SDG FINANCING LAB

Martin Kessler
UNECE – ML presentation, October 13
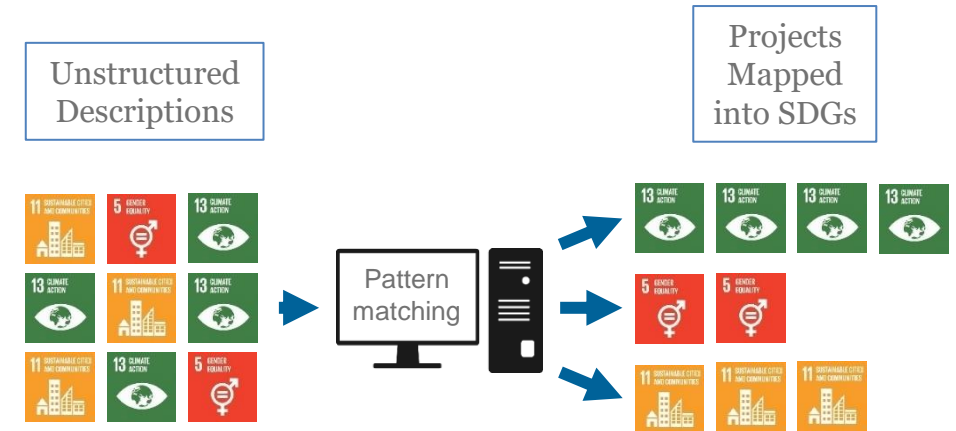
The SDG Financing Lab: why?

- In 2015, the UN adopted the 2030 Agenda, of which the Sustainable Development Goals are the central component.

- Official Development Assistance is one of the financial flows expected to contribute to the SDGs. It is quantitatively relatively small (~USD 150 billion / year) but explicitly links to the SDGs

- The OECD Development Assistance Committee is in charge of promoting standards in data reporting of official development finance

- But... we know little of how they contribute to the SDGs

- For statisticians, high burden of reporting

- For policymakers, a lot of pressure to measure orientation towards the SDG

From descriptions to SDGs

- Donors report to the OECD on:
  - financial commitment in USD,
  - "purpose code" (sector of intervention, at fine level)
  - and descriptions (10 lines or so) of the main features of projects

- We use the descriptions to ascribe projects to the SDGs

Unstructured Descriptions

Projects Mapped into SDGs

Pattern matching

Training set

- SDG descriptions from the UN, reports by organisations and NGOs related to specific SDGs
- CRS specific information
- Hand-labelled CRS projects
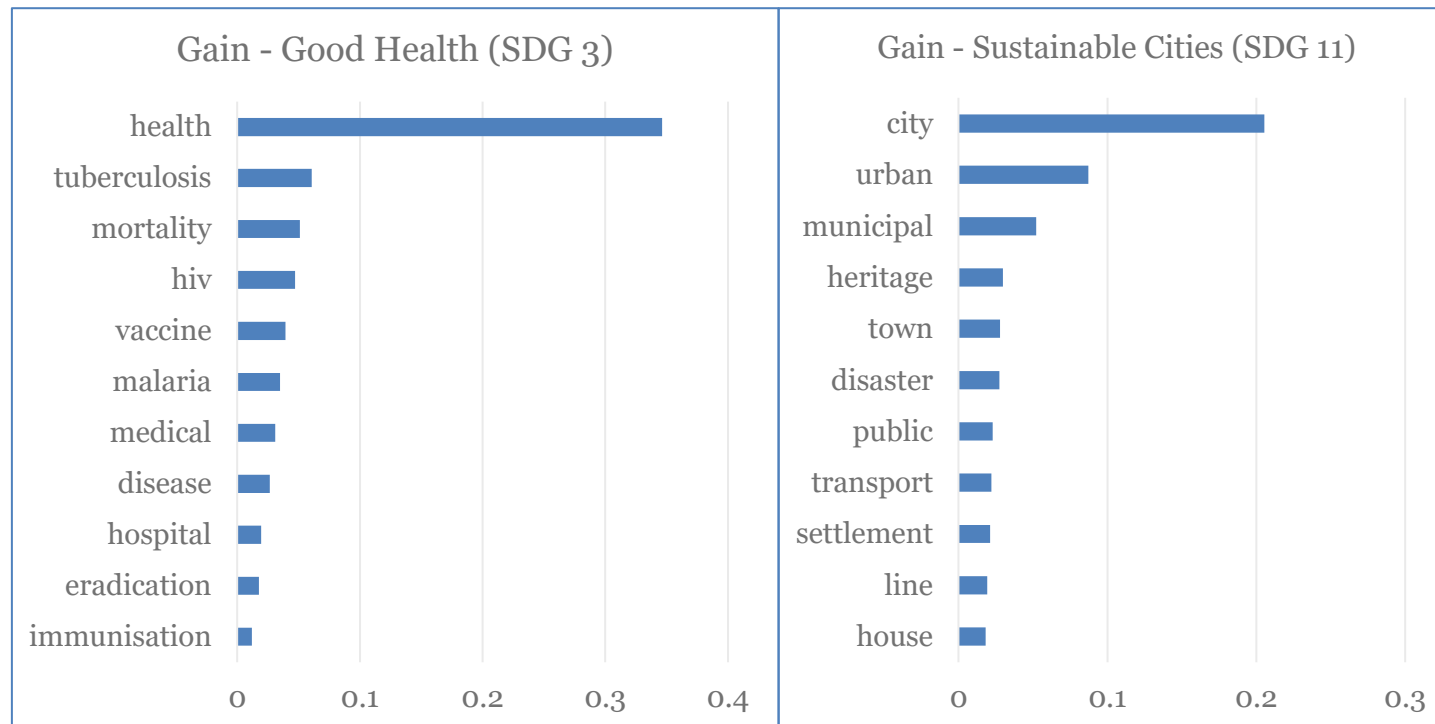
Training the model

- A complex problem or problems: 17 classification models!

- Compute the frequency of terms related various SDGs (TF-IDF)

- Train an Extreme Gradient Boosting (XGBoost) model – frequent in NLP problems

- Outputs a "vocabulary" associated to SDGs:

Results: mapping the SDG targets of ODA projects
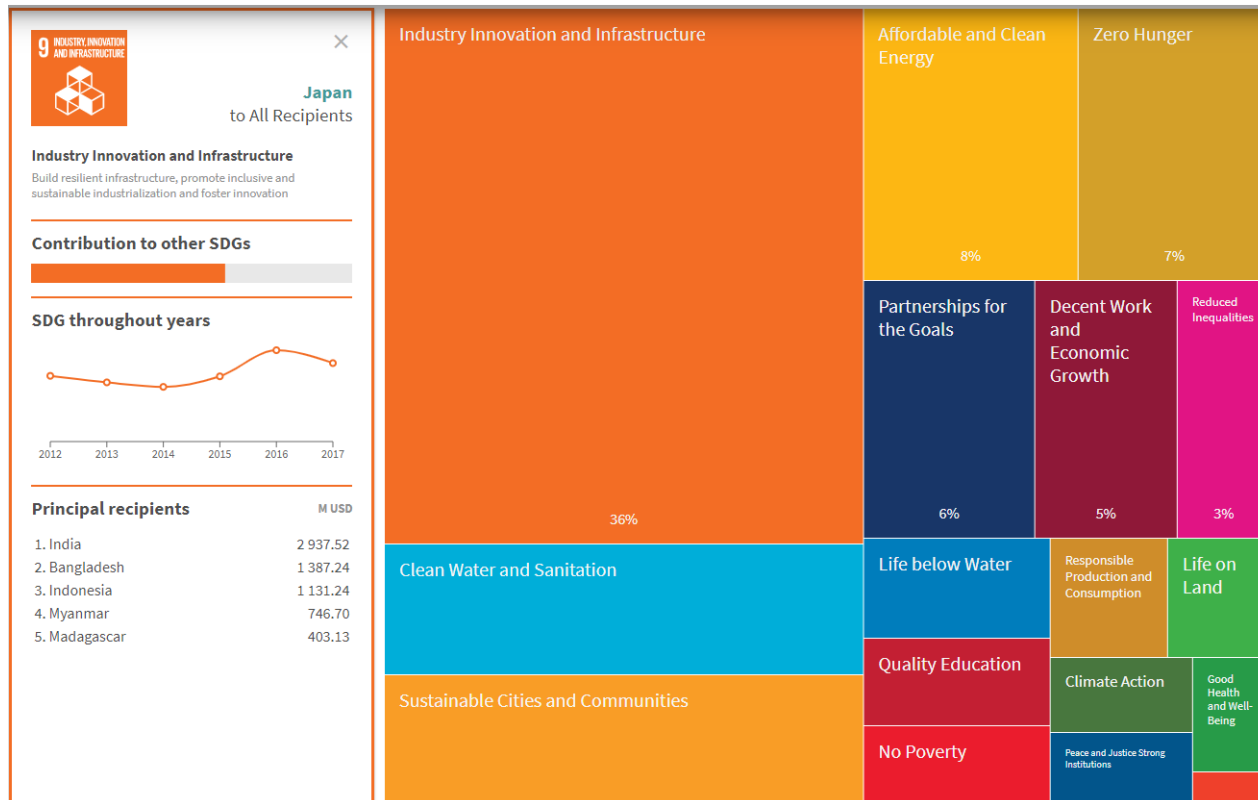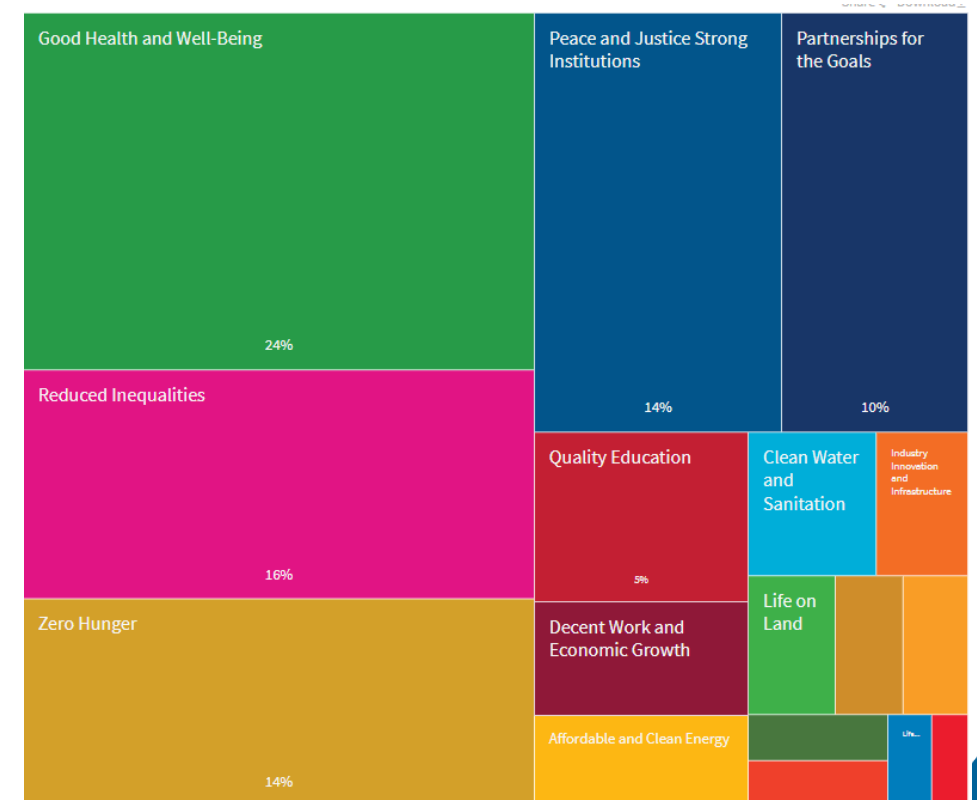
https://sdg-financing-lab.oecd.org/

Can be deployed at multiple levels: donors

Which SDGs does Japan target?

What about the US?

Can be deployed at multiple levels: recipients

THE SDG FINANCING LAB

Ethiopia?

Zero Hunger 16%
Sustainable Cities and Communities 12%
No Poverty 11%
Good Health and Well-Being 10%
Clean Water and Sanitation 9%
Industry Innovation and Infrastructure 9%
Quality Education 8%
Reduced Inequalities 4%
Climate Action 3%
Life on Land
Life below Water
Decent Work and Economic Growth
Gender Equality
Peace and Justice Strong Institutions
Partnerships for the Goals

...and in India?

Industry Innovation and Infrastructure 34%
Affordable and Clean Energy 20%
Sustainable Cities and Communities 12%
Climate Action 6%
Zero Hunger 6%
Quality Education 3%
Good Health and Well-Being 3%
Clean Water and Sanitation
Life on Land 2%
Gender Equality 2%
Decent Work and Economic Growth 2%
Partnerships for the Goals
No Poverty
Reduced Inequalities

From short to long text: our work with AFD

- Agence Française de Développement has about EUR 3 billion in commitments in 2019

- 130 projects of ~25-60 pages

- ~ 50 – 150 "references" to SDGs detected by project

- Allows to describe the SDG orientation at portfolio level (aggregating all) but also down to regions, countries, etc.

- To see how SDGs interact: are energy and climate often associated? What about SDG 2 (agriculture/hunger)?
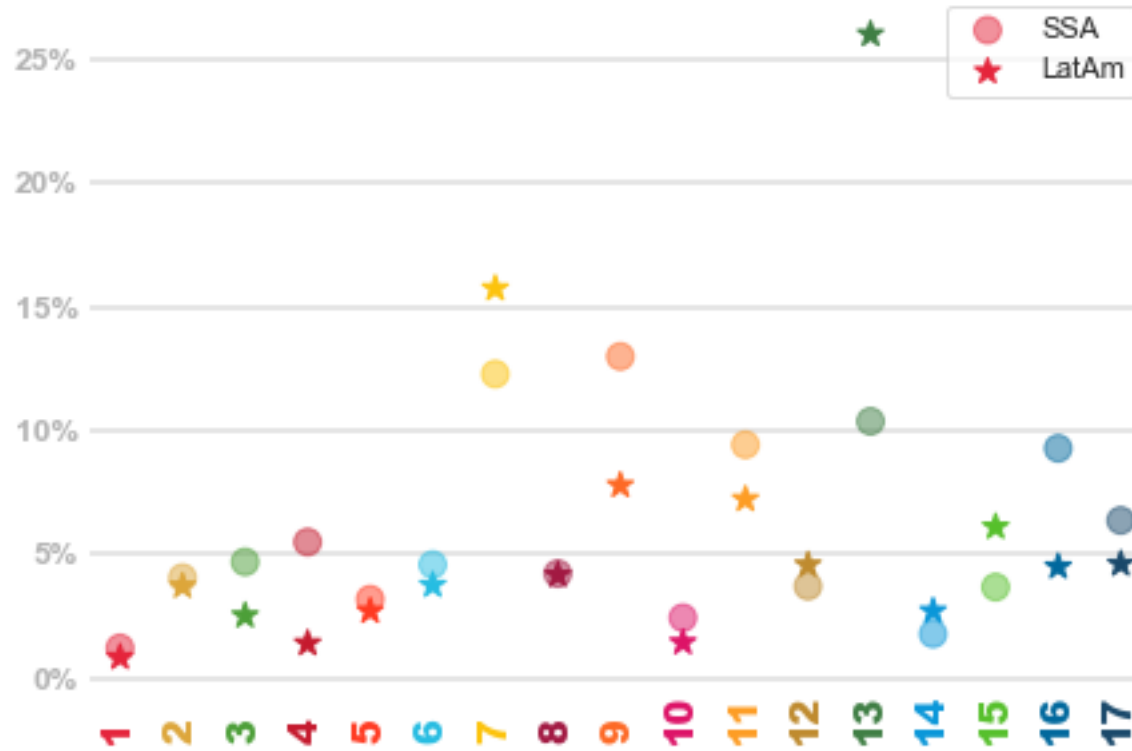
What does AFD target?
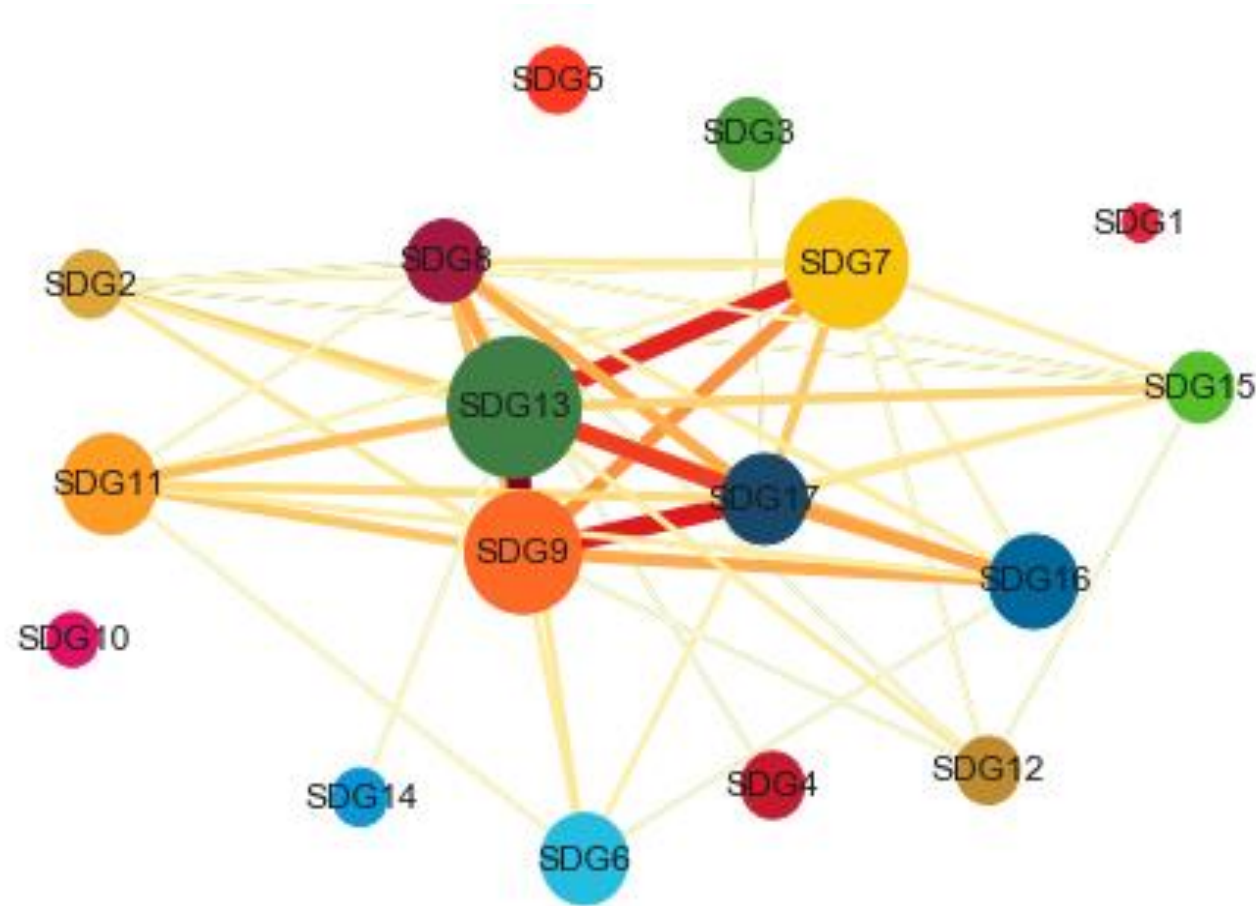
- AFD has become a climate bank between 2014 and 2019
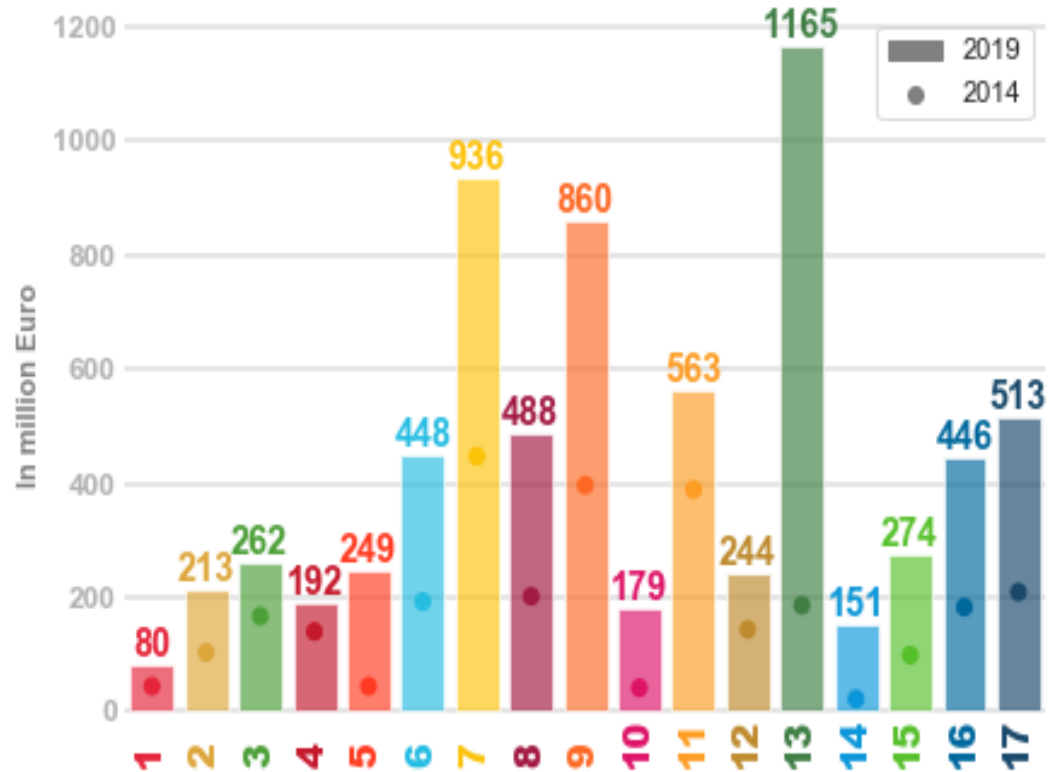
Latin American projects much more focused on climate and energy
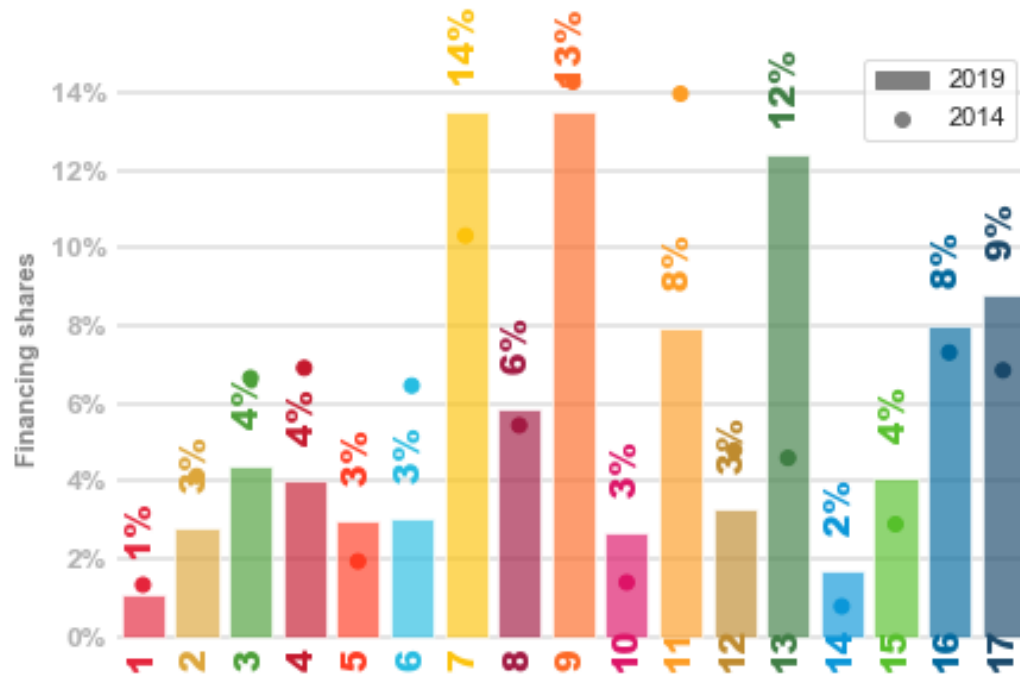
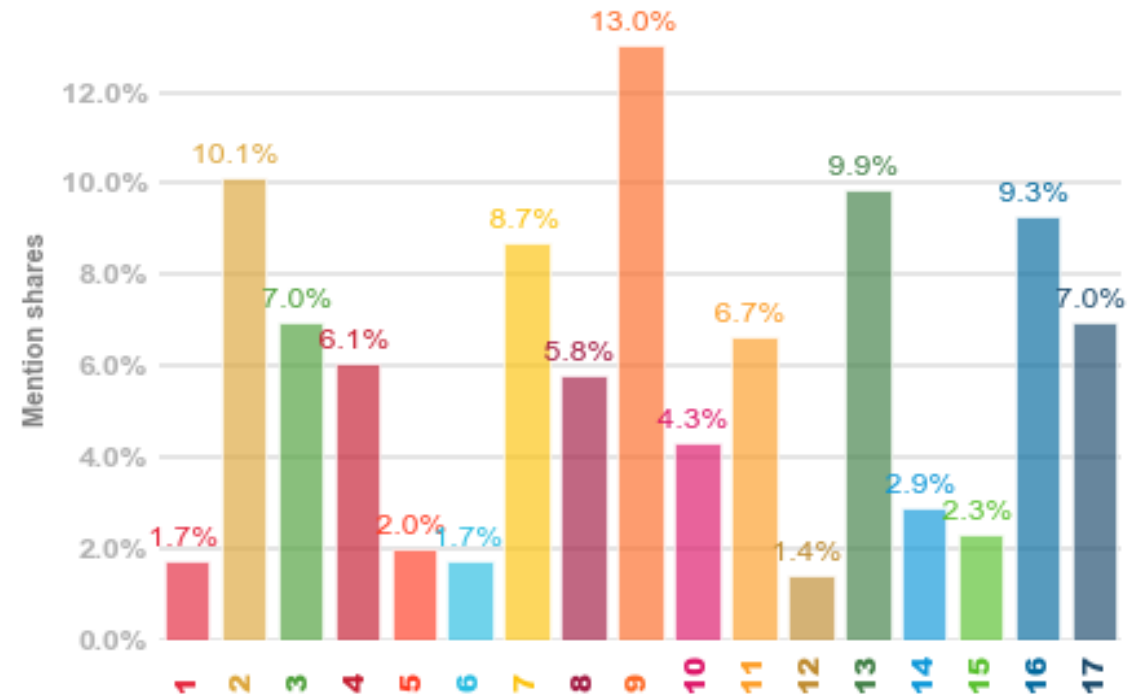# Exploring SDG linkages across projects

Compare to announced strategies and communication

Financial flows for Sub-Saharan Africa

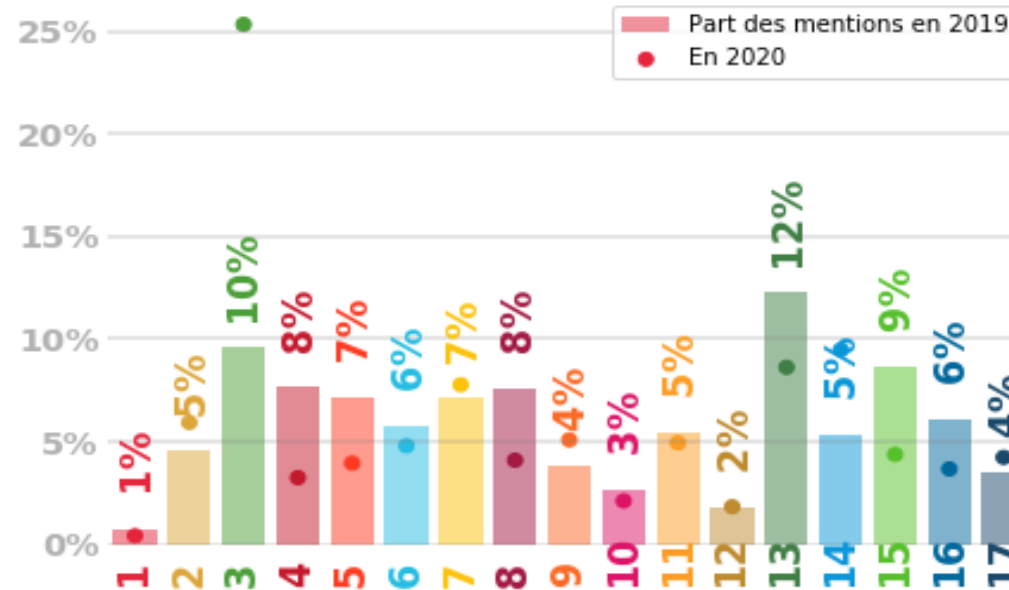Strategic document for Sub-Saharan Africa, 2018-2022

What's next?

- Using natural language processing to track financial flows towards the SDGs
  - Private companies' sustainability reports
  - Track 'real-time' information such as press releases

SDG orientation in 2019 and 2020 according to AFD's press releases

The algorithm is available

- Hosted by the UN Big Data Platform

- Contact me for more information

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