

United Nations - Sustainable Development Goals (SDGs)

July 1st, 2021

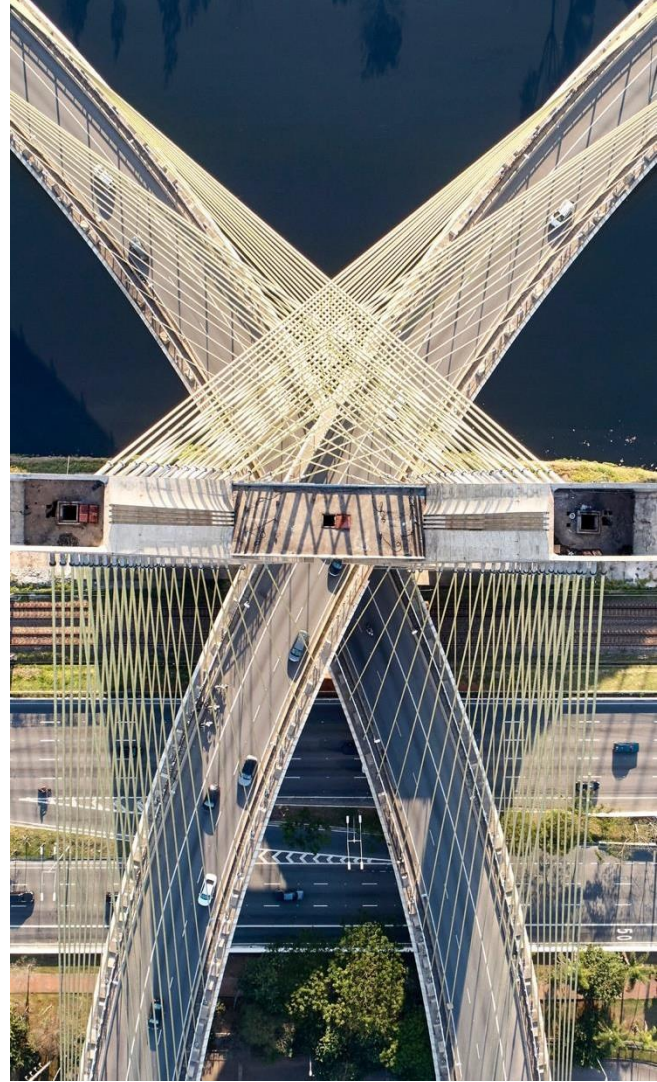
Presented by

Marco Richter

Global Lead Product & Customer Success LexisNexis IP

Benjamin Hann

Global Sales Strategy & Enablement LexisNexis IP



Agenda

Introduction

United Nations Sustainable Development Goals: How SDGs can be mapped to patents?

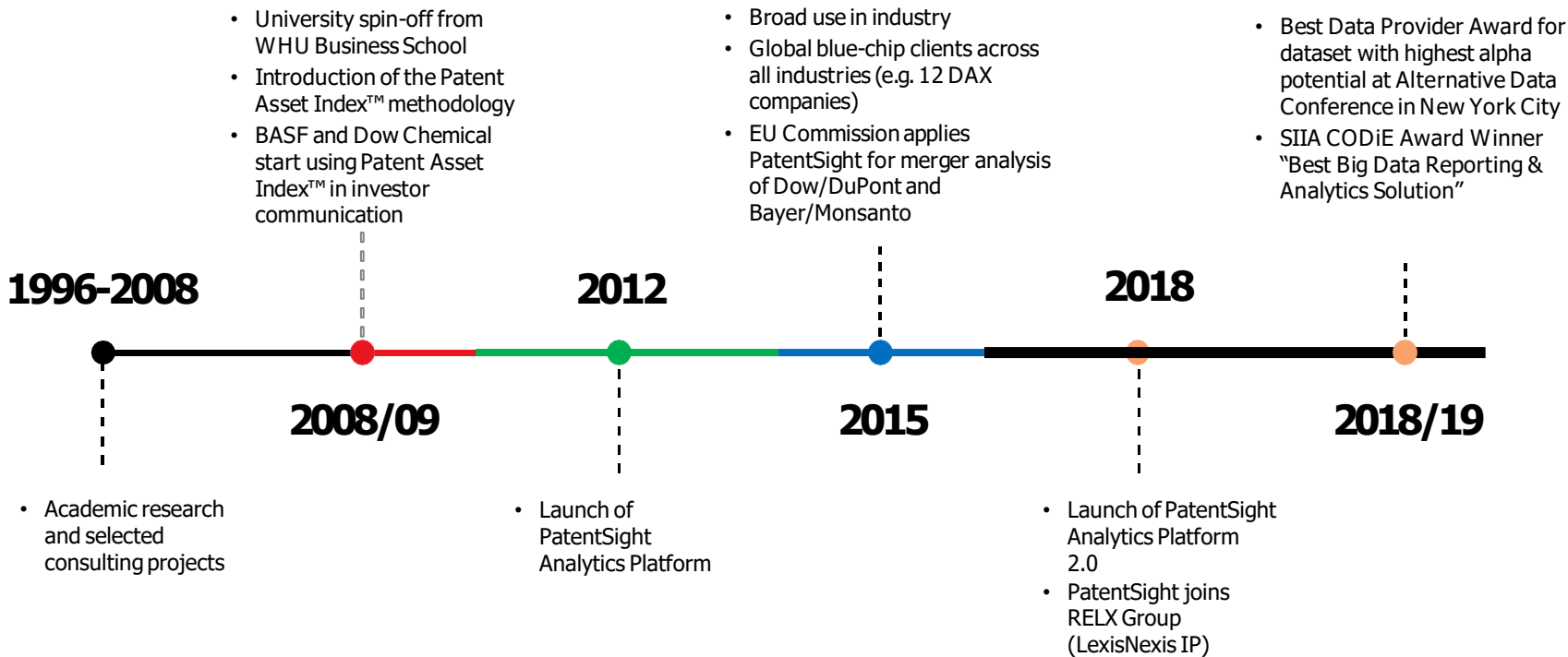
The global drivers of sustainable technological development

Who is investing in green technology (SDG 13)

The most important investors making our planet a better place (SDG 13)

Key Takeaways

LexisNexis PatentSight brings clarity to innovation for more than 10 years!



Redefining patent analytics by overcoming fundamental data problems

Legacy patent software 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



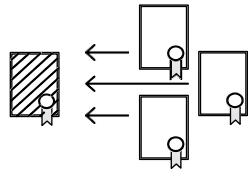
Scientifically proven and industry-wide accepted indicators around the Patent Asset Index™

The Patent Asset Index™ is the only scientifically developed, peer-reviewed and industry wide adopted patent indicator

Technology Relevance™

Worldwide citations received from later patents, adjusted for age, patent office practices and technology field

Average value: 1



Competitive Impact™

(Individual patent strength)
The relative business value of a patent family

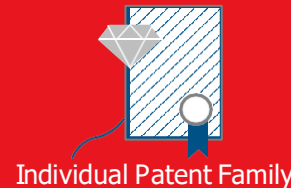
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Market Coverage™

Market size protected by active patents and pending patent applications on a certain invention

Value of granted US patent: 1



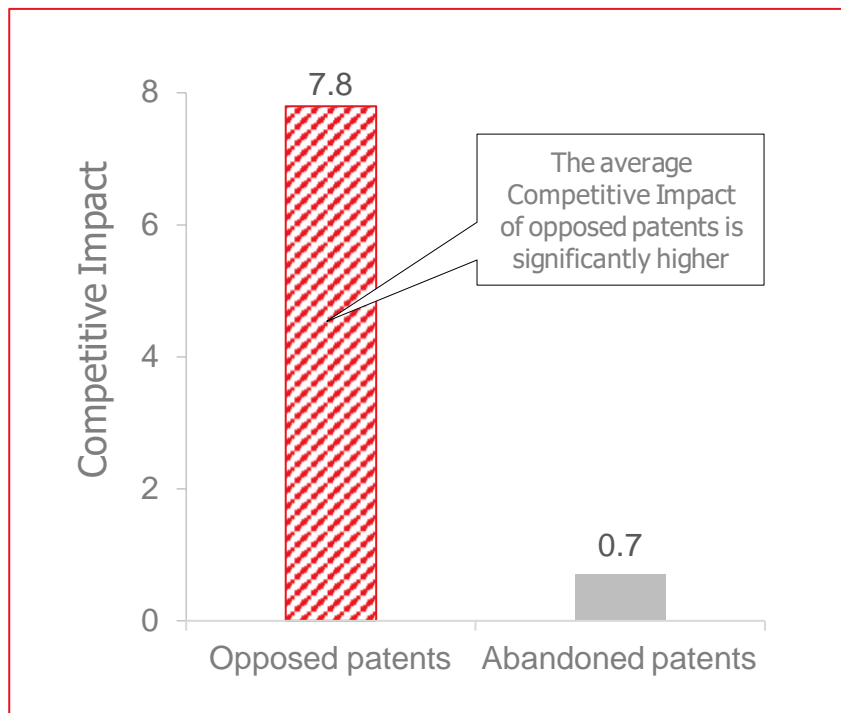
Patent Asset Index™



Innovative strength of a company or portfolio
(ability to achieve competitive advantage)!

Ernst, H., Omland, N. (2011): *The Patent Asset Index - A New Approach to Benchmark Patent Portfolios.*
World Patent Information 33, pp. 34-41.

Scientific & customer valuation studies show ~80% accuracy of the Patent Asset Index™ methodology



Validation Studies
Patents with a high Competitive Impact are more frequently:

- ✓ **Considered a key patent**
- ✓ **Attacked and defended**
- ✓ **Enforced in court**
- ✓ **Maintained longer**
- ✓ **Commercialized**
- ✓ **Standard-relevant**

Sample: 74,732 patent families. Source: Ernst, H., Omland, N. (2011): *The Patent Asset Index - A New Approach to Benchmark Patent Portfolios*. *World Patent Information* 33, pp. 34-41.

Our data and indicators are used by blue chip customers around the globe

Governmental Bodies

Antitrust, Court, Consulting



The **European Commission** analyses the **technology share** using the Patent Asset Index™ to examine the **Dow-DuPont** and **Bayer-Monsanto** mergers and assess dominance in **M&A cases**



In front of the **U.S. Tax Court**, the Patent Asset Index™ is used to **measure the relative value of certain patents over time** for expert reports in depositions and testimony at trial (U.S. Treasury against Amazon)



The **Swiss Patent Office** has **improved its patent landscaping** for **macroeconomic analysis** as well as **evaluation of technology fields** and companies for their own search and **consulting businesses** with PatentSight

Investor Communication

Annual Reports



"The method is valuable not only to demonstrate the importance of our patent portfolio to investors, but also to internally evaluate our patent strategy over time"
Dr. Andreas Kreimeyer, Member of the Board of Executive Directors



"The Patent Asset Index™ from PatentSight® evaluates global coverage and Competitive Impact. According to the results, Symrise's IP portfolio has the most competitive impact in the entire industry"
Symrise Annual Report 2015



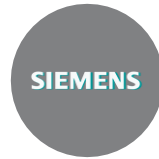
"This method provides an accurate, overall view of the impact and efficiency of an enterprise's investment in innovation"
Dr. William F. Banholzer, Executive Vice President and CTO

Use Cases & ROI

Example



Philips does regular **benchmarking** against competitors. By using PatentSight, these analyses are now more **accurate, faster to conduct and to adjust** upon requests and **cheaper** to create (saved more than one man-year)



Siemens **significantly improved patent analysis efficiency** with PatentSight



Shell has found that **trend analysis** with PatentSight helps them to **identify disruptive technologies** early on

How PatentSight data is used

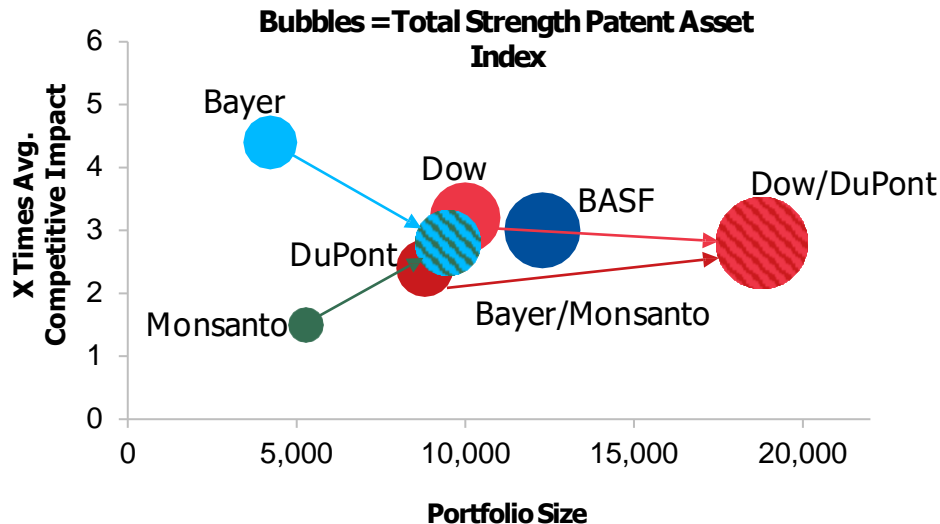
Governmental Bodies

Antitrust, Court, Consulting

Innovation has become “so important” for future competition “because the viability of the product line depends on your ability to keep on innovating.”



Margrethe Vestager,
EU antitrust chief



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Recap: bringing innovation insights into the investment community

"Alternative data draws from non-traditional data sources so that when you apply analytics to the data, they yield additional insights that complement the information you receive from traditional sources"

KrishnaNathan, CIO of S&P Global

Hypothesis: Innovation is the key to success, so innovation and patent data combined with PatentSight's analytics metrics must contribute to the big picture and help investors to take the right decisions on their investments.

Networking & exploration:

Learning about the concept of Alternative Data for financial vertical. Creation of datasets and implementation of appropriate measures



Evaluation process: Implementing findings and re-thinking dataset structure. Mapping finance relevant information e.g., tickers to existing data. Map major indices and historic owner information to dataset



Finding collaboration

partners: In 2018, we started working on and exploring opportunities in the investment community



Best Data Provider Award

2018 for dataset with highest alpha potential at EagleAlpha Data Conference in New York City



Light bulb moment:

Uncovering the tremendous need for ESG/ SDG related information for the finance industry. Massive shift from a \$22.8 trillion AUM Business to a \$30.6 trillion AUM Business in 2018

We're also seeing an increasing interest from law firms in SDG and ESG

LATHAM & WATKINS LLP

ENVIRONMENTAL, SOCIAL & GOVERNANCE

Latham leverages deep cross-border expertise to help clients navigate the multidimensional environmental, social, and governance landscape.



DLA Piper is committed to making businesses better by helping clients and communities transition to and thrive in a more sustainable future. We understand the unique challenges and needs of each sector and deliver seamless global solutions that help our clients around the world.

Hogan
Lovells

...we actively seek to contribute to the achievement of the SDGs and we support our clients to do the same.

大成 DENTONS

Online seminar: Recovery after Covid-19 – Where the opportunities are: Sustainable Development Goals and their implementation in your business strategy.

Baker McKenzie.

Sustainability: An Increasingly Important Driver of Business Strategy

KIRKLAND & ELLIS LLP

“ 'Going Green' is more than a catchphrase at Kirkland – it's a guiding principle of our Firm. We are committed to enhancing the global environment through sustainability efforts, and we implement these initiatives as individuals, as a Firm and on behalf of clients. – *Kirkland Green Teams*”

Agenda


United Nations Sustainable Development Goals: How SDGs can be mapped to patents?

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Who is investing in green technology (SDG 13)

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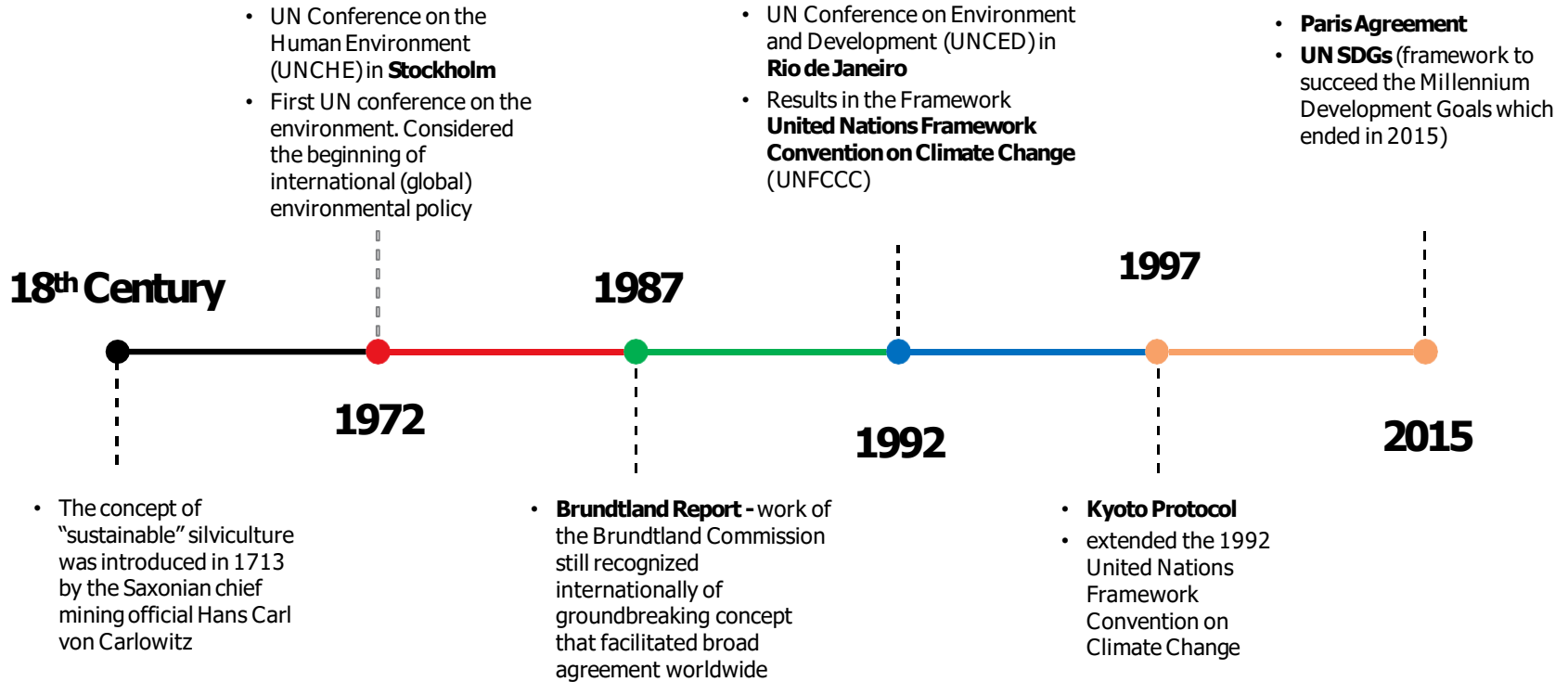
Key Takeaways



“We cannot solve our problems with
the same thinking, we used when we
created them.”

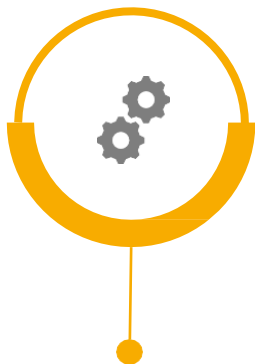
Albert Einstein

Short history on sustainability



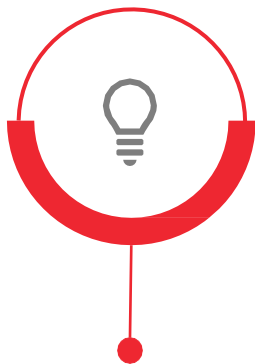
United Nation SDGs - an innovation driver?

The UN Sustainable Development Goals (SDGs) framework serves as the world's **roadmap to global sustainability.**



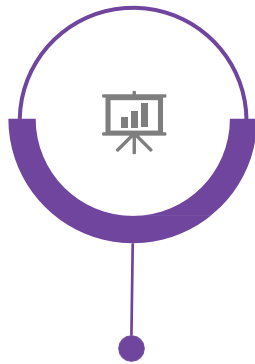
01
Purpose

Investors work with broader stakeholders to globally accomplish all SDGs.



02
Action

Wealth of data available on country-level SDGs performance (e.g., World Bank, OECD, EPO).



03
Big Data

Measure the sustainability and ethical impact. How **SDGs affect portfolios** is relevant to all investors.



04
Score

SDG related R&D is on average **more valuable** than others and its value is increasing.



05
Value

How can patent data be used to predict the future?

Definition

In 1987, the United Nations Brundtland Commission defined sustainability as “**meeting the needs of the present without compromising the ability of future generations to meet their own needs.**”



www.un.org/en/academic-impact/sustainability



Implementation and success will rely on countries' own sustainable development policies, plans and programs, and will be led by countries. The **Sustainable Development Goals (SDGs)** will be a compass for aligning countries' plans with their global commitments.



The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

13/17

13 out of 17 can be mapped with related technologies.

How patents can be an indicator

Patents

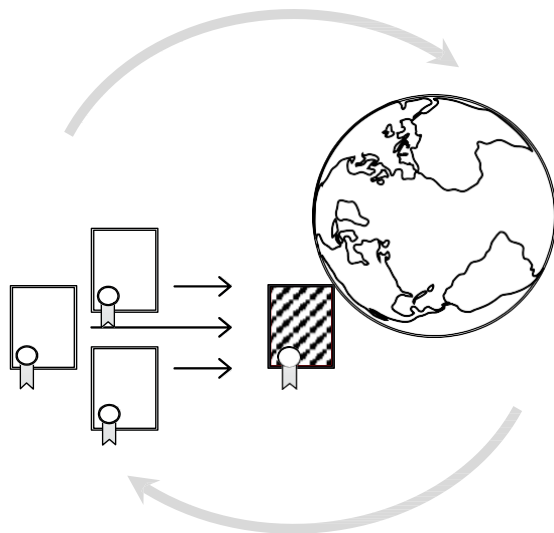
Patents are territorial rights granted for inventions in science and technology as per the law in each country where the patent has been applied for.

Across most nations, patents are granted for inventions that are:

- Novel
- Inventive and /or non-obvious and
- Capable of industrial application.



The searches and search topics are not generic, but are based on the targets, indicators and the metadata of each UN SDG. Therefore, more are covered than only those found in the Green Inventory of e.g., the WIPO. For a better understanding of the patents to SDG mapping fact sheets with direct linkage are created for each SDG and their respective sub targets.



UN SDG Targets

The United Nations Sustainable Development Goals (SDGs) are targets for global development adopted in September 2015, set to be achieved by 2030. All countries of the world have agreed to work towards achieving these goals. The 17 Sustainable Development Goals are defined in a list of 169 SDG Targets. Progress towards these Targets is agreed to be tracked by 232 unique Indicators.

Indicators

The Global SDG Indicators Database maintained and regularly updated by the Statistics Division makes data on the global SDG indicators available to all users and includes both country-level data and regional and global aggregates. As of July 2019, it includes data for 166 of the 232 indicators and more than 1.2 million data records.

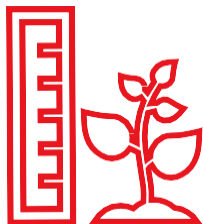
Metadata

An accompanying metadata repository provides the metadata for the indicators that have internationally established methodology and standards. Access to the country-level data and the metadata ensures full transparency with respect to the data and methodologies used for global reporting.

We've made 13 of the 17 UN SD Goals trackable through the lens of patents



How are we helping customers?



Measurability

Patent data is an important source to measure a company's contribution to a sustainable world. Innovation has been identified a key contributor to more sustainability*.



Transparency

Including patent data to the SDG evaluation process helps to shed more light to the effort company's put into becoming SDG compliant and avoids "green washing."



Valuation

Patent data in combination with the Patent Asset Index™ reveals real champions and allows stakeholders as well as shareholders a better decision-making process.



Accessibility

PatentSight has mapped its global patent data base to SDG related tech-fields. This enables non patent experts to easily access their field of interest and gain valuable insights for their analysis.

*Boons, F.; Luedeke-Freund, F. Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. J. Clean. Prod. 2013, 45, 9–19.

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Key Takeaways

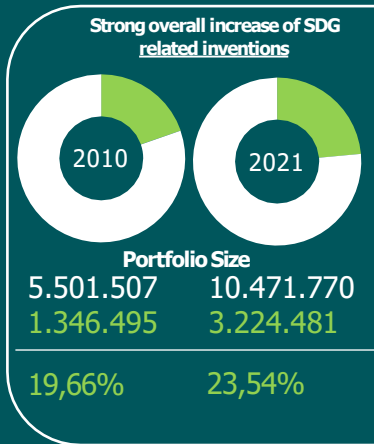
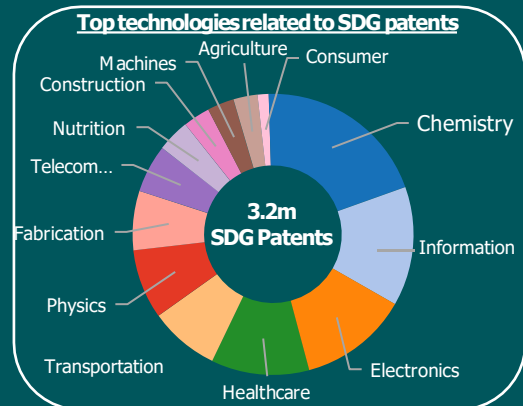
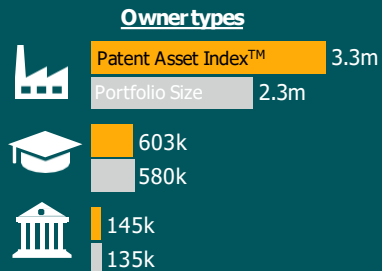
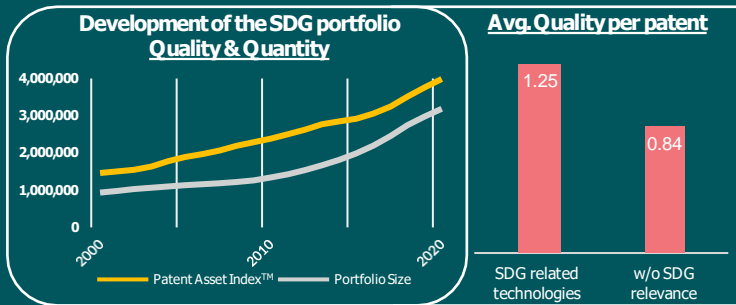
A woman in a red shirt is carrying a large, round, metallic pot on her head. She is standing in front of a blue wall. The background is slightly blurred, showing some greenery. The woman is wearing a red shirt and a patterned shawl. She has several gold bangles on her right wrist. The pot is a large, round, metallic container, likely used for carrying water or other liquids. The overall scene suggests a rural or developing area where water collection is a common activity.

“There’s a realm of difference between those who are trying to make sustainability part of their core business strategy and those who still see it as an “add-on.”

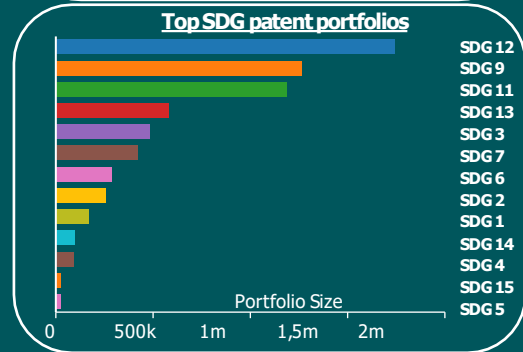
Mark Malloch-Braun

Chairman of the Business and Sustainable Development Commission

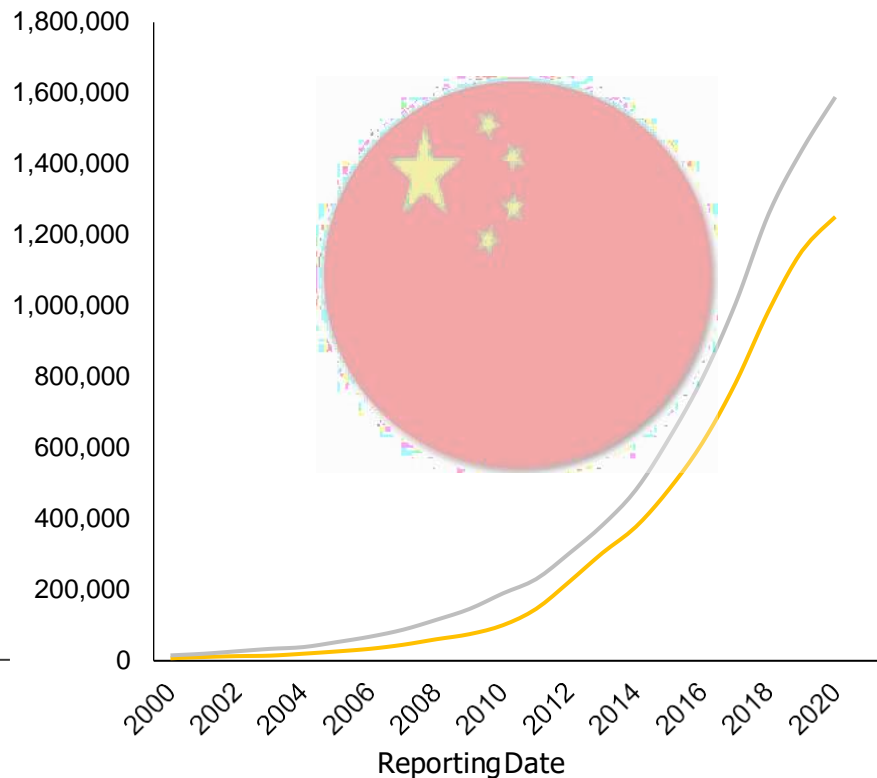
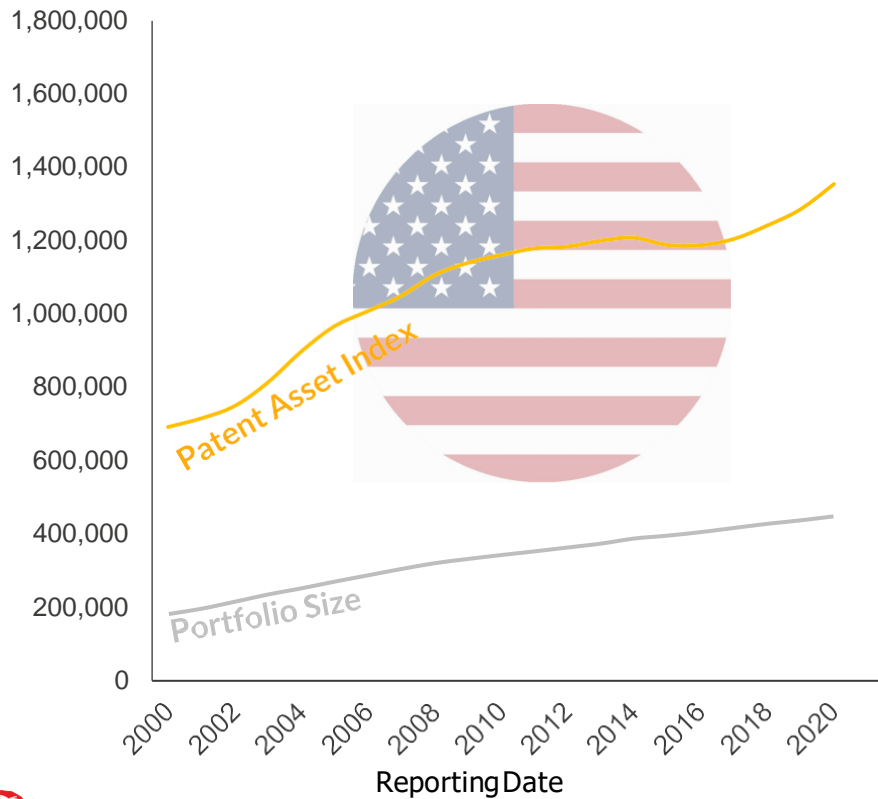
LexisNexis® PatentSight® SDG Dashboard



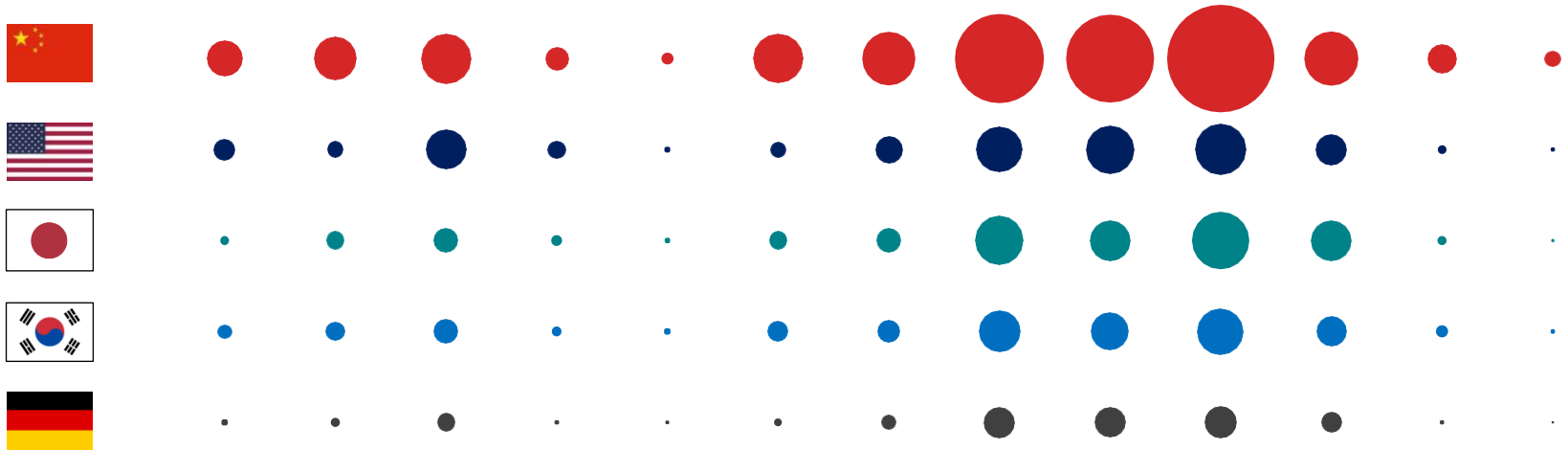
SUSTAINABLE DEVELOPMENT GOALS



Development of patent portfolios related to the UN SDGs in US & CN

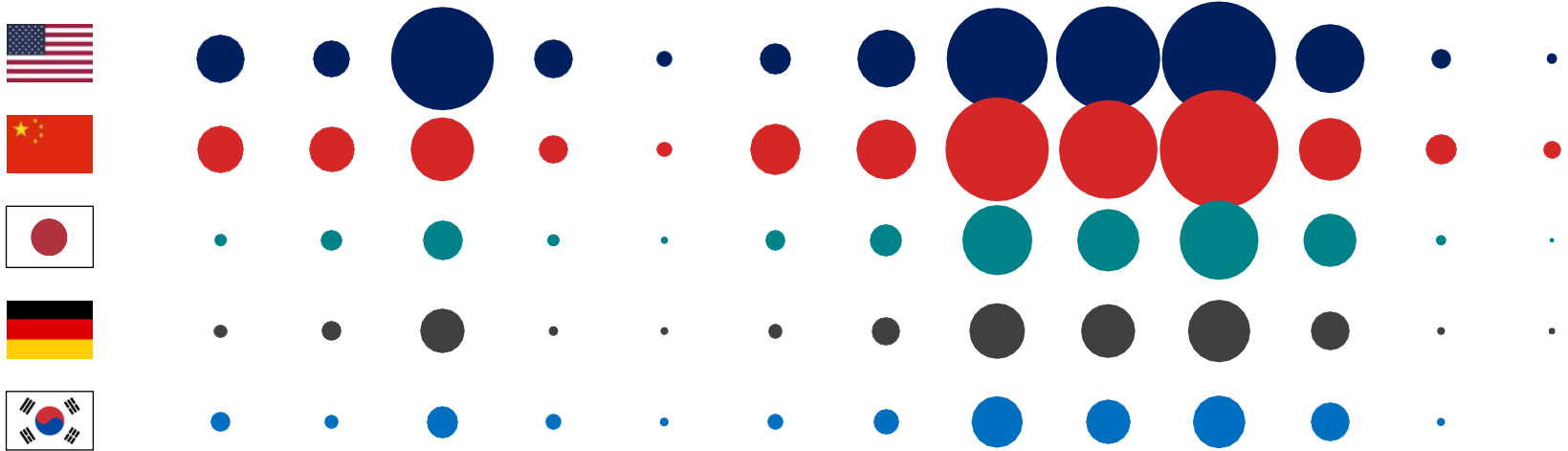


Portfolio Size distribution of the UN SDGs across Top 5 authorities



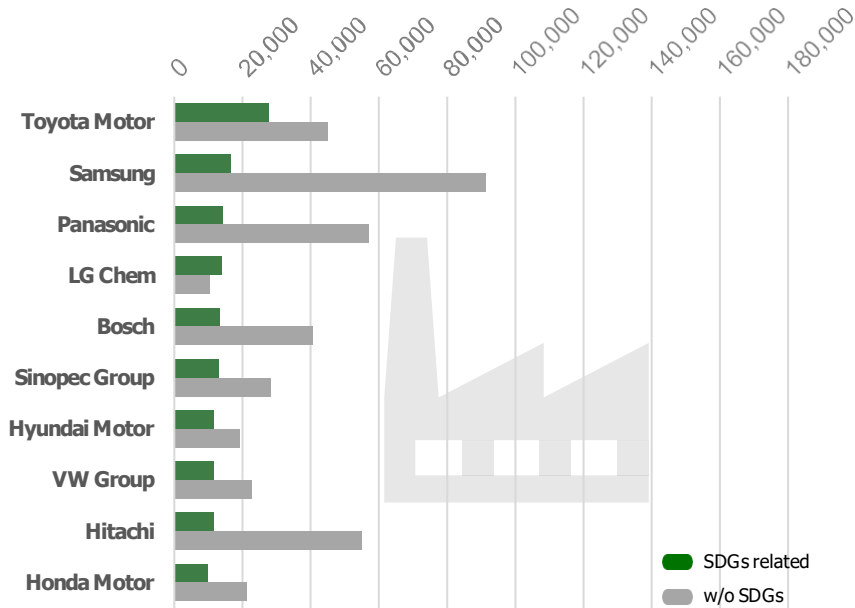
Bubble Area: Portfolio Size

Patent Asset Index™ distribution of the UN SDGs across Top 5 authorities



Bubble Area: Patent Asset Index™

Top 10 Companies in SDG related portfolios vs. not related to SDGs – Portfolio Size (left) and Patent Asset Index™ (right)

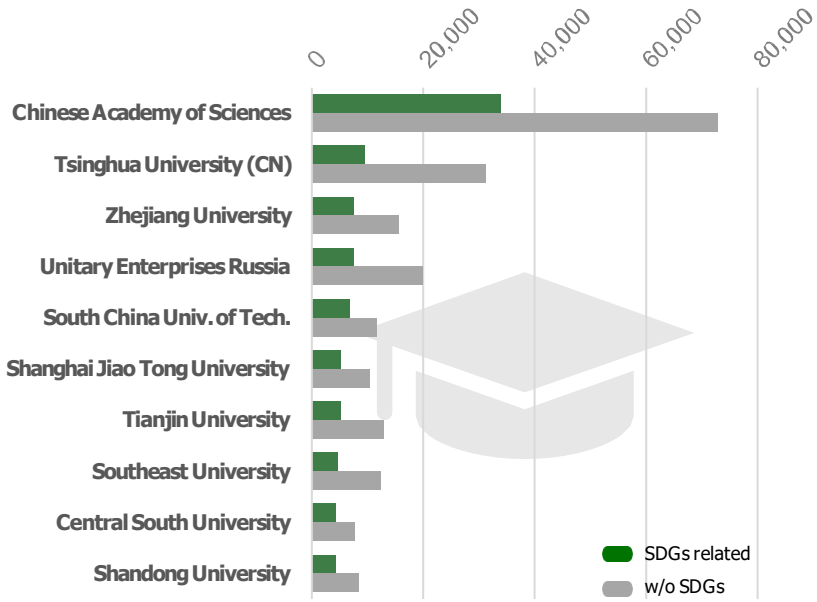


Quantity
Portfolio Size

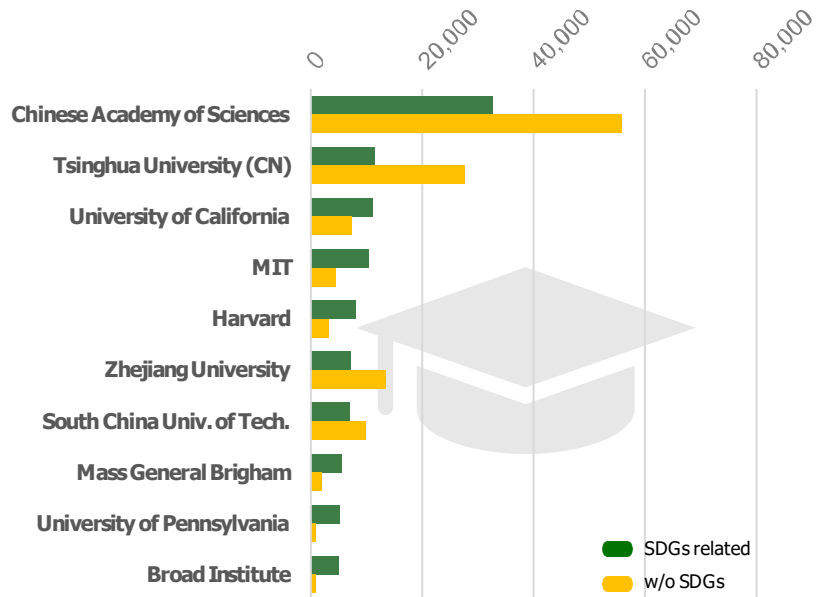


Quality
Patent Asset Index™

Top 10 Academia in SDG related portfolios vs. not related to SDGs – Portfolio Size (left) and Patent Asset Index™ (right)



Quantity
Portfolio Size



Quality
Patent Asset Index™

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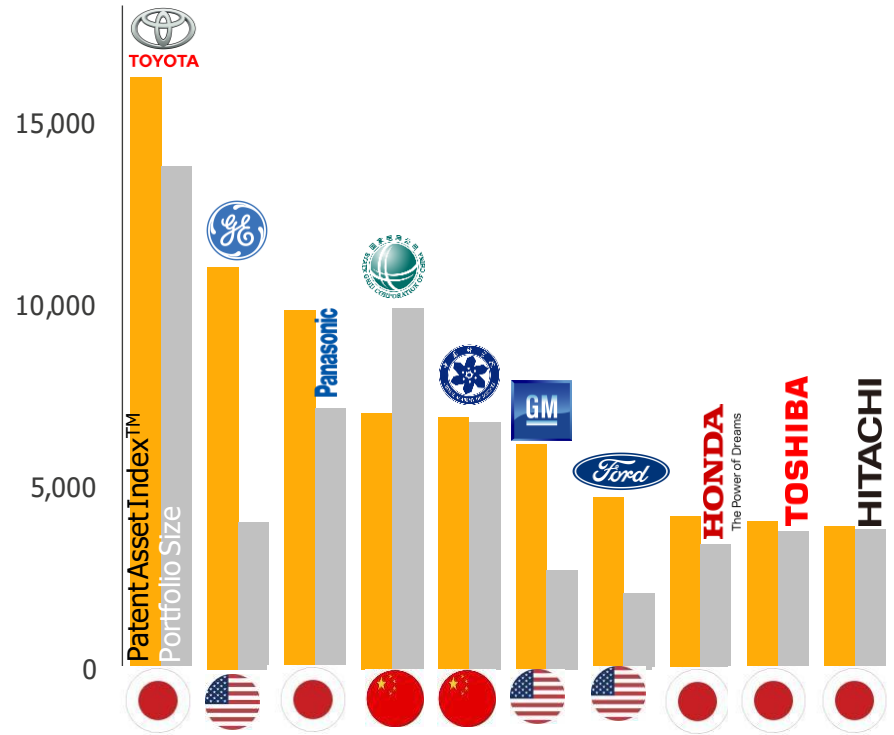
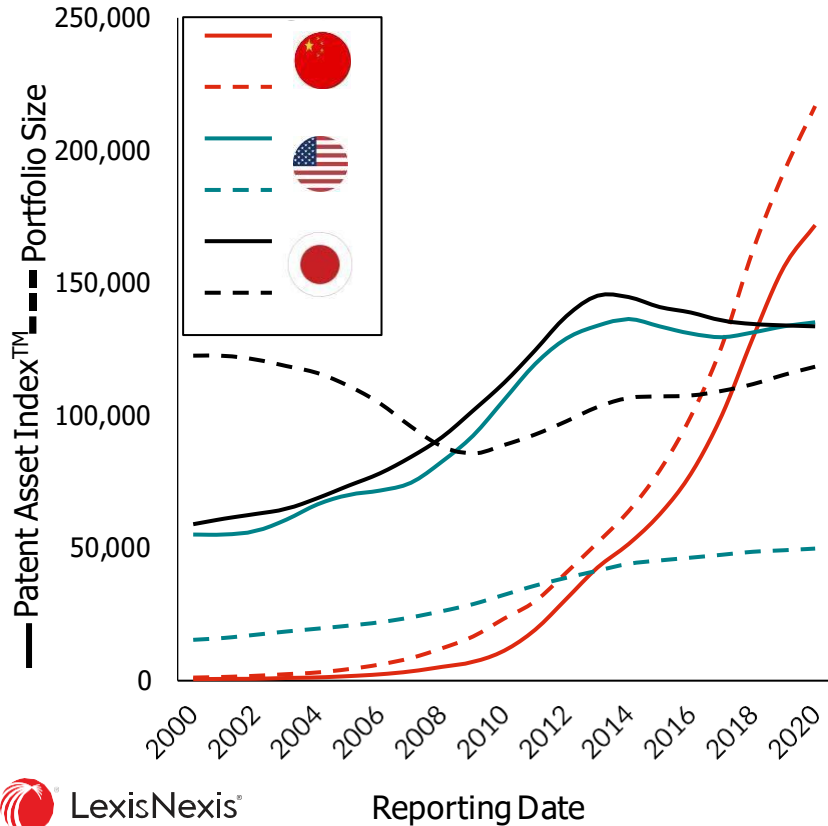
Key Takeaways



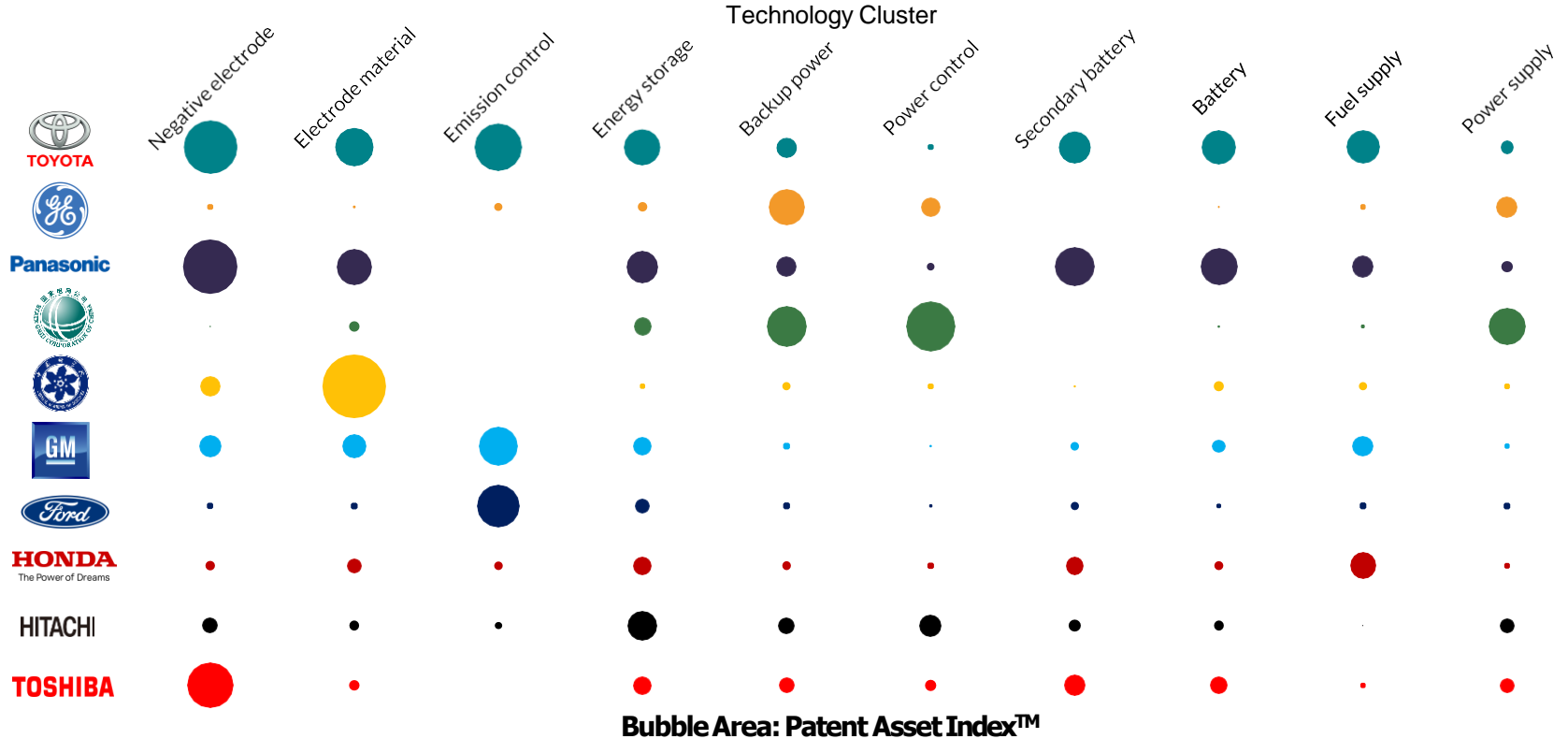
"Every government,
company, and shareholder
must confront climate
change."

Larry Fink
CEO, BlackRock

Development of patents in Climate Action, invented in CN, JP or US and top performing entities in these jurisdictions



Top 10 entities in CN, JP and US in SDG 13 related technologies by field of invention



Agenda

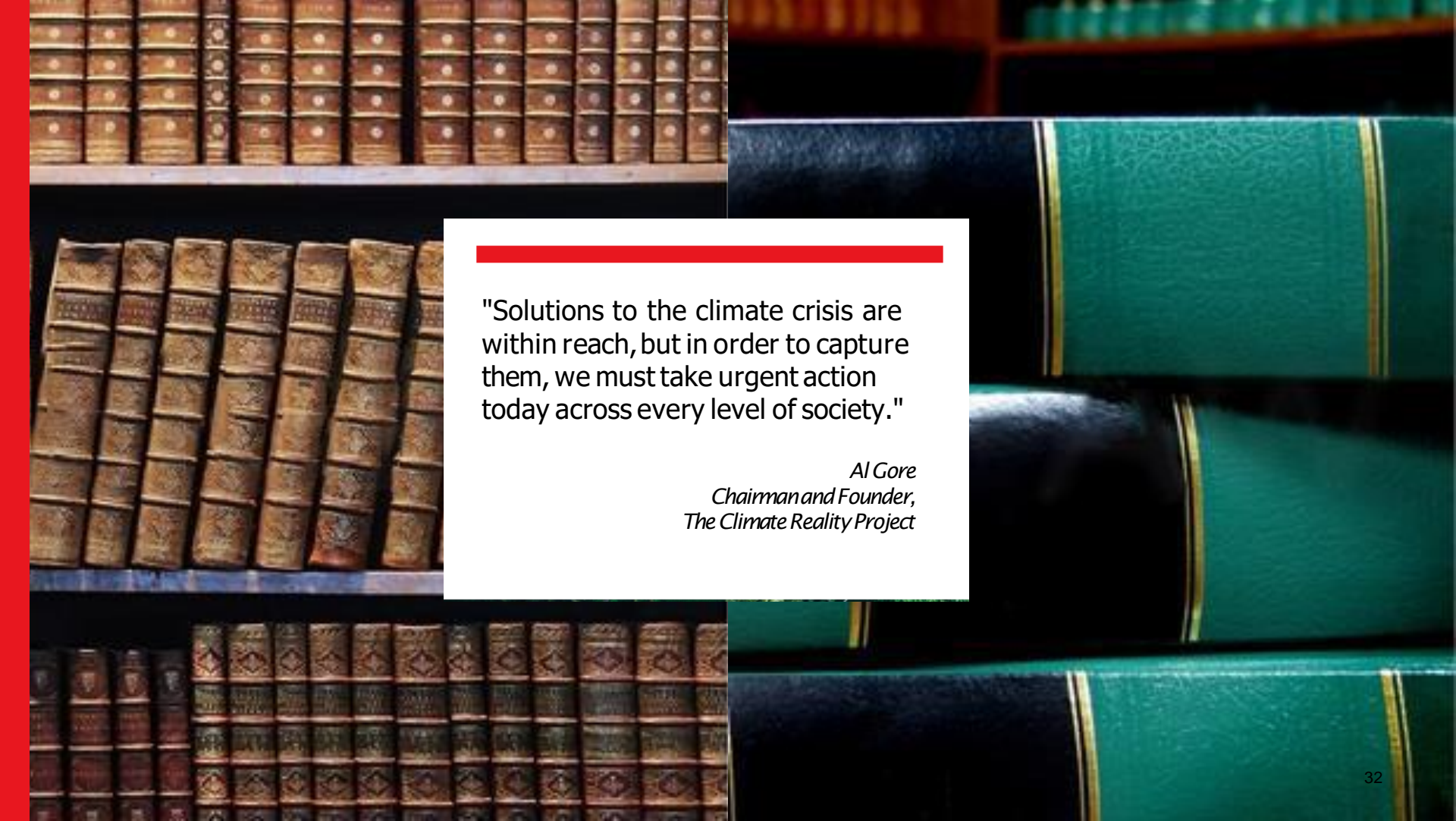
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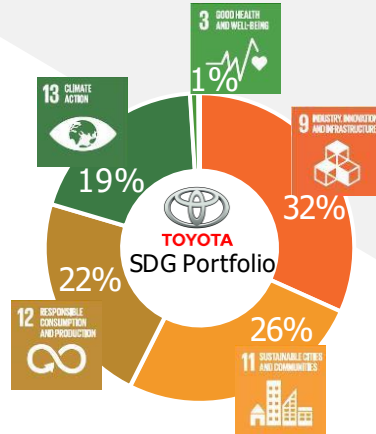
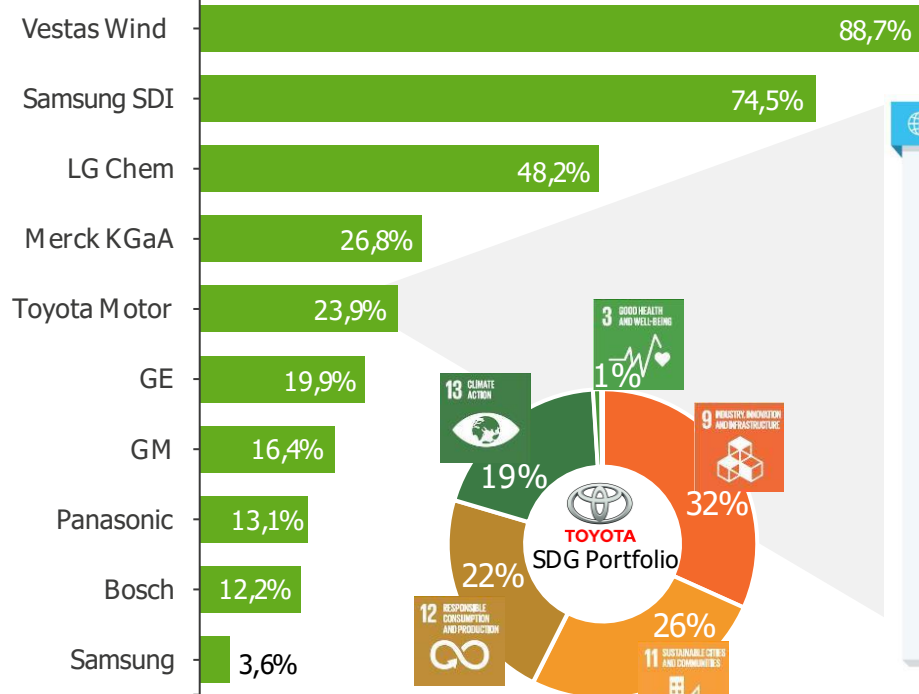
"Solutions to the climate crisis are within reach, but in order to capture them, we must take urgent action today across every level of society."

*Al Gore
Chairman and Founder,
The Climate Reality Project*

Patent data reveals the true effort companies put into more sustainability



Share of Patent Asset Index™ in entire company portfolio belonging to Climate-friendly Technologies (Top 10 Companies in SDG 13 related inventions)



Contributing to solving social issues

Through businesses / Improving value by adapting to CASE

Safe and reliable / **Environment**

Zero deaths and injuries from traffic accidents
Comfortable and congestion-free travels

No one lacking access to means of transportation
Spread of cars serving also as power sources

Use of hydrogen to promote energy diversification

TOYOTA ENVIRONMENTAL CHALLENGE 2050
Zero emissions (zero CO₂ emissions)
Recycling/reuse of resources

By social contribution activities / Aiming to become a reliable corporate citizen

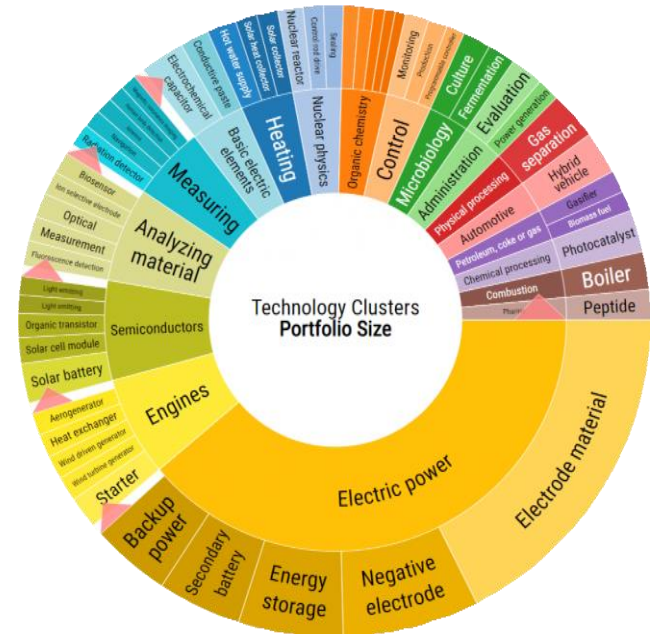
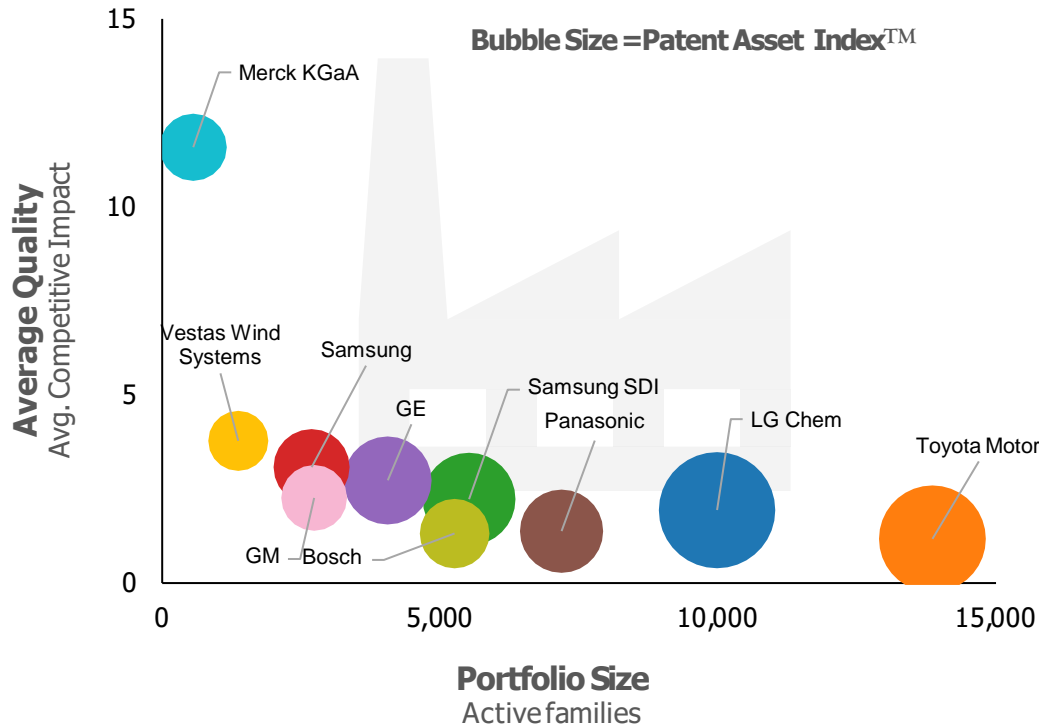
Enhancing ESG

- Tackling human rights issues
- Promoting diversity

Waku-doki (heart-pumping excitement)

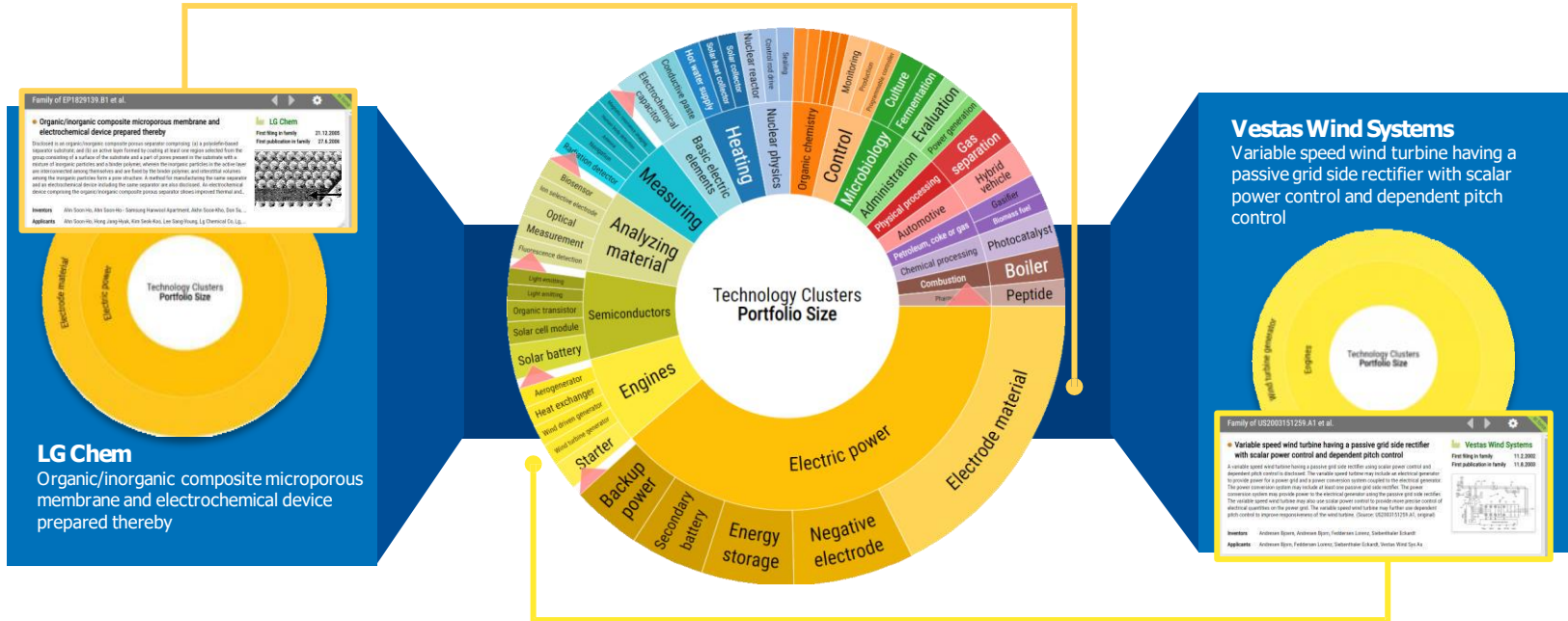
Fun and pleasure of sports and movement

Top 10 portfolios in the field of Climate Action – average quality and fields of application



Active patent families (580.367) in SDG 13 distributed in Technology Clusters (Level 2-3)

Patents with a high average quality in the field of electric power and wind turbine generator— categorized by PatentSight’s Technology Cluster



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Why should lawyers care about the SDGs?



Companies are making the United Nations Sustainable Development Goals strategic to their business, thus aligning their IP strategy with these business objectives.

LexisNexis allows lawyers and patent professionals to quickly familiarize themselves with the patent perspective of the SDGs and understand global, industry and company movements. They will be earlier and better positioned to guide their clients on how to successfully master the adaption of the SDGs in corporate and IP strategies.



Thank you

Marco Richter

Global Lead Product & Customer Success

LexisNexis Intellectual Property Solutions

marco.richter@lexisnexis.com

+49 170 818 8963

www.PatentSight.com

