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Mapping the Swedish Research Policy Interface
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In this presentation:

- We'll introduce ourselves & talk about the underlying data
- The research-policy interface in Sweden
- Who cites research most often?
- The appetite for Swedish-led research, nationally and internationally
- Characteristics of Swedish Research

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Introduction to Overton

Who we are
- Friendly neighbourhood nerds
- Ex librarians, research policy specialists, knowledge brokers, data scientists, bibliometricians
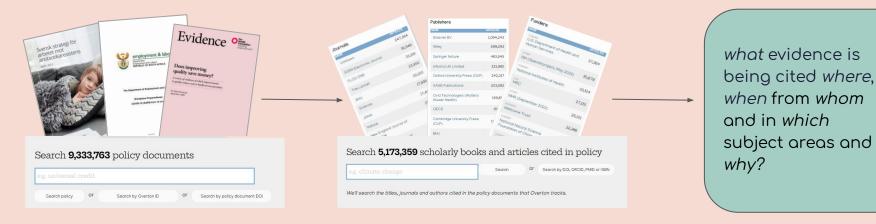
We work with
- Researchers, Institutions, Libraries, Funders, NGOs, Governments...and the 'inbetweeners' (no...not those guys)

The ethos
- Increasing the visibility & recognition of the societal impact of research
- ...and the transparency of public policies
- Helping to facilitate better connections between research and policy - with data and/or tech

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Our Policy Data

Search **9,333,763** policy documents

Search **5,173,359** scholarly books and articles cited in policy

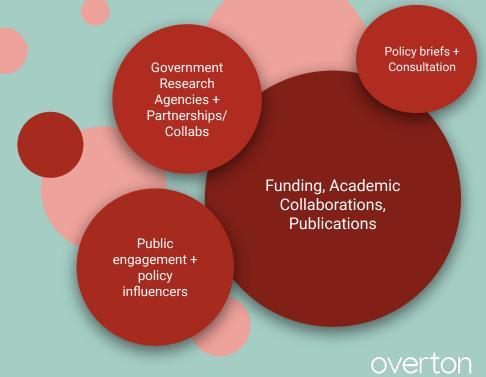*what* evidence is being cited *where*, *when* from *whom* and in *which* subject areas and *why?*

...but we're not perfect!

- We don't have 'exhaustive' coverage of all sources everywhere in the world
- Our data is subject to the usual limitations of bibliometric indicators and research policy governance e.g. funding data can be limited, depending on local requirements.
- Interpretation is subjective - and should be paired with qualitative policy analysis, by SMEs!
- Data pre-2015 can be tricky, as policy documents were not consistently digitised before then

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What does academic-policy engagement look like in Sweden?

- Do mechanisms for engagement exist?
- What form do they take?
- How can data help to assess the effectiveness of these approaches?
- What are the challenges we might see in policy engagement? How can bibliometric data help to navigate these?

Government Research Agencies + Partnerships/ Collabs

Policy briefs + Consultation

Funding, Academic Collaborations, Publications

Public engagement + policy influencers

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Swedish Research-Policy Interface: MVPs

- What *types* of organisations 'pop up'?
- Who cites research most frequently (relative to their rate of publication)?
- In what subject areas?

Source Type	Net Docs	Docs which cite others	%
Government	272,310	25,453	9.4
Think Tank	10,416	6,464	62.1
Other	272	102	37.5

Data Note:
Commissioned research/consultancy is included

Data Note:
Think tanks are less 'noisy' and generally more focussed on research, and we can see this from the data

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Swedish Research-Policy Interface: Government

Source Type	Net Docs	Docs which cite others	%
Government	187,809	23,045	12.3

Data Note: Commissioned research/consultancy is included

The 'cites others' part is the important bit (in the context of policy engagement...). Let's take a closer look. Amongst the citing docs, there is an average citation 'rate' of 48%.
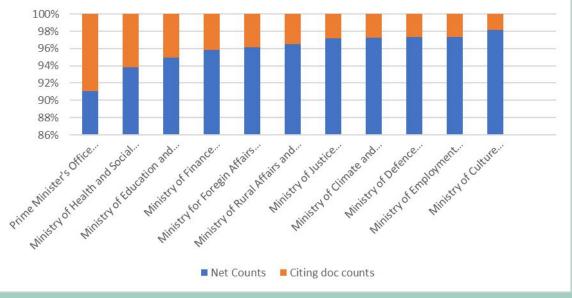
Bus timetable

Refuse collection

Party planning...

<u>Noise!</u>

1 x Annual research publication

<u>...too quiet?</u>

Context is key!

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National Government: A General Snapshot

Policy Source	Net Counts	Citing doc counts	% rate
Regeringskansliet	108614	5506	5.07
Riksdag	4635	1635	35.3

Proportion of Government Department-authored documents which cite research

Research consumption - is it changing?

Looking at government departments 2016-2021:

- Generally, consumption of research is low amongst govt departments

But!

- There is (slow) progress in citation frequency relative to net numbers of publications across the board
- No one appears to be consistently 'top' - shifting citation trends year to year

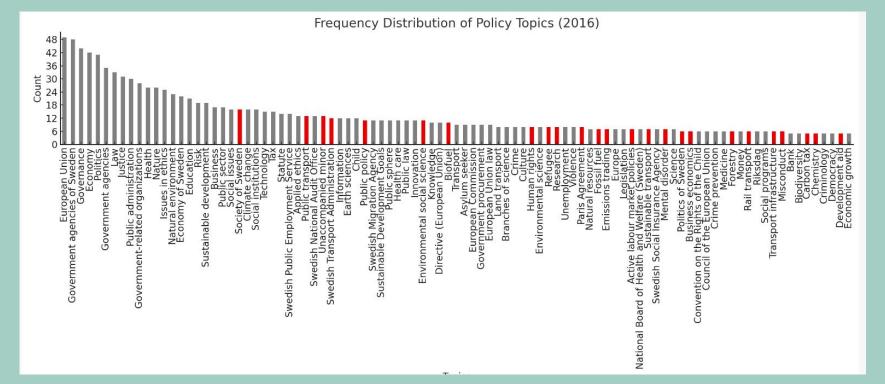| Department	Count
Prime Minister's Office (Statsrådsberedningen)	19
Ministry of Education and Research (Utbildningsdepartementet)	5
Ministry of Rural Affairs and Infrastructure (Landsbygds- och infrastrukturdepartementet)	5
Ministry of Defence (Försvarsdepartementet)	3
Ministry of Finance (Finansdepartementet)	4
Ministry of Employment (Arbetsmarknadsdepartementet)	4
Ministry of Health and Social Affairs (Socialdepartementet)	4
Ministry of Justice (Justitiedepartementet)	4
Ministry of Climate and Enterprise (Klimat- och näringslivsdepartementet)	3
Ministry for Foregin Affairs (Utrikesdepartementet)	3

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Shifting policy agendas?

What affects citation 'rates' between departments?
How does the distribution of policy topics change longitudinally?
Are there any topics which are 'unusual' relative to 'typical' topics?
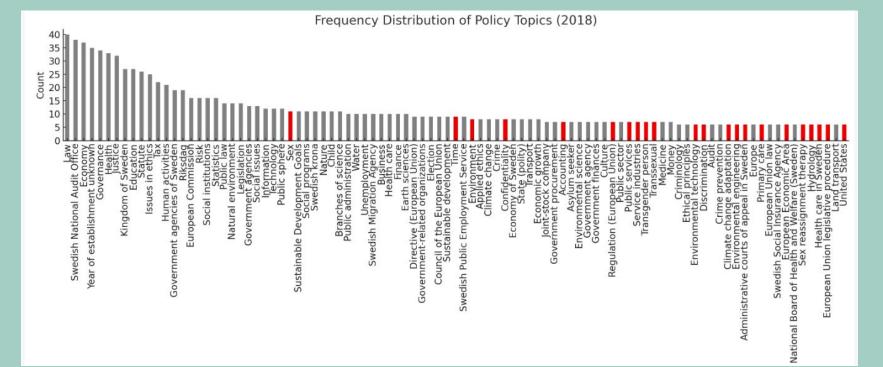
Search was limited to:
- Year
- Specific Policy Authors (Govt departments)
- Policy documents which **cite** others
- Top 5 (general terms relating to Swedish govt) excluded from dataset in analysis
- 'Unique' topics identified for each year

Data Note:
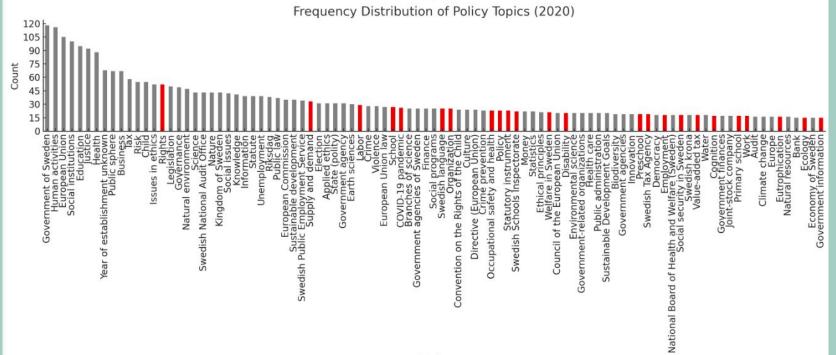Commissioned research/consultancy is included in the analysis

Shifting policy agendas

Frequency Distribution of Policy Topics (2016)

Shifting policy agendas

Frequency Distribution of Policy Topics (2018)

Shifting policy agendas

Frequency Distribution of Policy Topics (2020)
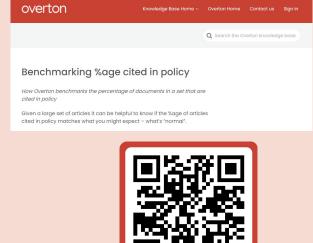
Consumption of Swedish Research

- *What are the main publication and policy trends for Swedish-led research - nationally and internationally?*
- *Which subject areas are of greatest interest to decision makers?*
- *Does this vary location?*

| Step 1 | Step 2 | Step 3 | Step 4 |

All Swedish DOIs published in 2018 exported from Scopus for each journal subject area

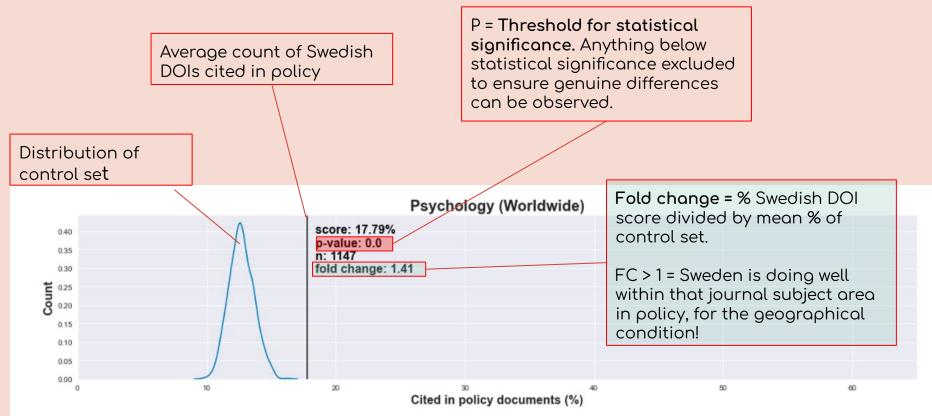*Control set of other, random DOIs of the same age, same journals and same journal subject areas identified*

Benchmarks determined for national and international policy documents, comparison made for Swedish DOIs

Statistically significant results plotted in 'heat map' to indicate how Swedish performs relative to 'competitors' in control set

Consumption of Swedish Research

Average count of Swedish DOIs cited in policy

P = **Threshold for statistical significance.** Anything below statistical significance excluded to ensure genuine differences can be observed.

Distribution of control set

Fold change = % Swedish DOI score divided by mean % of control set.

FC > 1 = Sweden is doing well within that journal subject area in policy, for the geographical condition!

Psychology (Worldwide)

score: 17.79%
p-value: 0.0
n: 1147
fold change: 1.41

Consumption of Swedish Research

Policy Citation Fold Change across subject areas

Assessing changes to policy citations of swedish research for the following conditions:

- Worldwide DOIs: All DOIs cited in Overton.
- Without Europe: DOIs from Overton minus those exclusively cited by European sources.
- Without Nordics: DOIs from Overton minus those exclusively cited by Nordic sources.
- Without Sweden: DOIs from Overton minus those exclusively cited by Swedish sources.

In summary...

- The policy making process is messy. Shifts in policy engagement approaches, subject , organisational roles, international relations and shifts in political agendas - 'many moving parts' to consider - context is key
- Knowing the system is important in how we treat the analysis - how to account for 'noise', limitations of the data and what we can justifiably say
- In some cases, the data can help to locate the context, via the policy documents!
- Longitudinal trends can be helpful for horizon scanning - both in terms of identifying 'what works', potential gaps and spotting opportunities
- Lots of unanswered questions remain about the research-policy ecosystem... but appetite and access for research-based evidence is increasing

We're working on how to tackle some of these - get in touch!

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Thank you