

THE EPO'S TECHNOLOGY PLATFORMS

CHRISTIAN SOLTSMANN | 5.4 PATENT INTELLIGENCE | 28 NOVEMBER 2023

OUTLINE

- The EPO's technology platforms:
 - Overview
 - How it all started
 - Existing platforms
- Example: Firefighting technologies





PATENT INFORMATION: A UNIQUE SOURCE OF INFORMATION

More than **140 000 000 documents** related
to patents and utility models

Estimate: 80 per cent of technical know-how
only in these documents

European Patent Office does a lot to **make
this information useful**

**EPO patent
information
products and
services**

**Added value data
(e.g. Y tagging
scheme)**

**Dedicated
publications (e.g.
EPO patent insight
reports and Chief
Economist studies)**

**EPO technology
platforms**

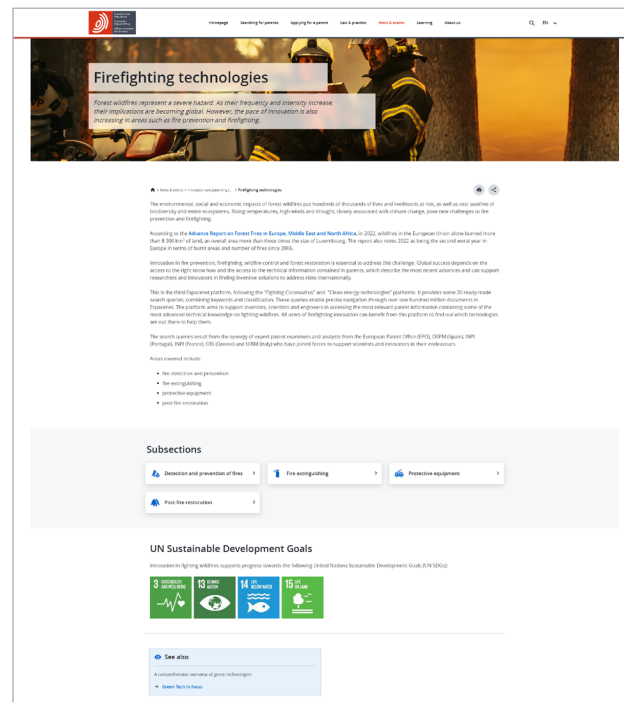
THE EPO'S TECHNOLOGY PLATFORMS

Easy access to dozens of search concepts

Additional information

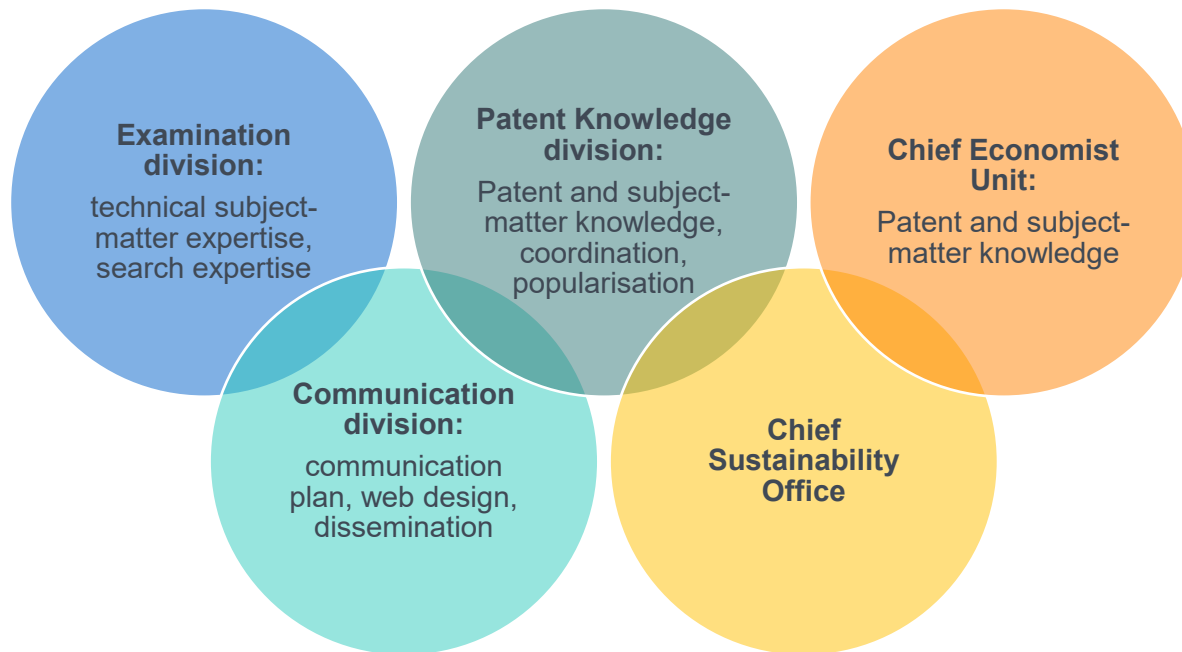
Interviews

Regular updates





COOPERATION IS KEY





HOW IT ALL STARTED

- March 2020: EPO started to develop concepts to disseminate information to fight the coronavirus pandemic
- Activities were consolidated into the EPO's 'Fighting coronavirus' platform with search concepts, statistics and other helpful information
- Platform and information provided were aligned with priorities of the European Union
- July 2020: Platform went live
- Platform updated twice

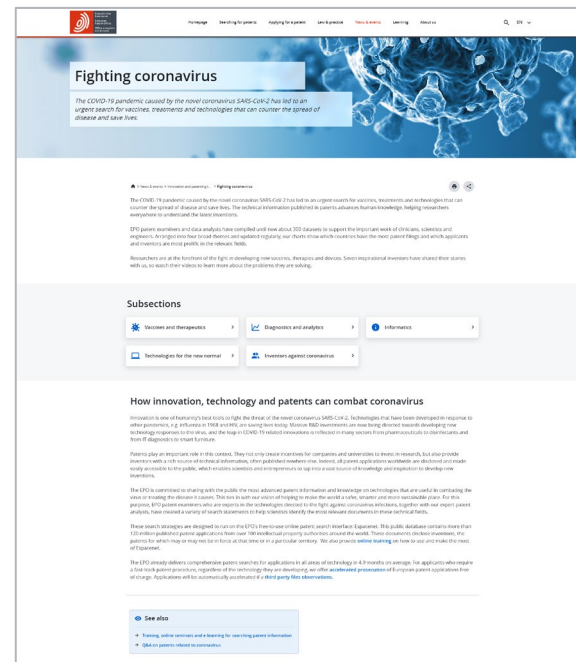
FIGHTING CORONAVIRUS PLATFORM (1/2)

More than 300 search concepts

Four subsections

Additional information

Interviews

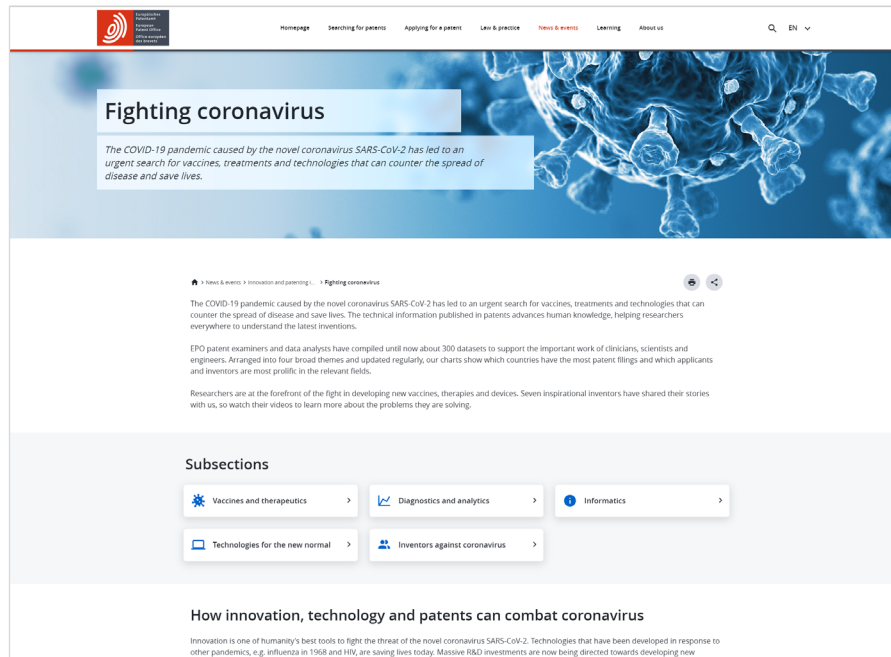


Available at: epo.org/en/news-events/in-focus/fighting-coronavirus

FIGHTING CORONAVIRUS PLATFORM (2/2)

Available at:

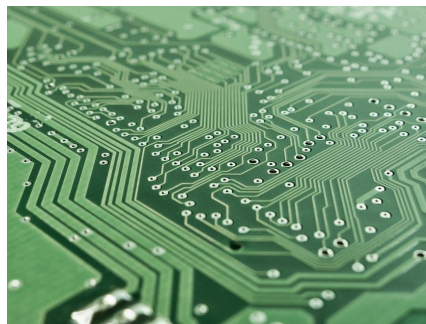
[epo.org/en/news-events/in-focus/
fighting-coronavirus](https://epo.org/en/news-events/in-focus/fighting-coronavirus)



The screenshot displays the EPO's 'Fighting coronavirus' platform. The header includes the EPO logo and navigation links: Homepage, Searching for patents, Applying for a patent, Law & practice, News & events (highlighted), Learning, and About us. A search bar and language selector (EN) are also present. The main banner features a blue-tinted image of a coronavirus particle. Below the banner, the title 'Fighting coronavirus' is followed by a summary: 'The COVID-19 pandemic caused by the novel coronavirus SARS-CoV-2 has led to an urgent search for vaccines, treatments and technologies that can counter the spread of disease and save lives.' A breadcrumb trail reads: 'News & events > Innovation and patenting > Fighting coronavirus'. The main text area contains three paragraphs: 1) 'The COVID-19 pandemic caused by the novel coronavirus SARS-CoV-2 has led to an urgent search for vaccines, treatments and technologies that can counter the spread of disease and save lives. The technical information published in patents advances human knowledge, helping researchers everywhere to understand the latest inventions.' 2) 'EPO patent examiners and data analysts have compiled until now about 300 datasets to support the important work of clinicians, scientists and engineers. Arranged into four broad themes and updated regularly, our charts show which countries have the most patent filings and which applicants and inventors are most prolific in the relevant fields.' 3) 'Researchers are at the forefront of the fight in developing new vaccines, therapies and devices. Seven inspirational inventors have shared their stories with us, so watch their videos to learn more about the problems they are solving.' Below this text is a 'Subsections' section with five interactive buttons: 'Vaccines and therapeutics', 'Diagnostics and analytics', 'Informatics', 'Technologies for the new normal', and 'Inventors against coronavirus'. Each button has a right-pointing arrow. At the bottom, the section 'How innovation, technology and patents can combat coronavirus' is introduced with a paragraph: 'Innovation is one of humanity's best tools to fight the threat of the novel coronavirus SARS-CoV-2. Technologies that have been developed in response to other pandemics, e.g. influenza in 1968 and HIV, are saving lives today. Massive R&D investments are now being directed towards developing new'.

CLEAN ENERGY PLATFORM (1/2)

**Challenges and
opportunities for
industrialised and
developing
countries**



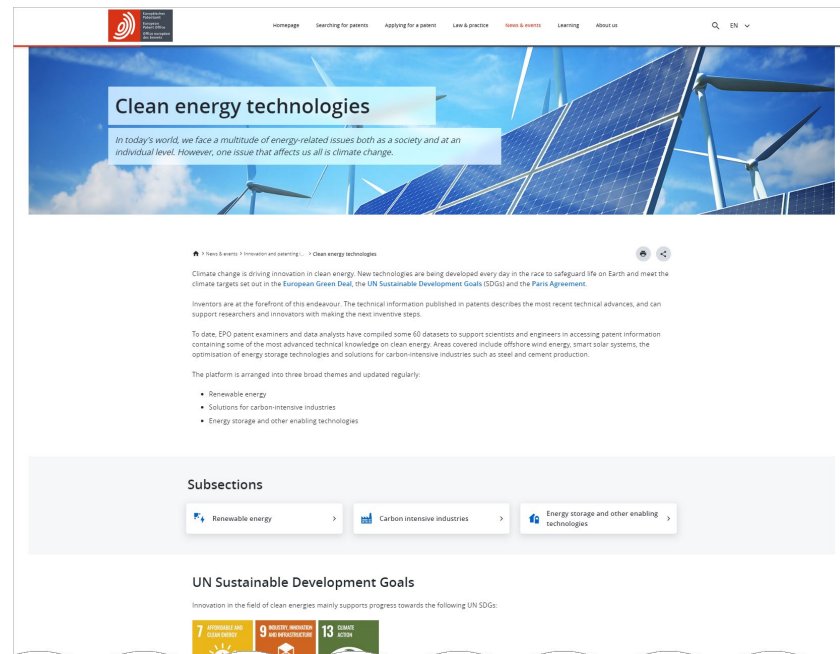
CLEAN ENERGY PLATFORM (2/2)

More than 50 search concepts

Three subsections

Additional information

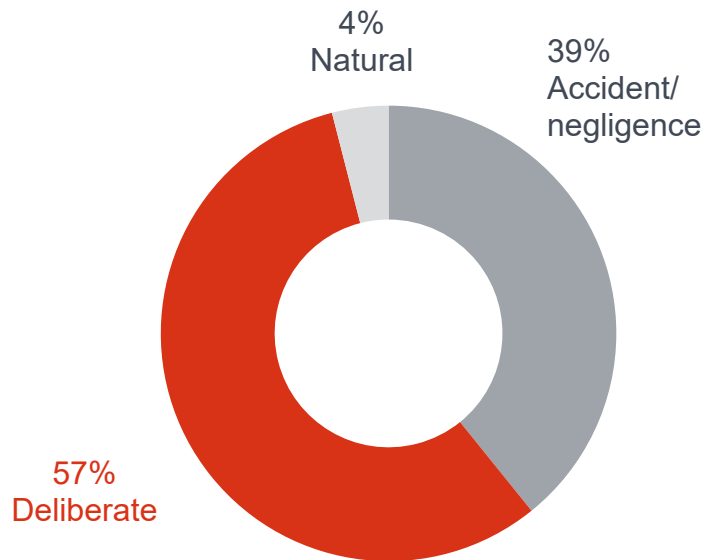
Update: December 2023



Available at: epo.org/en/news-events/in-focus/clean-energy

FIREFIGHTING PLATFORM (1/2)

- 2022 was the second worst year in Europe in terms of burnt areas and number of fires since 2006
- Preliminary analysis of economic damage by fires in the EU estimate losses of around 2.5 Billion Euro
- In 2022, fires were mapped in 26 of the EU27 countries
- Wildfires may affect several countries simultaneously



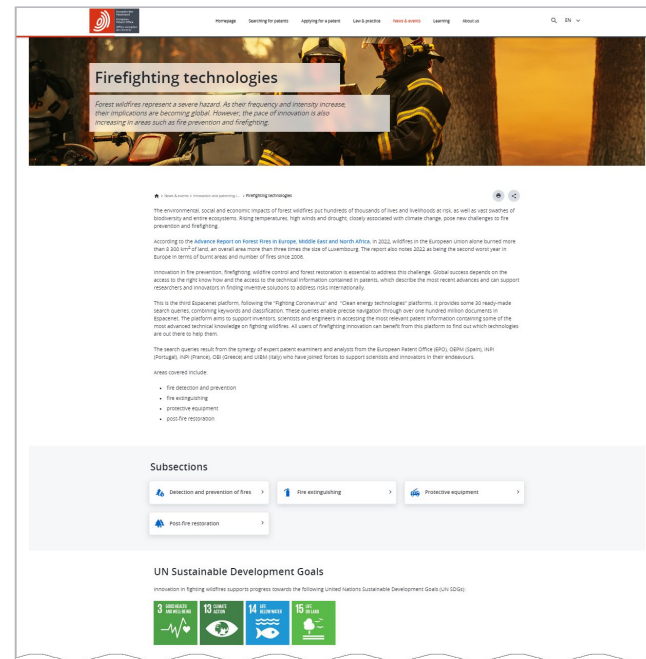
FIREFIGHTING PLATFORM (2/2)

Dozens of search concepts

Four subsections

Additional information

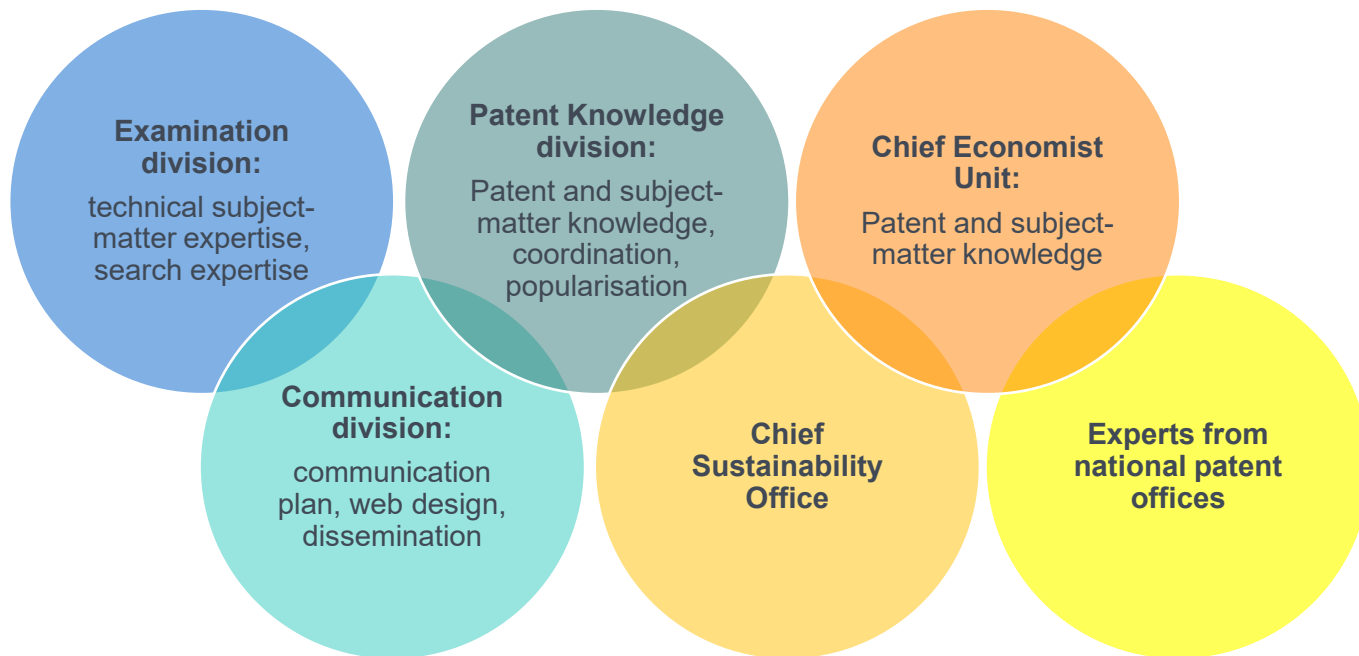
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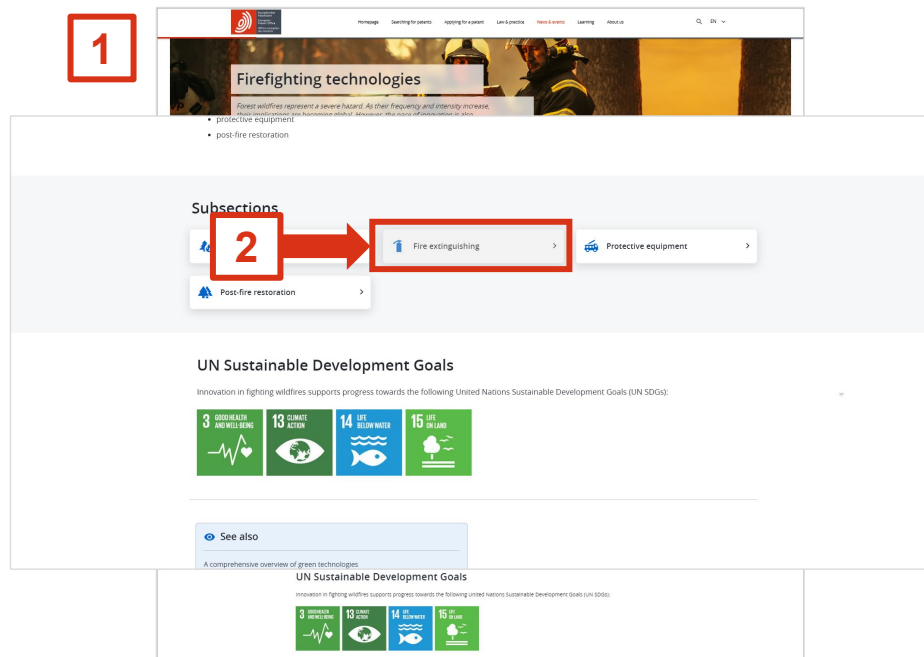
COOPERATION IS KEY



FIRE-FIGHTING PLATFORM: 4 CLICKS TO USEFUL INFORMATION ... (1/2)

Available at:

epo.org/en/news-events/in-focus/firefighting



The screenshot shows the 'Firefighting technologies' page on the EPO website. A red box with the number '1' highlights the top navigation bar. Below the header, a red box with the number '2' highlights the 'Subsections' menu, with a red arrow pointing to the 'Fire extinguishing' subsection. The page content includes a banner for 'Firefighting technologies' with a background image of firefighters, a list of subsections (Protective equipment, Post-fire restoration), and a section for 'UN Sustainable Development Goals' with icons for Goals 3, 13, 14, and 15. A 'See also' link is visible at the bottom.

1

Firefighting technologies

Forest wildfires represent a severe hazard. As their frequency and intensity increase, ...

- protective equipment
- post-fire restoration

Subsections

2

Fire extinguishing

Protective equipment

Post-fire restoration

UN Sustainable Development Goals

Innovation in fighting wildfires supports progress towards the following United Nations Sustainable Development Goals (UN SDGs):

3 GOOD HEALTH AND WELL-BEING 13 CLIMATE ACTION 14 LIFE BELOW WATER 15 LIFE ON LAND

See also

A comprehensive overview of green technologies

UN Sustainable Development Goals

Innovation in fighting wildfires supports progress towards the following United Nations Sustainable Development Goals (UN SDGs):

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FIRE-FIGHTING PLATFORM: 4 CLICKS TO USEFUL INFORMATION ... (2/2)

← Innovation and patenting in focus

Home > News & events > Innovation and patenting > ... > firefighting technologies > Fire extinguishing

Fire extinguishing


Overview

Detection and prevention of fires

Fire extinguishing

Protective equipment

Post-fire restoration



The type of emergency operations to extinguish fires can vary enormously but in terms of frequency, operations tend to peak during the summer. Despite the rapid response of these operations, even smaller forest fires can evolve into major fires due to adverse weather conditions in high-risk areas.

High-intensity propagation fires can last for several days and pose a threat to people, goods and ecosystems. They also require a wide range of terrestrial and aerial fire extinguishing methods, co-ordinated in complex operations. These operations involve professionals from different fields such as firefighters, forest checkpoint personnel, police, forest agents, pilots and military personnel, as well as a range of technologies such as off-road machinery, heavy machinery, heavy road vehicles, light vehicles, manual tools, planes, drones, communication systems and geolocation systems. Major fires demand correspondingly large-scale innovation.

Aerial technologies

Aeroplanes, helicopters, drones, balloons or airships are the focus of much innovation for extinguishing forest fires. Drones are particularly well-suited to the task, as they can access remote and hard-to-reach areas where fires may occur. Furthermore, they do not put the lives of pilots at risk, as they are controlled remotely. They can also be equipped with various sensors, cameras and extinguishing agents to detect, monitor and suppress fires.

Aeroplanes

Firefighting aircraft are normally fixed-wing aircraft equipped with large extinguishing tanks that can be filled on the ground. Aircraft with amphibious capabilities can land directly on the surface of the sea or of lakes and fill their tanks without the aid of other equipment. Aeroplanes are also used to drop water or fire retardant over flat areas, and areas where there is limited or no access to water, as they can typically fly to these areas at greater speed.

→ Explore our datasets

→ See statistics

Helicopters

Microsources could be stored with a hose, covered with a forest-resistant foam or even bucket. Buckets are

4

Esapenet Patent search

((cl = "A62C3/0242/same" OR cl = "A62C3/0235/same" OR cl = "A62C3/0228/same" OR cl = "B64D1/16") AND (ctx any '))

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☐ 1. Three methods for extinguishing fire of mountain forests and forests
CN112274809A • 2021-01-29 • LI HONGJIANG
Earliest priority: 2020-01-20 • Earliest publication: 2021-01-29
The invention provides three methods for extinguishing fire of mountain forests and forests, and mainly aims at providing a plurality of effective fire extinguishing modes and methods for preventing and treating mountain fire disasters at home and abroad. Specifically, heavy loss caused by burning of mountain fire is prevented mainly by opening a fireproof road, erecting a firewall and wetting ...

☐ 2. WATER SCOOPING APPARATUS FOR FORESTFIRE SUPPRESSANT IN NON-AMPHIBIOUS AIRTANKERS
EP3245131A1 (B1) • 2017-11-22 • JABE BEHEER B V [NL]
Earliest priority: 2015-01-13 • Earliest publication: 2016-07-21
No abstract available

☐ 3. Method to extinguish forest fires
BE1010157A6 • 1998-02-03 • SAPORITO DANIELE [BE]
Earliest priority: 1996-04-30 • Earliest publication: 1998-02-03
...The present invention aims to stop any forest fire or any large fire very rapidly, by remedying the dispersion and... nature of the material remains to be defined) with water, which will be released by aeroplanes, fitted out for this... pilot safety, speed of invention, the speed of extinguishing of the fire, hence lower forest losses, water savings. ...

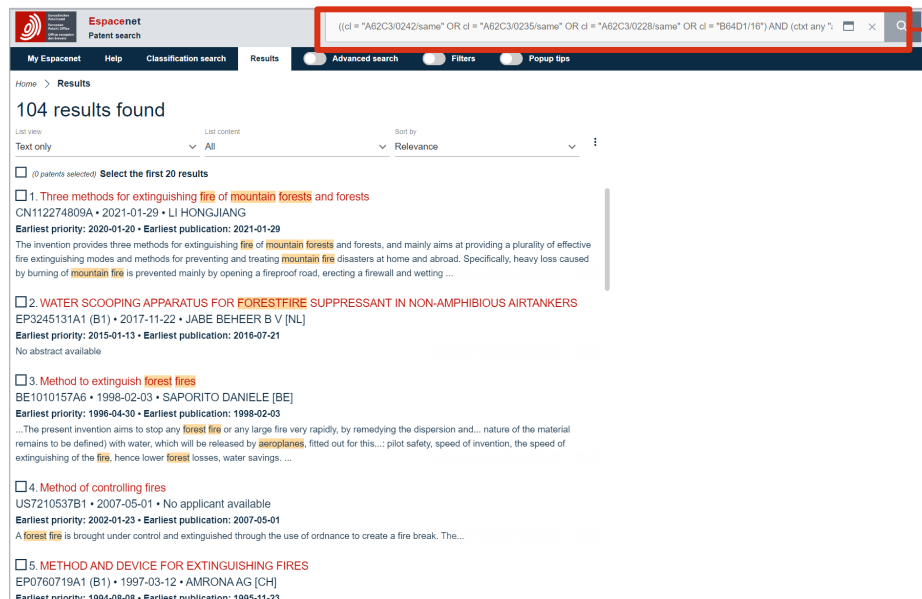
☐ 4. Method of controlling fires
US7210537B1 • 2007-05-01 • No applicant available
Earliest priority: 2002-01-23 • Earliest publication: 2007-05-01
A forest fire is brought under control and extinguished through the use of ordinance to create a fire break. The...

☐ 5. METHOD AND DEVICE FOR EXTINGUISHING FIRES
EP0760719A1 (B1) • 1997-03-12 • AMRONA AG [CH]
Earliest priority: 1994-08-08 • Earliest publication: 1995-11-23

3

FIRE-FIGHTING PLATFORM: EXAMPLE AEROPLANES FOR FIRE EXTINCTION (1/3)

Search concept 'Aeroplanes'



Espacenet
Patent search

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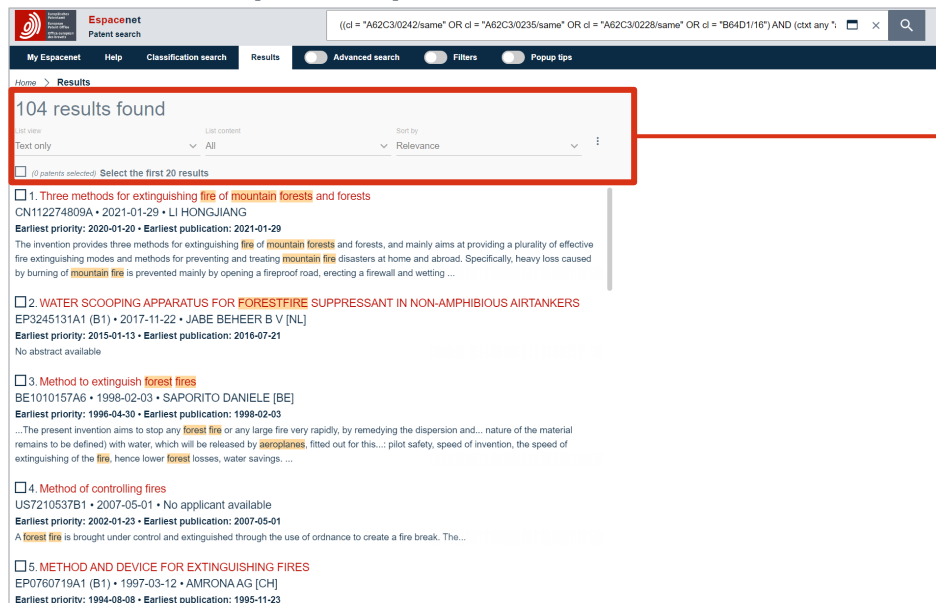
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Search statement

FIRE-FIGHTING PLATFORM: EXAMPLE AEROPLANES FOR FIRE EXTINCTION (2/3)

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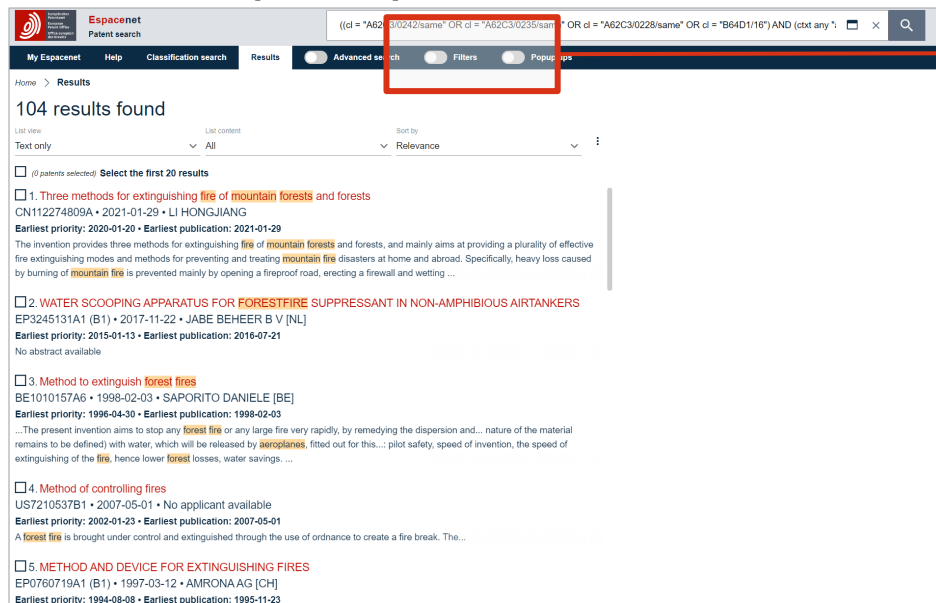
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Earliest priority: 1994-08-08 • Earliest publication: 1995-11-23

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Search concept 'Aeroplanes'



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