## EMPOWERED BY Multiconsult

Dybaner

The Return of Carbon Finance for Renewable Energy Projects: When? What? How? Really?

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### Past and future



1908 **Rangvald** Lie founds Norsk Vandbygnings kontor (NVK)

1900



Einar N, Hylland founds «Ingeniør Einar N. Hylland".

Few years later Hylland is involved in the modernisation of Holmenkollen ski jump for the Olympic games in Oslo 1952

1930

1920

1910

1940 1950



1961 Ing. E.N Hylland becomes Sivilingeniørene Apeland & Mjøset AS

1960



1971

C

Norplan

established



1989 Jacobson E Widmark (WSP) enters ownership

2002 The business areas introduced

2000

1970 1980

1990

1990  $\Pi$ NOTEBY AS merges with Multiconsult

Multiconsult 50 AS introduced

1974

as company name and 1995 50th **Multiconsult** anniversary Foundation established



2008 100th anniversary

Ar a

2003

NVK + MC

Multiconsult

NVK merges with

1997 Multiconsult with a clearly multidisciplinary profile

LINK ARKITEKTUR 2015 LINK arkitektur becomes a fully owned subsidary Multiconsult

2020

2014

NOTERT

OSLO BØRS

Listed on the **Oslo Stock** Exchange

2015

2010

NORPLAN

2012

Norplan

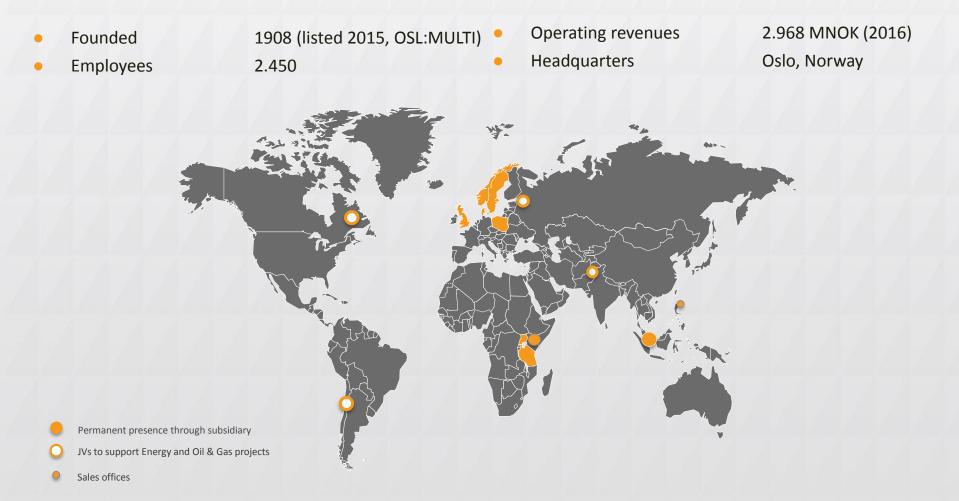
established

Multiconsult Hydropower Ltd Polska (Multiconsult UK) established

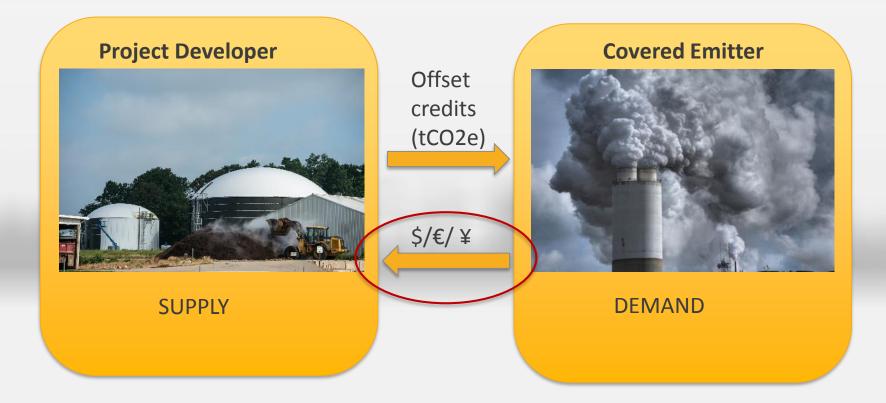


2013 The 3-2-1 strategy implemented

### Multiconsult ASA: full service engineering & technical consultancy



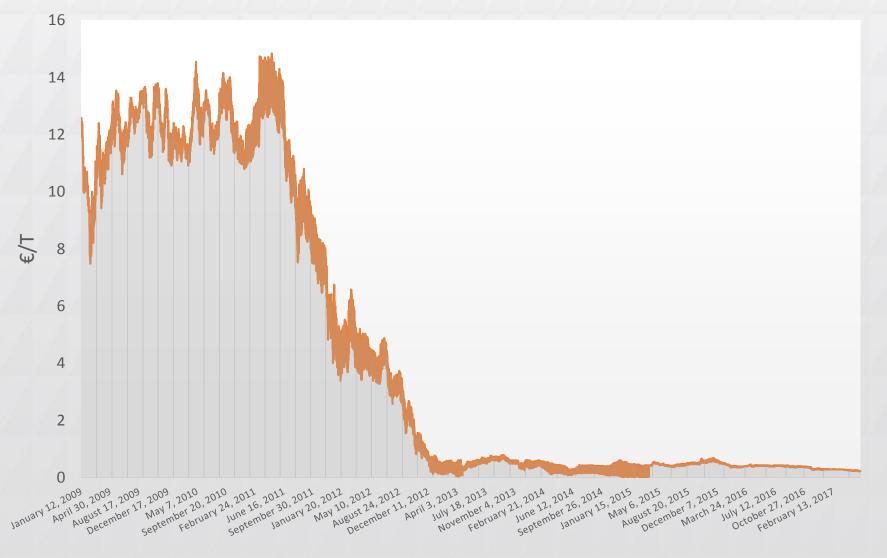
# Carbon finance: extra revenues to project owners where projects produce «additional» GHG reductions



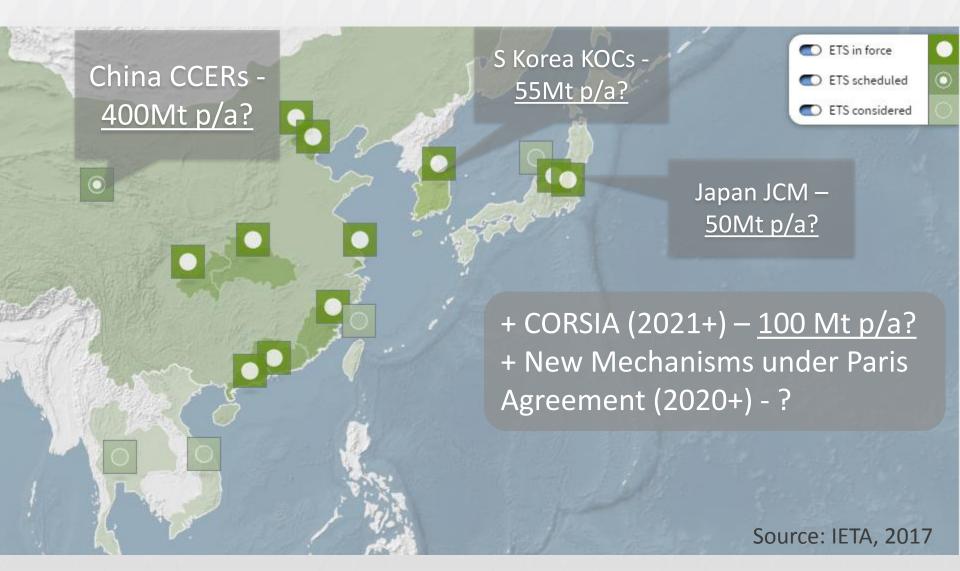
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### That's had its share of ups and downs...

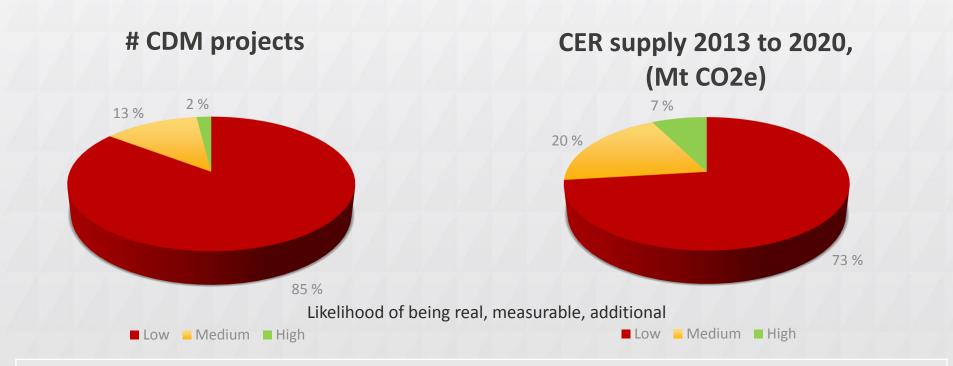
**CER Futures Price (ICE)** 



### And now promises a rebound...



### But what have we learned?

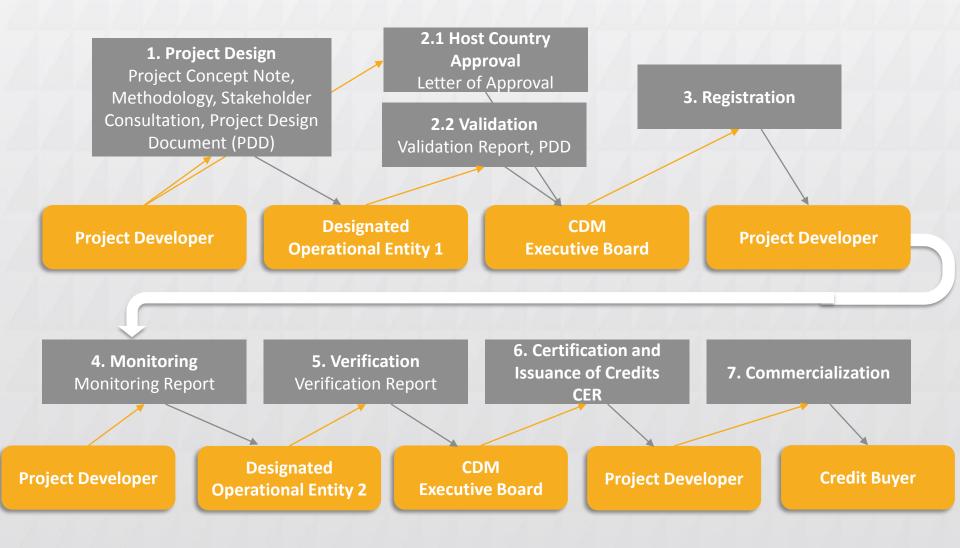


#### Potential CER supply To 2020, Mt CO<sub>2</sub>e

Low: 3527						Medium: 943					High: 359	
Hydro power	Wind power	Fossil fuel switch	Waste heat recovery		Cook stoves	Adipic acid		Coal mine methane	Landfill gas	Biomass power	HFC-23 abatement	Nitric acid
1669	1397	232	222	4	2	257	191	170	163	162	184	175

Multiconsult & OEKO institute, 2016

### Do we need this complexity?



### «We are what we do. And what we do is what we become.»



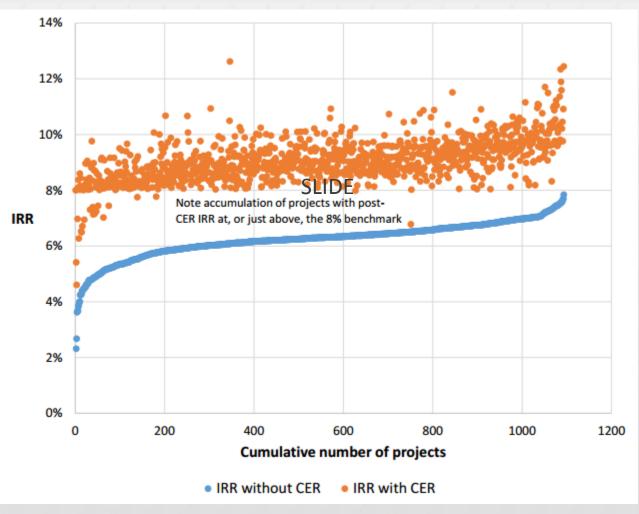
William Greene wig @multiconsult.no

### Status of the industry 2017

### 5000+ projects. 1.75 bn+ tCO2e reductions (?)



### **<u>All</u> RE projects have suspect additionality**



Oeko Institute & Carbon Limits, 2016