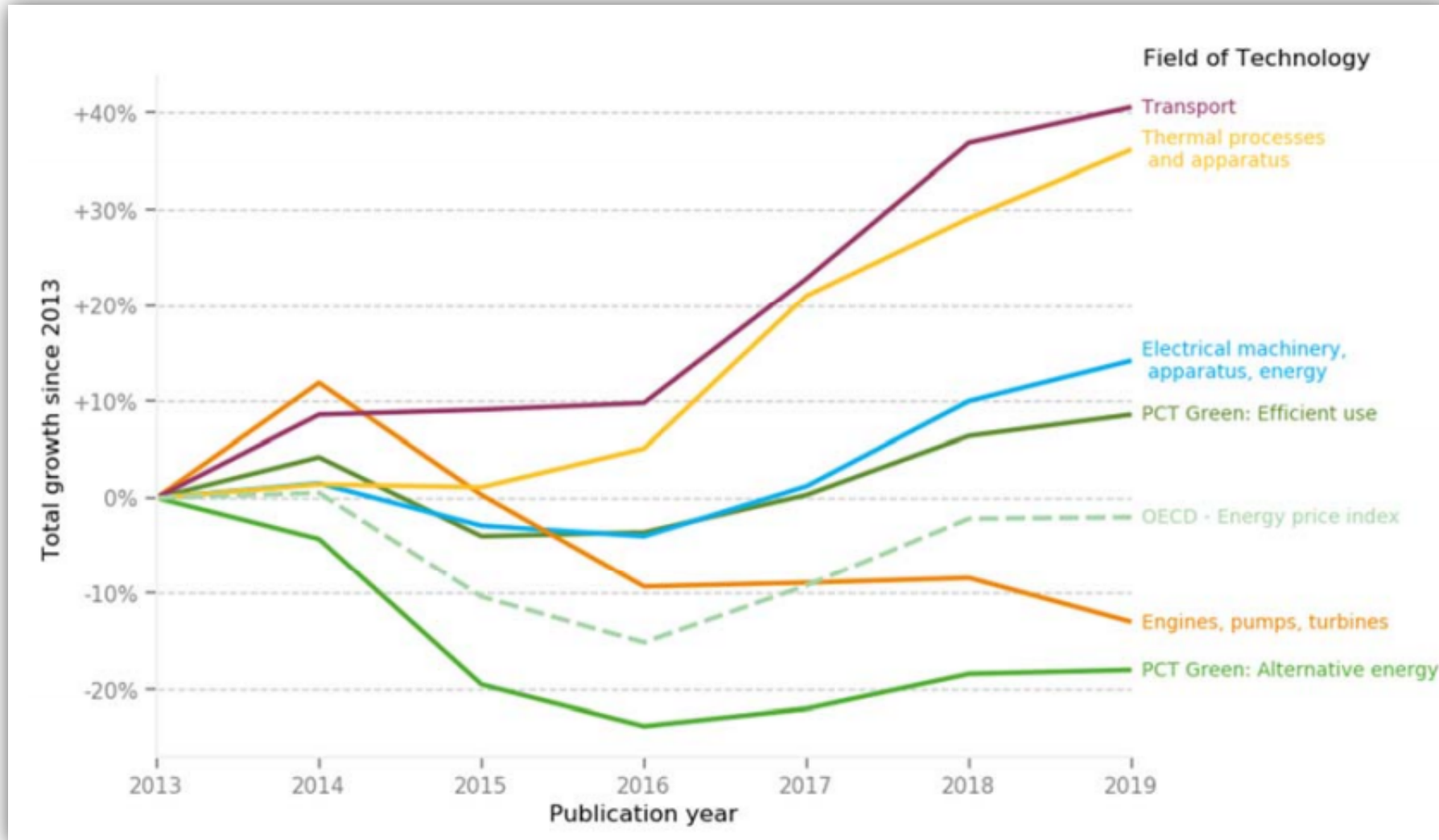
Green Energy Patent Filings PCT



Green Energy Patent Filings Detail

Green Technology	2013	2016	2019	Average Annual growth 2013 to 2019	Total Growth 2013 to 2019	Share of PCT Green appl. (2013 %)	Share of PCT Green appls. (2019 %)
Alternative Energy Production	9,322	7,099	7,646	-3%	-18%	52%	45%
Bio-fuels	2,088	1,852	1,866	-2%	11%	12%	11%
Solar	2,842	1,604	1,766	-8%	-38%	16%	10%
Fuel cells	1,241	1,021	1,105	-2%	11%	7%	7%
Wind	820	522	859	1%	5%	5%	5%
Manmade waste	761	680	716	-1%	-6%	4%	4%
Nuclear	543	510	468	-2%	-14%	3%	3%
Hydro energy	344	289	300	-2%	-13%	2%	2%
Geothermal energy	285	255	282	0%	-1%	2%	2%
Waste heat	253	260	203	-4%	-20%	1%	1%
Efficient Use/ Energy Consumption Total	8,558	8,248	9,294	1%	9%	48%	55%
Energy Conservation Total	6,210	6,101	6,800	2%	10%	35%	40%
Power supply circuitry	3,290	3,351	3,511	1%	7%	18%	21%
Low energy lighting	2,175	2,073	2,383	2%	10%	12%	14%
Storage of electrical energy	444	395	547	4%	23%	2%	3%
Thermal building insulation, in general	300	282	360	3%	20%	2%	2%
Transportation Total	2,260	2,066	2,321	0%	3%	13%	14%
Rail vehicles	523	518	734	6%	40%	3%	4%
Charging stations	268	283	383	6%	43%	1%	2%
Human-powered vehicle	193	285	324	9%	68%	1%	2%
Hybrids	613	385	304	-11%	-50%	3%	2%
Electric	456	313	285	-8%	-38%	3%	2%
Hydrogen	74	125	105	6%	42%	0%	1%
Vehicles in general	69	70	99	6%	45%	0%	1%
Heat – pumps	60	47	131	14%	120%	0%	1%
Total	17,880	15,347	16,940	-1%	5%	100%	100%

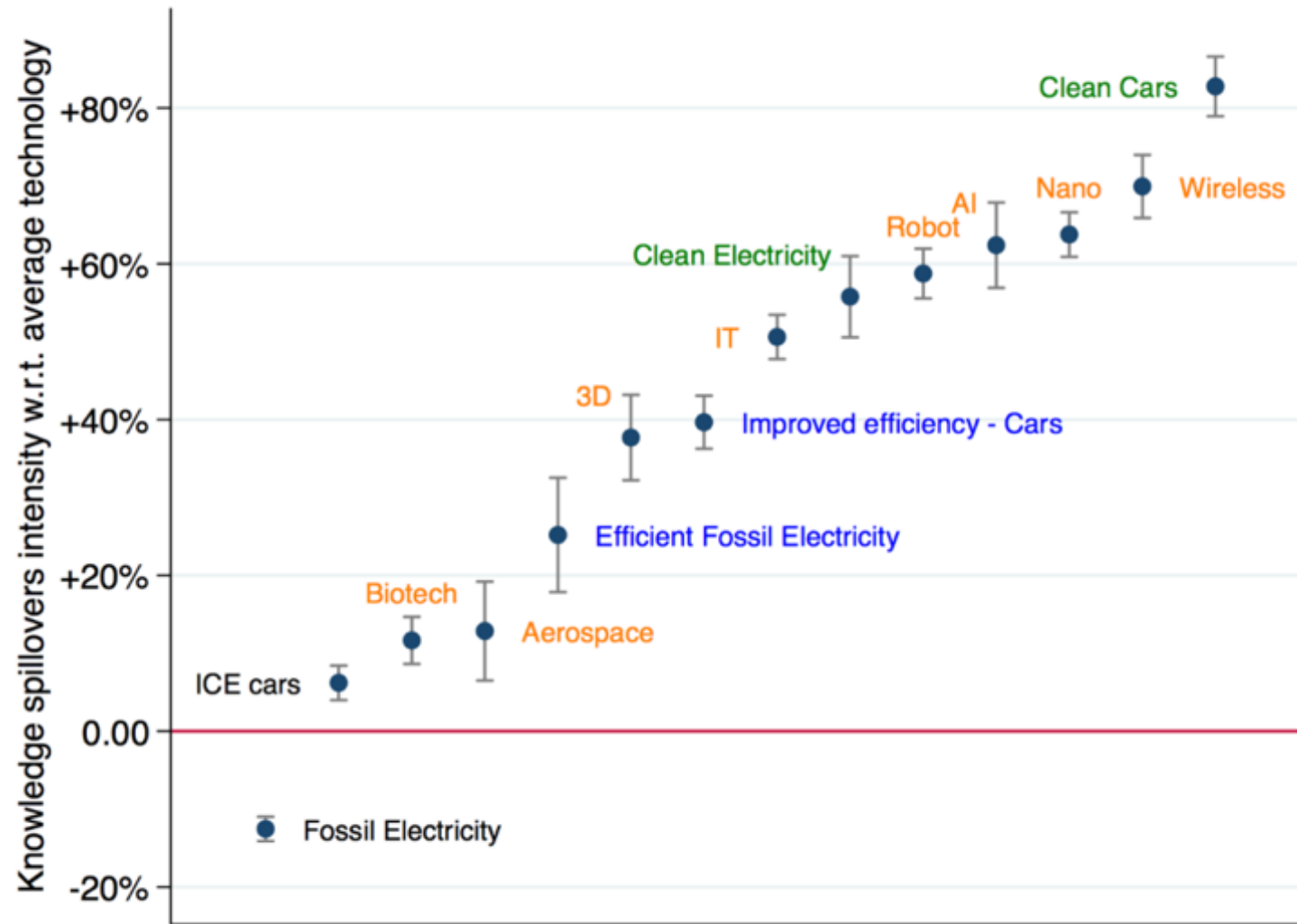
Greentech PCT applications 2013-19



Innovation Knowledge Spillover

- Publicly available innovation leads to derived innovation
- Provides benefits to society as whole but not to original inventor
- Often social rates of return to R&D are higher than private rates of return
- Research suggests knowledge spillover 60% higher for low-carbon than high carbon technologies

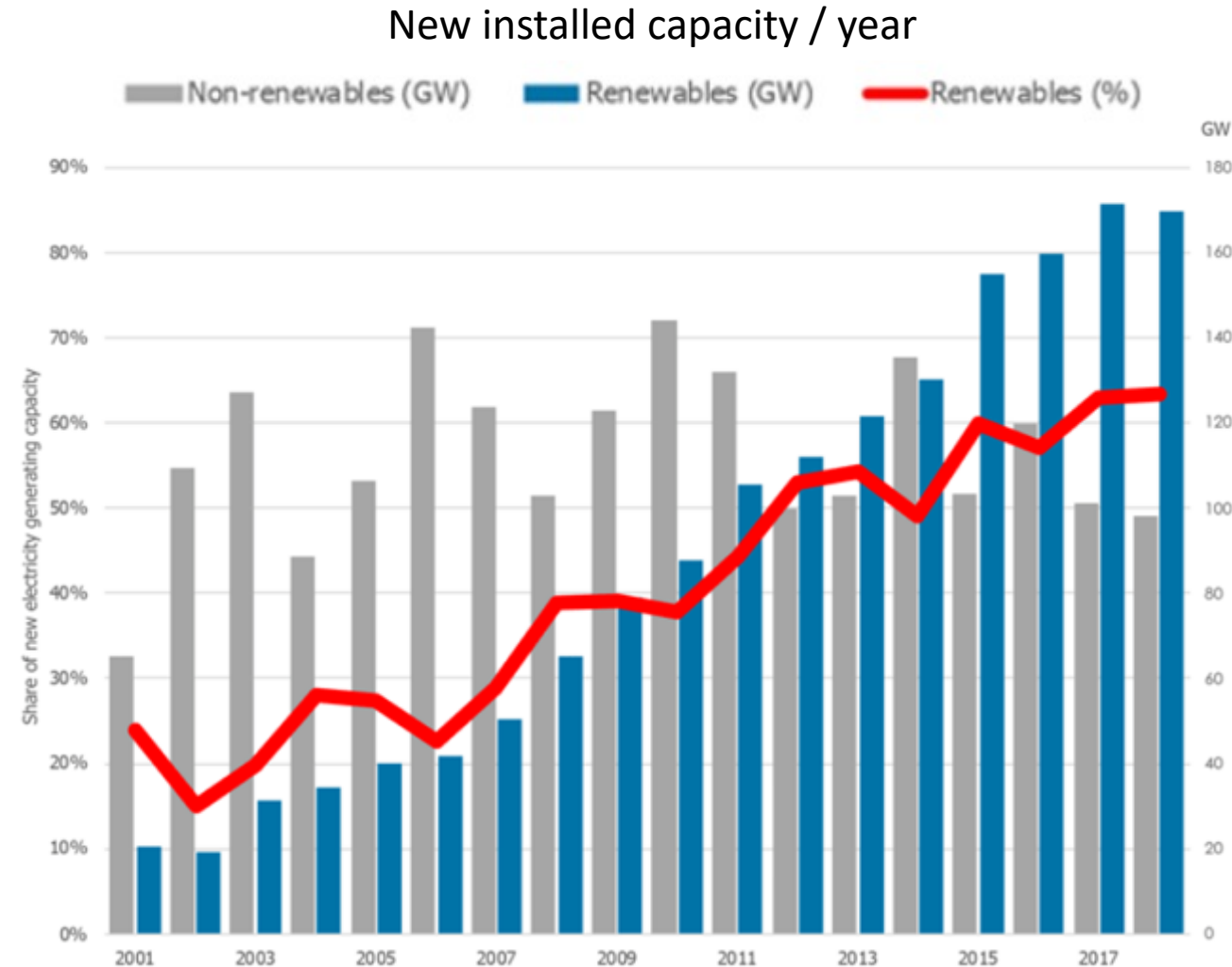
Knowledge Spillover – patent measure



Global Renewable Energy

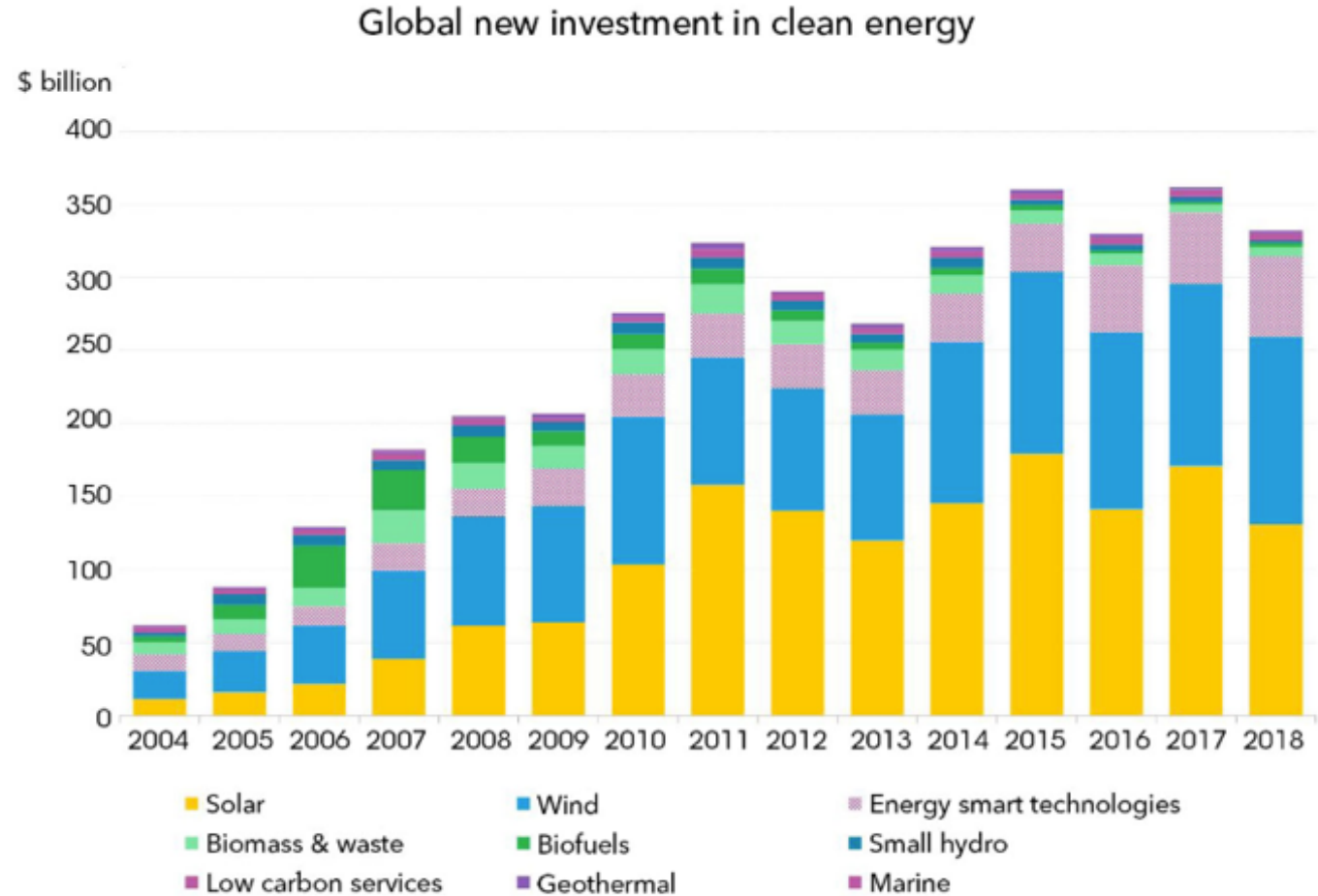
- 23% of global electricity generation
- Paris accord goal of 37% by 2040
- 2017 2180GW RE capacity
- In 2017 increase by 8,3%
- Hydro biggest but PV growth 31,6% and Wind 10%

In comparison:
World's largest nuclear plant close to 8GW cap. (Kashiwazaki-Kariwa, Japan)
World nuclear cap. ~397GW (2018)



Global Clean Energy Investment

- ↓8% 2017-18
- Wind ↑3%
- Solar ↓24%
- ..but installed capacity ↑
- Biomass & W2E ↑18%
- Corporate R&D ↓6%
- Govt. R&D ↑4%



Source: BloombergNEF

Europe Leading in Greentech

- 2017 renewable energy (RE) part of E consumption 17,5%
- Winter Package, an action plan (2016), RE share 27% in 2030
- France 17% RE share domestic power in 2017
- Germany 39% (decision to pull out of nuclear in 2011)
- Denmark 74% RE share in energy prod.
- Italy tops solar share
- UK tops off-shore wind

Share of energy from renewable sources in the EU Member States

(2017, in % of gross final energy consumption)



ec.europa.eu/eurostat

Europe & Greentech

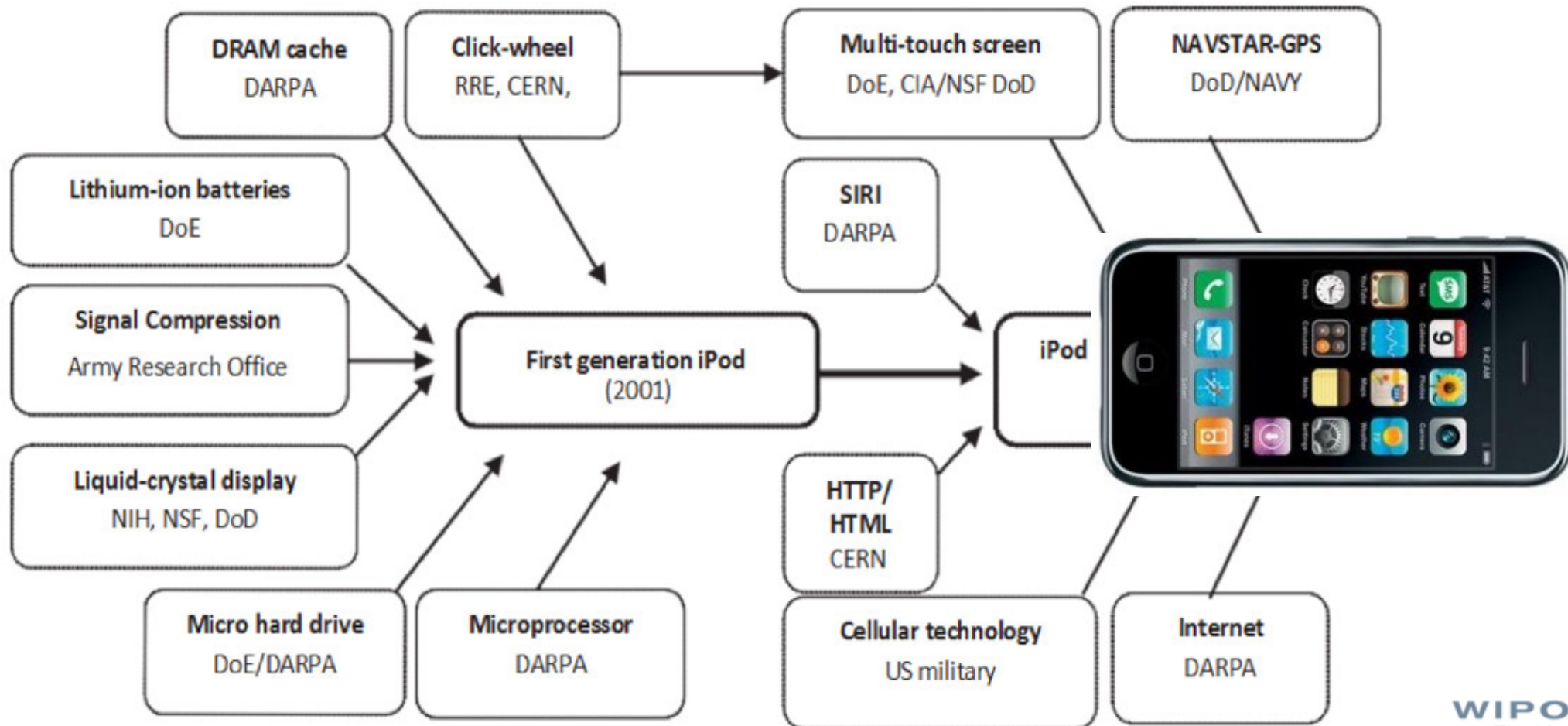
- Political will leads to high investment
- 2015 \$286bn invested in RE
 - – double the of invest. in natural gas and coal power plants
- European Green Deal (50-55% reduc. 2030; climate neutral 2050) will stimulate greentech investment. Incl. Just Transition Mechanism
- EU Emission Trading system (ETS) - world's first, largest, and longest-running carbon pricing system (Cap & Trade system)
- Green bonds – Paris & Frankfurt biggest exchanges worldwide

Greentech Promotion

- Technology diffusion determined by markets and also absorptive capacity
- Ability to adopt and adapt new technology can be increased by:
 - Education
 - Technical extension services
 - Public technology diffusion and support programs
 - Demonstrators
- Government support through R&D and PPP's to create enabling environment
- Entrepreneurial 'Green house - A physical building with enabling environment for Greentech entrepreneurs who lack concrete tools or knowledge

Don't Underestimate Gov't Importance in Innovation

iPhone case



WIPO GREEN



Online platform for accelerated adaptation, adoption and deployment of green technology solutions



Connects seekers of environmentally sustainable solutions with technology and service providers



Enable adaptation and deployment of green solutions through a transparent marketplace



Engage with private sector



Support innovation and innovators

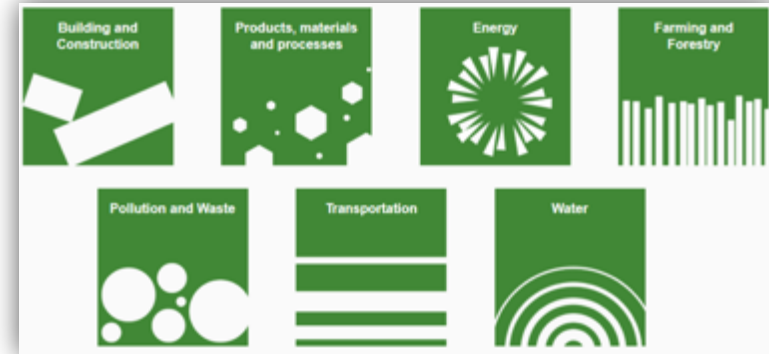


Contribute to global policy dialogue

WIPO GREEN Activities

❑ **Database** - Freely accessible listings of 3300+

- Technologies and services
- Needs for products, processes, know how, transfer, collaboration and finance
- Business expertise (Experts database)



❑ **Matchmaking Projects**

- 2015 – Wastewater management in Southeast Asia
- 2016 – Water and agriculture in East Africa
- 2017 – Innovate 4 Water (global event in Geneva)
- 2018 – Air, agriculture, energy, and water in Southeast Asia
- 2019-20 – Climate Smart Agriculture in Latin America



How to join WIPO GREEN

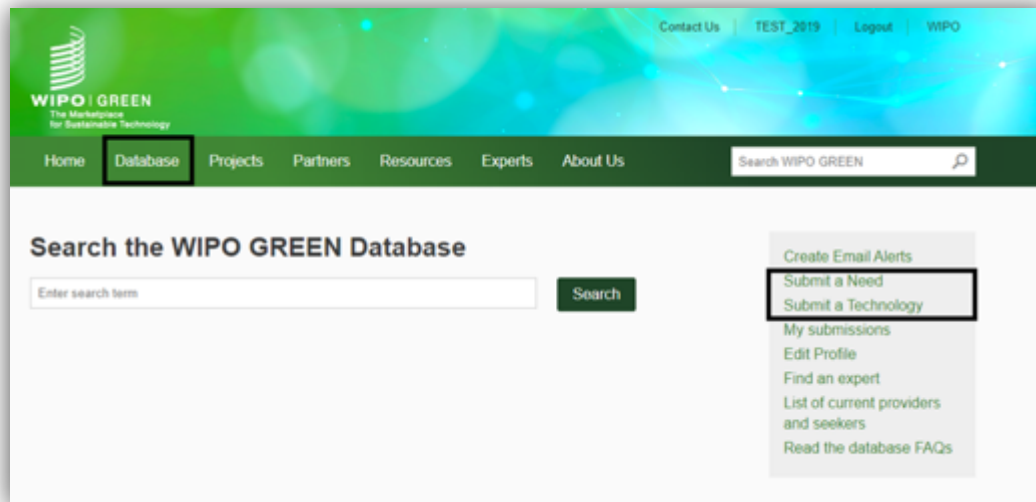
Join as a **user** and add to the global platform of over 3,000 technologies and needs!

- Register through the [WIPO GREEN website](http://www.wipo.int/wipogreen) www.wipo.int/wipogreen
- Submit your [technology](#) and/or [need](#)

Join as a **partner** and engage in acceleration projects, joint publications, and Committees!

- Send us a letter with the proposed contribution and the acceptance of the Charter.

We regularly share updates on our partners' work with the WIPO GREEN network (almost 7,000 members) and through WIPO social media



102 partners from various sectors (MNCs, SMEs, research institutions, NGOs,...)

Insight and collaboration on events and projects

No fee but supports the WIPO GREEN work

Other WIPO GREEN tools

- Licensing checklist
 - A walkthrough of issues to consider when planning a technology transfer licensing agreement
 - Free download at www.wipo.int/green

WIPO services for inventors

- **PATENTSCOPE:** Database of International Patent Cooperation Treaty (PCT) applications in full text on the day of publication. Also patent documents of participating national and regional patent offices. >72 million patents.
- **TISCs** : The WIPO Technology and Innovation Support Center (740) program provides innovators in developing countries with access to locally based IP information and related services
- **WIPO Academy:** IP education & training for WIPO member states esp. developing countries, least developed countries (LDCs) and countries in transition. Courses, diplomas, distance learning.
- Publications, case studies, handbooks, guidelines on IP, licensing
- SME-related content, training, and capacity-building..

WIPO IP SUPPORT FOR SMEs

Demonstration of the IP self-assessment tool

IP for Business – series of publications



Topics



Importance of IP for SMEs

Learning points [PDF](#)

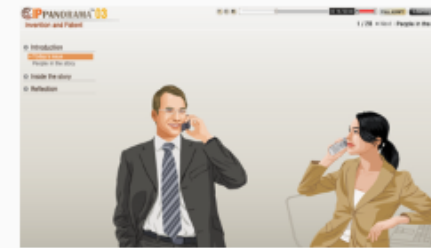
- IP is all around us
- Why is IP relevant to your SME?
- IP as a business asset
- IP as an investment
- The value of IP assets
- Auditing your IP



Trademarks and industrial designs

Learning points [PDF](#)

- Trademarks and industrial designs to increase the power of marketing
- Brand building
- How to protect trademarks and industrial designs
- Trademark management



Invention and patents

Learning points [PDF](#)

- Basics of invention and patents
- Patent application
- Patent infringement
- Patent management system



Trade secrets

Learning points [PDF](#)

- Basics of trade secrets
- Trade secret management program
- Misappropriation of trade secrets
- Violation of trade secrets
- A trade secret audit



Copyright and related rights

Learning points [PDF](#)

- Basics of copyright
- Copyright and related rights
- Ownership of copyright
- Using works owned by others



Patent information

Learning points [PDF](#)

- Understanding patent information
- Types of patent information searches
- Searching patent information
- Strategic use of patent information

<https://wipo-test.firebaseio.com/questionnaire>

IP self-assessment tool

With this tool you can undertake a basic self assessment of the IP situation of your business. It is in the form of a questionnaire with several sections that will ask you questions on different IP topics (e.g. innovative products, trademarks, licensing, designs, internationalisation, etc.).

After you complete a section, a report that gives you recommendations and further information on IP and business competitiveness will be generated.

► [Why use WIPO IP self assessment tool?](#)

[Start self assessment](#)

IP self-assessment tool

This first section asks you a set of preliminary questions regarding your business in order to best tailor the remaining questions to your needs. Could you please provide brief information on your economic activity?

Pre-assessment – basic questions regarding your business

Have you developed or intend to develop a solution/product/service or a production process that you consider new, innovative or unique?


- ☒ Yes
- ☐ No

Do you create original, creative and/or artistic materials? 


- ☒ Yes
- ☐ No

Do you rely on features such as patterns, lines, colours or shapes to make the outward appearance of your product or the packaging of your product attractive in the market?

- ☒ Yes
- ☐ No

Does your business rely on information that if known by your competitors will affect your competitive advantage? 

- ☒ Yes
- ☐ No

Do you use a sign to distinguish any of your products or services from those of other businesses? 

- ☒ Yes
- ☐ No

Do you rely on outside suppliers for ensuring supplies, getting components, developing material, running advertising campaigns, etc.?

- ☒ Yes
- ☐ No
- ☐ Don't know

Do you have or intend to create a website?

- ☒ Yes
- ☐ No
- ☐ Don't know

Do you make or sell products outside of the country of your company's origin or intend to do so?

- ☒ Yes
- ☐ No

Do you have employees?

- ☒ Yes
- ☐ No

How do you manage intellectual property issues?

- ☐ I rely on external intellectual property professionals
- ☐ I have an internal unit or person in charge
- ☒ I don't use external or internal resources





Next

IP self-assessment tool

The WIPO IP self-assessment tool is composed of several questionnaires that are activated according to your responses. The list below shows the complete list of questionnaires (activated and de-activated) and the reports generated based on your responses

Overview of the IP Self-Assessment Sections



- **Pre-assessment: Basic questions regarding your business** ✓
- **Section A: Trademarks (protecting your business signs and logos)** ✓  
- **Section B: Confidential information**
- **Section C: Designs**
- **Section D: Creative materials**
- **Section E: Inventive or innovative products or processes** ✓  
- **Section F: Employment aspects**
- **Section G: Licensing**
- **Section H: Internationalization**
- **Section I: Website**
- **Section J: Enforcement** (This section would be activated according to your answers in the other sections)

IP self-assessment tool

You have indicated that you use a name, words, colour, logo, or other signs to distinguish any of your products and/or services from those of others in your line of work. A way to distinguish your products and/or services from others is a trademark. A trademark is any sign that distinguishes the products and/or services of one company from those of another. With the following questions we will find out whether such protection is important for your business or, in case you have already protection, how strong the protection is.

Section A: Trademarks (protecting your business signs and logos)

Do you have a trademark registered at a national or regional intellectual property office or have you applied for one?

- ☐ Yes
- ☒ No

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Next

IP self-assessment tool

Section A: Trademarks (protecting your business signs and logos)

Is the sign you use to distinguish your products or services any of the following?

- ☐ It is an invented word or sign (example KODAK) or an existing word or sign with no relation to the product (example Apple, for computers)
- ☒ It is a word that hints at the product (Sunny for lamps) or refers directly to the product (such as Chairs if your business is chairs)
- ☐ Not sure

Is the sign you use to distinguish your products or services already registered by someone else as a trademark? [i](#)

- ☐ Yes
- ☒ No
- ☐ Not sure

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Next

IP self-assessment tool

Section A: Trademarks (protecting your business signs and logos)

Are you or are you likely to be looking for investors, or interested in valuing your brand?

- ☒ Yes
☐ No
☐ Not sure

Go back

Next

IP self-assessment tool

Section A: Trademarks (protecting your business signs and logos)

Have you considered obtaining the right to use someone else's trademark?

☐ Yes

☒ No

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Next

IP self-assessment tool

Section A: Trademarks (protecting your business signs and logos)

Are you considering using a mark that is confusingly similar to a trademark owned by someone else for the same or similar products or services without their authorisation?

- ☐ Yes
☒ No

Was your mark designed for you by an outside party?

- ☒ Yes
☐ No

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Next

Report of the WIPO IP self-assessment tool

Section A: Trademarks (protecting your business signs and logos)

28th April 2020

This report has been automatically generated based on your answers to Section A of the WIPO IP self-assessment tool.

You indicated that you do not have yet a registered trademark or are not sure about this. A trademark is a sign that identifies and distinguishes in the marketplace the products and services of one enterprise from those of other enterprises. The products that it identifies may be goods or services. If you do not have a trademark, it means that you have NOT protected respective signs that you are using to distinguish your offerings from those of your competitors.

Any sign capable of distinguishing products or services can be used as a trademark, such as words, names, letters, numerals, drawings, pictures, shapes, colors, labels, or any combination of these. In most countries, taglines, advertising slogans and titles may also constitute trademarks. An increasing number of countries also allow for the registration of non-traditional trademarks such as single colors, three-dimensional signs (shapes of products or packaging), moving images, holograms, sounds, smells, gestures, tactile marks (feeling or touch) and fluid/mutating trademarks. However, non-traditional trademarks are rare, and many countries limit what may be registered as a trademark, generally allowing only signs that are visually perceptible or can be represented graphically.

You should consider trademark protection for the following reasons:

- Trademarks make it easy for consumers to find your products. They help to distinguish your products (whether goods or services) from those of competitors and help to identify your business as the source of the product bearing the trademark.
- Trademarks are among the most efficient marketing and communication tools. They are a powerful instrument to capture the consumer's attention and make your products stand out. They can wrap up in a single sign all the intellectual and emotional attributes and messages about your business, reputation and products, and your target consumers' lifestyles, aspirations and desires, that you want to convey. They also open the way to effective use of the Internet by your business.
- Trademarks are the basis for building brand image and reputation. They allow consumers to base their purchasing decisions on what they have heard, read or

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experienced themselves. They create a relationship of trust which can enable you to establish a loyal clientele and enhance the good-will of your business. Consumers often develop an emotional attachment to certain trademarks based on a set of desired qualities or features embodied in the products bearing those trademarks. Trademarks also encourage companies to invest in maintaining or improving the quality of their products in order to maintain or further improve their reputation.

- Trademarks help prevent consumer confusion. They protect consumers by indicating (a) the source of the products and (b) a consistent level of quality. They help consumers decide whether to purchase a product again. If the product made under a particular trademark turns out to be defective, consumers have accurate information about its source (be it the supplier or the manufacturer).
- Trademarks are one of the most valuable and enduring business assets. They can last a very long time, and thus provide your business with a long-term competitive advantage.
- Strong trademarks make it easier to hire and retain employees. People prefer to work for popular and well-regarded brands and their companies.

Trademarks are one of the most effective weapons against unfair competition. Trademarks enable your business to prohibit competitors from unauthorized use of your trademark. In addition, they may be used to oppose parallel imports and prevent the import of counterfeit products. And they may enable you to stop others from using your trademark as part of a domain name.

Distinctiveness of a mark

Your answer to this question would suggest that – if you would register your sign as trademark – you would have a word or sign that hints at the product, or describes the product or refers directly to the product (therefore rather weak trademark or maybe even not registrable)

What does this mean?

Any sign capable of distinguishing goods or services can be used as a trademark, such as words, names, letters, numerals, drawings, pictures, shapes, colors, labels, or any combination of these. A more elaborate list of possible signs that could obtain trademark protection is to be found here . Regardless of the type of sign used, in order to have trademark protection, it is important that the sign is distinctive. Distinctive trademarks are sometimes referred to as "strong" trademarks. The stronger a trademark, the higher the likelihood of it receiving registration and the greater the protection provided by the courts. It is therefore important to understand the difference between inherently strong and inherently weak trademarks. Proposed trademarks can be classified into five categories, from most distinctive (strong) to least distinctive (weak):

- **Coined or fanciful trademarks** are invented words or signs without any real meaning. Because they are entirely the result of your imagination, a competitor selling the same products would have no justification for using the same or a similar trademark. Fanciful trademarks are legally the strongest trademarks as they have the greatest chance of receiving registration. An example is "Kodak".
- **Arbitrary trademarks** are words or signs that have a meaning, but one that has no

logical relation to the product they advertise. The word SUNNY or the image of a sun for marketing mobile phones is an example of an arbitrary trademark. Arbitrary trademarks are less strong than coined/fanciful trademarks but would have high chances to obtain registration.

- **Suggestive trademarks** are trademarks that hint at the nature, quality or attributes of the product, but do not describe these attributes. The trademark SUNNY for marketing lamps would be an example and hints at the fact that the product is meant to bring light to your house. In some countries, suggestive trademarks may not be considered distinctive enough to be registrable.
- **Descriptive trademarks** are trademarks which merely describe some feature of the product in question, like its quality, type. Descriptive signs are usually not granted trademark protection unless it can be shown that distinctive character has been established over time through extensive use in the marketplace. The trademark SWEET is, for example, likely to be rejected for marketing chocolates as being descriptive.
- **Generic signs** are words or signs that name the species or object to which they apply (such as APPLE for the fruits called apple). These are totally without distinctiveness and are not eligible for protection as trademarks because giving them protection would deprive competitors of the right to refer to their products by name.

Please note: When a strong trademark is improperly used it can also lose distinctive character over time and become generic, and thus unprotected (e.g., Trampoline for an athletic jumping apparatus).

Existing trademark by another competitor

Your answer to this question suggests that nobody has registered your sign as a trademark.

What does this mean?

If nobody else has registered your sign as a trademark – and provided that your sign is generally eligible for trademark protection (such as by being distinctive) – you can, in all likelihood, register your trademark. In most countries, when applying for a trademark you have to indicate the goods or services that the trademark will be applied to and these goods or services are categorized into what are called classes. Protection is usually only granted for the goods or services in the respective classes for which protection is sought. This would allow, for example, for you to use your sign (and register also for trademark protection) for a fitness studio - if the trademark on the same sign has been already registered for different goods or services such as, for example, only for footwear. However, if your sign pertains also to footwear, you would engage in trademark infringement and could be sued by the holder of the existing trademark. An exception to this rule is well-known trademarks, such as "Coca-Cola" or "Volkswagen". Such marks enjoy extended protection also for classes for which the trademark has not been registered. You will, therefore, commit trademark infringement if you call your fitness studio "Coca Cola" or "Volkswagen".

Investors and valuation needs

Your answers suggest that you are in a situation where you would look for investors or

would be in a need to value your brand.

A carefully selected and nurtured trademark is a valuable business asset for most businesses. It may even be the most valuable asset they own. GOOGLE® is estimated to be the world's most valuable brand with a value over USD 229 billion, followed by APPLE®, estimated at over USD 228 billion, and Microsoft® at USD 121 billion. To remember is also that trademarks are a type of intellectual property and can be therefore sold or licensed. Therefore, if you are looking for investors, having a valuable trademark, and knowing its value, could prove highly advantageous. This necessitates, of course, the ability to value the trademark. Valuation needs may also arise for other reasons (such as in litigation; for financial reporting purposes, etc.). There are well-established methods for assessing the value of your trademark and a valuation expert may be consulted for this purpose.

Trademark designed by third parties for you

You indicated that the trademark you are using was created for you by an outside party, perhaps a designer. In this case, there might be design rights and copyright involved in this output and it is important to clarify who owns it.

In the context of copyright, the owner is the person who would have the exclusive right to exploit it through use, copy, sell and make derivative works. In most countries, the creator is the owner of the copyright of such output with the person who ordered the work only having a license to use the work for the purpose for which it was created unless it was expressly agreed otherwise in the contract. In the case of design rights, the rights will generally belong to the company that commissioned the design. In all cases, it is advisable to clarify all outstanding issues through a contract.

Disclaimer

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VITROVER

Fleets of robots
to replace Glyphosate

A Momentum for non-chemical weed control solutions

France bans dozens of glyphosate weedkillers



Issued on: 09/12/2019 - 20:22 Modified: 09/12/2019 - 20:22

BUSINESS

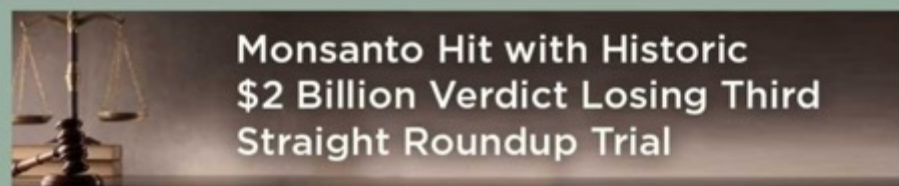
Herbicide glyphosate under fire worldwide, gets banned by Austria

AFP-JIJI

Glyphosate Herbicides Now Banned or Restricted in 17 Countries Worldwide – Sustainable Pulse Research

Posted on May 28 2019 - 4:00pm by Sustainable Pulse

« PREVIOUS | NEXT »



May 5, 2020

News

World

Germany to ban use of glyphosate from end of 2023: Sources

Canadian Lawyers Launch \$500M Class-Action Lawsuit against Bayer / Monsanto Posted on Nov 22 2019

SPECIAL REPORT

Austria becomes first EU country to ban weedkiller glyphosate



Issued on: 02/07/2019 - 17:26 Modified: 02/07/2019 - 18:16

NEWS

15 April 2019

Vietnam bans glyphosate

REUTERS

ENVIRONMENT AUGUST 22, 2019 / 8:58 PM / 11 DAYS AGO

French mayors ban glyphosate weedkiller, defying government

Germany + 13 Other Countries Say No to Glyphosate: What About the U.S.?



April 26, 2018

Organic Consumers Association

Environment & Climate Health Issues

Vitirover' markets



RAILWAYS



PHOTOVOLTAÏC FARM



ORCHARDS



AIRPORTS



HIGHWAYS



VINEYARDS



HIGHT VOLTAGE TRANSFORMERS

Product Features

Vitirover's « low consumption by design »'s technology is a high level entry barrier.
Less energy requirement is critical, it means more productivity and lower costs.



**100%
autonomy**

Solar panel
Liion battery



**In the GNSS
limits of the plot**

GNSS receiver
GPS, GALILEO, GLONASS,
SBAS, BEIDU



**100%
coverage**

Intelligent circulation in the plot
(IoT - AI)
Ability to get out of all terrain traps



**Operates as
managed fleets**

Connected object
Remote control
Predictive maintenance

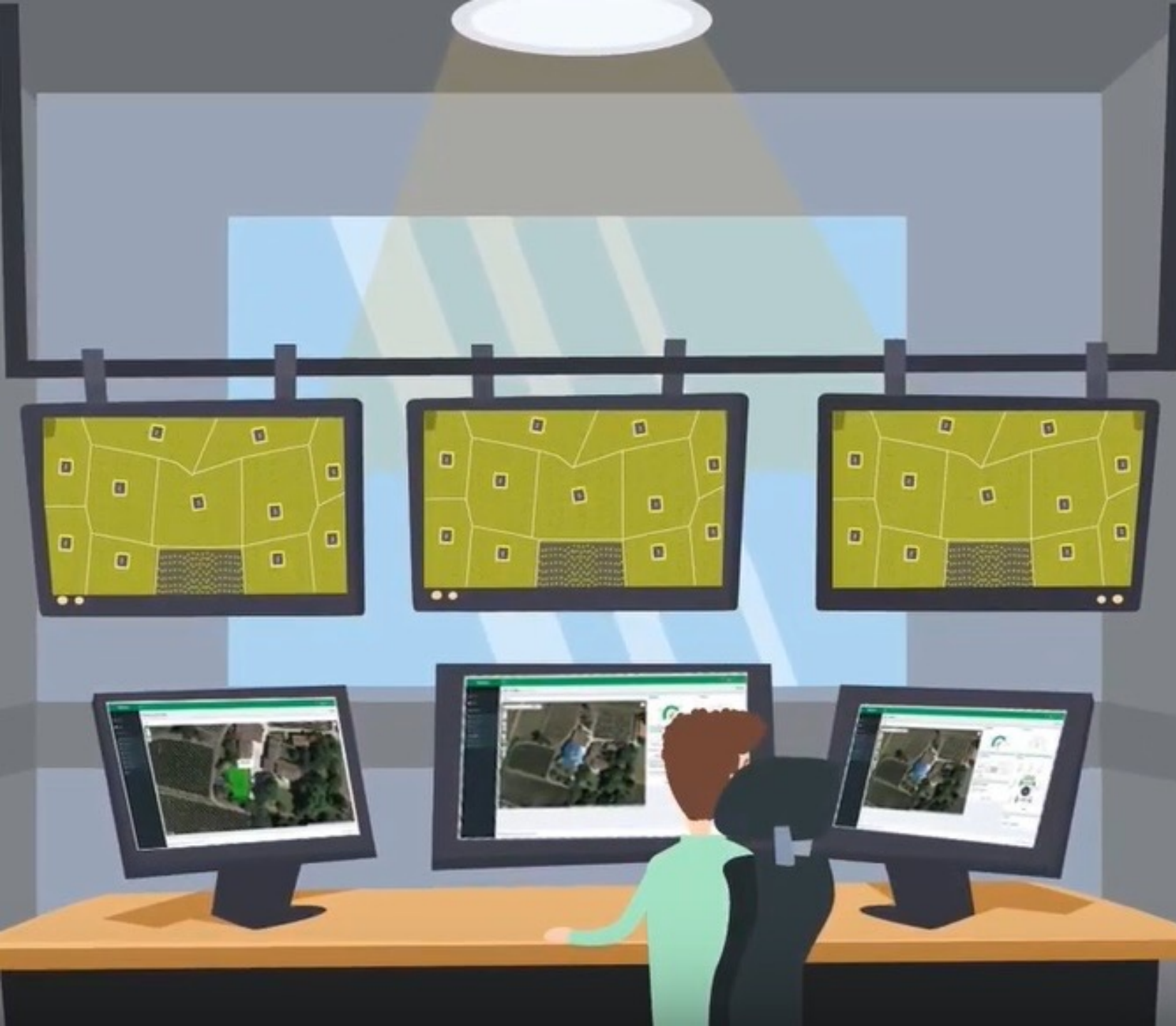


**Very low
consumption**

1 W / Kg

	Vitirover	Lawn mower	Tractor and rotary cutter	Other robot
Energy	Solar	Gasoline	Diesel fuel	Electric (*)
gCO2 eq / KWh depending on technology	32	683	778	66
Power weight ratio (w/kg)	1	62,8	70	16
KWh consumed per ha	4,5	9,42	15,7	28
gCO2 eq / KWh wasted	144	6 434	12 215	1 848
Cost (K€)	4,5	7	60	25

(*) rechargeable battery



We do not sell robots

WE SELL MAINTAINED HECTARES

The shepherd,
in charge of a herd of robots,
supervises the work
remotely from a computer
and intervenes if necessary.

Product's hardware stack

Vitirover owns 100% of his product's technology stack design and software code.



- ① Overall shell
- ② Battery
- ③ Solar panel
- ④ 3x head's grass cutting blades « girobroyeur »
- ⑤ Custom wheel
- ⑥ Motherboard including a custom local Linux OS, custom communication protocol
- ⑦ Landing box
- ⑧ GPS
- ⑨ Rear axle
- ⑩ Custom stop

TODAY

Connected object,
intelligent circulation
in the plot (GPS)

FUTURE
BEYOND V1
IS ALL
ABOUT
DATA

TOMORROW

Data
collection
and analysis

Awards



Lauréat 2018
Among 450 candidats



Lauréat 2019
Collaboration
Large Group / Startup



Lauréat 2018
Contest Nouvelle Aquitaine



Lauréat 2020



Lauréat Contest
My Positive Impact



Présenté en 2020 FNSEA



Lauréat 2018
Among 250 candidats



Laureat SABOR 1 project



Trophée Pierre Dellenbach



Lauréat 2020



Lauréat 2020

7 Patents and a strong partnership with France Brevets

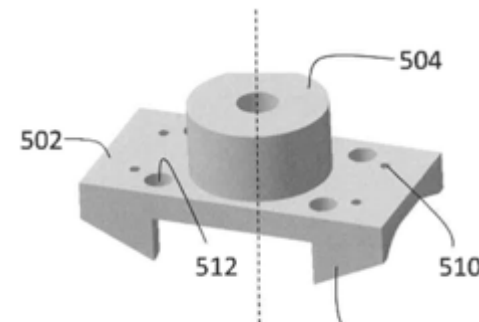
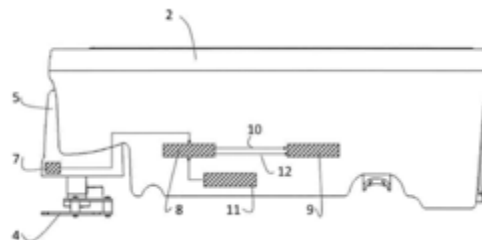
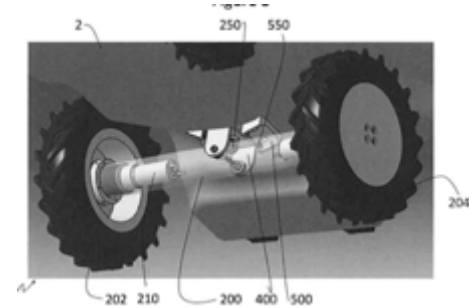
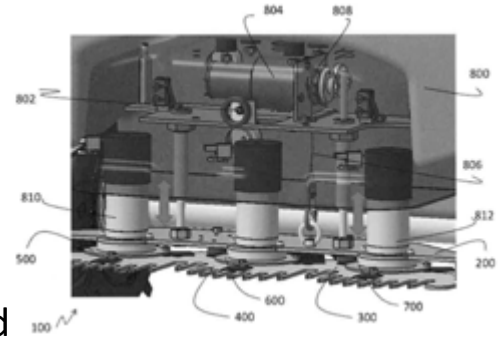
Patent 1 (2 PCT): the invention relates to a device for processing data from autonomous robots being arranged to move on an area of interest and comprising a plurality of wheels each powered by an electric machine and at least one tool powered by an electric machine data. The invention also relates to a system and a method for processing such data.

Patent 2 (1 PCT) : the invention relates to a cutting head comprising a comb and a plurality of motorized disks aligned transversely, rotatably mounted on the comb, wherein the motorized disk support a plurality of articulated blades on the disk and adapted to extend radially relative to the rotation axis of said disks under the effect of the centrifugal force.

Patent 3 (1 PCT : the invention is, in particular, to provide a mowing robot adapted to detect an obstacle faster, and more precise and effective than the mowing robot known in the previous art.

Patent 4 (1 PCT) : The invention relates to a robot having a chassis and a free rear axle housing with two axes of rotation with respect to the chassis.

Patent 5 (2 PCT) : The invention relates to a robot having a chassis and a method for controlling the robot, in particular, to provide a robot with a low propulsion consumption.



Q&A