Master of Science in Management Engineering
Stream
Energy and Environmental Management

Academic Year 2019-2020

Scenario and market needs 1/2

Likelihood

Impact

http://www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf

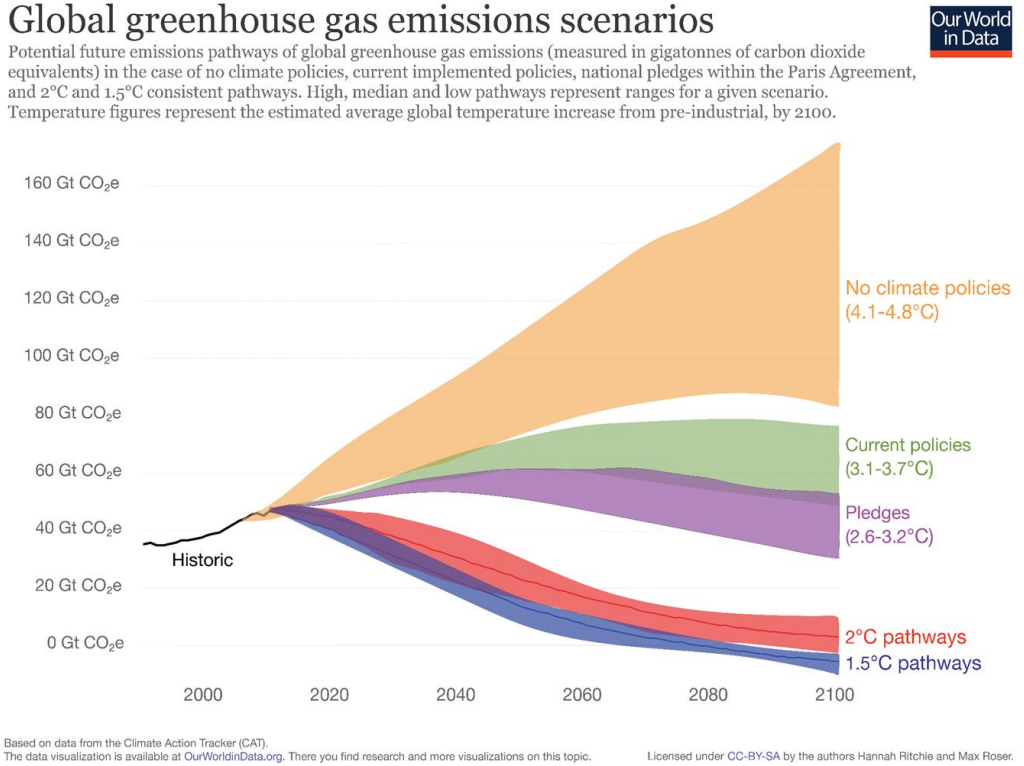
Scenario and market needs 2/2

At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal.

The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by **limiting global warming to well below 2°C** and **pursuing efforts to limit it to 1.5°C.**

COP21 · CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

https://ec.europa.eu/clima/policies/international/negotiations/paris_en



Learning outcomes 1/2

- Understand **current trends and future scenarios** in energy and material utilization, and their **implications for the long-term competitiveness of companies.**

- Understand competition dynamics and **design new sustainable business models.**

- Understand and being able to **evaluate incentive mechanisms and regulatory frameworks for energy efficiency, natural resources conservation, pollution prevention.**

Learning outcomes 2/2

- Understand the **potential and design solutions for energy and critical resource efficiency in production and recycling processes**.
- Design and implement **strategic and operational improvement projects** with focus on **energy and environmental dimensions** of an organization.
- Make **technology and operations-related decisions taking into consideration uncertainties and options brought by energy and environmental factors**.

Job opportunities

Young professionals passionate to innovate industrial practices in order to accelerate sustainable development and mitigate climate change in positions such as:

- **Energy and environmental managers** in **manufacturing and service industries** (with responsibility to manage energy, sustainability, resource management)
- **General managers** in both **traditional energy firms and utilities** (especially with business development responsibilities)
- **Managers** in **small** and **new companies** competing in the renewables, energy efficiency and digital energy sectors (where there is a strong potential for entrepreneurial initiatives)
- **Analysts and experts** working in **consulting firms**, in **financial institutions** and **regulation authorities**
- **…..**

Stream architecture (second year)

DENOMINAZIONE INSEGNAMENTO	SEM	CFU
ENERGY MANAGEMENT LAB	2	10
MANAGEMENT OF ENERGY AND SUSTAINABILITY	1	10
ECONOMICS OF NETWORK INDUSTRIES	2	5
INDUSTRIAL ECO-EFFICIENCY	1	5
FUNDAMENTALS OF ENERGY TECHNOLOGIES	1	5
FINANCIAL RISK MANAGEMENT	2	5
DIRITTO DELL'ENERGIA	2	5
INDUSTRIAL PROJECT MANAGEMENT B	2	5
OPERATIONS RISK MANAGEMENT AND RESILIENCE	1	5
SOCIAL INNOVATION	1	5
POWER PRODUCTION FROM RENEWABLE ENERGY C	1	5
GRUPPO FREELM	-	8

Thesis opportunities

- **Energy & Strategy Group**
  - **Permanent observatories** on: Renewable energy, Energy Efficiency, Digital energy
  - **Applied research projects**

Thesis opportunities

Contacts

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