## CONTEXT

From 1980 to 2012, the world total primary energy consumption almost doubled, reaching almost 600 quadrillion Btu. As a consequence, our production capacity grew to follow the trend. In year 2013, 78 % of the energy we used on earth came from fossil fuels and nuclear. This number is lower than the one of previous years, which demonstrates that .They nevertheless often remain unpredictable because they rely on natural factors that vary randomly. More stable energy production mode therefore are to integrate the generation units. Fuel cells could correpond to this need. Indeed, a fuel cell could be assimilated to a battery that runs thanks to a fuel: hydrogen. It creates electricity through a chemical reaction that is to turn hydrogen and oxygen into water.

BENOIT SEROT - PONGSATHORN TIRANUN - KONSTANTIN NEUMANN - SHOUKA ARABI







### INDUSTRY ANALYSIS REPORT

Fuel cells are presenting a zero-emission stable and effective way to produce electricity. It nevertheless remains a technology the general public is not familiar to. The *Fuel Cell Industry Analysis Report 2015* brings some precisions about this product, the surrounding industry, the regulations, and the competing technologies. It adopts a product point of view, which is essential to have in order to understand the dynamics involved in the fuel cell industry. It therefore distinguishes from other industry reports because it describes the product in itself so that anybody can fully seize the rest of the analysis.

### LOGIC MODEL

**PROBLEM** As fossil fuels reserves of the planet are not inexhaustible and the energy demand is rising year

by year, it is essential to adopt alternative sources of energy.

**GOAL** Provide an open Industry Analysis Report (IAR) in order for global knowledge and development

opportunities to become available to anyone.

Resources	ACTIVITIES	OUTCOMES	Оитритѕ
1 Supervisor	Review Fuel Cell information	IAR Interaction with	Know about the fuel cell industry
20 Contributors			
4 Authors	Extract IAR structure from existing	other contributors	Know the state and needs of the market
Documentation	reports		IAR available to
about IAR	Build a personalized		everyone (open on-
Documentation about fuel cells	outline for the IAR		line platform)
Online data sharing platform	Collect data		IAR understandable
	Write, design & edit the IAR	by everyone	by everyone
	Present IAR project		

**RATIONALES** 

IAR beneficial for stakeholders, customers, researchers, industry, and curious people.

**ASSUMPTIONS** 

Enough data is available online.| Hydrogen power has not yet reached its mature stage and will spread to the general public.

# **WORLD ENERGY CONSUMPTION**

# 600 500 400 300 200 1980 1996 2012 — Primary Energy Production (Quadrillion Btu)

# **WORLD ENERGY SOURCES**

