

W U T I S

Global Markets Division

Waste Management

Investment Horizon: 2 Years

Vienna, June 24th

Team Overview

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1	Global Environment	4
2	Legislative Outlook	7
3	Valuation overview & KPIs	9
4	Individual Company Analysis	12
5	Appendix	20

Human waste production worldwide increases

Especially in least developed areas

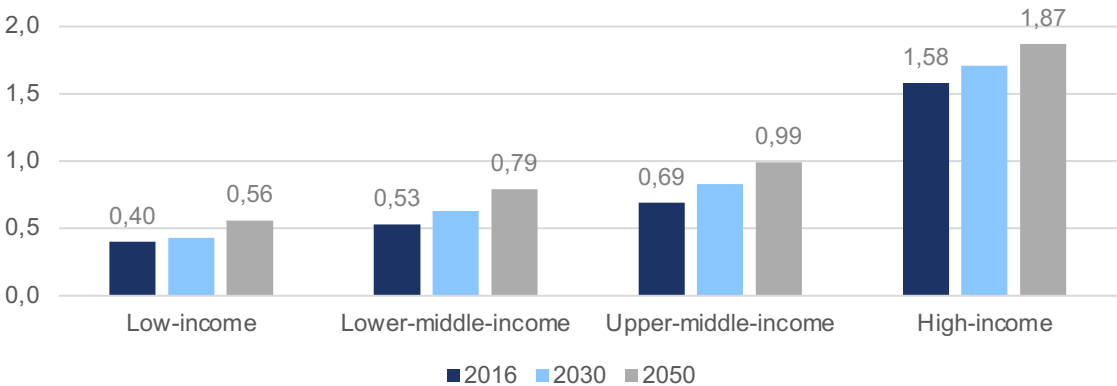
Key aspects:

Population growth

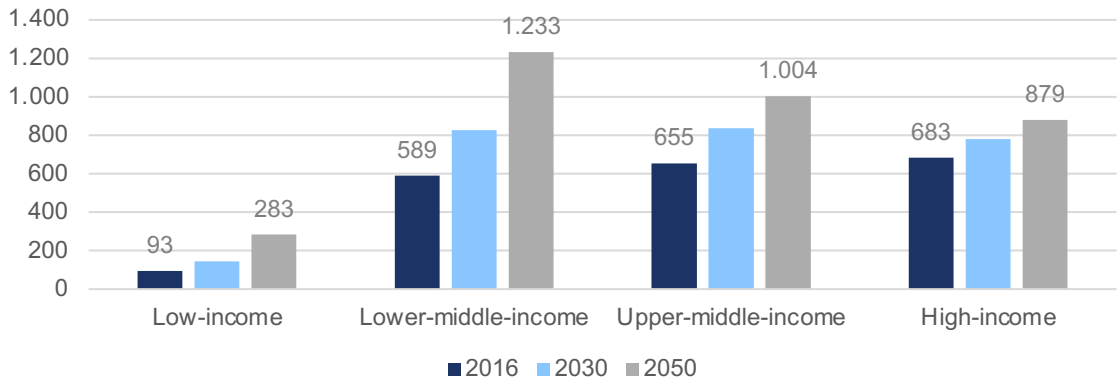
Economic growth

Catching up growth increases waste production

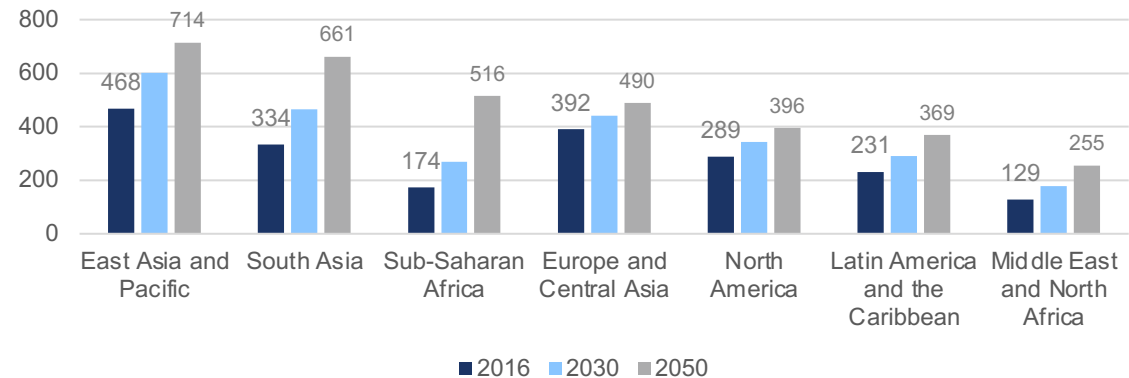
Projected waste generation by income group in kg/day/capita



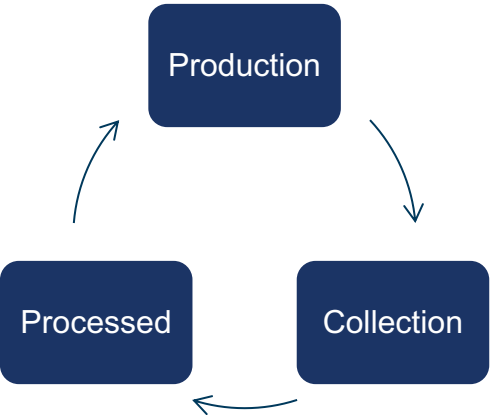
Projected waste generation by income group 2016-2050 in mill. tons



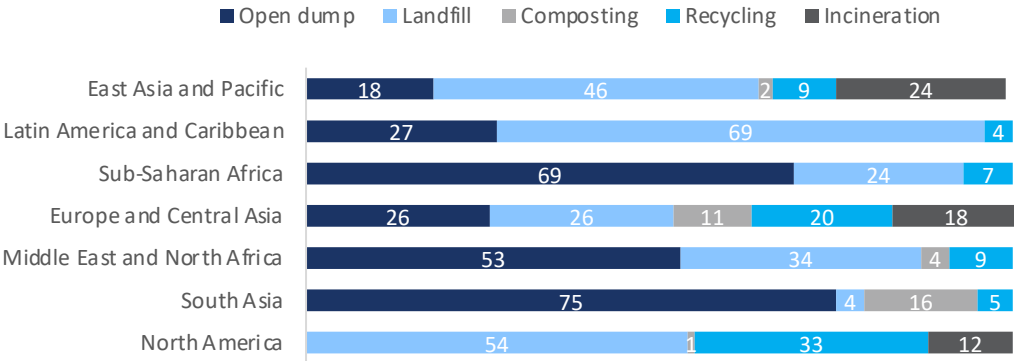
Regional distribution of waste generation 2016-2050



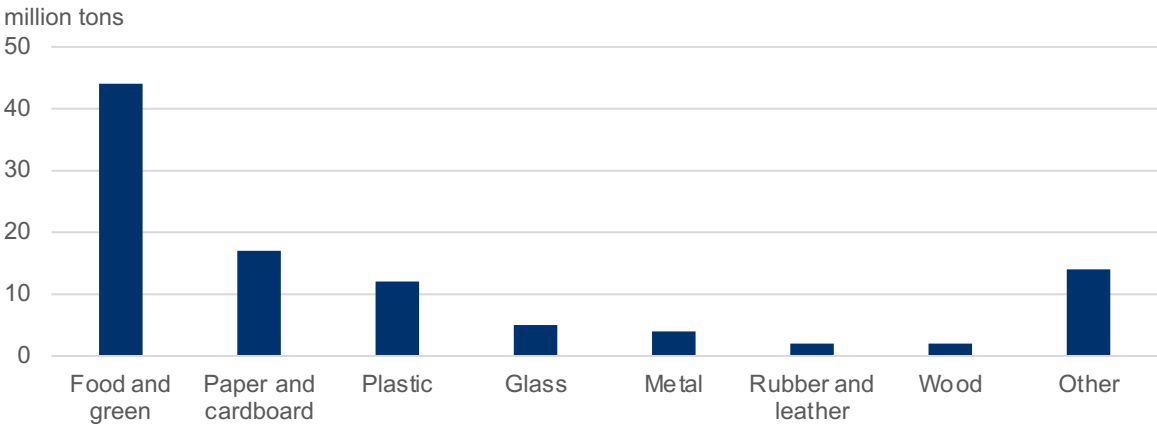
Waste Lifecycle



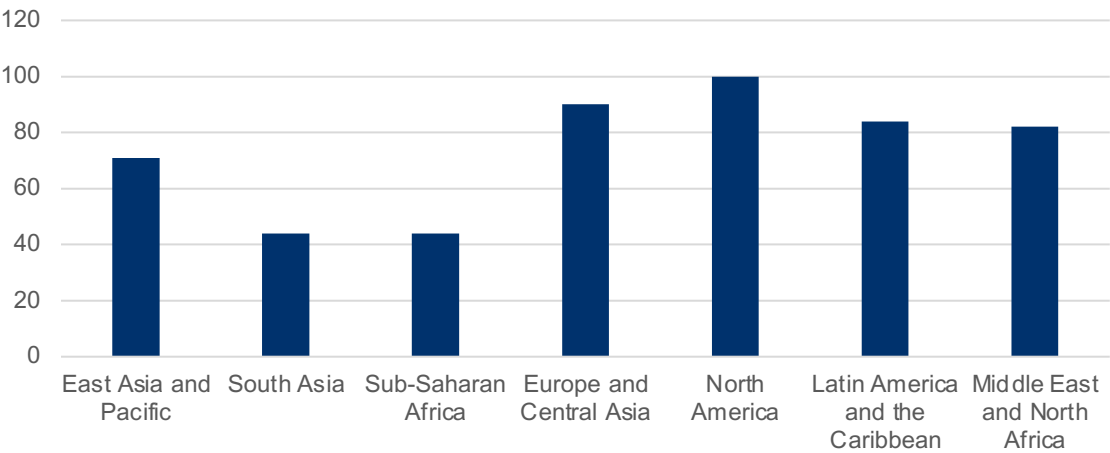
Global regional waste disposal by method in 2016 (in %)



Global waste breakdown by material type 2016



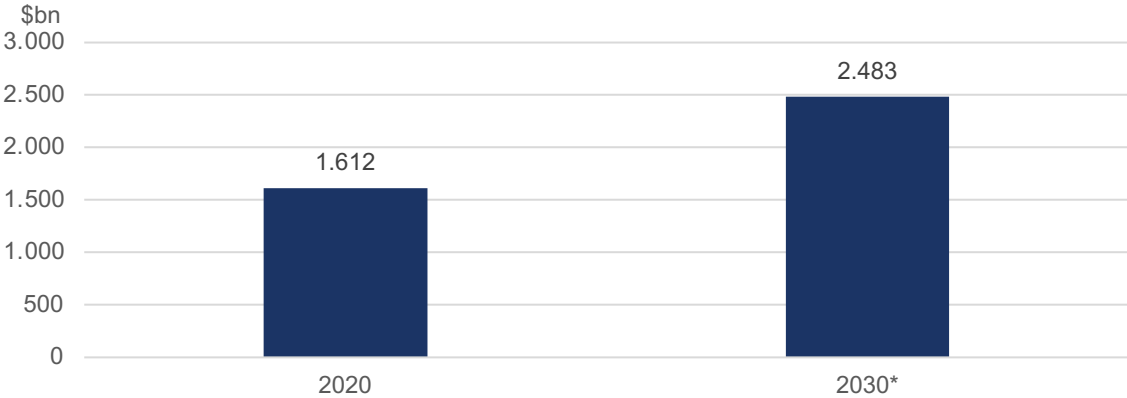
Global waste collection rates



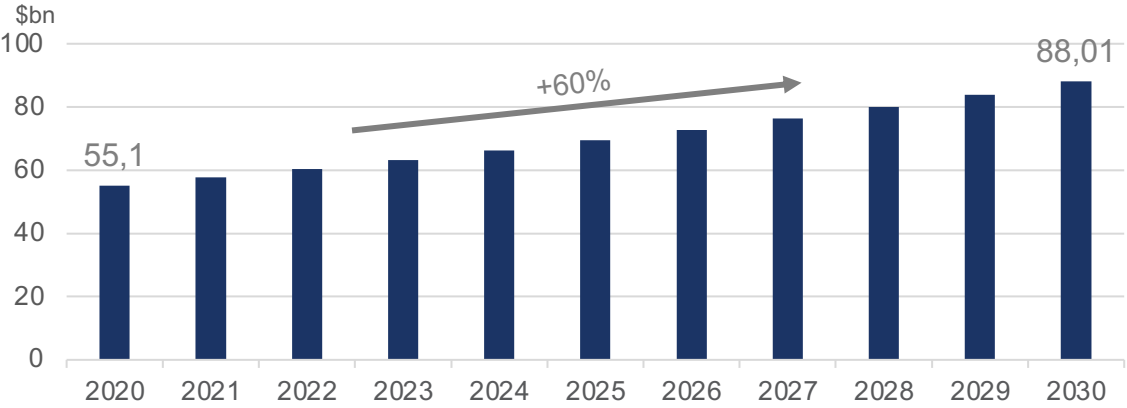
Major Trends



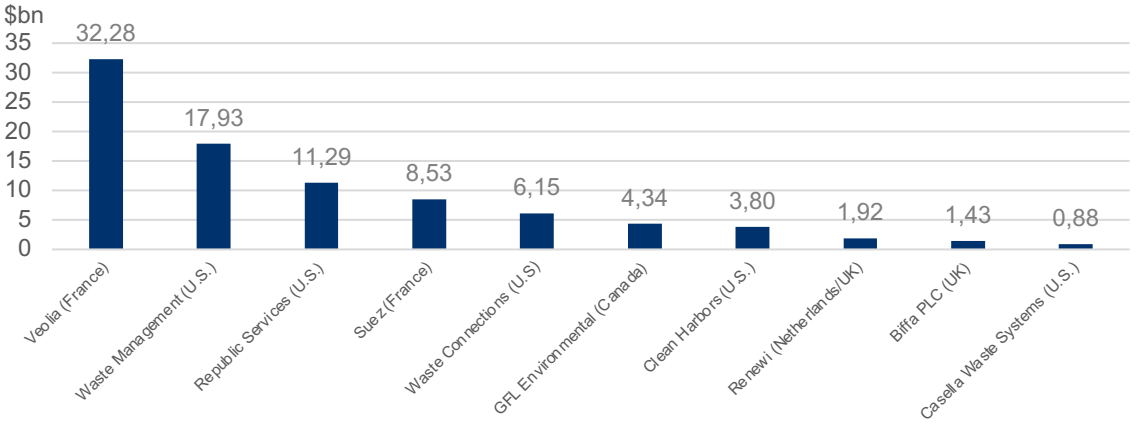
Market size waste management 2020-2030



Waste recycling market size 2020-2030



Revenue leading waste management companies worldwide 2021 (b. \$)



Directives targeted directly towards Waste management and Recycling

Policy objectives and targets	Implications	Target year	Agreement
50 %/55 %/60 %/65 % of municipal waste is prepared for reuse or recycled (differing calculation method for the 50 % target)	Increased supply of raw material input and increase in recycled revenue (30%*)	2020/2025/2030/2035	Legally binding
Reduce landfill to a maximum of 10 % of municipal waste generated	Increased demand for alternative solutions for waste management. Revenue reduction of up to -72%* in landfilling business segment	2035	Legally binding
Specific targets for collection, recycling and/or recovery of packaging waste, construction and demolition waste, WEEE, end-of-life vehicles, batteries, single-use plastics (incl. market restrictions and requirements for recycled content)	Increase in demand for recycled material, increase in demand on the buy side can increase revenue and EBIT. Supply of waste also increases and can cause a higher growth in revenue over time	2008-2035	Legally binding

ESG and EU-Taxonomy

Vision of the EU

- Peruse of **circular economy** with high incentive to recycling and carbon neutrality

Impact on institutions

- Institutional investors are **forced to invest into sectors that are compliant with EU-Taxonomy**

Market impact

- **EU-Taxonomy and ESG goals of the EU** offer return possibilities in these sectors
- Additionally **Waste Management legislations** act as a catalyst to increase growth of sector

Outlook

Bills targeted towards the improvement of Waste Management services

Policy objectives and targets	Implications	Target year	Status
The legislation aims to bolster the U.S. plastics recycling industry's competitiveness in the global market while addressing plastic pollution issues, authorizing \$85 million in funding for 2022 for these programs, then increasing funding each subsequent year by 6.5% through 2026.	The Funding allows for the creation of projects to explore new markets and potentially penetrate new markets	2022-2026	Introduced
The bill would direct the EPA to create a recycling infrastructure pilot program to provide grants between \$500,000 and \$15 million each for projects that make recycling services more accessible to rural and disadvantaged communities that do not have reliable or nearby access to MRFs.	Allowing companies to explore new markets that especially in rural areas of the US	2023-2027	Introduced

Vision of the US

- The US targets a similar goal than the EU, **pursuit of a circular economy** in the long run and to **secure market stability** in the transition period
- The Environmental Protection Agency (EPA) is key to the achievement

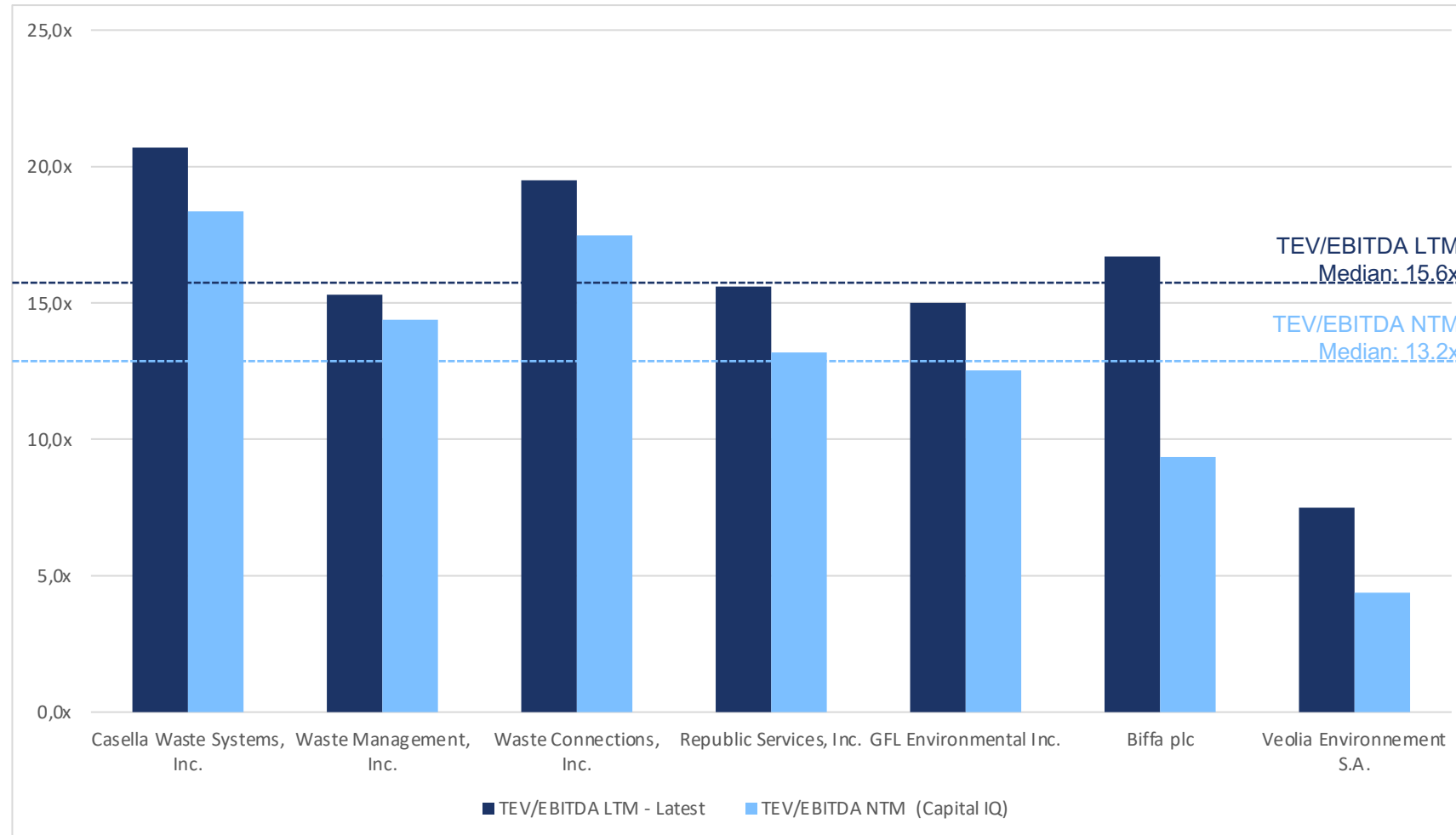
Trends and implications

- The improvement in the market is made through subsidies of **companies and projects that support projects designed by the Federal government**
- **Strengthening** the power of **companies located and active in the US** if compliant with federal law

Comparable Company Analysis

Attractive valuation for Veolia - trading significantly below median TEV/EBITDA

TEV/EBITDA multiples



Screening criteria

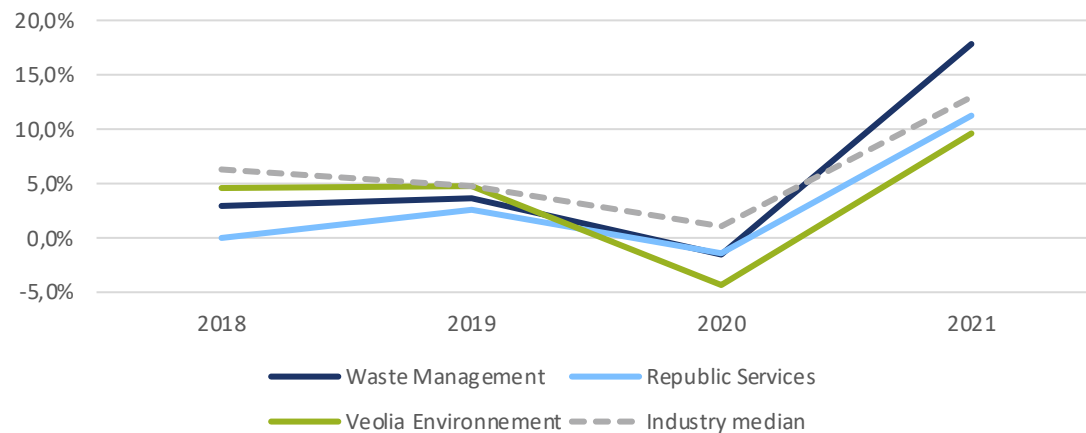
1. Industry classification: **Environmental and Facilities Services (Primary)** OR business description containing “waste management”
2. Geographic location: **Europe or North America**
3. Market capitalization > **1bn USD**

Comments

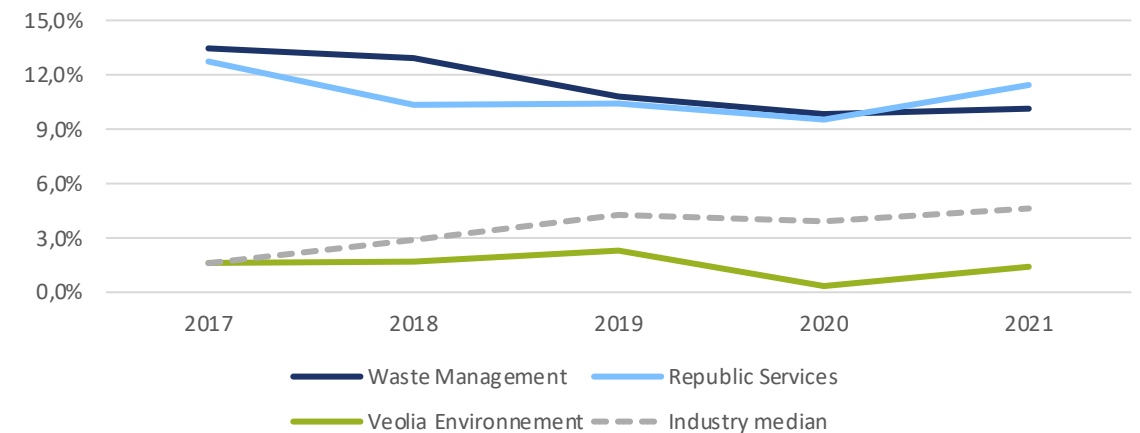
- Casella Waste Systems and Waste Connections trade quite significantly above other players with regard to TEV/EBITDA both on LTM and NTM basis
- **Veolia Environnement** seems to be **attractive due to its low multiples**

Strong net income margins for Waste Management and Republic Services

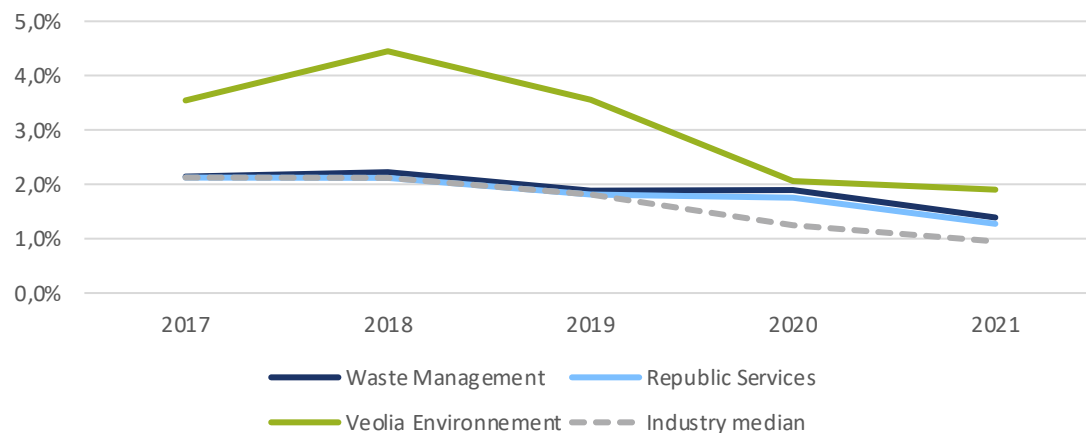
Revenue growth



Net income margin



Dividend yield

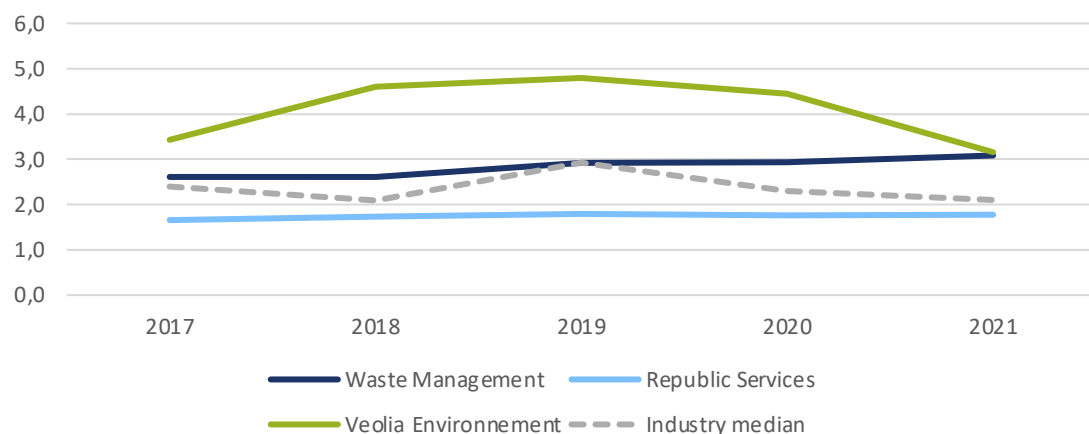


KPI comments

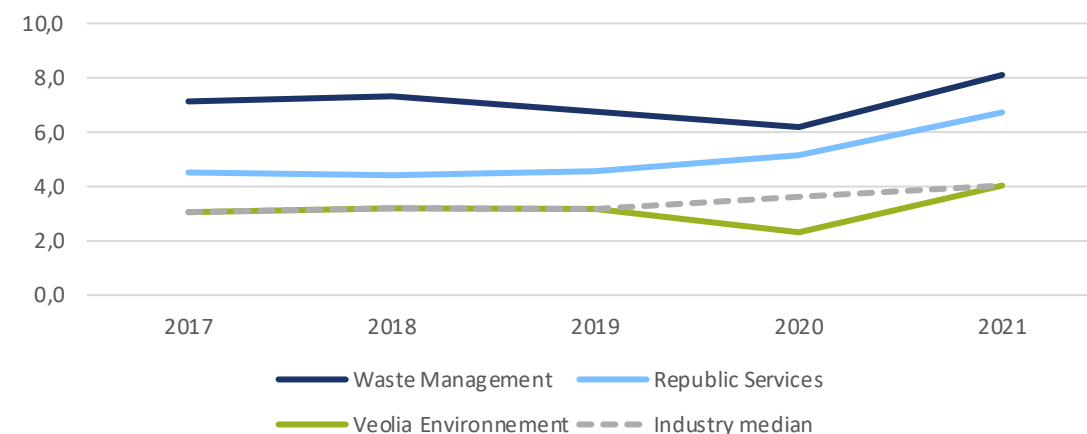
- Waste Management was able to grow its revenue by 17.8% in 2021, substantially higher growth compared to its peers
- Waste Management and Republic Services have significantly higher net income margins compared to the industry
- All three companies have a dividend yield above the industry's median value

Sound capital structure and strong historical performance for WM and RSG

D/E ratio



Interest Coverage ratio



Historical performance

	WM	RSG	VIE	SPY	SXXGR
YTD return	-15.0%	-13.1%	-27.3%	-22.4%	-14.6%
1y return	2.5%	13.0%	-6.6%	-11.8%	-7.7%
3y return	27.7%	45.6%	15.1%	30.5%	14.8%
5y return	109.4%	105.0%	41.0%	64.2%	22.0%
SD p.a.(3y)	24.8%	25.0%	33.3%	23.6%	20.2%
SD p.a.(5y)	21.6%	21.4%	27.9%	20.3%	17.2%
3y beta	0.71	0.77	1.15	1.00	1.00
5y beta	0.69	0.73	1.08	1.00	1.00
3y Sharpe ratio	0.45	0.62	0.41	0.49	0.35
5y Sharpe ratio	0.75	0.73	0.47	0.54	0.35

KPI comments

- With a **D/E ratio of around 3** and an **Interest Coverage ratio of above 8**, Waste Management seems to have no problem to meet its interest rate obligations over the next periods
- Due to additional capital of 2.5 bn EUR, the decrease in the D/E ratio of Veolia can be explained
- Strong **outperformance of Waste Management and Republic Services** on an absolute and risk-adjusted basis

Largest company by revenue operating mainly in Europe

Company description

- Designing and providing Water, Waste and Energy Solutions
- **Largest company by revenue**
- Present on **five continents with 220,000 employees**

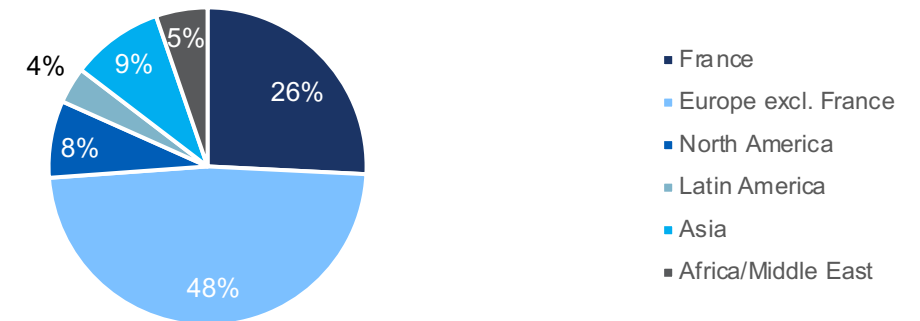
Strategy and outlook

- Investing in **sectors with growing demand**
- **Transform coal-based activities** in Europe
- Reduce presence in mature/commoditized sectors
- Increasing global waste production
- More **demand for recycling solutions**
- High potential in countries with low collection rates

Business Model



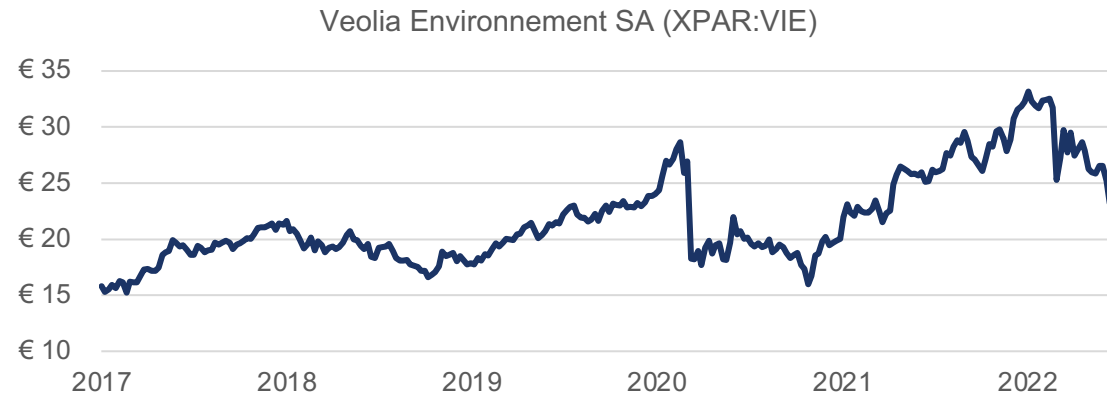
Revenue by region



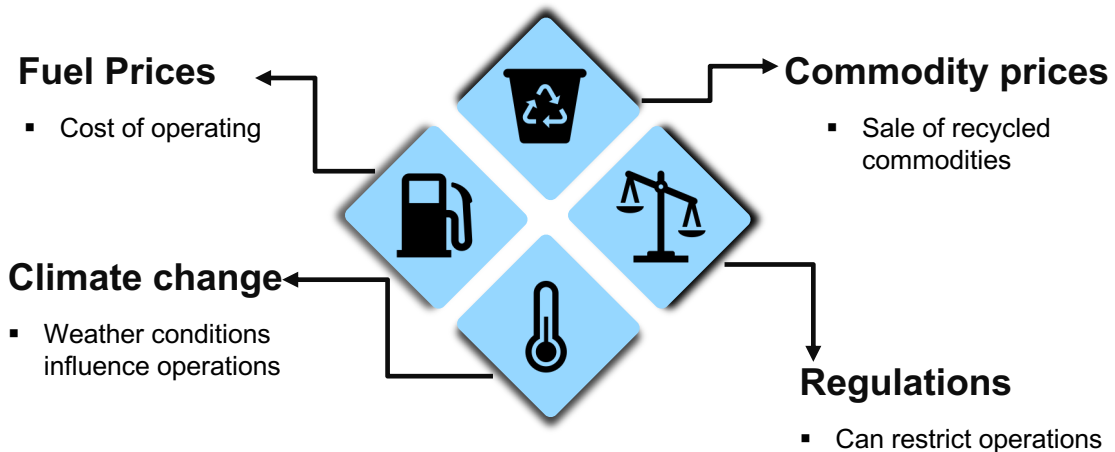
Veolia Environnement S.A.

Company operating in the waste and energy sector

Chart



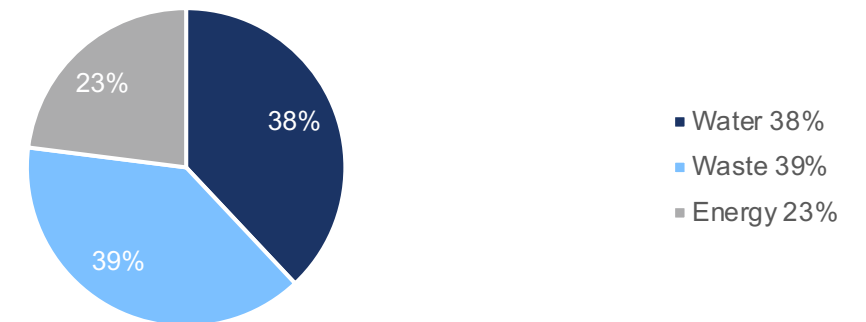
Risks



Key performance metrics

(€ million)	2019	2020	2021
Revenue	27,189	26,010	28,508
Revenue Growth (%)	4.8%	4.3%	9.6%
EBITDA	3,109	2,578	3,150
EBITDA Margin	11.4%	9.9%	11.0%
Net Income	625	88.8	404.3
Current Ratio	0.9	0.9	1.0

Revenue split





Republic Services Inc.

Revenue generated mainly through Collection services

Chart



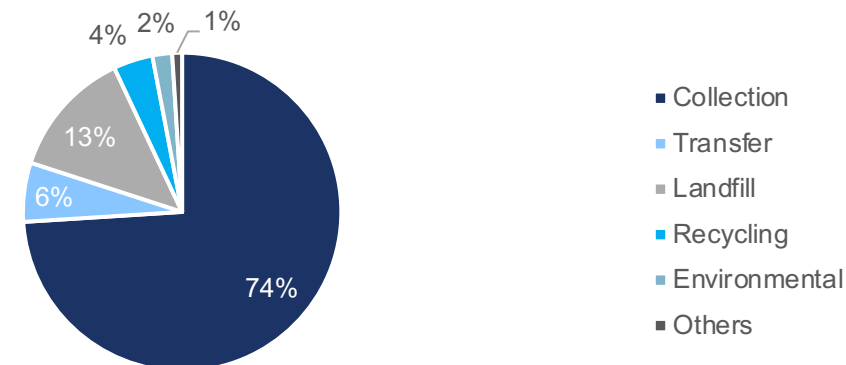
News

- May 2022: Acquisition of US Ecology completed (\$2.2 billion)
- May 2022: Q1 2022 Results
 - Increasing Revenue growth, \$65.6 million in acquisitions
 - Average recycled commodity price increased

Key performance metrics

(\$ million)	2019	2020	2021
Revenue	10,299	10,154	11,295
Revenue Growth (%)	2.6%	-1.42%	11.24 %
EBITDA	2,909	2,951	3,343
EBITDA Margin	28.2%	29.1%	29.6%
Net Income	1,073	962	1,292
Current Ratio	0.5	0.7	0.7

Revenue split



Company description

- A leading **environmental services provider in North America** with nearly 260 landfills
- Founded in 1968
- 48,500 employees and 20 million customers
- Market capitalization of **62.87bn USD**

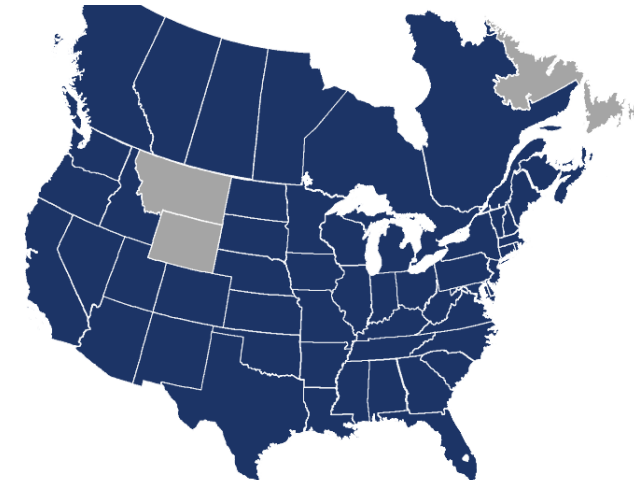
Business Model



Strategy and outlook

- Delight customers through a differentiated experience
- Drive **efficiency through technology**
- Improve **recycling streams through customer education programs**
- **Power 50% of alternative fuel vehicles with renewable natural gas by 2025**
- Reduce GHG emissions by four times until 2038
- Invest \$825 million in the company's RNG infrastructure over the next 3 years

Geography



Waste Management Inc.

Diversified revenue streams

Chart



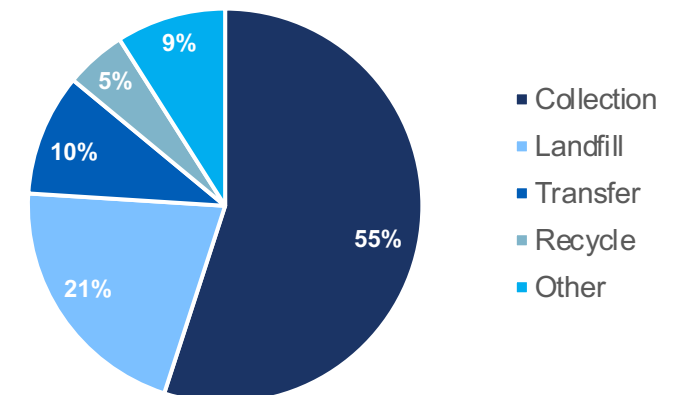
News

- Quarterly cash dividend of \$0.65 per share to be paid on June 17, 2022
- Pricing of \$1 Billion 4.15% Senior Notes due 2032
- Q1 2022 Results
 - Revenue up 13.4%, EBITDA 11.4 %

Key performance metrics

(\$ million)	2019	2020	2021
Revenue	15,455	15,218	17,931
Revenue Growth (%)	3.6%	-1.5%	17.8 %
EBITDA	4,378	4,208	5,075
EBITDA Margin	28.33 %	27.65 %	28.30%
Net Income	1,670	1,496	1,816
Current Ratio	1.98	1.0	0.75

Revenue split



Comparison Waste Management and Republic Services

Two companies sharing similar business activities and risk factors

Business comparison

- Both companies engaged in **similar business activities**
 - Biggest revenue share from collection
- Similar **exposure to changes in fuel prices**
 - Investing in vehicles powered by either CNG or electricity
 - Reducing exposure to fuel prices as well as lowering the cost of operation

Risks

Competition

- Many small competitors

Price fluctuations

- Recycled commodity prices
- Fuel prices

Inflation

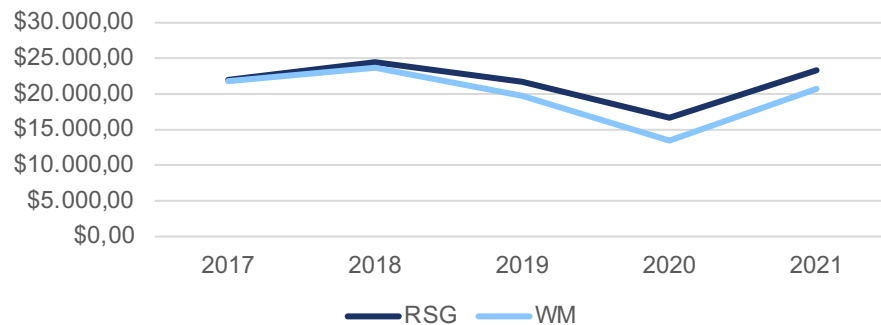
- Contractual limitations to adjust prices can reduce margins

Regulations

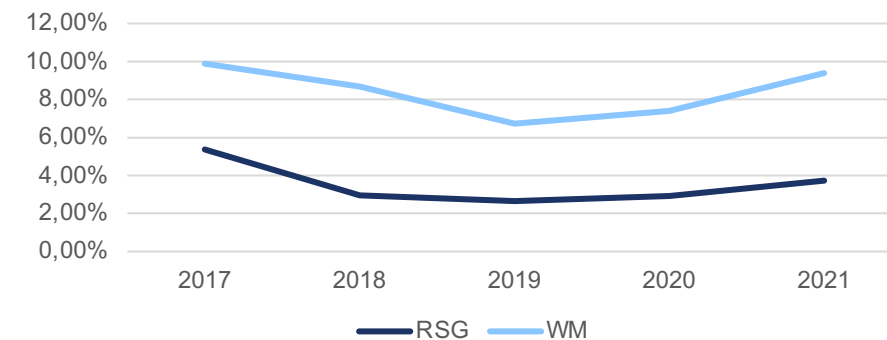
- Can restrict operations

Exposure to price fluctuations

Average fuel expenses per vehicle



Revenue share of Recycling



Market Overview

- **Driving global factors:**
 - Economic growth and population growth
 - Increase in production and increase in demand increase total waste production
- **Additionally:**
 - Economics development leads to increasing demand for waste management services especially recycling (clean environment)
- **High growth areas:**
 - Low-middle income countries in East and South Asia

Risk

- Transportation costs impact revenue (collection)
- Operations will be more restricted

Company Overview

- Veolia Environnement
 - Operating in Waste, Water and Energy
 - Present in Europe as well as less developed countries with high potential
- Republic Services and Waste Management
 - **Stable business environment**
 - **Lowering operational costs** by investing in vehicles powered by renewable energy
 - Profiting from **increasing recycled commodity prices**

Catalysts

- Finalization of **EU-Taxonomy Guideline**
- Implementation of legislative framework
- Veolia: **high energy prices** in Europe increase revenue
- High **prices for recycled commodities**

Appendix

Sources

Source Name	Link	Date of Retrieval	Used for
WM Investor presentation	https://investors.wm.com/static-files/cd669985-02b8-48b3-b2cb-7f1a252b0139	10.06.2022	Geography, business model, strategy and outlook statements.
WM Annual Report 2021	https://investors.wm.com/static-files/6f36d219-fd4c-43ce-93f6-35f5928eb2eb	13.06.2022	Key Performance Metrics, Risk analysis, Company description, Company comparison
First Quarter Earnings Announcement	https://investors.wm.com/news-releases/news-release-details/wm-announces-first-quarter-earnings	16.06.2022	News section
Republic Services Annual Report 2021	https://investor.republicservices.com/static-files/8e17c8a8-4dea-46f3-9253-10abd83d9cb4	17.06.2022	Company Analysis, Company comparison
Republic Services Investor Presentation	https://investor.republicservices.com/static-files/9e79aaee-127b-4d8e-a420-5d952ac4b7bf	16.06.2022	Company Analysis
Veolia Annual Report 2021	https://www.veolia.com/sites/g/files/dvc4206/files/document/2022/04/URD2021%20-%20Veolia%20Environment.pdf	17.06.2022	Company Analysis

Sources

Source Name	Link	Date of Retrieval	Used for
The European Environment State and Outlook 2020	https://www.eea.europa.eu/publications/soer-2020/chapter-09_soer2020-waste-and-resources	07.05.2022	Legislative Environment in Europe
Statista	https://www.statista.com/statistics/1218918/leading-waste-management-companies-in-europe-based-on-revenue/#:~:text=The%20two%20largest%20waste%20management,largest%20waste%20management%20companies%20worldwide	07.05.2022	Identification of prominent players in Europe
Eurostat	https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Municipal_waste_statistics	07.05.2022	Waste production trend in Europe per capita
Statista	https://www.statista.com/study/85571/waste-management-in-europe/	07.05.2022	Waste statistics insight
Assenagon	https://www.assenagon.com/en/newsroom/detail/towards-the-green-economy-assenagon-launches-a-new-type-of-sustainability-fund-based-on-eu-taxonomy	12.06.2022	EU-Taxonomy
US-Federal Government	https://www.congress.gov/bill/	12.06.2022	US-American legislative outlook

Sources

Source Name	Link	Date of Retrieval	Used for
Waste Framework Directive (EU, 2008, 2018b)	https://www.eea.europa.eu/publications/soer-2020/chapter-09_soer2020-waste-and-resources	07.05.2022	Legislative Environment in Europe
Landfill Directive (EU, 1999, 2018a)	https://www.eea.europa.eu/publications/soer-2020/chapter-09_soer2020-waste-and-resources	07.05.2022	Legislative Environment in Europe
Waste Framework Directive (EU, 2008, 2018b), Packaging Waste Directive (EU, 1994, 2018c), WEEE Directive, ELV Directive (EU, 2000), Batteries Directive (EU, 2006); Single-use Plastics Directive (EU, 2019b))	https://www.eea.europa.eu/publications/soer-2020/chapter-09_soer2020-waste-and-resources	07.05.2022	Legislative Environment in Europe
H.R.2821 - Plastic Waste Reduction and Recycling Research Act	https://www.congress.gov/bill/	12.06.2022	US-American legislative outlook
The bill would direct the EPA to create a recycling infrastructure pilot program to provide grants between \$500,000 and \$15 million each for projects that make recycling services more accessible to rural and disadvantaged communities that do not have reliable or nearby access to MRFs	https://www.congress.gov/bill/	12.06.2022	US-American legislative outlook

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WM Annual Report 2018	http://investors.wm.com/static-files/2e8f5f77-480c-4fdb-aeff-f6b0338f8df5	22.06.2022	Company comparison
WM ESG Data Center	https://sustainability.wm.com/esg-data-center/	22.06.2022	Company comparison
Republic Services Annual Report 2020	https://investor.republicservices.com/static-files/141357f1-65e4-4e4d-a78c-833c2bd7aabd	22.06.2022	Company comparison
Republic Services Annual Report 2019	https://investor.republicservices.com/static-files/032aa1b1-81cc-4bb8-b5c1-000d6e8e361e	22.06.2022	Company comparison
Republic Services Annual Report 2018	https://investor.republicservices.com/static-files/0cfc3c8f-9d47-408d-8b12-a813aca7948a	22.06.2022	Company comparison
Republic Services Annual Report 2017	https://investor.republicservices.com/static-files/0deaca27-4665-4319-bbb9-bc38da9cea94	22.06.2022	Company comparison