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, the competing technologies and gives a critical outlook for the future. 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 **OUTPUTS** 1 Supervisor Review Fuel Cell IAR Know about the fuel information cell industry 20 Contributors Interaction with Extract IAR strucother contributors Know the state and 4 Authors needs of the market ture from existing Documentation reports IAR available to about IAR Build a personalized everyone (open on-Documentation outline for the IAR line platform) about fuel cells IAR understandable Collect data Online data sharing by everyone Write, design & edit platform the IAR 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 WORLD ENERGY SOURCES 600 400 300 200 1980 1996 2012 Primary Energy Production (Quadrillion Btu) Others Fossil fuels & nuclear