Supply chain and AI

**Slide one : supply chain issue**

* greenhouse gas emissions from companies’ supply chains are [five times](https://www.bcg.com/en-us/publications/2020/supply-chain-needs-sustainability-strategy) greater than those from direct operations (Forbes)
* over [90 percent of the environmental damage](https://www.mckinsey.com/business-functions/sustainability/our-insights/starting-at-the-source-sustainability-in-supply-chains) caused by companies that package consumer goods (CPG) comes from their supply chains Mckensie
* In fact, CDP’s [2020 Global Supply Chain Report](https://www.cdp.net/en/research/global-reports/changing-the-chain) shows only 29% of suppliers reported an absolute decrease in annual emissions.

Conclusion: supply chain is not a priority

Issue: lack of data in compagnies in the Value chain

**Slide Two :**

Ai is already used in suppluy chain:

* Rotterdam port, marcel of engenerring
* Amazon’s warehouses, when you get products from multiple sources it arrives in the same box
* Waitrose when they plan their delivery roots
* Where Ai can be used to increase diversity and drive cost dosn, it is already being done

**Planning optimization**

* logistic regressions to estimate the value needed for the market
  + A lot of products are put on the shelves and then sent back, a more accurate reading would be good
* Random forests to understand the key deciding factors, we can estimate

the amount of materials needed.

* + Football maches stock more alchoholic beverages or chrismas more

**Other interesting fields**

* Sharing economies
  + were we can make sure that transportation is being used properly no empty lorries
* Synchromodality :
  + Packages that that arn’t urgent can wait and be transported at the right time, again not profitable
* Network analysis to link suppliers with the right person at the right price
  + Downside many contracts and business relationships have already been done

**Conclusion :**

* Not as black or white as compagnies are already heavily using Ai to optimize their processes
* Most obious measures put their profits at risk

Afterthought

Giving the power to the consumer

Blockchain technologie to understand where the products have gone in order to know what is the full carbon footprint of suppliers, although they might not be polluting much their patners might be