



# Innovations in Apparel Industry: 2020

## Introduction

This study gives an insight into patents published in Apparel Industry since Jan 2020. Despite Covid-19, our study observed a healthy patenting activity in the apparel segment, especially related to PPE kits, masks, gloves, and other essential apparel that are required in the fight against COVID-19. It is interesting to note that amidst COVID, Wuhan Hospital has filed 100+ utility models related to PPE kits and is a frontrunner in the segment. A lot of Chinese startups and Govt. aided research institutes have invested in obtaining patent rights in technologies that were aimed to strengthen the fight against COVID.

Our research team at IIPRD analyzed patents that were published in 2020 and relate to innovations in the apparel industry worldwide and came out with some eye-catching insights.

IIPRD has summarized the key findings in the coming slides. For a copy of the detailed technology-wise analysis, write to us at [sanjay@iiprd.com](mailto:sanjay@iiprd.com)

29000+ Publications

4% owned by top 10 players

35+ litigated

250+ opposed

3+ Licensed

# Innovating to Combat COVID-19

18000+

## Chinese Technologies

18000+ patents/publications/utility models have Chinese origin and most of them relate to PPE's to protect Surgeons/ Vulnerable ones.

8000+

## Personal Protective Apparel

8000+ patents/publications/utility model relates to Surgeon gown, Mask, Gloves and other protective apparels.

1200+

## Vests

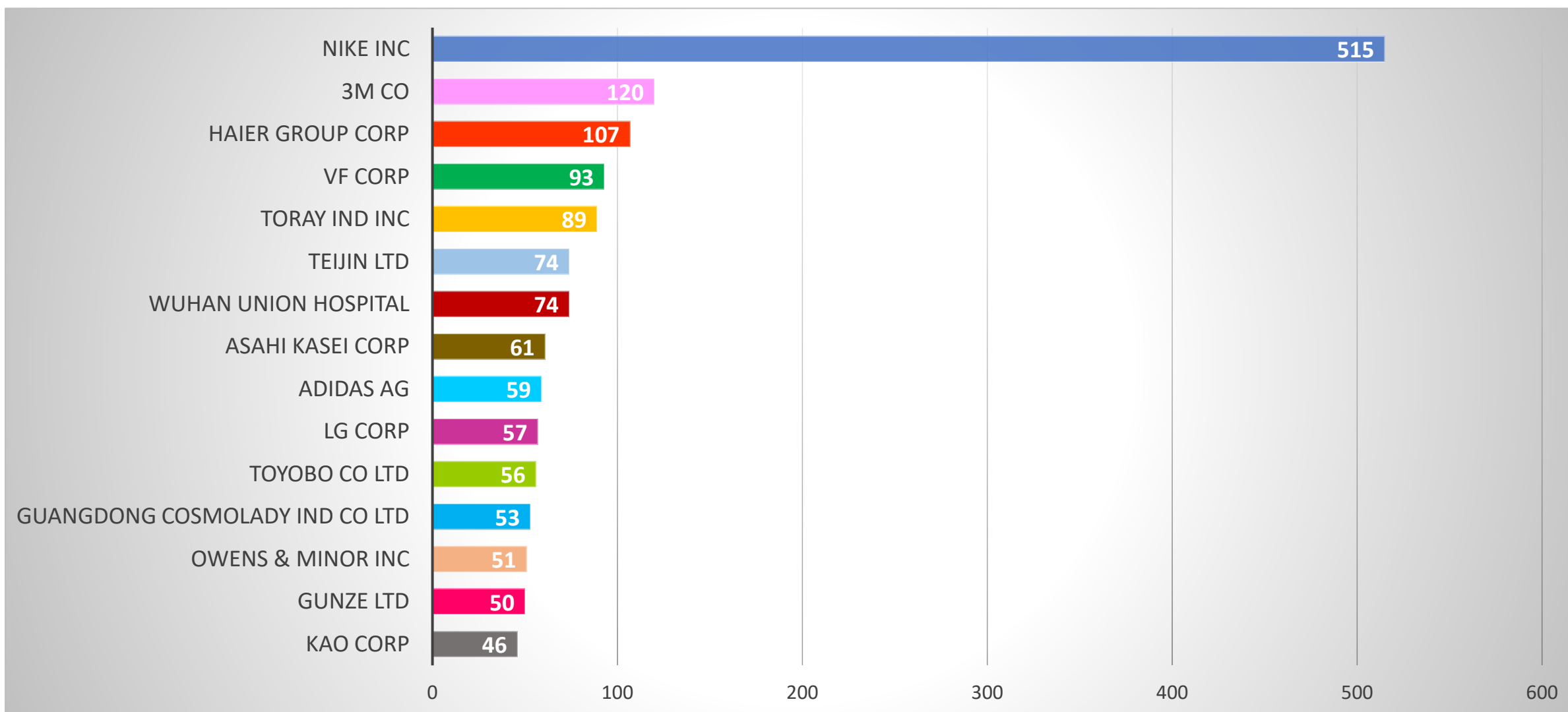
Even during the COVID era sports apparel companies like Nike, Adidas and others continued their innovation and filed patents related to vests/ jerseys and the like.

15000+

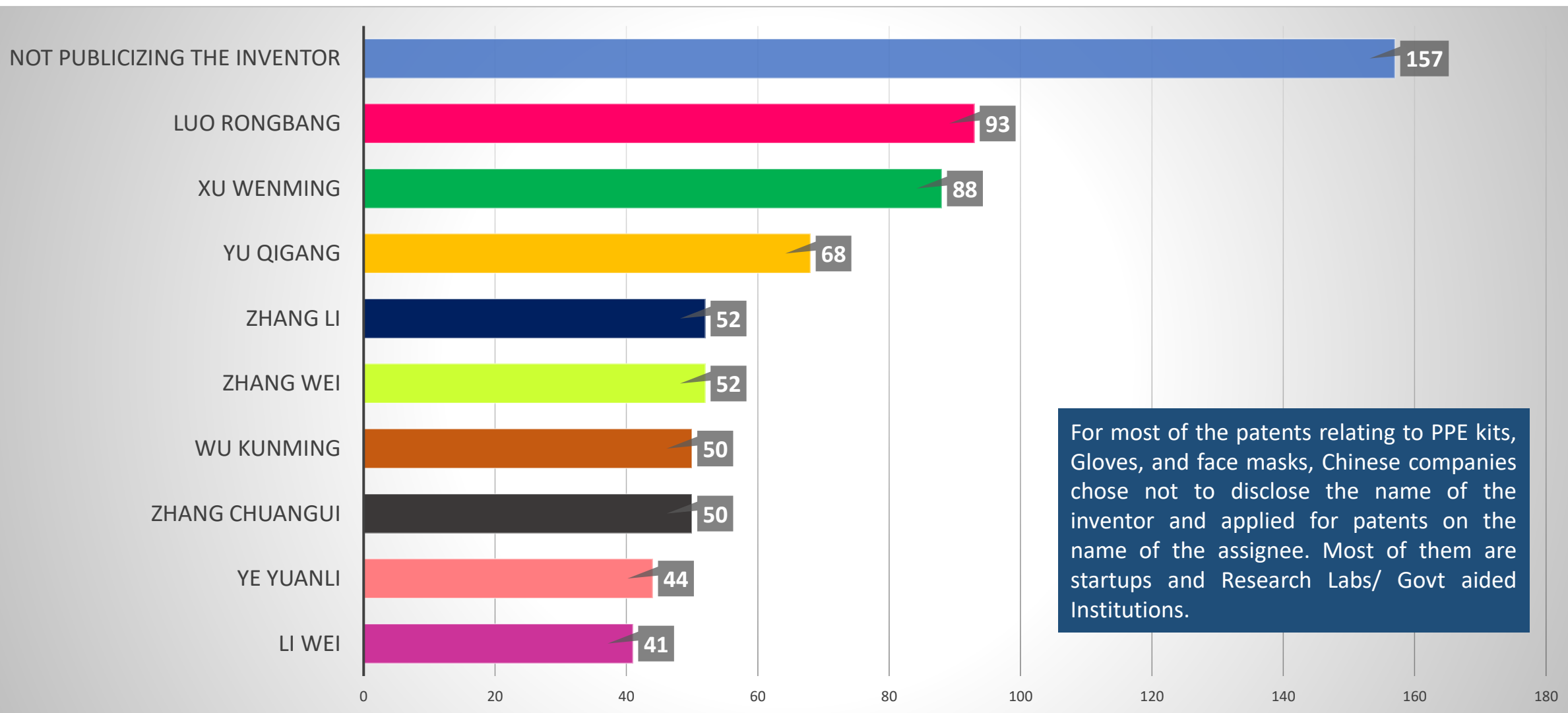
## Utility Models

More than 50% of the patent document published are utility models originating from Chinese, German and Korean companies.

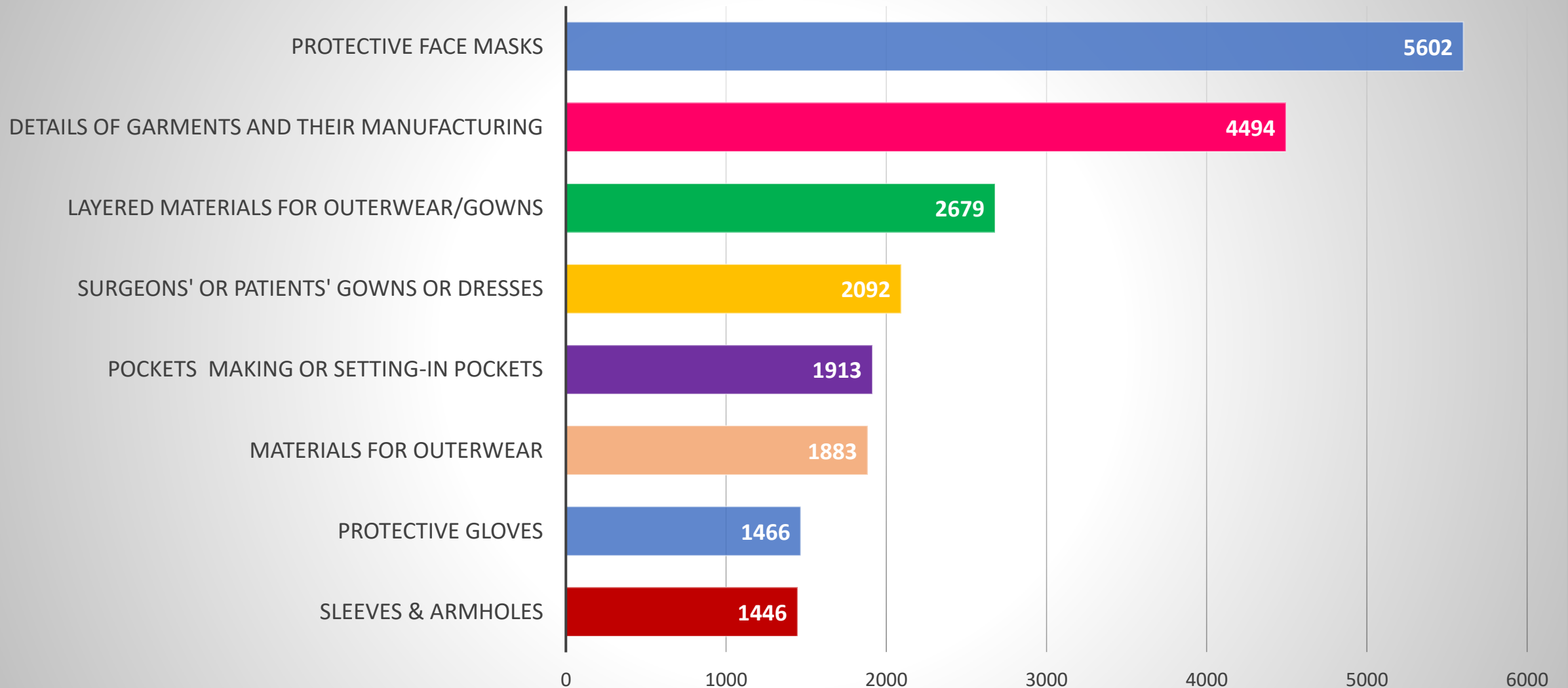
## Top Patent Assignee in 2020



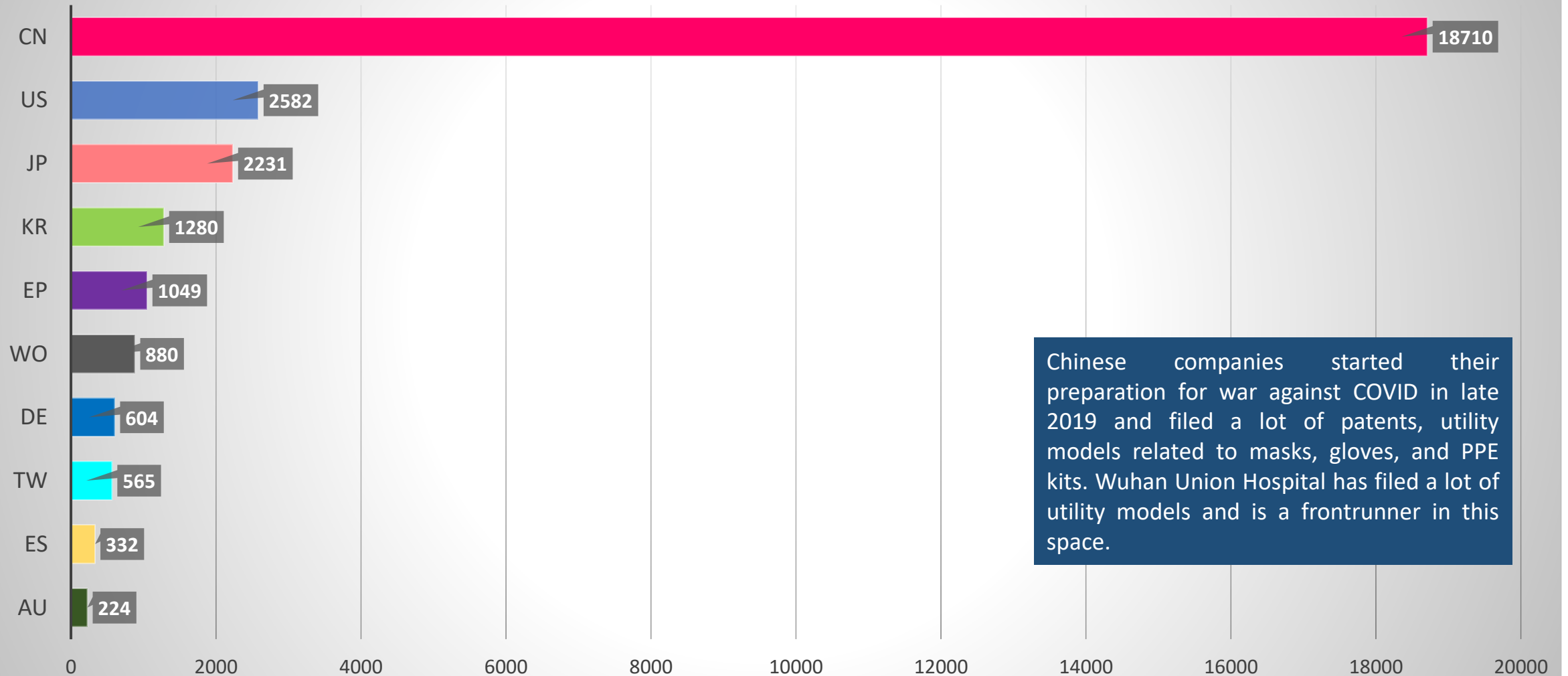
## Top Inventors of 2020



# Key Technologies

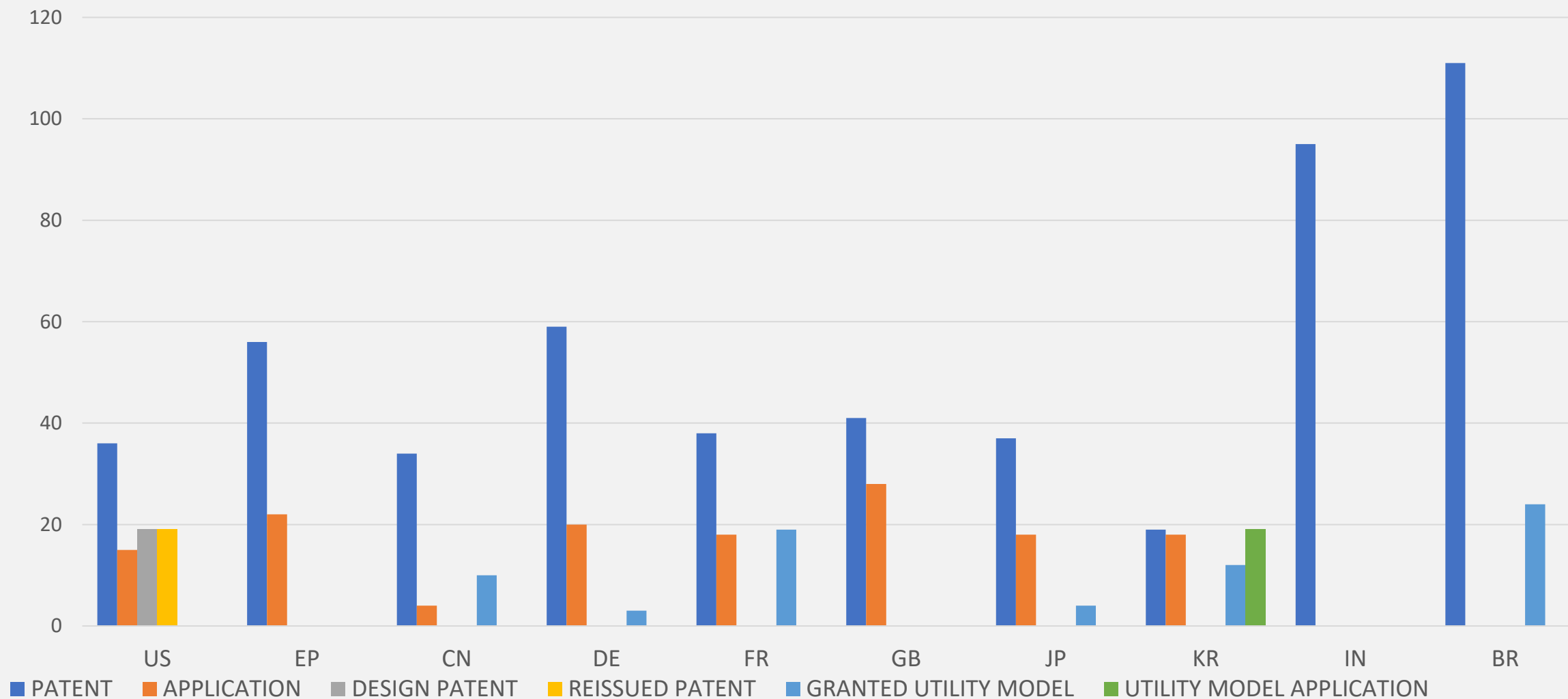


# Publication Countries



Chinese companies started their preparation for war against COVID in late 2019 and filed a lot of patents, utility models related to masks, gloves, and PPE kits. Wuhan Union Hospital has filed a lot of utility models and is a frontrunner in this space.

# Time to Grant (months)














# International Patent Classification



A41D	Outerwear ; Protective Garments ; Accessories ;
A41B	Shirts ; Underwear ; Baby Linen ; Handkerchiefs ;
A41H	Appliances Or Methods For Making Clothes, E.G. For Dress-Making, For Tailoring,
A41C	Corsets ; Brassiã^res ;
B32B	Layered Products, I.E. Products Built-Up Of Strata Of Flat Or Non-Flat, E.G. Cellular Or Honeycomb, Form
A61F	Filters Implantable Into Blood Vessels ; Prostheses ; Devices Providing Patency To, Or Preventing Collapsing Of, Tubular Structures Of The Body, E.G. Stents ; Orthopaedic, Nursing Or Contraceptive Devices ; Fomentation ; Treatment Or Protection Of Eyes Or Ears ; Bandages, Dressings Or Absorbent Pads ; First-Aid Kits
A62B	Devices, Apparatus Or Methods For Life-Saving ;
A41F	Garment Fastenings ; Suspenders ;
A41G	Artificial Flowers ; Wigs ; Masks ; Feathers ;
A61B	Diagnosis ; Surgery ; Identification ;

# Application Filing Year Map

									
2020	70	3	0	9	44	0	5	3	2
2019	80	11	12	19	21	23	12	49	5
2018	126	43	92	21	0	19	8	1	3
2017	94	8	0	6	0	4	12	0	7
2016	63	6	0	8	0	1	8	0	2
2015	16	25	0	8	0	9	4	0	23
2014	18	8	0	1	0	0	1	0	0
2013	19	5	0	0	0	0	1	0	0
2012	1	0	0	0	0	0	1	0	0
2011	0	0	0	0	0	0	0	0	0

# Jurisdiction Coverage Map

Australia
Spain
Taiwan
Germany
WIPO
Europe
Korea
Japan
USA
China

								
4	1	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0
18	6	0	5	0	3	0	0	0
2	0	0	0	0	0	10	0	0
53	4	0	12	0	8	1	0	3
121	18	0	11	0	8	10	0	0
24	11	0	5	0	7	0	0	0
27	15	0	23	0	6	6	0	44
153	28	0	7	0	17	18	0	1
85	24	104	7	65	10	8	53	2

# Technology Areas Covered by Top Players

									
New Shape of Face Mask	0	0	0	0	0	0	0	0	0
Fibrous or filamentary layered clothing	13	0	0	3	0	15	0	0	0
Cellular/ Honeycomb Type Clothing	13	9	0	5	0	17	4	0	0
Made of Chemical resistant material	0	0	0	4	0	0	0	0	0
Vests, jerseys, sweaters	99	0	0	0	0	0	2	0	0
To accommodate electronic equipment	37	0	0	0	0	9	4	0	0
Means for fastening to the user's head	0	29	0	0	0	0	0	0	0
Details of garments & of their making	13	0	0	3	0	0	3	0	3
Layered materials	44	0	0	4	0	17	5	0	0
Protective face masks	0	16	0	2	0	0	0	0	0

## Key Takeaways

China holds more than 60% of the patent/publications/ utility model in this space primarily because of the efforts by Chinese Hospitals and associated research labs to create COVID compatible PPE kits, masks, gloves, etc.

During COVID times, Utility Models emerged as a boon for providing instant protection to inventions that were essential for the fight against COVID. More than 50% of the publications in 2020 are utility models.

Being a frontrunner in Sports Apparel Industry, Nike & Adidas continued their innovation programs and secured patent protection on technologies and materials relating to sports vests, jerseys, and the like.

Most of the inventions related to PPE kits and allied products are assigned to Chinese startups and Govt. aided Medical Research Labs/ Institutes

After China and USA, Japan has emerged as a hotspot for innovations related to general purpose garments. Along with many newcomers, Toray and Gunze are actively innovating in textile industry.

## About IIPRD

IIPRD is a premier and well-established Intellectual Property (IP) Asset Management Firm focusing on Comprehensive Patent Support Services ranging from Patent Searching, Patent Prosecution/Preparation, to Litigation/Licensing Support Global Corporates and Law Firms. We can be reached at [iiprd@iiprd.com](mailto:iiprd@iiprd.com) and our details can be seen at [www.iiprd.com](http://www.iiprd.com). We can also be reached at +91-120-4296878 or + 1-202-600-4308

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