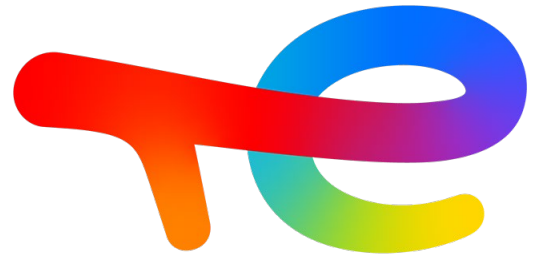


TotalEnergies

TotalEnergies : Needs for water training

Florence BROCARD, Environment Advisor

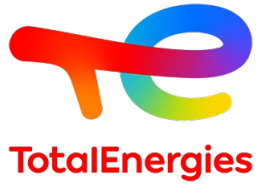




TotalEnergies

Summary

1. A Broad Energy Company
2. Freshwater in TotalEnergies
3. Competencies Project
4. A few examples of training



01.

A Broad Energy Company

Our Ambition

Our ambition is to be a major player in the energy transition

- With a presence in more than 130 countries, TotalEnergies is a **broad energy company** committed to providing energy that is ever more **affordable, clean, reliable and accessible** to as many people as possible
- **More energy, fewer emissions:** that is the dual challenge we must meet with our customers, stakeholders and society as a whole to contribute to our planet's sustainable development and effectively address the issue of climate change.
- We promote renewable, decarbonized energies, produce and market fuels, natural gas and electricity.
- We are investing massively in solar and wind power in order to become one of the **top five producers of renewable energy by 2030**

Overview of Our Operations

Our activities span the entire value chain:

- from the production of energies
- and their transportation and transformation into intermediate or finished products
- to their storage and distribution to meet the needs of individual and business customers

We also develop carbon neutrality projects for our own sites and for customers, with solutions to enhance energy efficiency and to capture or store carbon (CCS and natural carbon sinks).



OIL



NATURAL GAS



ELECTRICITY



HYDROGEN



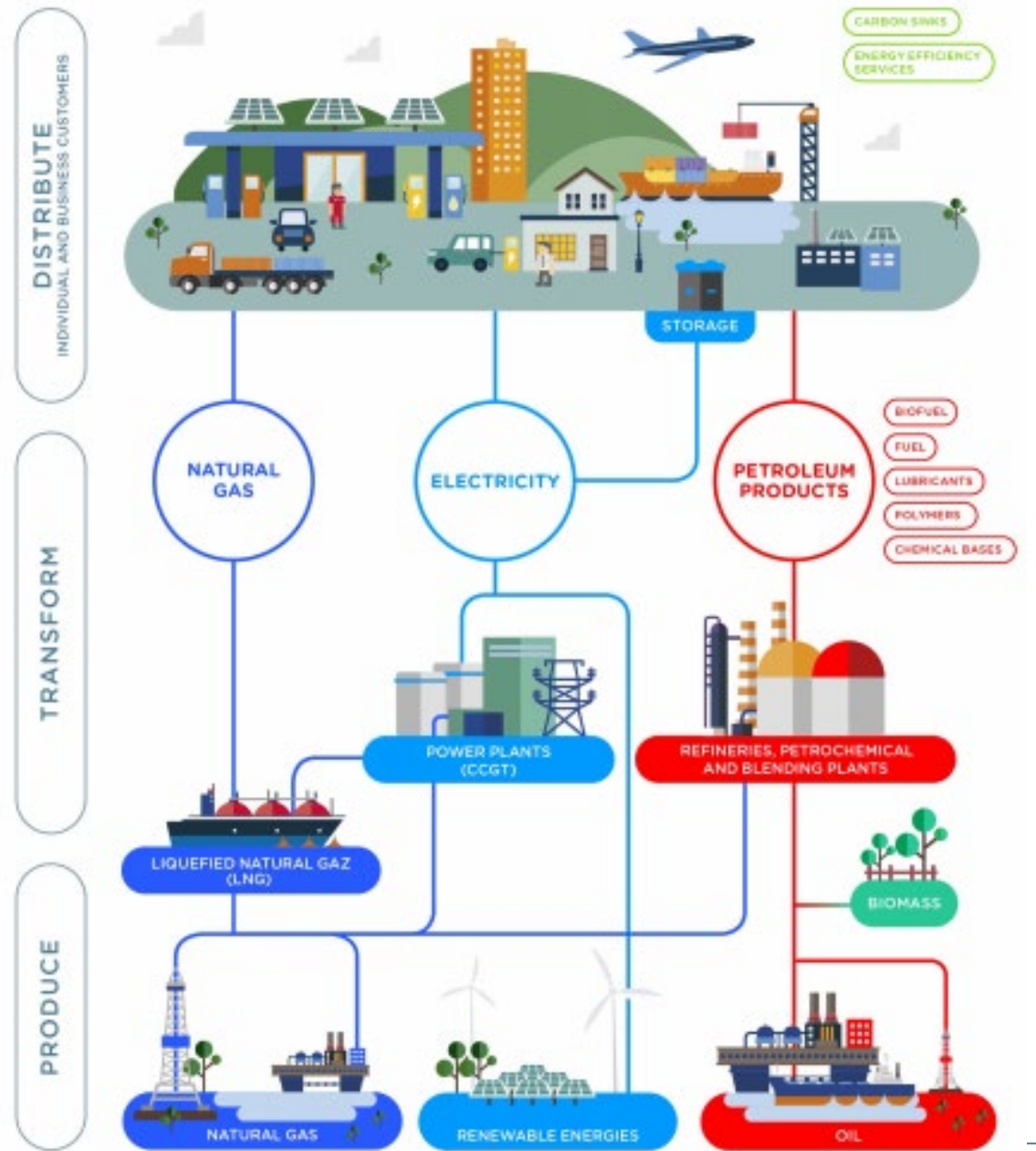
BIOMASS



WIND



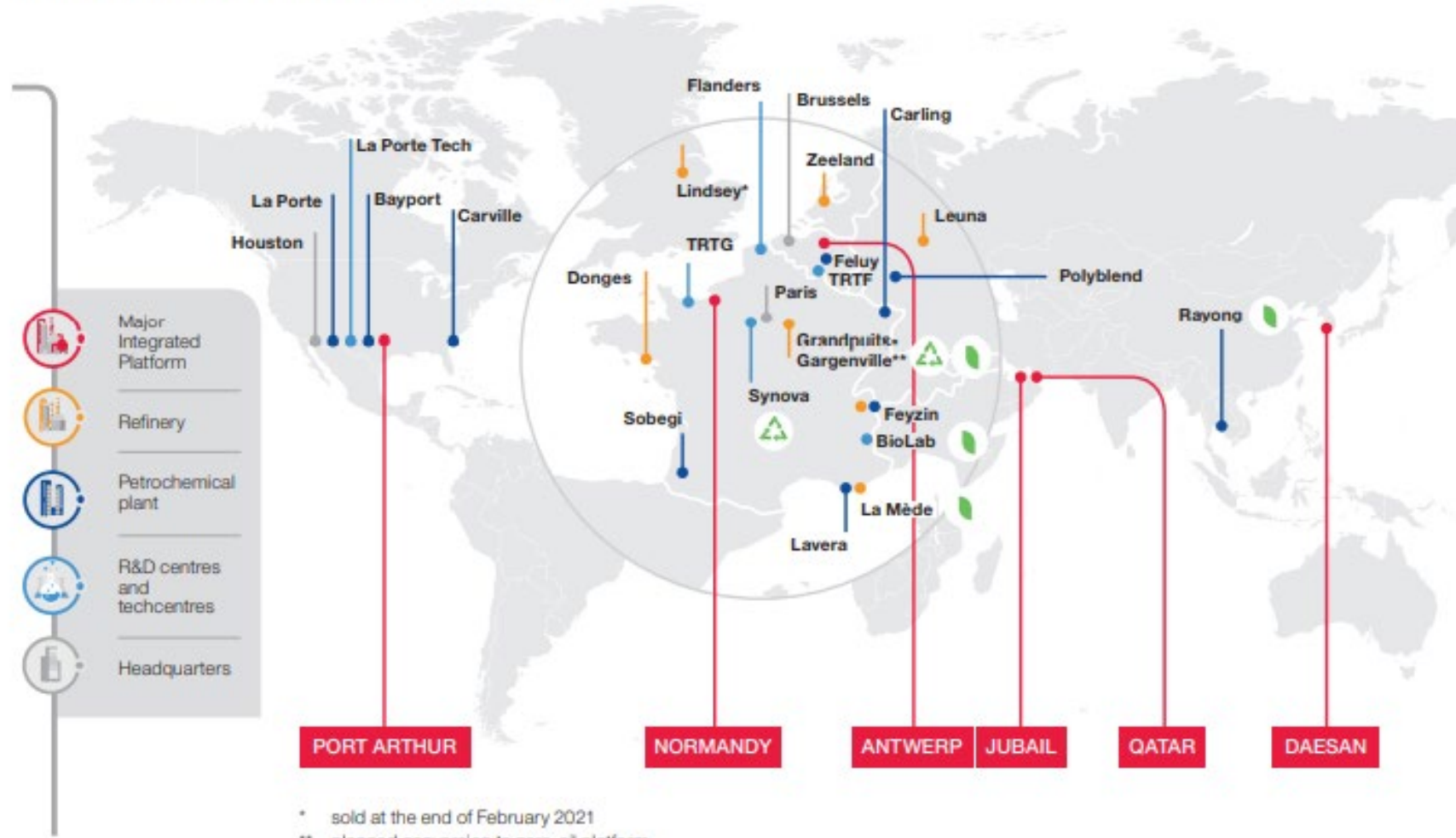
SOLAR

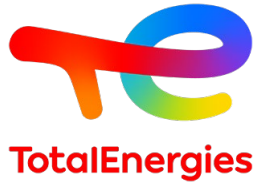


TotalEnergies Organisation

- 4 different branches:
 - Exploration & Production
 - Refining & Chemicals
 - Marketing & Services
 - Gas, Renewables & Power

Main sites of refining and chemicals at year-end 2020





02.

Freshwater in TotalEnergies

Freshwater in TotalEnergies

- Main purposes of freshwater use:
 - Cooling process
 - Vapor production
- Wastewater is treated before rejected into the environment
 - Different types of treatments according to the process
 - Refining: treatments with primary, secondary and biological treatments
 - Small sites (e.g services stations): connected with public network (water used chiefly for sanitation)
 - Some small sites: primary treatment and rejected into environment
 - Offshore: primary and secondary treatments

At Total, we are harnessing our full range of expertise to minimize the impact of our operations on water resources, everywhere we operate, and across the entire lifecycle of our facilities and products.

AT TOTAL

105 million cubic meters
the volume of freshwater* withdrawn by the Group in 2020**.

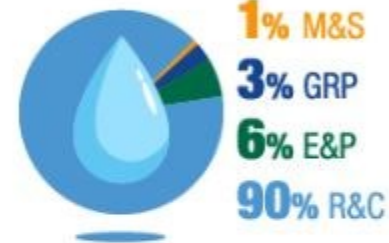
50% of this volume was withdrawn from areas of high or extremely high **water stress** based on the definition of the World Resources Institute. The demand for water for human activities, such as agriculture, industry and household use, **exceeds the available amount by 40%**. This is mainly the case in highly populated urban areas, for example in Northern Europe.

* salinity below 2 g/L

** excluding cooling water used in open-loop systems



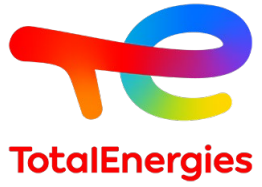
Freshwater Withdrawals by Business Segment



Hydrocarbon content of the Group's water discharges



100% of our sites have met our onshore discharge quality targets since 2016 and our offshore discharge quality targets since 2019.



03.

Competencies Project

Training management in TotalEnergies

- Online platform to collect all available trainings
 - More and more e-learning (30-45 mn) on all types of subjects
 - More and more distance learnings
 - Still some presential trainings when needed
- Access to trainings' catalog for most of employees, and linked to the needs of each employee
 - Campaign at the end of the year to ask for trainings: develop new competencies (for future jobs), maintain competencies into the current job
- 130 countries => difficult to have a unique trainings catalog !



Professionalization Stakes in Environment

- HR perspective :
 - Ensure the transverse mobility of 400 environment colleagues
 - Global view of environment professionals (HR perspective)
 - Asses their individual competencies on a fair way
 - Identify potentials and invest on them
 - Ensure to have the right person at the right place
 - Offer them clear career perspectives
 - Make colleague pro active in their career management
 - Manage expectations and enthusiasm
- Training:
 - Offer them clear training pathways
 - Find equilibrium between learning by experience and learning by training

The project

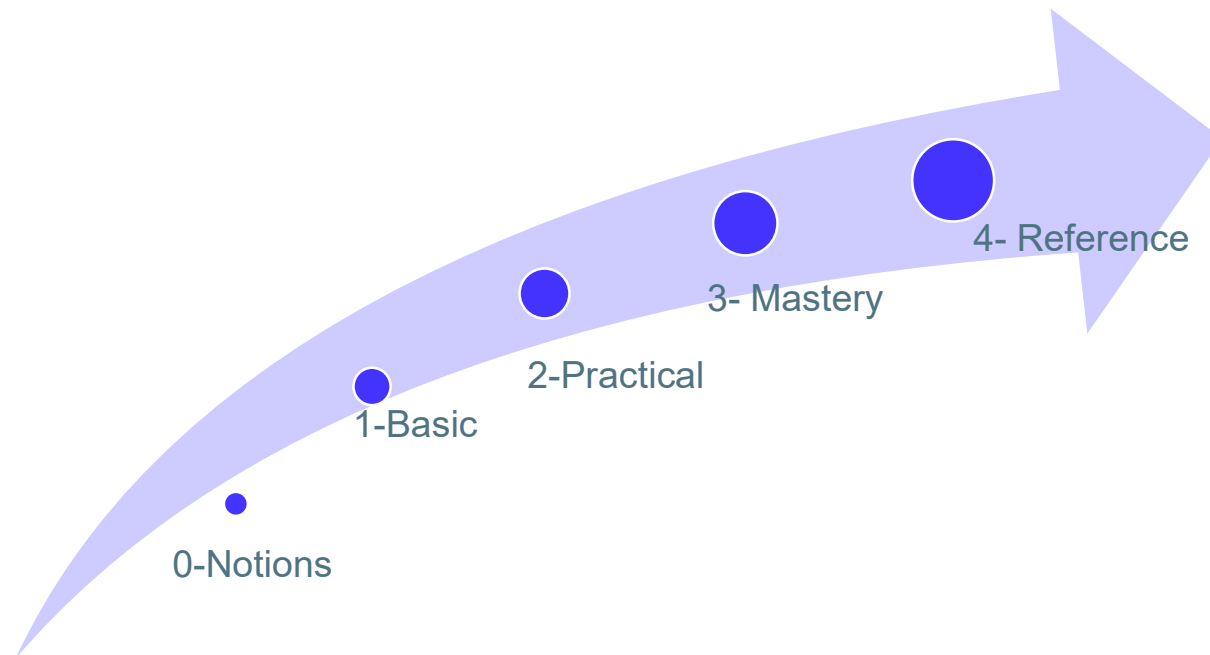


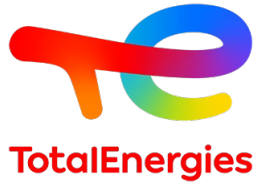
- Use existing HR and Training tools (HR4U, annual performance reviews, position cartography, training catalogs, job posting)
- Update Environment macro-competencies
- Define Environment micro-competencies
- Define the level of all Environment competencies for each job category
- Put in place training pathways to link competencies levels
- Transfer these tools into an app to be able to answer the following questions:
 - What are my competencies ?
 - What is my future job (the one I desire) ?
 - What is the competency gap between the job I have and the job I want ?
 - How do I fill this gap ? Which training do I need to attend ?



Environmental Competencies

- 14 technical environment competencies axis with 4 levels each
- Different types of positions require additional competencies (Management, Budget, HSE, ...)
- Fulfilling environment technical competencies is not sufficient to be able to occupy a position





04.

A few examples of trainings

Competency on water management

Water Management competency : Assesses the risks and impacts on water resources and quality, identifies associated management measures.

0-Notions:
Has no
knowledge
or partial
knowledge

1-Basic:

- Knows the main challenges related to the conservation of water resources and quality, as well as major water pollutants,
- general understanding of characterization parameters,
- general understanding of water management and treatment methods

2- Practical:

- Prepares the Specifications for effluent characterization studies
- Analyzes the results and defines the quality of the effluent.
- Applies his/her entity's water resource and effluent management procedures.

3- Master;

- Identifies and proposes impact and risk reduction measures
- Validates the water management plan
- Supervises and evaluates the studies and ensures the implementation of action plans.
 - Analyzes existing practices and prepares experience feedback.
 - Is proficient in water analysis and treatment techniques.

4-Reference:

- Evaluates the effectiveness of water analysis and treatment techniques and improves them.
- Improves water evaluation and management techniques.
- Proposes R&D actions, evaluates and validates R&D programs.
- Is the Group's external spokesperson.
- Advises Management, consolidates liabilities.
- Identifies trends and coordinates networks.

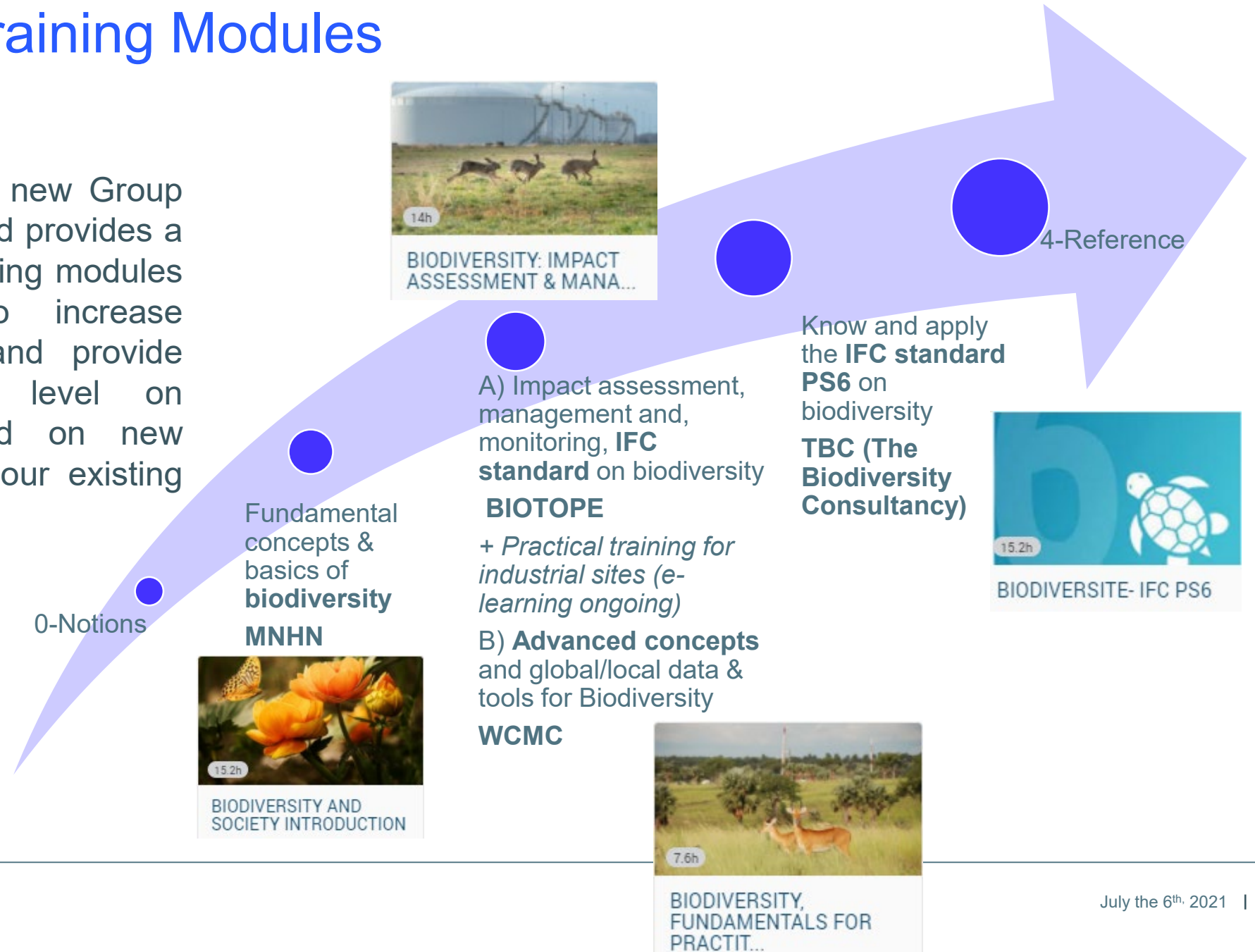
Trainings on water management

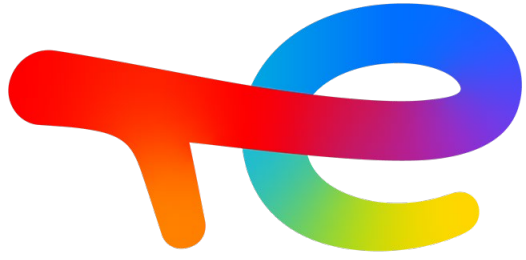
- Matching the training with the competencies... as much as possible
- Some examples on basic and practical levels :

Competency Level	Needs	Public	Training title	Organism	Duration	FR/EN
Basic	Knowledge of water stakes into O&G sector and be able to manage water actions	Every public	Water Peer to Peer	IPIECA (ongoing)	10h Online	EN
Basic	Knowledge of global view of water management and treatments technics.	Environment public	Le cycle de l'eau dans l'Industrie	OIEau	3 days Online	FR & EN
Practical	Acquire knowledge specific to the operation of wastewater treatment units	Water treatment operator	Operate a physico-chemical treatment unit for industrial effluents	OIEau Or Campus Veolia	3 or 4 days	FR & EN
Practical	Know how to manage odors in wastewater treatment	Water treatment operator, environment services	Operation of a deodorization unit in a wastewater treatment plant	OIEau	2 days	FR & EN
Practical	Evaluate water quality data and the monitoring strategies that generate them	Environment public	Catchment Water Quality	Cranfield Water CPD	4 days	EN
Practical	Develop the skills to analyse and interpret environmental data and to assess them in light of current drivers (e.g. regulatory and socioeconomic).	Environment public	Integrated River Basin Management	Cranfield Water CPD	5 days	EN

Biodiversity Training Modules

Makes the link with the new Group Biodiversity Ambition, and provides a complete catalog of training modules for the company to increase employee awareness and provide the right knowledge level on standards to be used on new projects as well as on our existing sites





TotalEnergies

Thank you.