

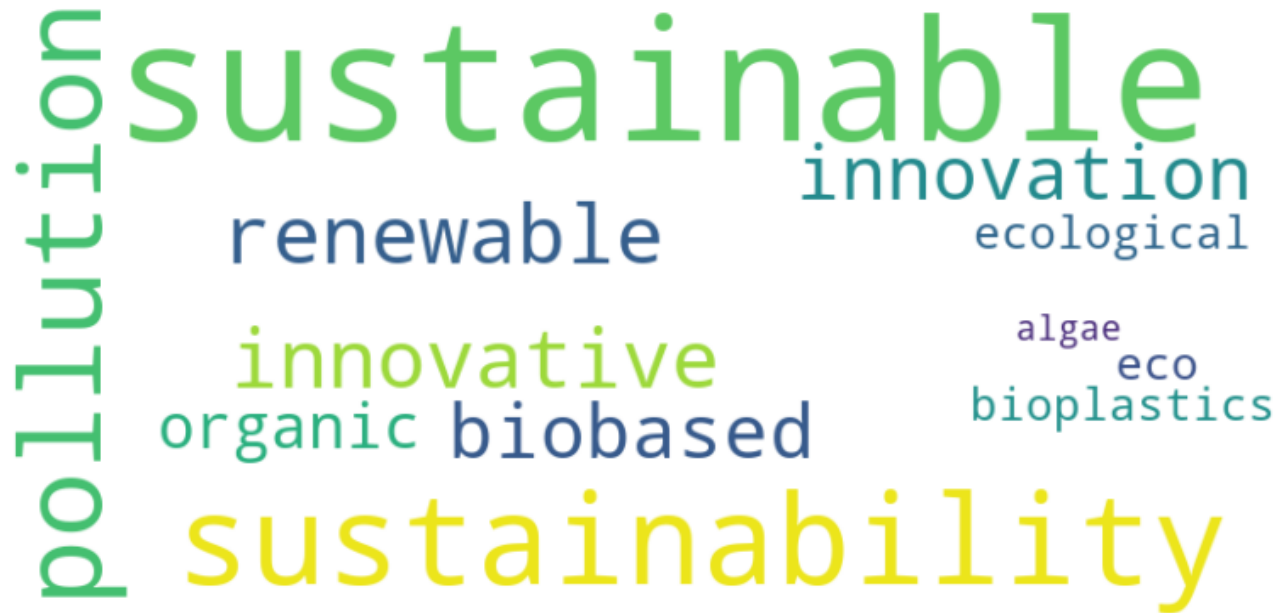
TRANSITIONLAB 3



Chair of Business Information Systems and Digital
Transformation (SAP-endowed)
University of Potsdam

BIOTEXFUTURE
TRANSITION LAB

Word Cloud of Keywords



Insight Session -

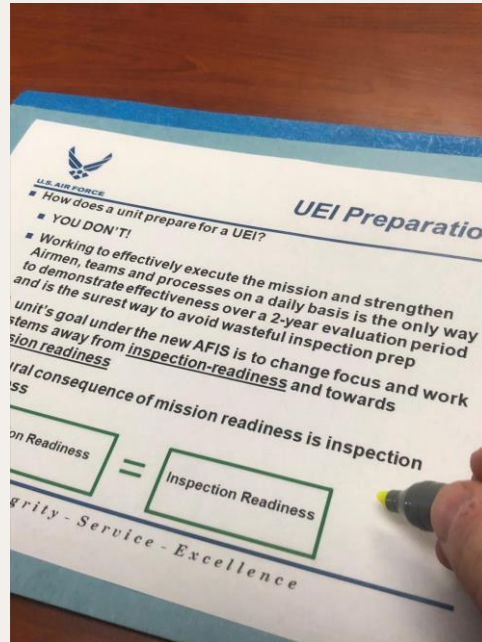
Stakeholder analysis & survey
results

23-08-2024

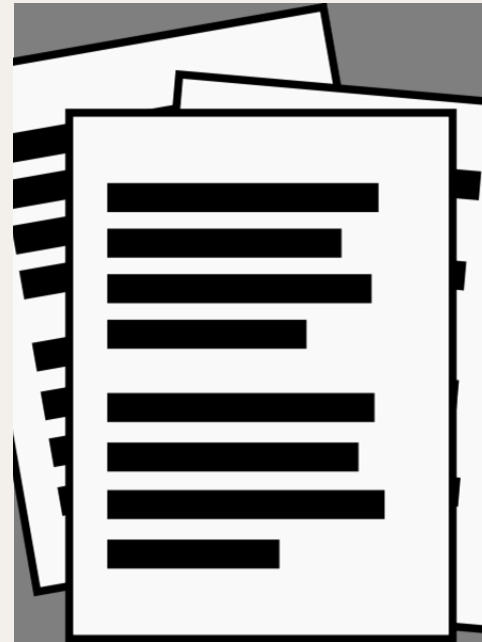
Content



Twitter Data



Account search and Survey



Stakeholder classification



Topics and Sentiment

Twitter Data

Tlab2 - 2022-06

- Dataset = 66.587 tweets
- Keyword based tracking
- Backtracking possible

Twitter -> X

- No Research API
- Very limited available data
- Max. 10.000 Tweets per month

Tlab3 - Data Tracking

- Limited by 10.000 tweets
- Keyword based tracking ≠ possible
- Only 7 days backtracking possible

Solution:

Account specific Tracking:

- Analysing the most important Accounts for the stakeholder groups
- Track all tweets from that subset of stakeholders
- Analyse Topic and Sentiments of these subsets accounts as representatives of the stakeholders groups

Account Search and Survey

Relevance Analysis of Stakeholder:

Automatic:

- Filtering of dataset
- Highest network impact (pagerank)
- Highest followers
- Highest retweet

by hand & survey:

- Current activity
- Content
- Relevance
- Survey recommendations

Manual twitter search:

- Keywords
- Twitter recommendations
- Account friends and followers

Account Search and Survey

Not in dataset	
European Bioplastics	EUBioplastics
Stella McCartney	StellaMcCartney
FairtradeDeutschland	Fairtrade_DE
Fridays for Future Germany	FridayForFuture
Patagonia	patagonia
Leonardo DiCaprio	LeoDiCaprio
Luisa Neubauer	Luisamneubauer
Catherine Abreu	catabreu_
Being Human Clothing	bebeinghuman
Elizabeth L. Cline	elizabethcline
Reformation	Reformation
Mary Hall	Recessionista
CFDA	CFDA
UN Environment Programme	UNEP
Guardian Environment	guardianeco
Ethical Brand Directory	EthicalBrandAZ
NewClimate Institute	newclimateinst



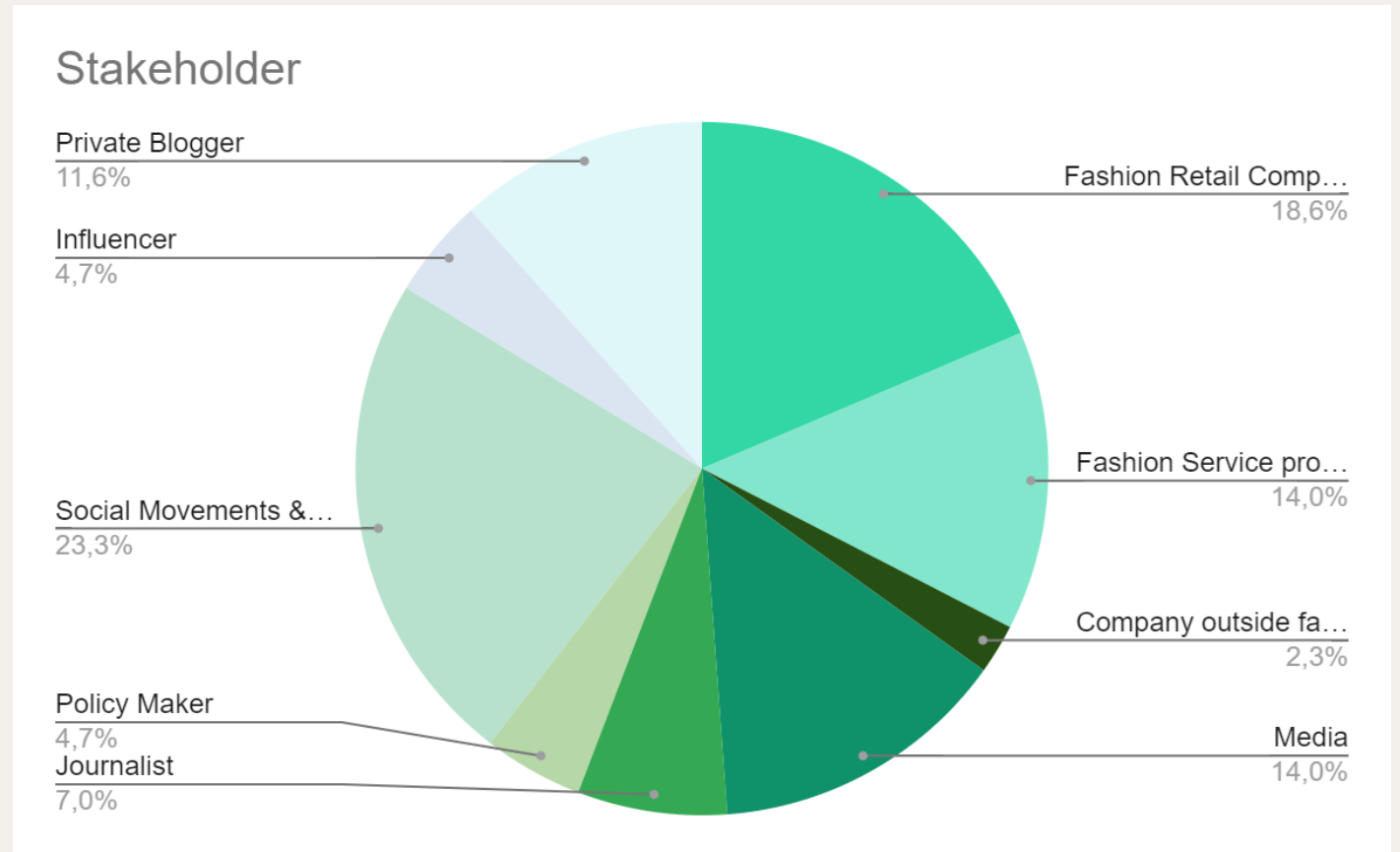
From the dataset	
Fashion for Good	FashionforGood
RedCarpetGreenDress™	RedCarpetGreenD
SAMURAI	samurai_sports
BFC	BFC
PETA UK	PETAUK
Apparel Insider	apparelinsider
Ecotextile News	ecotextile
Global Fashion Agenda	GFAgenda
The Sustainable Angle	Sustainable_Ang
TextileExchange	TextileExchange
Remake	remakeourworld
patagoniaeuropa	patagoniaeuropa
VEJA	vejaproject
Venetia La Manna	venetialamanna
United Nations	UN
Ecovative	ecovative
Danielle Goodwill Hunting	DLVermeer
Textile Learner	TextileLearner
CIWM	CIWM
Drapers	Drapers
VegNews	VegNews
Vegan Future	veganfuture
WWD	wwd
Guardian Fashion	GuardianFashion
UN Environment Programme West Asia	UNEP_WestAsia

Stakeholder

Fashion Retail Company	Companies, organizations or individuals who are producing or selling sustainable textiles or fashion	Niinimaki (2020)
Fashion Service Provider	Digital products and services in the sustainable textiles and fashion area	Inductive
Company Outside of Fashion Industry	Companies that engage in public communication about sustainable fashion but do not operate in the sector from a business perspective or financial perspective	Inductive
Media	Media organizations, that report or communicate about sustainable fashion	Niinimaki (2020)
Journalist	Journalist or bloggers that report or communicate about sustainable fashion	Inductive
Research	Academic institutions or researchers	Ki (2020)
Policy Maker	Legislators who can influence a company's business operations through statutory provisions or regulations	Menke (2021)
Social Movements & Groups	Non-profit organizations and independent social groups that are focused on climate or sustainability	Menke (2021)
Influencer	Actors with a high number of relationships and influence on organizational stakeholders through content production, content distribution, interaction, and personal appearance	Enke & Borchers (2018)
Private Blogger	Individual which posts regularly about his/her life and has no financial interest in doing so	Niinimaki (2020)
Private Person	Individuals that engage in public communication about sustainable fashion	Inductive

Stakeholder Classification

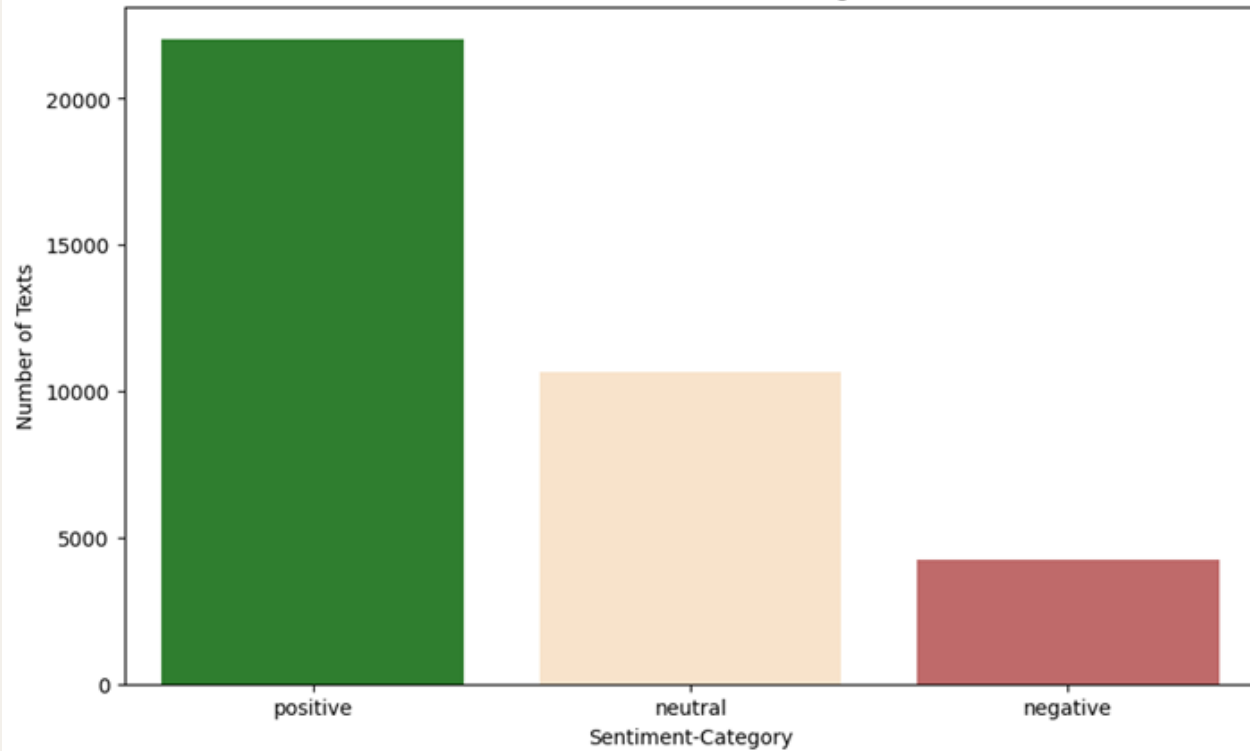
Stakeholder	Count
Fashion Retail Company	8
Fashion Service provider	6
Company outside fashion industry	1
Media	6
Journalist	3
Research	0
Policy Maker	7
Social Movements & Groups	16
Influencer	2
Private Person	0
Private Blogger	5
Gesamt	54



Sentiment analysis

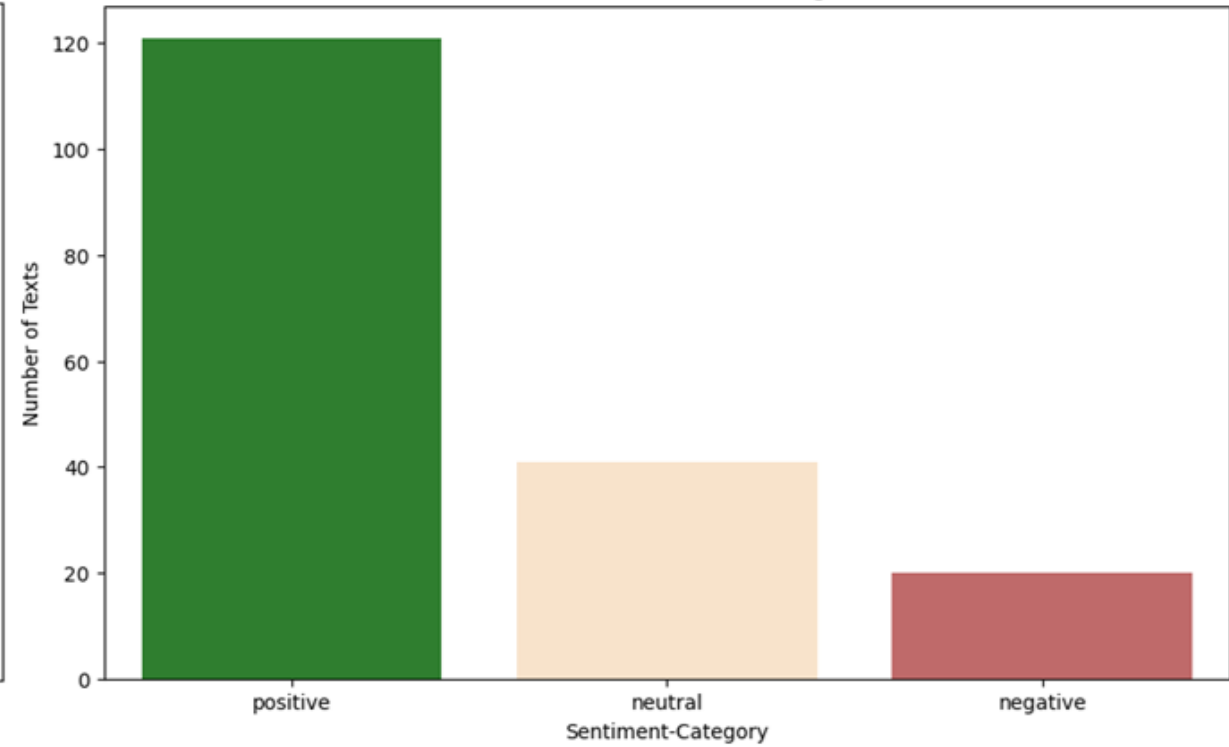
Whole dataset

Distribution of sentiment categories



Account sample dataset

Distribution of sentiment categories

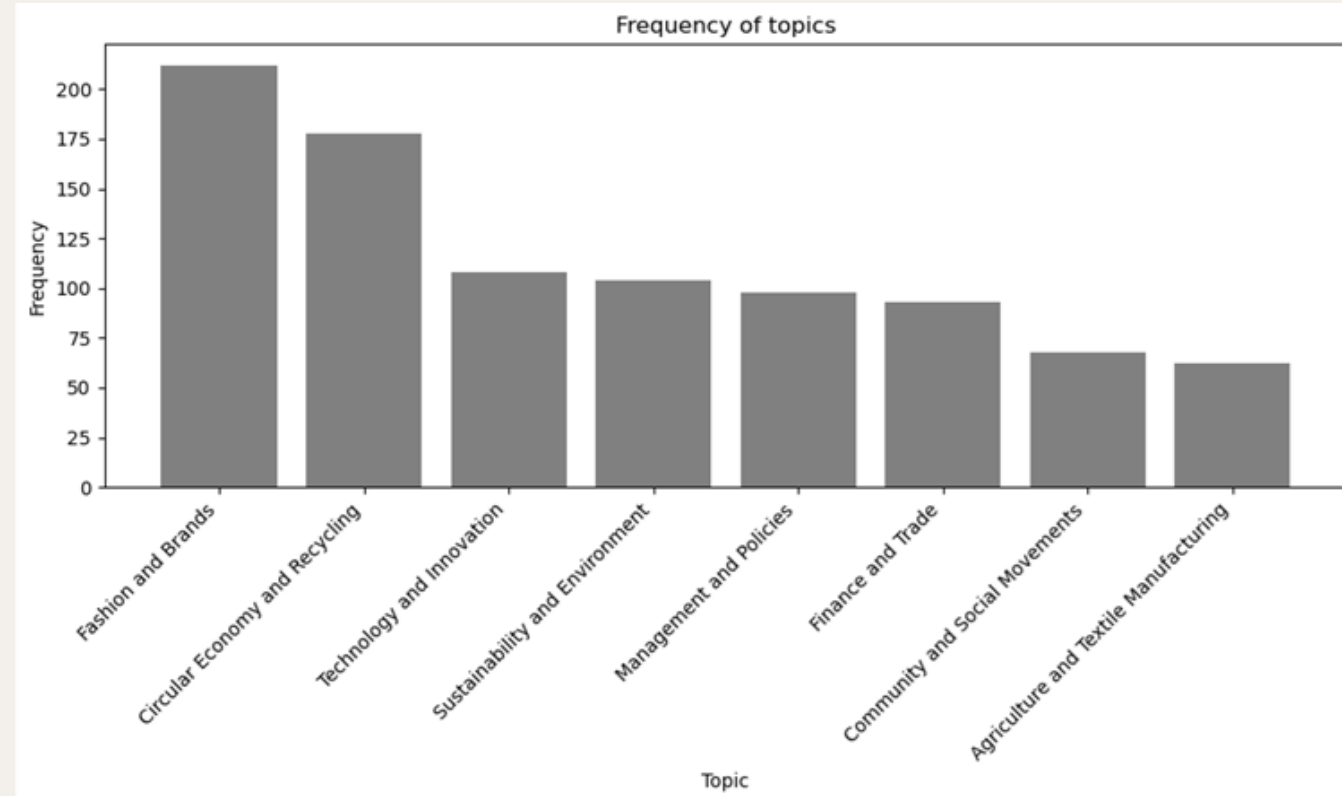


Topics analysis

Manual analysis: Account dataset sample of 182 Tweets by 3 researchers

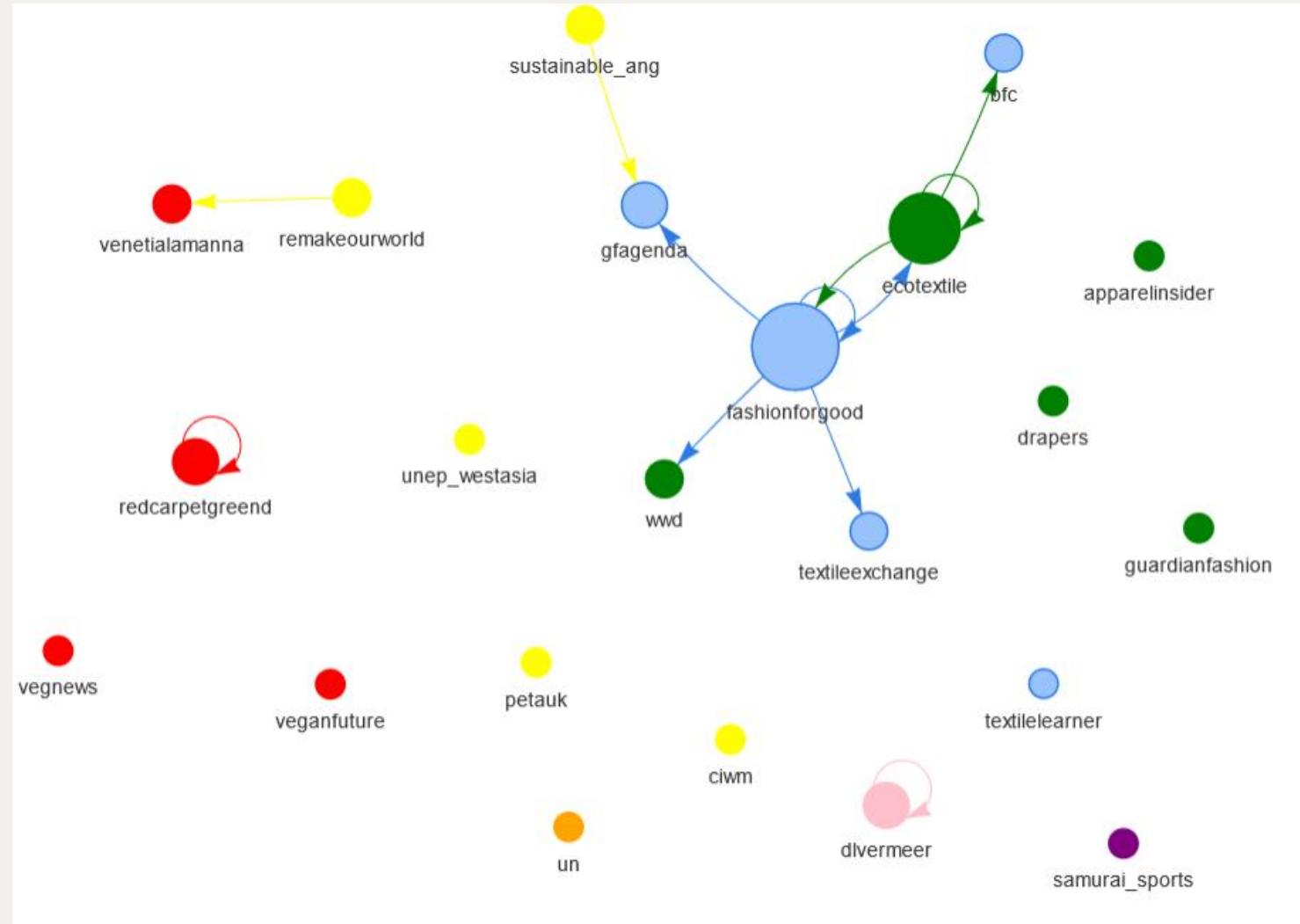
Key themes for sustainable fashion:

- **Topic 1:** Fashion and Brands
- **Topic 2:** Circular Economy and Recycling
- **Topic 3:** Technology and Innovation
- **Topic 4:** Sustainability and Environment
- **Topic 5:** Management and Policies
- **Topic 6:** Finance and Trade
- **Topic 7:** Community and Social Movements
- **Topic 8:** Agriculture and Textile Manufacturing



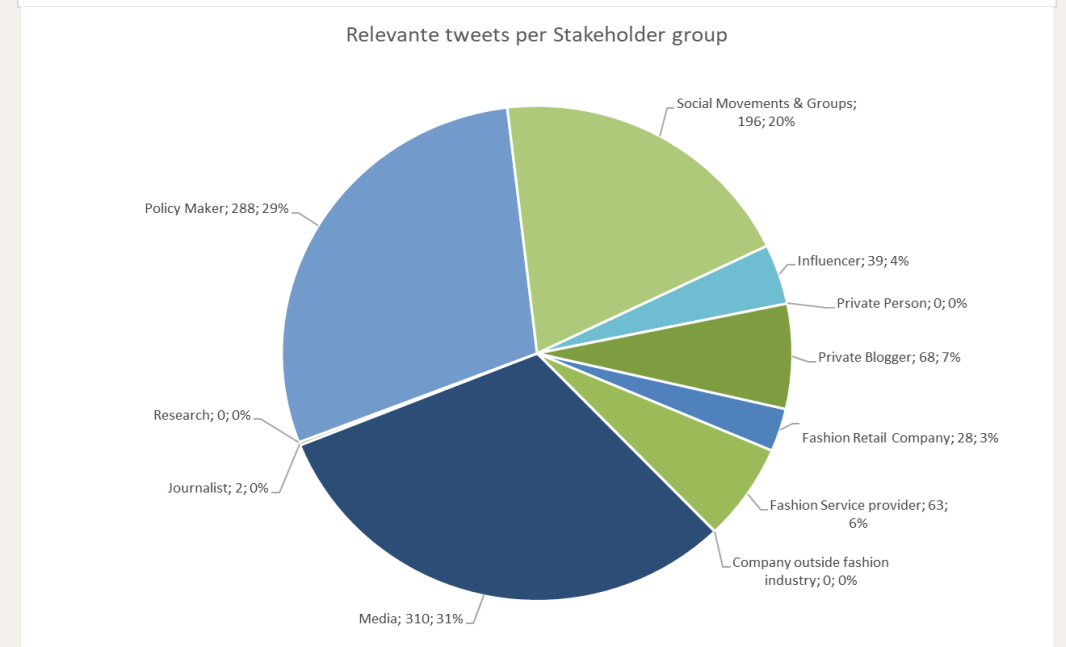
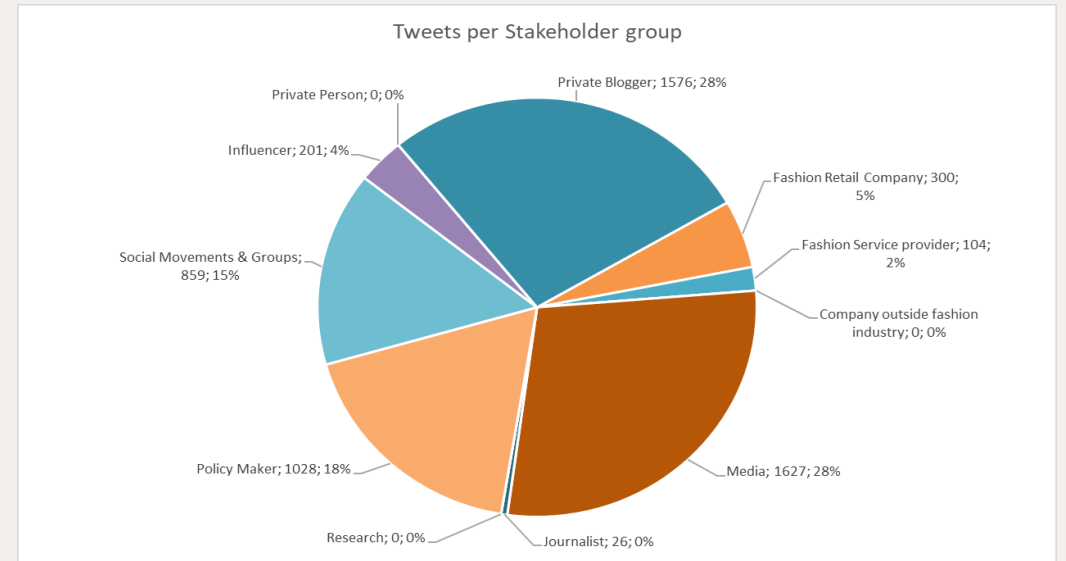
Social Network Analysis

- Private Blogger in **red**
- Fashion Service Provider in **blue**
- Social Movements & Groups in **yellow**
- Media in **green**
- Influencer in **rose**
- Policy Maker in **orange**
- Fashion Retail Company in **purple**

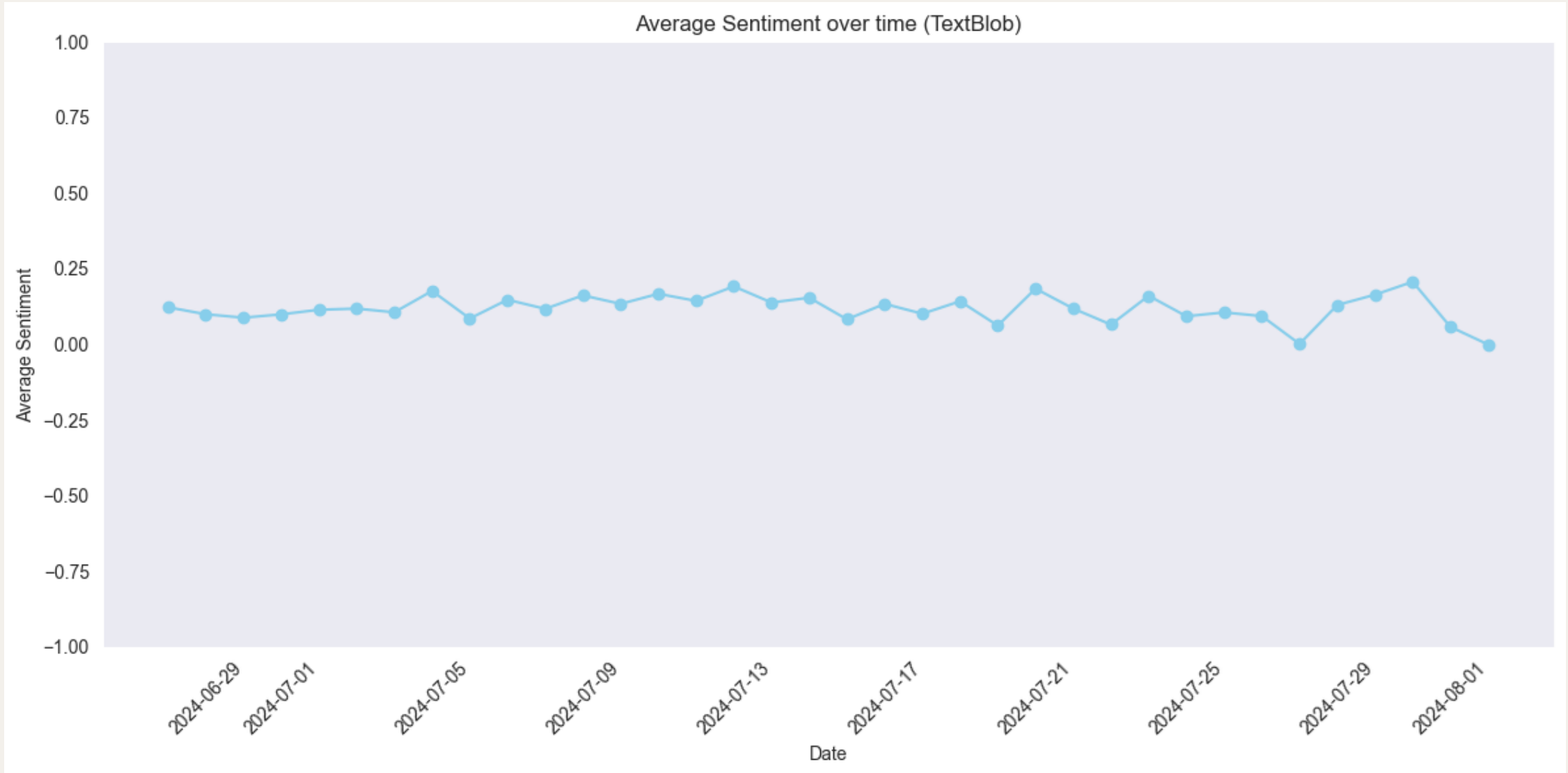


07.2024 Dataset

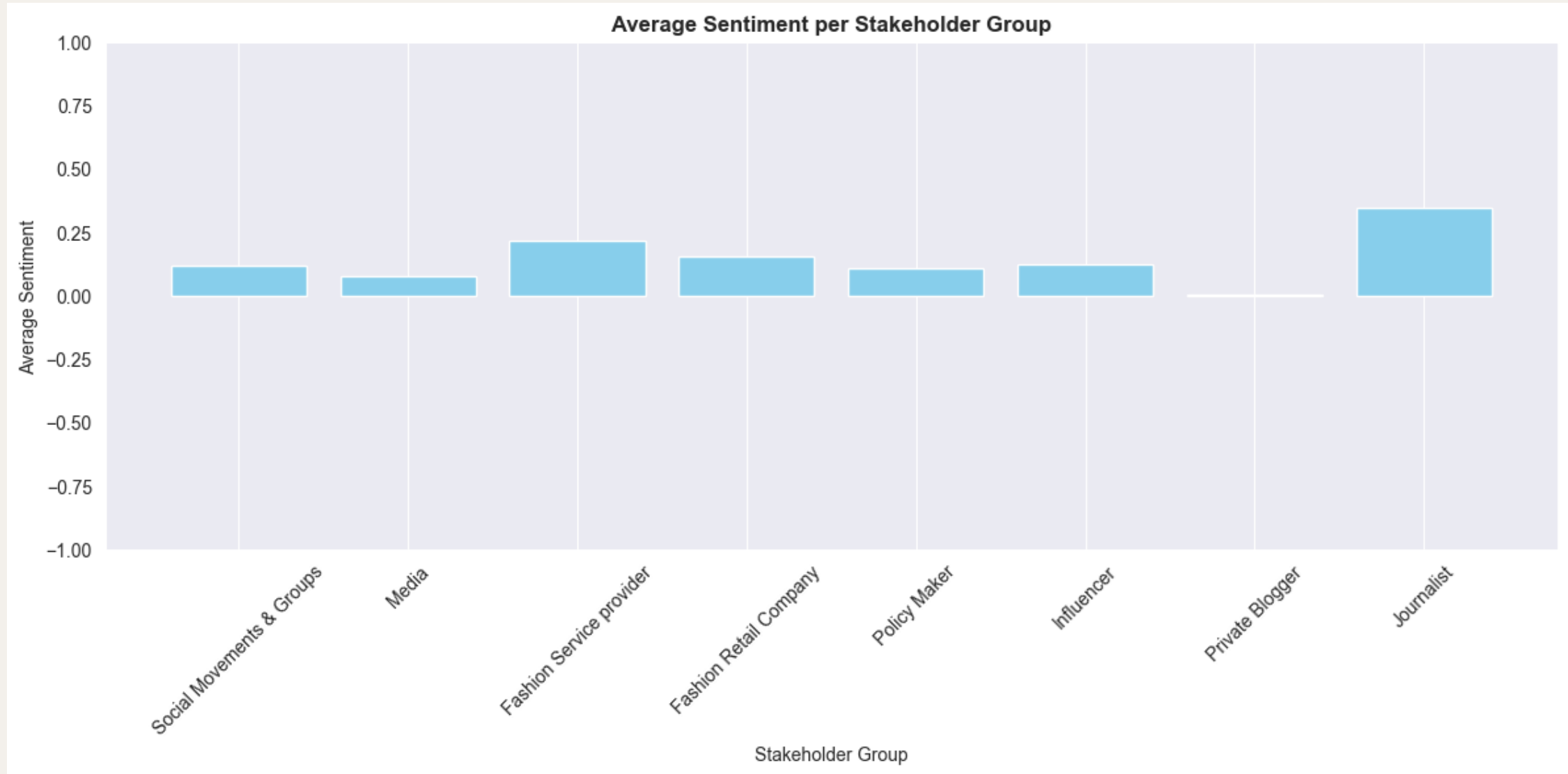
Stakeholders	Tweets	"relevant tweets"
Fashion Retail Company	300	28
Fashion Service provider	104	63
Company outside fashion industry	0	0
Media	1627	310
Journalist	26	2
Research	0	0
Policy Maker	1028	288
Social Movements & Groups	859	196
Influencer	201	39
Private Person	0	0
Private Blogger	1576	68
Sum	5721	994



07.2024 Dataset - Sentiment



07.2024 Dataset - Sentiment



07.2024 Dataset - Topics

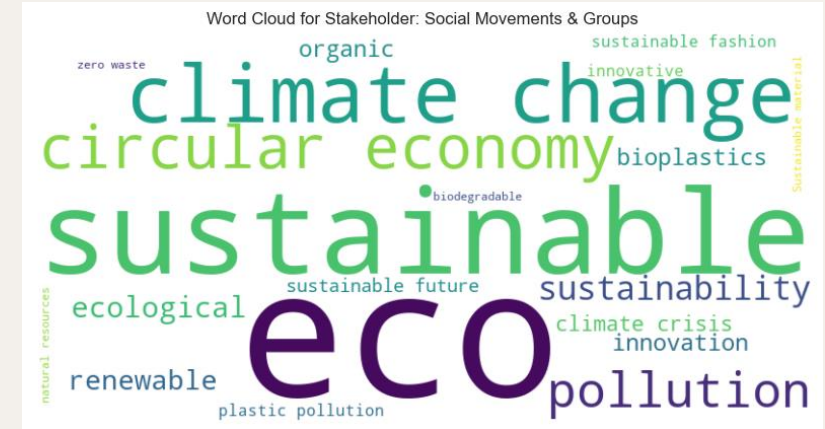
Private Blogger:

Focuses on eco-friendly living, organic products, pollution, and sustainability.



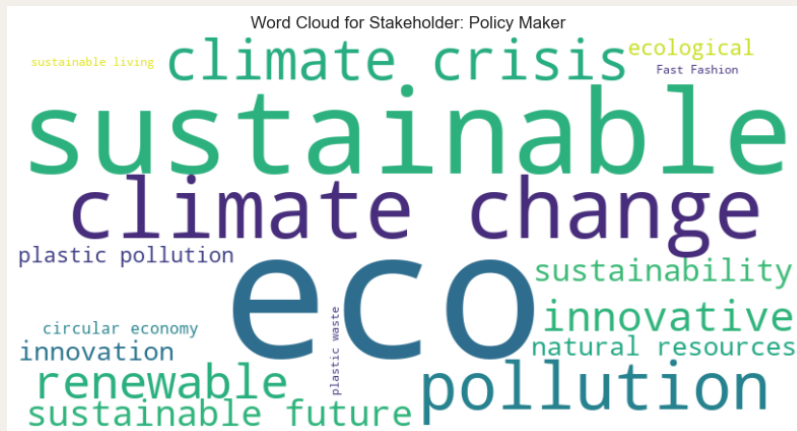
Social Movements & Groups:

Advocates for climate action, circular economy, and reducing pollution.



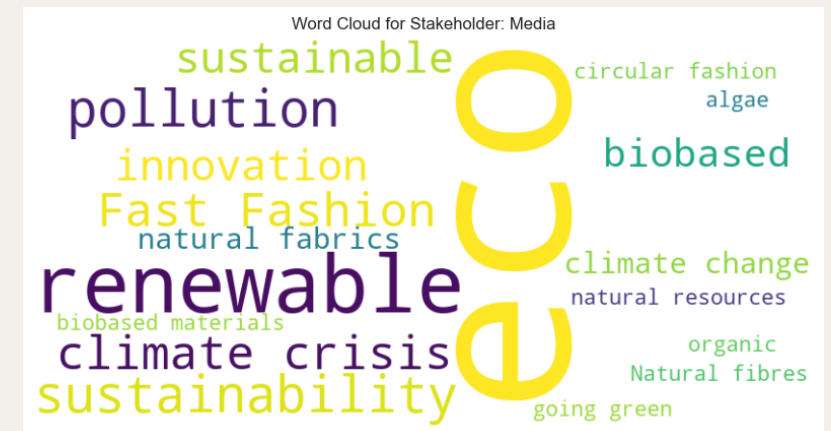
Policy Maker:

Focuses on climate change, sustainability, and policies to combat pollution and the climate crisis.



Media:

Reports on renewable energy, sustainable fashion, fast fashion, and the climate crisis.



07.2024 Dataset - Topics

Fashion retail company:

Innovates with biobased materials and renewable resources for sustainable fashion.



Fashion Service Provider:

Prioritizes eco-conscious fashion and reducing plastic pollution through innovation.



Influencer:

Highlights the conflict between fast fashion and sustainability, promoting eco-friendly choices.



07.2024 Dataset - Topic Similarities

Private Blogger, Social Movements & Groups, and Policy Maker

Sustainability
Climate change
Pollution

Private Blogger, Social Movements & Groups, Fashion Retail Company, and Media

Eco-friendly practices

Fashion Retail Company, Fashion Service Provider, Media, and Influencers

Sustainable fashion
Eco-conscious practices
Renewable/biobased materials

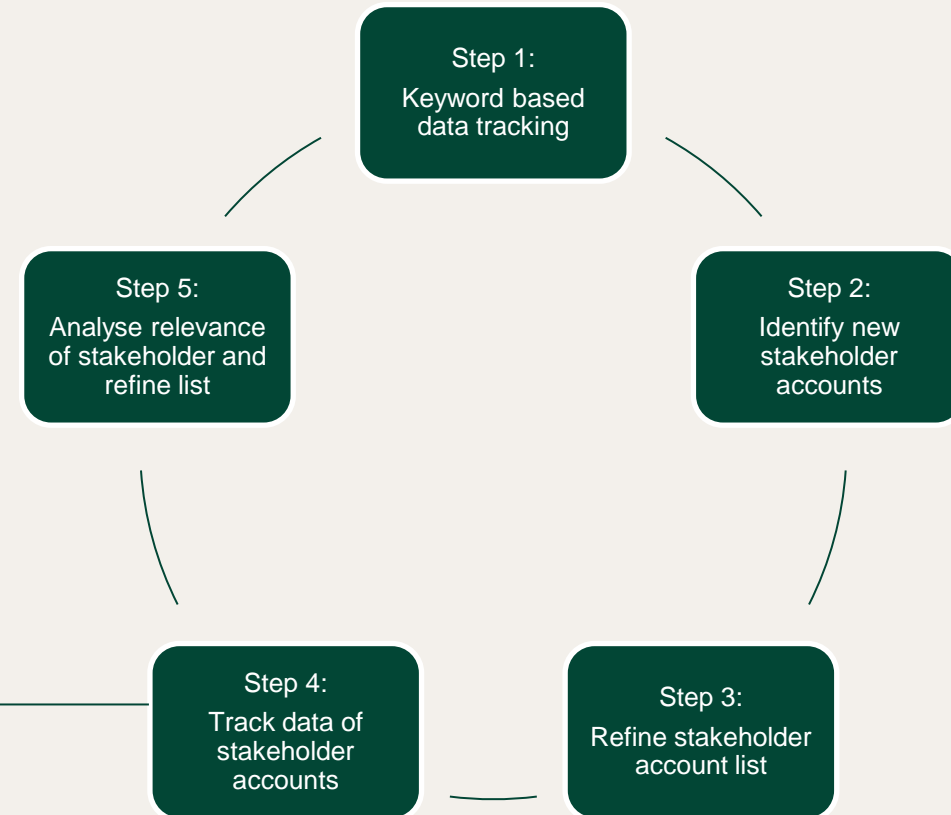
Social Movements & Groups, Media, and Policy Maker

Climate action
Circular economy
Renewable resources

Next Steps

Stakeholder accounts:

Expand stakeholder account list by tracking new data and identifying new stakeholders



Development of communication strategies:

Analyse the posting behaviour and develop communication strategies fitted to each specific stakeholder group.



Thank you for your attention!

References

Ki, C. (Chloe), Chong, S. M., & Ha-Brookshire, J. E. (2020). How fashion can achieve sustainable development through a circular economy and stakeholder engagement: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, 27(6), 2401–2424.

<https://doi.org/10.1002/csr.1970>

Menke, C., Hüsemann, M., & Siems, E. (2021). Stakeholder Influence on Sustainable Supply Chain Management: A Case Study of a German Apparel Frontrunner. *Frontiers in Sustainability*, 2, 735123.

<https://doi.org/10.3389/frsus.2021.735123>

Niinimäki, Kirsi; Peters, Greg; Dahlbo, Helena; Perry, Patsy; Rissanen, Timo; Gwilt, Alison (2020): The environmental price of fast fashion.

In: *Nat Rev Earth Environ* 1 (4), S. 189–200. DOI: 10.1038/s43017-020-0039-9.

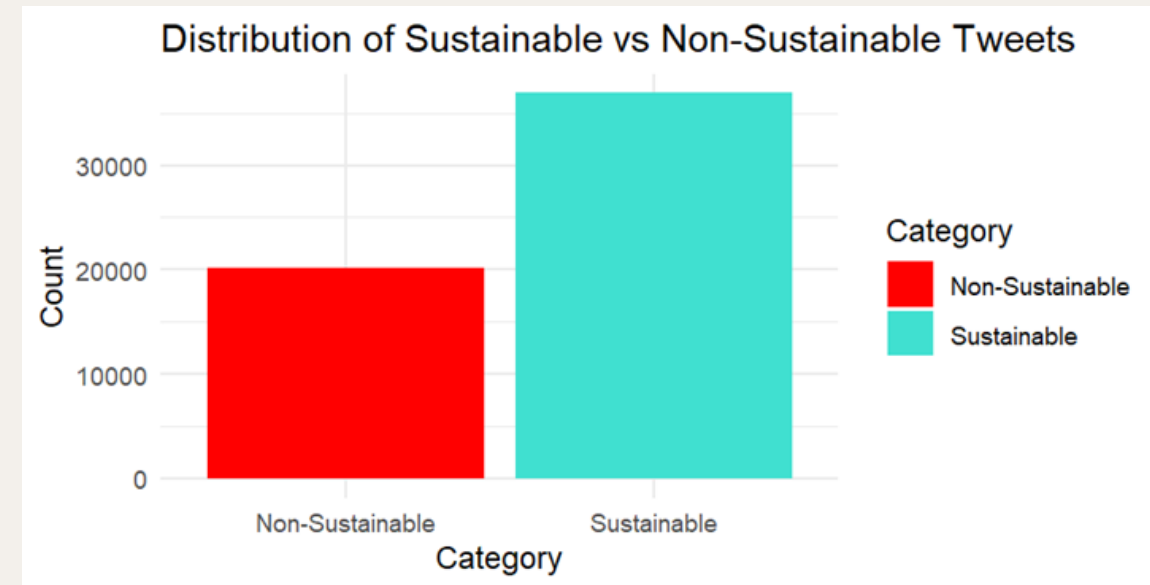
Enke, N., & Borchers, N. S. (2018). Von den Zielen zur Umsetzung: Planung, Organisation und Evaluation von Influencer-Kommunikation. *Influencer relations: Marketing und PR mit digitalen meinungsführern*, 177-200.

Keyword examples

Process & Research	Characteristics	Brand	Goals	Problems	fashion in general	sustainable fashion	Slogans	Materials & resources
biodesign, bioinnovations, bio-innovation, biofabricated, bio-fabricated, biofabrication	biodegradable, ecological, eco biobased, bio- based renewable, sustainable, organic, ecofriendly, eco- friendly	Sustainable fashion, green fashion, sustainable brand, green design, eco brand, corporate responsibility	no plastics, non- plastic, zero waste, sustainable future, circular economy, paradigm shift, fashion evolution	plastic waste, plastic pollution, Fast Fashion, fastfashion, pollution, climate crisis, climate change, natural resources, fashion pollution, textile industry	fairtradefashion, ethical style, sustainable style, fair fashion	future of fashion, conscious fashion, algae fashion, Fashion for Good, Biology by design, slow fashion, Eco Fashion, Sustainable Clothing	Sustainable material, learning from nature, inspired by nature, green impact, good for the planet, going green	Natural fibres, natural fabrics, biomaterial, biotextiles, cellulose-based fibres, green chemistry, Biopolymer

Data preparation

- Keyword based tracking via Twitter API : 66.586 Tweets : e.g. sustainable fashion, sustainability, zero waste, etc.
- Filter content for Keywords such as 'fashion', 'clothes', 'wear', 'dress', 'gear', 'outfit', etc. → 57.123 Tweets
- Representation of sustainability in the fashion dataset:
 - Sustainable tweets: 36.920
 - Non-Sustainable tweets: 20.203
 - Distribution share: 64,63%
- based on Keywords such as: "sustainab*", "green fashion", "eco-fashion", "eco-friendly", etc.

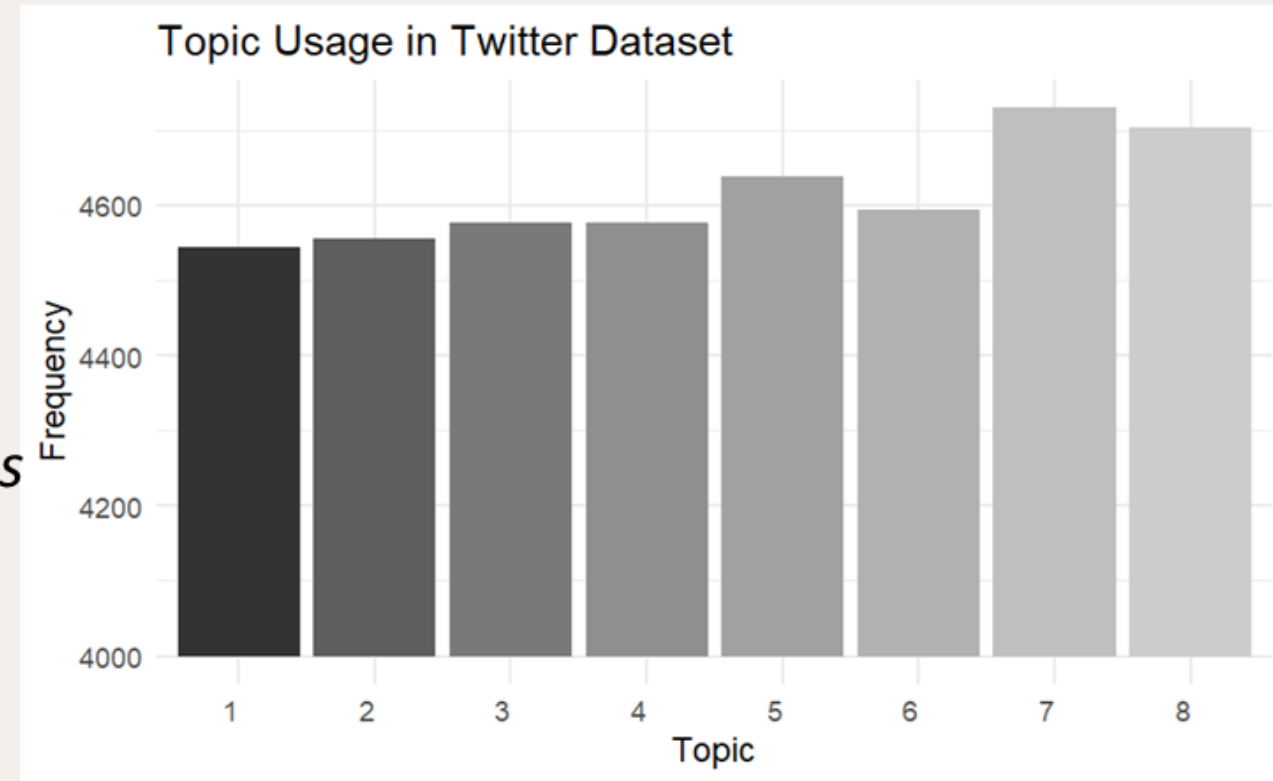


Topics analysis

Automated analysis: Latent Dirichlet Allocation

Key themes for sustainable fashion:

- **Topic 1:** *fashion aesthetics*
- **Topic 2:** *vegan & ethical*
- **Topic 3:** *luxury products*
- **Topic 4:** *fashion industry trends*
- **Topic 5:** *organic & eco-friendly materials*
- **Topic 6:** *recycling & vintage*
- **Topic 7:** *fast/slow fashion*
- **Topic 8:** *environmental impact*



Research Focus Alignment

1. Relevant account identification:

- Data reduction & automated identification
- By hand
- Survey

1. Updated stakeholder classification

- Updated codebook
- Classification of identified relevant accounts

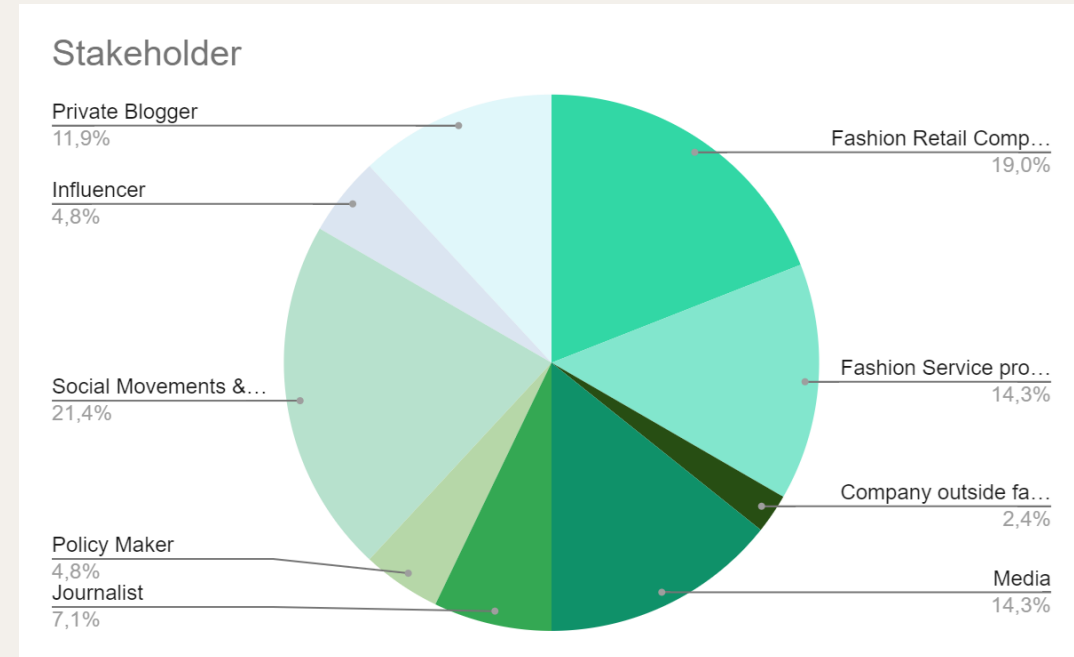
1. Content analysis of identified relevant accounts: In progress

1. Data tracking of identified relevant accounts: In progress (July 2024)

1. Analysis of new data: tbd



1. What do consumers & citizens want & need to know & 2. perceive and expect on regulation



Account Search and Survey

Relevance of Stakeholder group from the survey

	Stakeholder Group	Relevance
0	Social Movement	5.00
1	Influencer	4.86
2	Research	4.83
3	Media	4.29
4	Institutions	4.00
5	Fashion Retail Company	3.40
6	Fashion Service Provider	3.33
7	Policy Maker	3.17

Stakeholder Distribution of most “relevant” accounts identified

