## What is ESG Data and how to use it :

1. Today we going to talk about ESG Data , topics of sustainability and ethics are becoming more and more important in today’s society , and environmental aspects of a business can have a huge impact on a company’s future
2. What ESG data is and from where it is collected from and how its contributed to the world of business today.
3. Environmental , Social and Governance
4. This information on business and its impact Environment on its surroundings
   1. Environmental aspects over given business (for example few data on Carbon Emission , use of the Renewable energy , or there water stress level)
   2. Social aspects over given company can be understood thorough data on ‘human Capital’ and ‘Labor standards’
   3. Governance aspect have given company for example could be understood – through data on ‘Business Ethics’, the involvement on in any ‘corruption’ or ‘statistics on the company board’.
5. As Energy industries evolves there is a greater customer and industries focus on sustainability ,reducing carbon and reaching ‘net carbon zero’
6. What is WSG and why it is important for your organization.
7. Energy industry Is evolving at a rapid speed driven by the combination of corporate : -

* environmental , social and governance (ESG) initiatives
* Competitive Pressure
* And Compliance policies with new federal, regional or state policies

1. Organizations are exploring sustainability goal in overall business strategy
2. Companies are accountable to multiple stakeholder including investors, customers , employees , government and non-government regulators organizations who want to evaluate company impact on the world in- fact US securities and exchange commission(SEC) is currently considering phasing in Climate change disclosure on a company ‘s annual 10K or other public report.
3. Lets take a closer look at ESG :-
   1. **Environmental** :- This consider company’s ‘energy use’ , ‘environmental impact’ as a Stuart of the planet and how a company uses resource the board specially scope 1 , 2 and 3 emission sources.
      1. Factors considered :
         * Energy efficiency
         * Climate change
         * Carbon emission
         * Biodiversity
         * Air and water quality
         * Deforestation
         * Waste management

Organization that do not consider these environmental risks may face unforeseen financial risk and investor scrutiny .

* 1. **Social** :- The social criteria examines – how a company fosters its people and culture and How it affects the community
     1. **Factors considered** –
        + Inclusivity
        + Gender and racial diversity
        + Employee engagement
        + Customer satisfaction
        + Data protection
        + Privacy
        + Service to community
        + Corporate giving
        + Human rights
        + Labor standards
  2. Governance :- Fovernance considers company’s internal controls , practices, and procedures and avoidance of violations(compliance strategy) and ensure transparency and industries best practices and include dialogue with regulators
     1. Factors considered :-
        + Companies leadership
        + Board compositions
        + Executive compensations
        + Audit committee structure
        + Shareholder rights
        + Political contributions

1. Transparency is critical to the process in which some companies emerged as a sustainability leaders and others are lagers.
2. Transparent reporting enables stakeholders to gain a clear picture of the company direction and progression
3. For e.g. company may not be carbon neutral today but may be making significant efforts towards this goal
4. Stakeholder needs visibility on the progress as well as the goals.
5. Recent survey found that the 85% of US investors are interested in sustainable investing
6. ESG analysis and reporting is becoming more privileged incorporating your value and concerned will help drive better decisions and produce sustainable impacts

## How ESG Data is Linked with Financial Data and use of ML in this scenario

1. The Idea behind is very simple .
2. Is there any way to understand how ESG and Financial performance are linked?
3. And if so, can we capture this link?
4. Historically investors look at aggregated ESG ratings and eventually they select the companies with high ratings
5. Is it a legitimate approach ?
6. But there is no reason why It should bring alpha.
7. On the contrary , this approach typically tend to perform in line with the market.
8. I am not saying that the ESG does not carry useful information, it’s the way we are using it.
9. Because typically ratings are made of hundreds of indicators, which are more or less important .
10. And it depends on the company characteristics , the size , the country, the sectors
11. Let me give you an example :-
    1. For a utility company, environmental indicators are key and material,may be less for a media company.
12. So you see that ESG brings with it is useful.
13. It can have an impact on financial prices. So it is important that we can use is efficiently in an investment strategy .
14. Because materiality is hidden in ESG indicators , and each indicator can potentially tell us something important about a company, we need to be able to extract that information .
15. But when you do it at scale of a large investment universe, global equities for instance . That’s a very tough job to do.
16. So here’s where the machine learning comes into help.
17. ML is able to process very large ESG datasets and it learns from the data, what is important or not in the life of a company
18. So for an example , a couple of years ago, one of the experts , we call experts , what the machine learning give us back, was if you have a company with high level of controversial governance ,and also lack of transparency in the way the board remunerated, well typically , this company tends to be in risk.
19. So you see that by combining two different ESG indicators, the machine learning has identified a profile that typically related to risk.
20. So the idea is to put around a lot of these profiles , to try to capture whether a company remains an opportunity or a risk.
21. So by focusing on material issues and by learning over time , which is very important ,the machine learning gives you a powerful alternative to extract useful information from ESG , and then use this in your investment process.