

# Patent Landscaping: Benchmarking and identifying disruptive technologies

29 September 2022

Presented by:  
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# Agenda:

1. Introduction to Lexis Nexis IP Solutions
2. Overview of Patent Landscaping
3. Example of patent landscaping with the focus on Turkish innovation
4. Conclusion

# LexisNexis Intellectual Property is a reliable partner

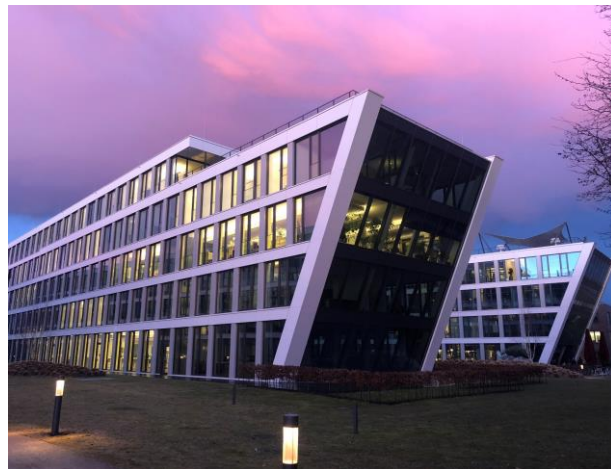
## Part of RELX Group



- Elsevier & LexisNexis
- 2021 revenue: € 8.3B
- # of employees: over 33,500
- Offices in 40 countries, clients in >150

## LexisNexis Intellectual Property Solutions

- Over the past 5 years we have invested close to € 100M in our IP solutions
- We offer 4 main solutions that span the complete patent workflow
- Serving the USPTO for over 50 years, helping to digitize and streamline the prosecution process



# PatentSight gives strategic insights in many use cases

Portfolio Management

Technology Field  
Analysis

M&A Analysis

Benchmarking

Trend Scouting

Spotting Innovators

Licensing

SDG Reporting

IPO Analysis

**~3 300 000 filings per  
year  
~8 500 per day**

# PatentSight Solves 4 main challenges



## Legacy problems:



Incomplete ownership information



Ambiguous legal status information,  
not readily available for analytics



No accurate trend analysis possible



Legacy indicators with limited  
applicability, often put in black boxes

## PatentSight's solutions:



Mapping all worldwide patents to  
their ultimate owner



Providing industry leading legal  
status information



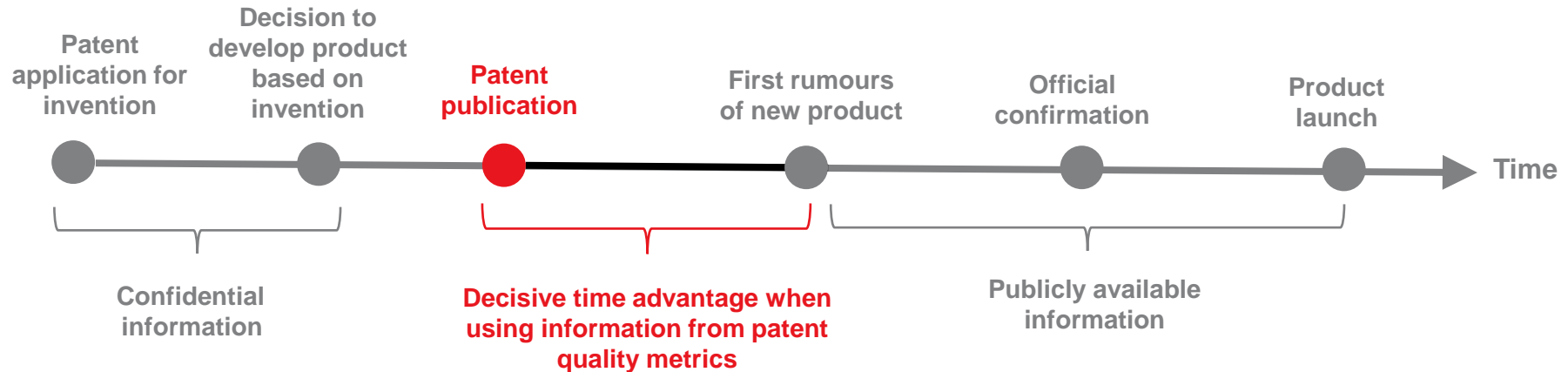
Point in time historic data, enabling  
true trend analyses



Scientifically proven and industry-wide  
accepted indicators

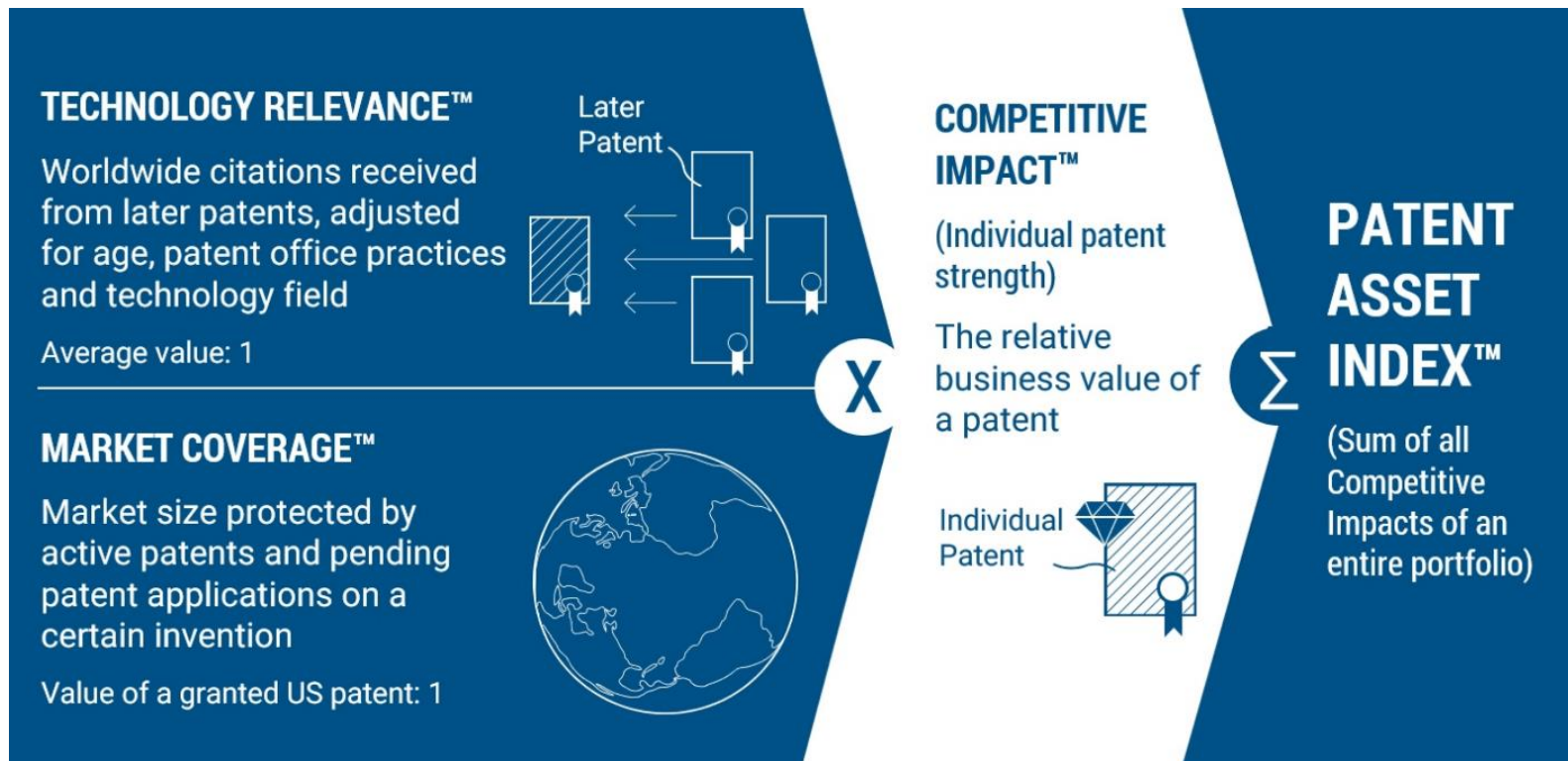
# Information advantage from patent quality metrics

Information flow: From invention to product



Patent data can help to early recognize technology trends. However, not all patents will turn into products. Appropriate metrics are required to identify patents with a high commercial value.

# The Patent Asset Index - Methodology

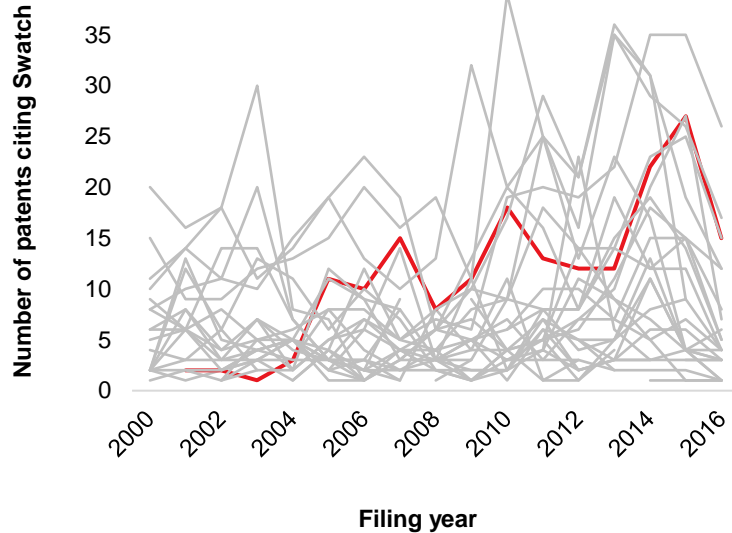




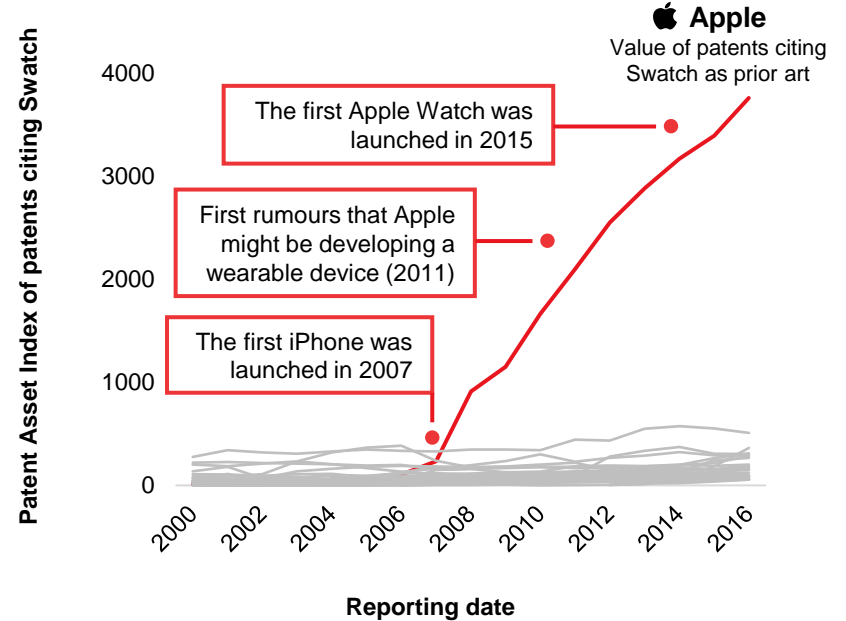
# Data quality, reporting date and patent asset index – a powerful combination

swatch<sup>+</sup>

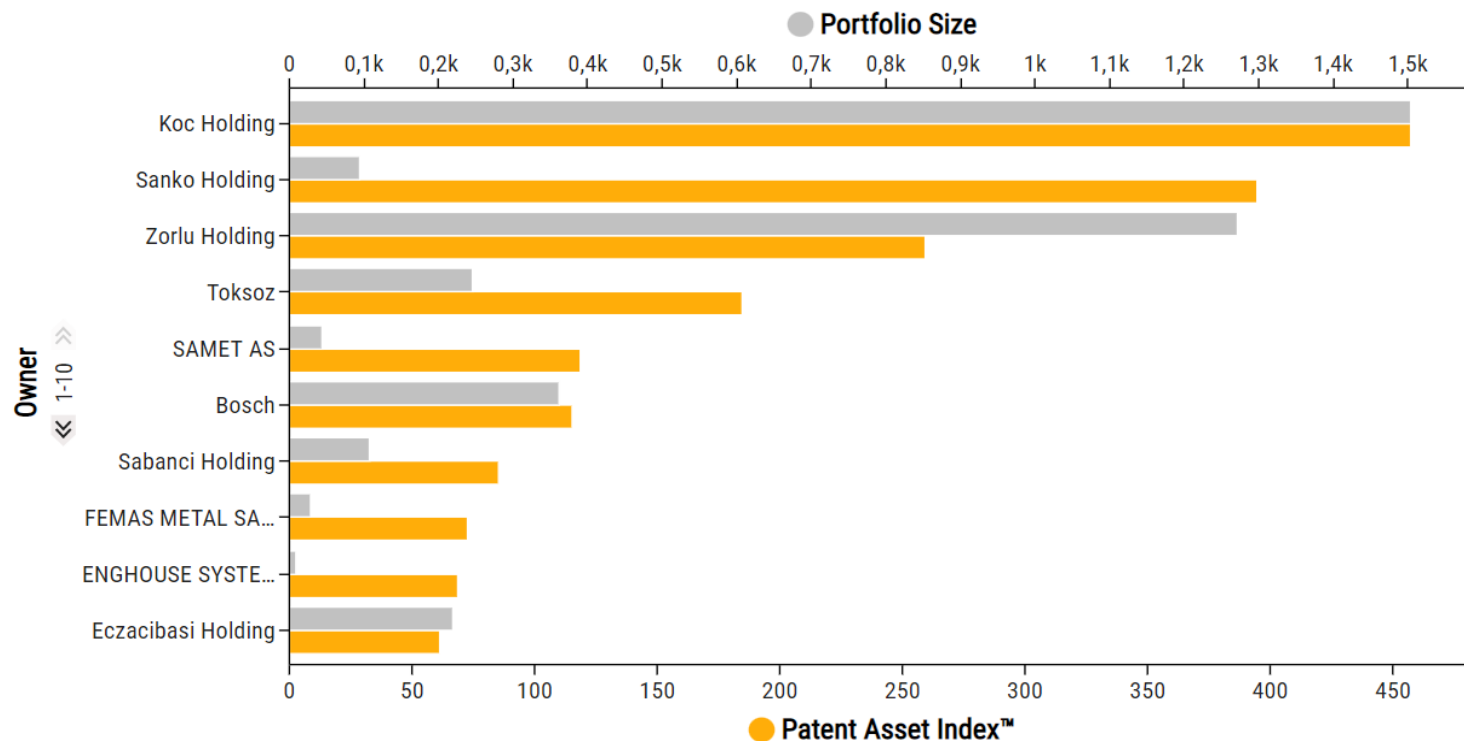
Analysis with conventional patent data



Analysis with Patent Asset Index™ concept applied



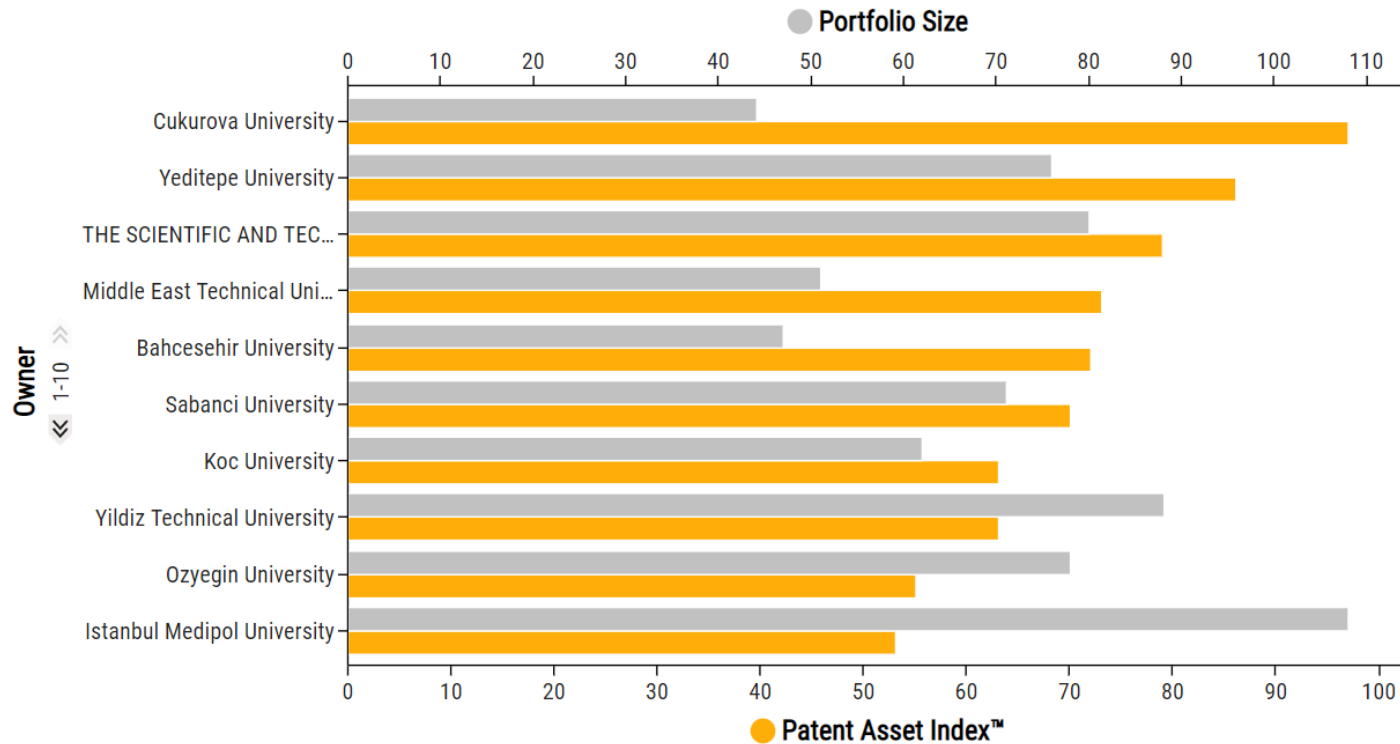
## Top Turkish corporates by portfolio size VS portfolio quality



Owner (bars) shows items 1-10 of 7824, sorted by Patent Asset Index™ desc as at 9/22/2022.

Analysis based on 19,357 patent families active at 9/22/2022....(more)

## Top Turkish universities by portfolio size VS portfolio quality





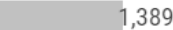








































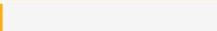

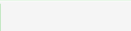











Owner (bars) shows items 1-10 of 311, sorted by Patent Asset Index™ desc as at 9/22/2022.

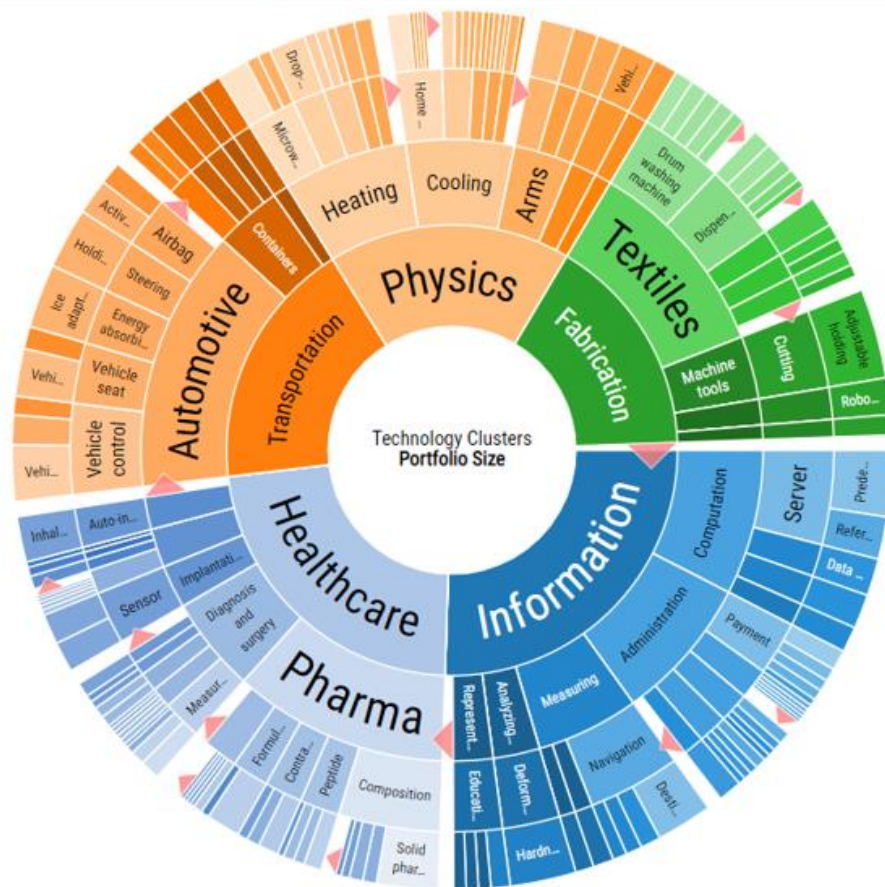
Analysis based on 2,089 patent families active at 9/22/2022....(more)

✓ Owner	Patent Asset Index™	Portfolio Size	Competitive Impact	Technology Relevance	Market Coverage	
1 ISTANBUL UNIVERSITY	<div><div></div></div>	18 <div><div></div></div>	352	0.1 <div><div></div></div>	0.3 <div><div></div></div>	0.2
2 ISTANBUL GELISIM UNIVERSITY	<div><div></div></div>	3 <div><div></div></div>	332	0.0 <div><div></div></div>	0.3 <div><div></div></div>	0.0
3 Istanbul Medipol University	<div><div></div></div>	53 <div><div></div></div>	108	0.5 <div><div></div></div>	0.4 <div><div></div></div>	1.3
4 Istanbul Tech. University	<div><div></div></div>	39 <div><div></div></div>	93	0.4 <div><div></div></div>	0.5 <div><div></div></div>	0.8
5 Yildiz Technical University	<div><div></div></div>	63 <div><div></div></div>	88	0.7 <div><div></div></div>	0.4 <div><div></div></div>	1.7
6 THE SCIENTIFIC AND TECHNOLOGICAL RESE...	<div><div></div></div>	79 <div><div></div></div>	80	1.0 <div><div></div></div>	0.8 <div><div></div></div>	1.2
7 Ozyegin University	<div><div></div></div>	55 <div><div></div></div>	78	0.7 <div><div></div></div>	0.6 <div><div></div></div>	1.3
8 Yeditepe University	<div><div></div></div>	86 <div><div></div></div>	76	1.1 <div><div></div></div>	0.7 <div><div></div></div>	1.5
9 Sabanci University	<div><div></div></div>	70 <div><div></div></div>	71	1.0 <div><div></div></div>	0.7 <div><div></div></div>	1.4
10 Erciyes University	<div><div></div></div>	37 <div><div></div></div>	66	0.6 <div><div></div></div>	0.4 <div><div></div></div>	1.5
11 Koc University	<div><div></div></div>	63 <div><div></div></div>	62	1.0 <div><div></div></div>	0.7 <div><div></div></div>	1.5
12 Gaziantep University	<div><div></div></div>	12 <div><div></div></div>	61	0.2 <div><div></div></div>	0.3 <div><div></div></div>	0.8
13 EGE UENIVERSITESI	<div><div></div></div>	35 <div><div></div></div>	54	0.6 <div><div></div></div>	0.4 <div><div></div></div>	1.6
14 Middle East Technical University	<div><div></div></div>	73 <div><div></div></div>	51	1.4 <div><div></div></div>	0.6 <div><div></div></div>	2.1
15 Anadolu University	<div><div></div></div>	36 <div><div></div></div>	49	0.7 <div><div></div></div>	0.5 <div><div></div></div>	1.1
16 Bahcesehir University	<div><div></div></div>	72 <div><div></div></div>	47	1.5 <div><div></div></div>	0.8 <div><div></div></div>	1.8
17 Cukurova University	<div><div></div></div>	97 <div><div></div></div>	44	2.2 <div><div></div></div>	0.8 <div><div></div></div>	2.6
18 TOBB University of Economics and Technology	<div><div></div></div>	15 <div><div></div></div>	38	0.4 <div><div></div></div>	0.3 <div><div></div></div>	1.1
19 ESKISEHIR OSMANGAZI UNIVERSITY	<div><div></div></div>	6 <div><div></div></div>	29	0.2 <div><div></div></div>	0.4 <div><div></div></div>	0.7

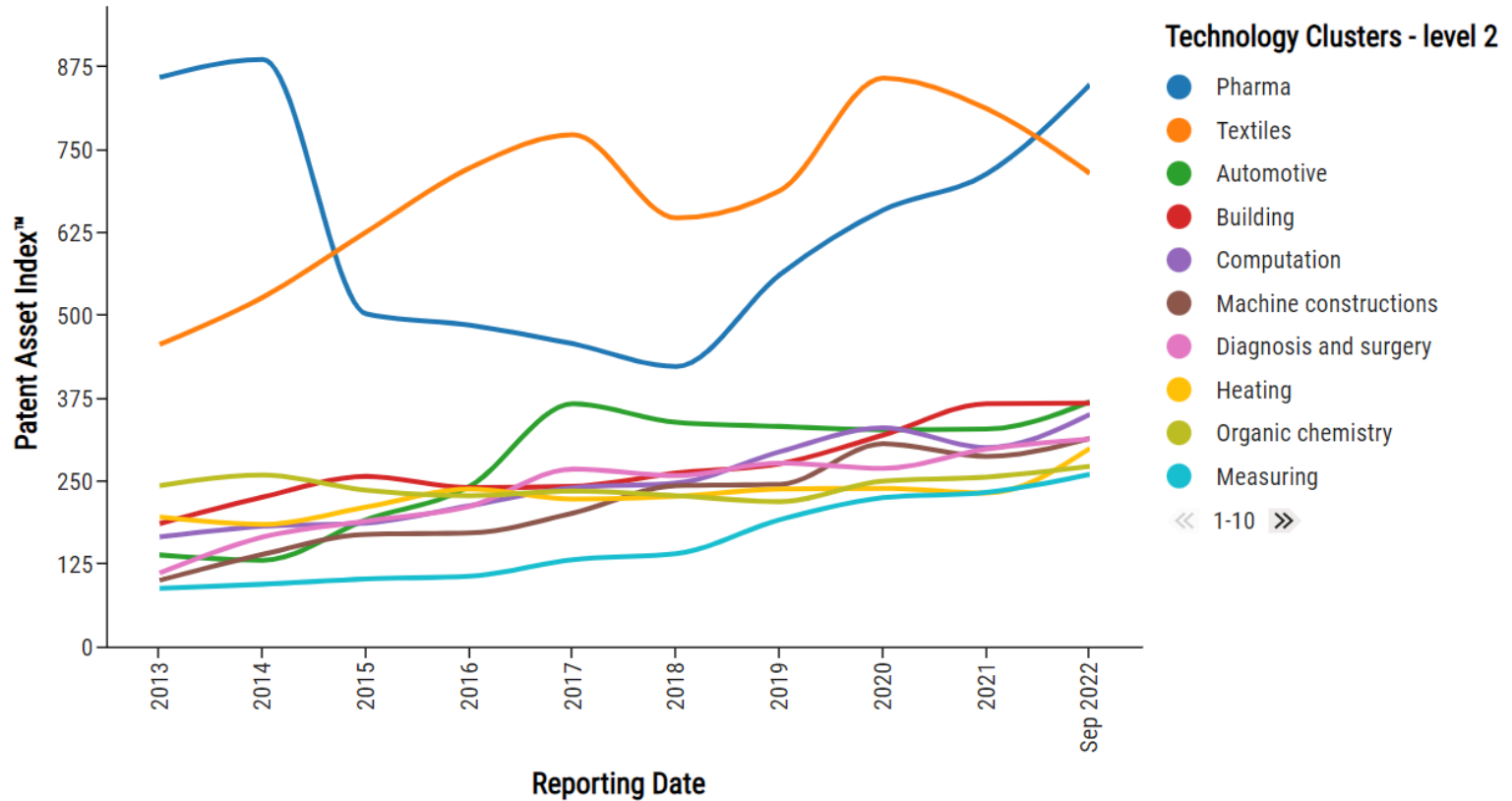
## Sorting by portfolio size changes the landscape

✓	Owner	Patent Asset Index™	Portfolio Size	Competitive Impact	Market Coverage
1	Koc Holding	 457	 1,503	0.3	 0.4
2	Arcelik (in: Koc Holdi...	 445	 1,389	0.3	 0.4
3	Turkcell	 31	 1,387	0.0	 0.1
4	Zorlu Holding	 259	 1,270	0.2	 0.4
5	Ford Otosan	 37	 458	0.1	 0.1
6	Bosch	 115	 360	0.3	 0.4
7	Levent Yapilandirma ...	 17	 339	0.1	 0.1
8	Tofas	 13	 313	0.0	 0.1
9	Toksoz	 184	 245	0.8	 1.0
10	Netas	 4	 235	0.0	 0.0
11	Eczacibasi Holding	 61	 218	0.3	 0.6
12	Tirsan Treyler	 15	 203	0.1	 0.2
13	ANADOLU ISUZU OT...	 2	 179	0.0	 0.0
14	Vodafone	 1	 167	0.0	 0.0
15	Sabanci Holding	 85	 106	0.8	 0.7
16	Sanko Holding	 394	 94	4.2	 2.1
17	Turk Traktor	 1	 67	0.0	 0.1
18	SER DAYANIKLI TUEK...	 0	 59	0.0	 0.0
19	TIRSAN KARDAN SA...	 23	 56	0.4	 0.9

## What technologies are protected in Turkey?



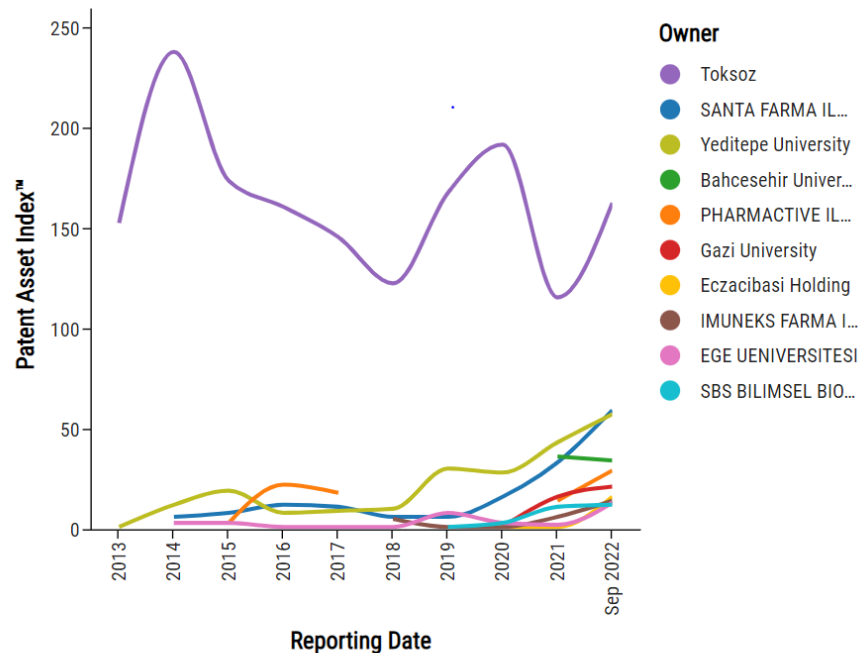
## Identifying local technology trends



Technology Clusters - level 2 (lines) shows items 1-10 of 134, sorted by Patent Asset Index™ desc as at 9/22/2022.

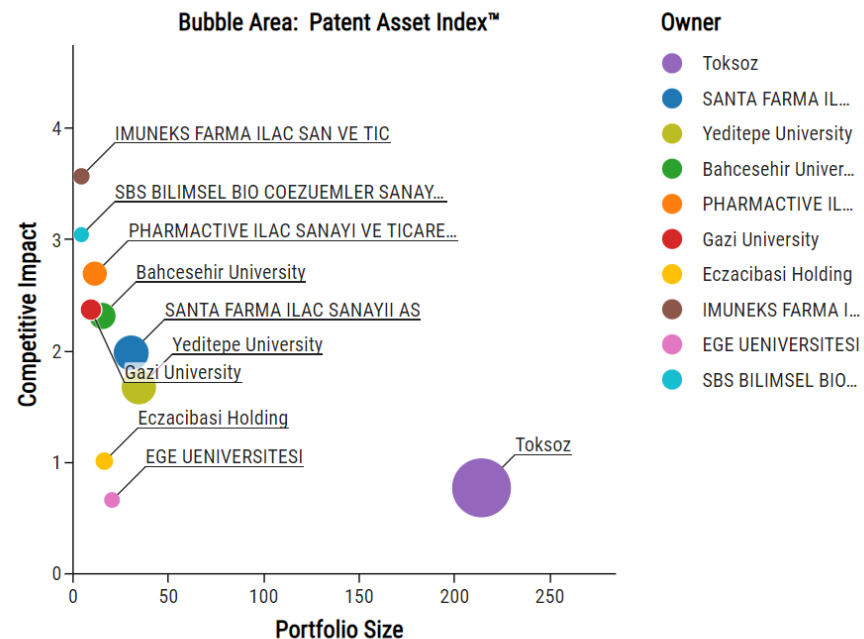
Analysis based on 24,554 patent families active at 9/22/2022.

## Turkish pharma patent index trend



Owner (lines) shows items 1-10 of 678, sorted by Patent Asset Index™ desc as at 9/22/2022.

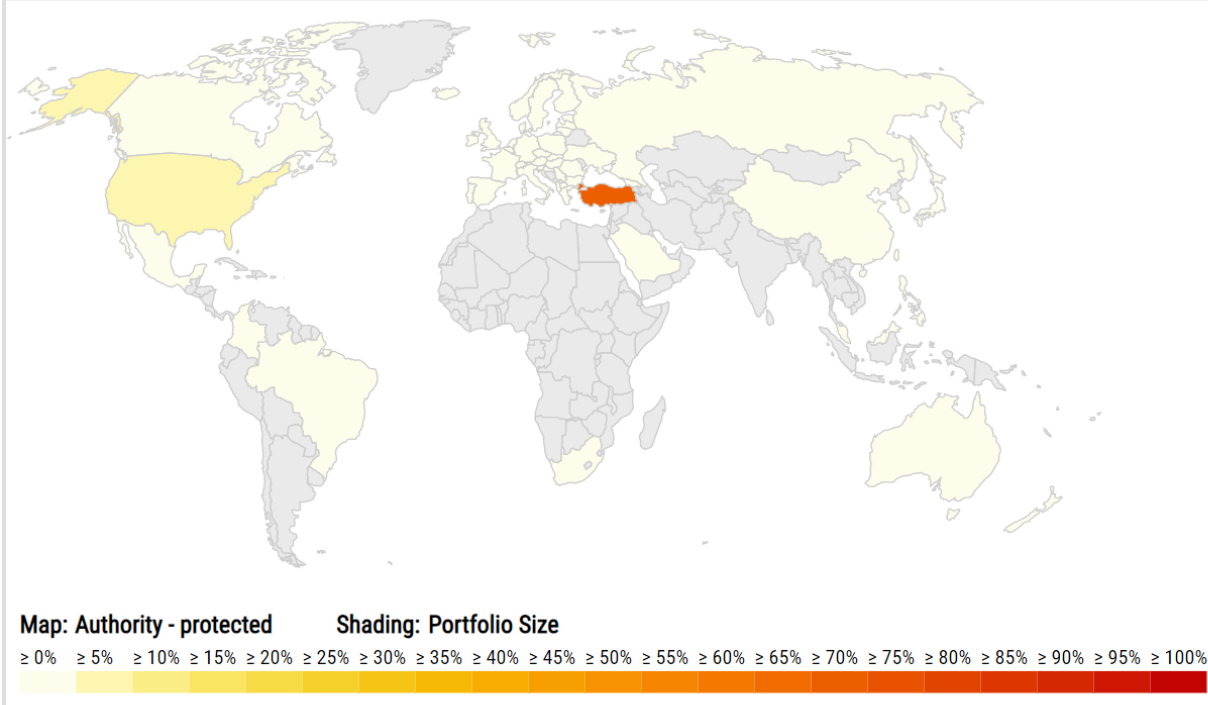
## Turkish pharma Patent Asset Index



Owner (bubbles) shows items 1-10 of 678, sorted by Patent Asset Index™ desc as at 9/22/2022.



## Turkish pharma companies protection



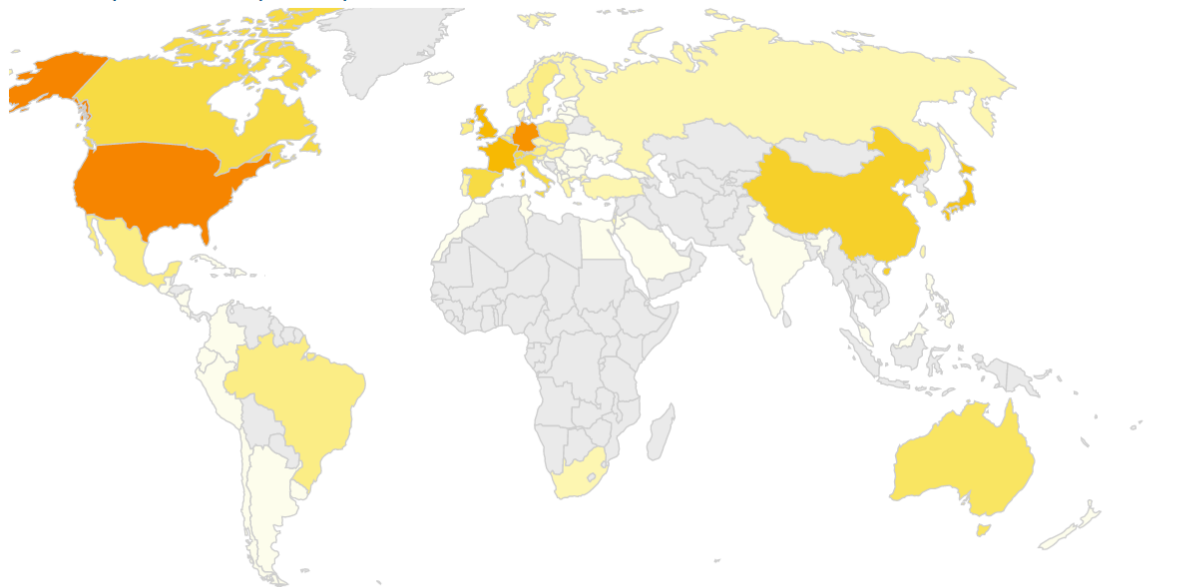
Analysis based on 1,300 patent families active at 9/22/2022.

Enter name

✓ Active in	Patent Asse...	Portfolio Size
1 Turkey	289 (34.2%)	968 (74.5%)
2 WIPO - World Intellectual Pr...	621 (73.6%)	296 (22.8%)
3 EPO - European Patent Office	213 (25.3%)	190 (14.6%)
4 USA	155 (18.4%)	89 (6.8%)
5 Germany	69 (8.2%)	63 (4.8%)
6 United Kingdom	67 (8.0%)	53 (4.1%)
7 France	76 (9.0%)	48 (3.7%)
8 China	90 (10.7%)	31 (2.4%)
9 Spain	51 (6.1%)	31 (2.4%)
10 Switzerland	41 (4.9%)	30 (2.3%)
11 Italy	48 (5.7%)	28 (2.2%)
12 Japan	68 (8.0%)	25 (1.9%)
13 Poland	45 (5.3%)	25 (1.9%)
14 Canada	61 (7.3%)	24 (1.8%)
15 Ireland	31 (3.7%)	24 (1.8%)
16 Eurasia	17 (2.1%)	20 (1.5%)
17 Australia	51 (6.1%)	16 (1.2%)
18 Netherlands	40 (4.8%)	16 (1.2%)

60 total rows.

## German pharma companies protection



Map: Authority - protected

Shading: Portfolio Size



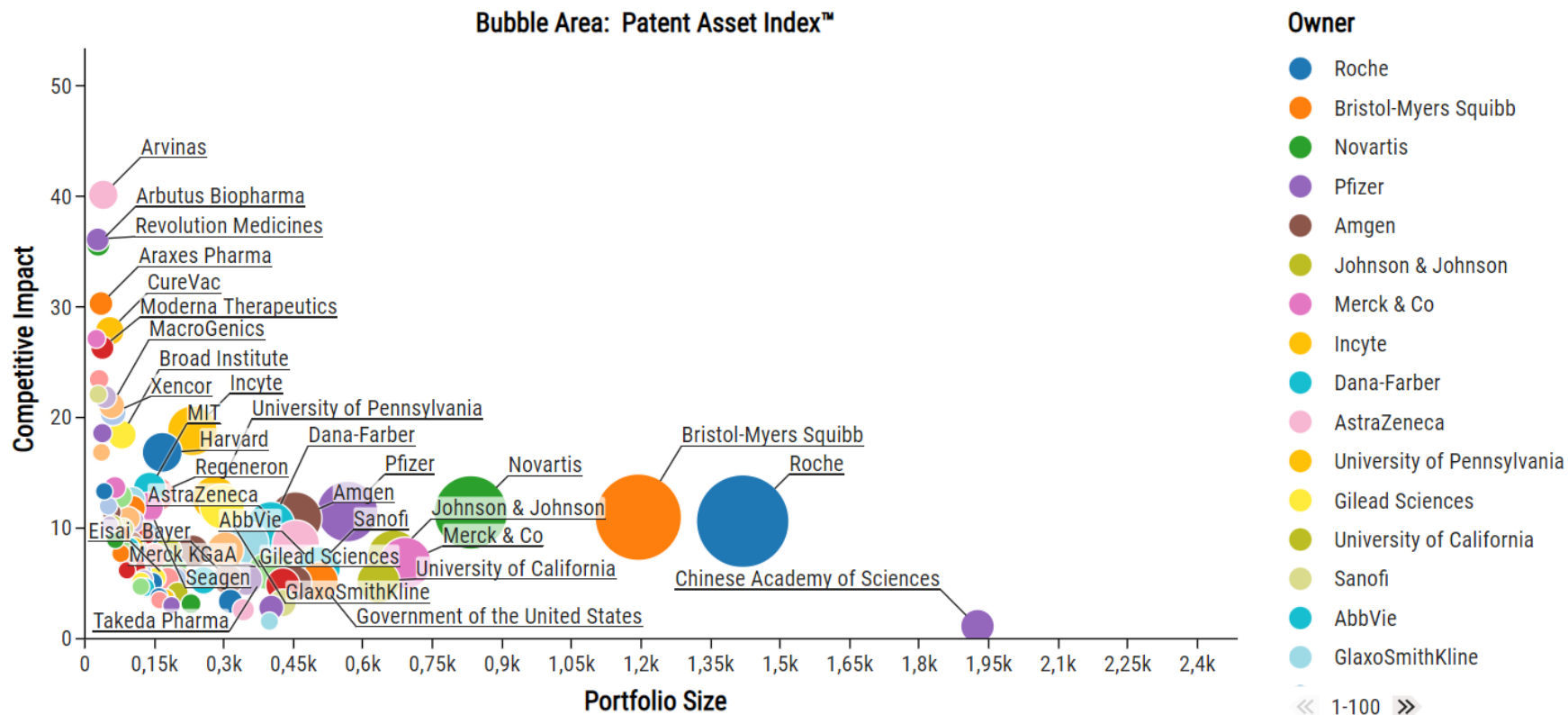
Analysis based on 9,651 patent families active at 9/22/2022.

Enter name

✓ Active in	Patent Asse...	Portfolio Size
1 USA	21,485 (76.8%)	5,382 (55.8%)
2 Germany	16,848 (60.3%)	5,304 (55.0%)
3 France	14,818 (53.0%)	3,841 (39.8%)
4 United Kingdom	14,877 (53.2%)	3,795 (39.3%)
5 Japan	16,482 (58.9%)	3,202 (33.2%)
6 China	15,539 (55.6%)	2,696 (27.9%)
7 Canada	12,856 (46.0%)	2,392 (24.8%)
8 EPO - European Patent Office	9,062 (32.4%)	2,235 (23.2%)
9 Switzerland	10,806 (38.6%)	2,214 (22.9%)
10 Spain	11,077 (39.6%)	2,122 (22.0%)
11 Italy	10,938 (39.1%)	2,088 (21.6%)
12 Australia	11,689 (41.8%)	1,850 (19.2%)
13 South Korea	10,775 (38.5%)	1,787 (18.5%)
14 Mexico	9,066 (32.4%)	1,411 (14.6%)
15 Netherlands	8,068 (28.9%)	1,364 (14.1%)
16 Brazil	8,886 (31.8%)	1,303 (13.5%)
17 Austria	7,418 (26.5%)	1,275 (13.2%)
18 Ireland	7,384 (26.4%)	1,243 (12.9%)

82 total rows.

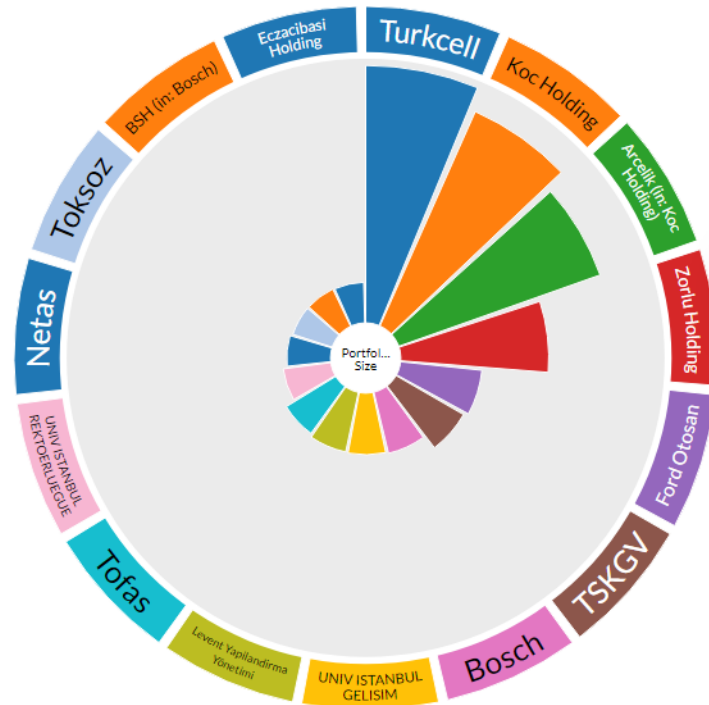
## Antineoplastic agents companies benchmarkings + spotting disruptors



Owner (bubbles) shows items 1-100 of 24895, sorted by Patent Asset Index™ desc as at 9/22/2022.

Analysis based on 97,612 patent families active at 9/22/2022....(more)

## Owners of Sustainable Inventions in Turkey



Sectors: Owner    Sector Size: Portfolio Size

# Thank you!

**Anastasia Churilova & Karen Metcalf**  
**Lexis Nexis – IP**

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