

ABB Medium Voltage Days MEA

# How ABB makes a difference

## Examples from the Oil & Gas Segment

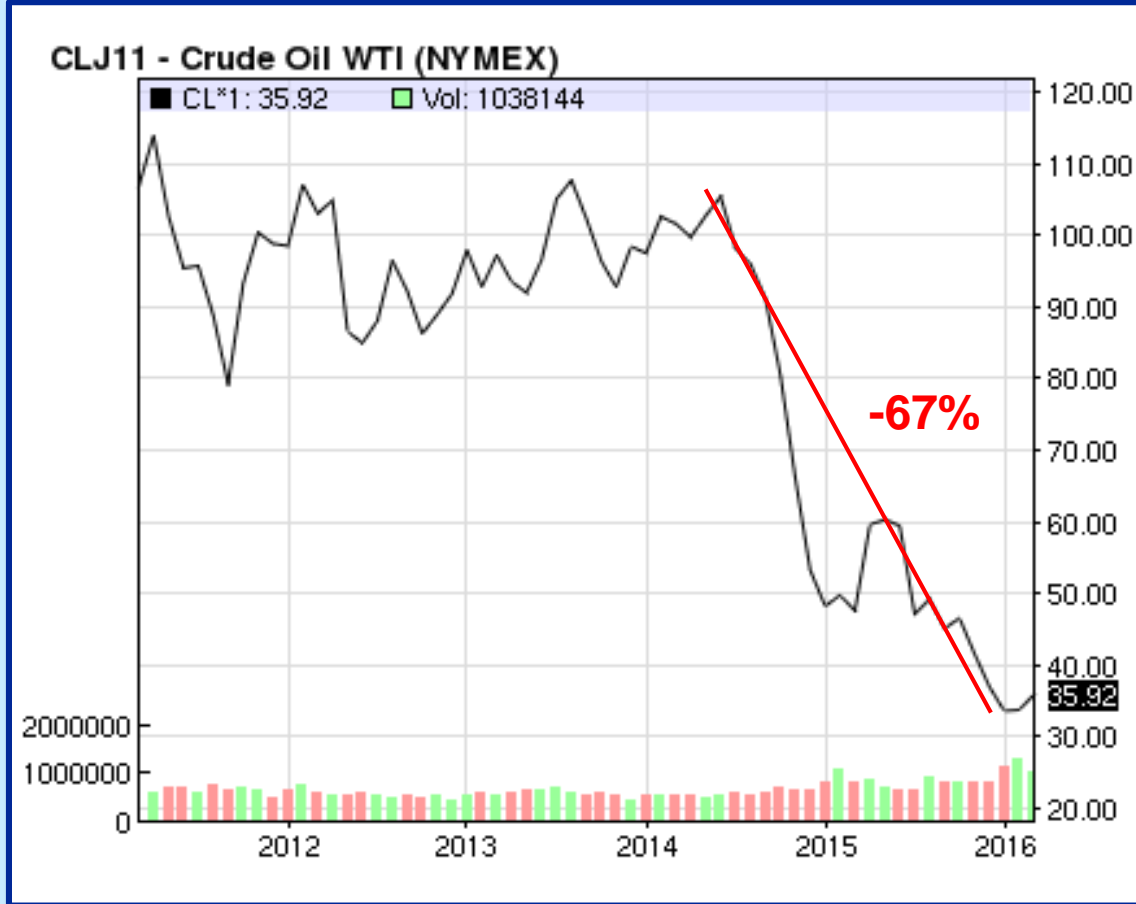
# How ABB makes a difference

## Examples from the Oil & Gas segment

- Speaker name            Thomas Schmidtchen
- Speaker title            Global Segment Manager – Oil & Gas  
ABB Medium Voltage Products
- Company name           ABB Inc.
- Location                 Houston, Texas, USA

# Motivation

## Why speak about Oil & Gas?



Is it time to challenge the way we've been doing things?



Is it time to look for smart & efficient solutions?



Do we want to compromise safety or reliability?





# How ABB makes a difference

## Examples from the Oil & Gas Segment – Overview



What ABB does

- ABB's value proposition for electrification infrastructure



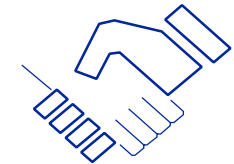
How ABB makes a difference

- Safe & reliable, smart & efficient solutions



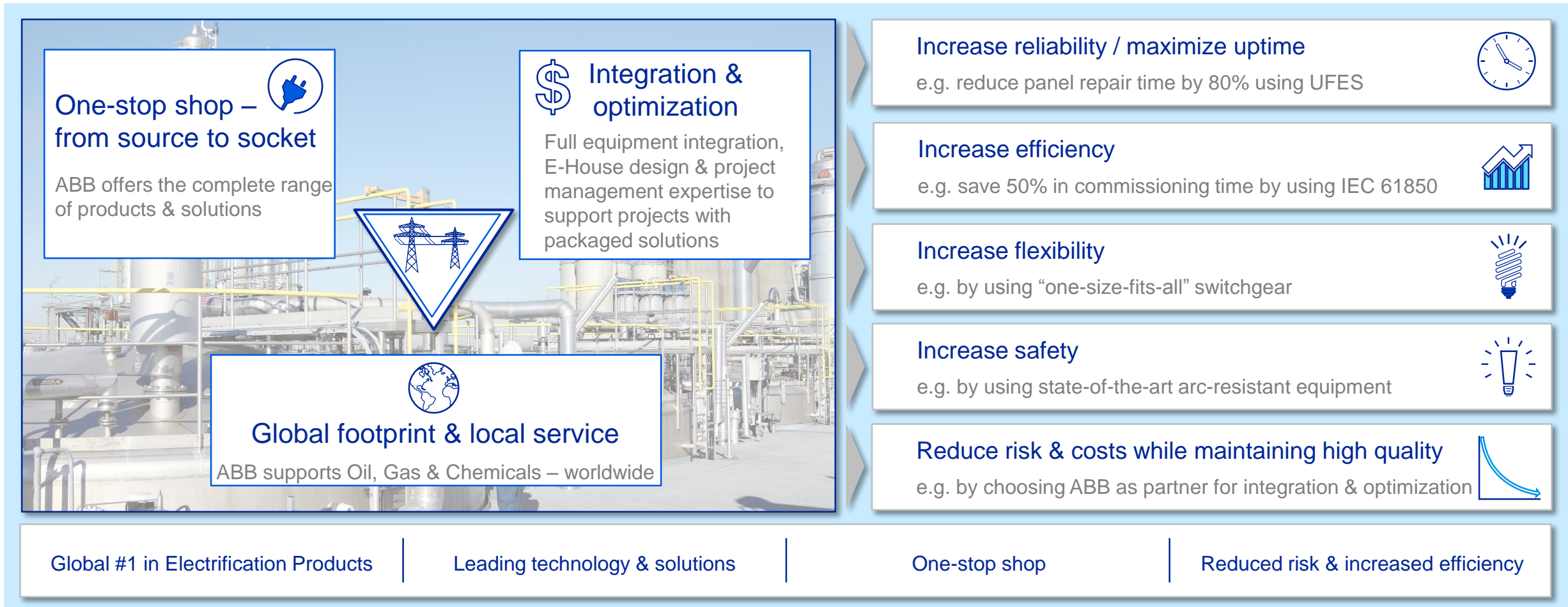
Project references

- Where ABB helps customers increase their productivity while not compromising safety



# ABB's Value Proposition

## Complete Electrification in Oil, Gas & Chemicals

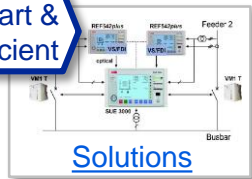


# ABB's Value Proposition

## Products, Solutions & Services for the Electrification Infrastructure

### Complete range of products

Smart & Efficient



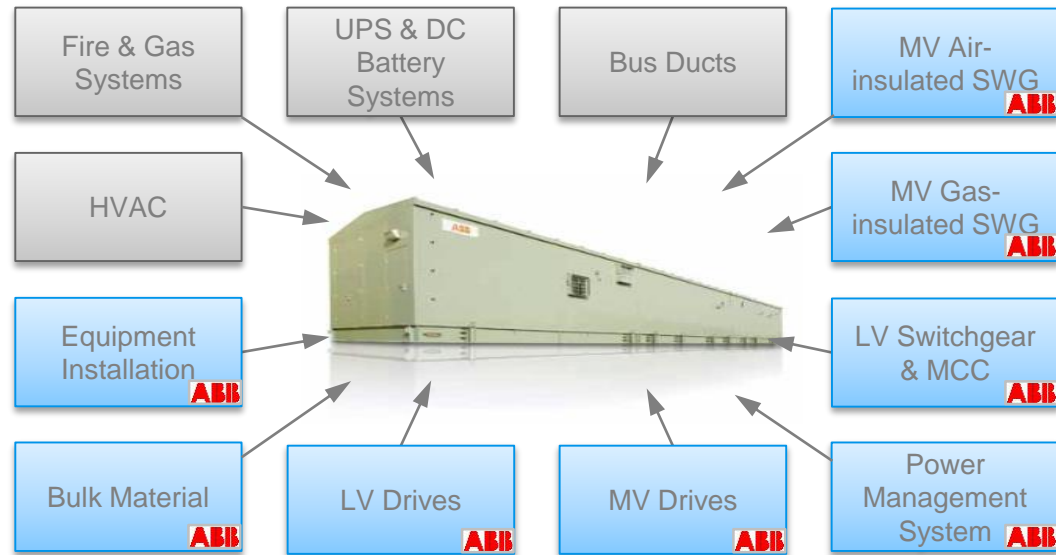
Safe & Reliable



Strong Basis



### Full E-House integration & project management



### Life-cycle services

- Installation & Commissioning
- Spares & Consumables
- Maintenance (Asset Management Strategies, Condition Monitoring)
- Training
- Extensions, Upgrades & Retrofits
- Replacements
- End of life Services
- Service Agreements



Global #1 in Electrification Products

Leading technology & solutions

One-stop shop

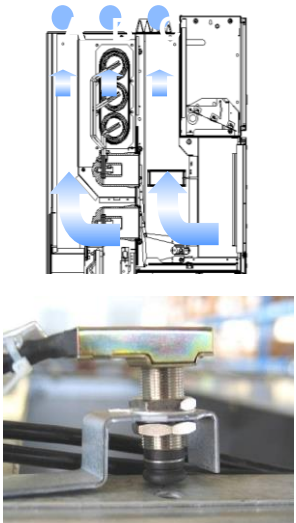
Reduced risk & increased efficiency

# How ABB makes a difference

## Safe & Reliable – Example: Active Arc Mitigation

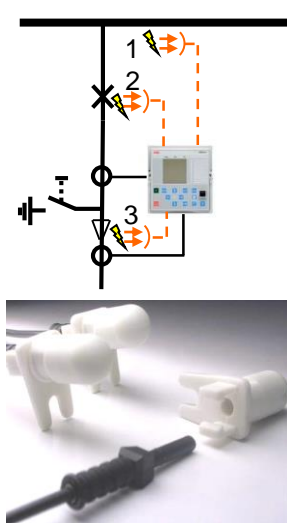
### Multiple solutions for highest personnel & equipment safety

#### With $I_{th}$ -Limiter



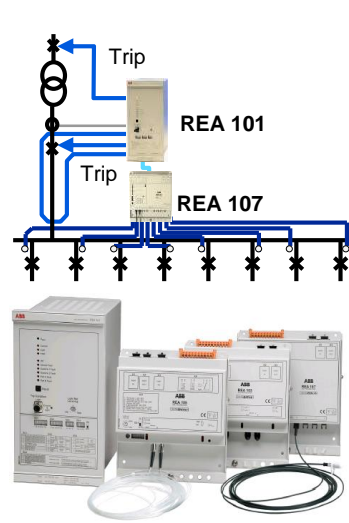
arc cleared in  
~ 70... 90ms

#### Relion® Relay



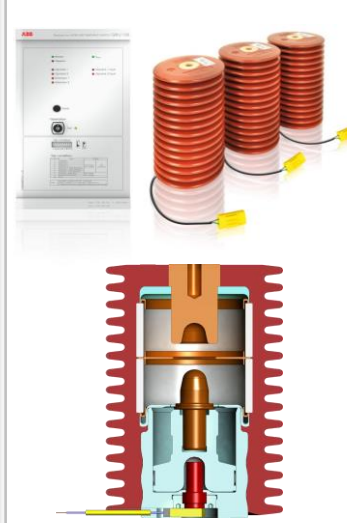
arc cleared in  
~ 60... 90ms

#### With REA®



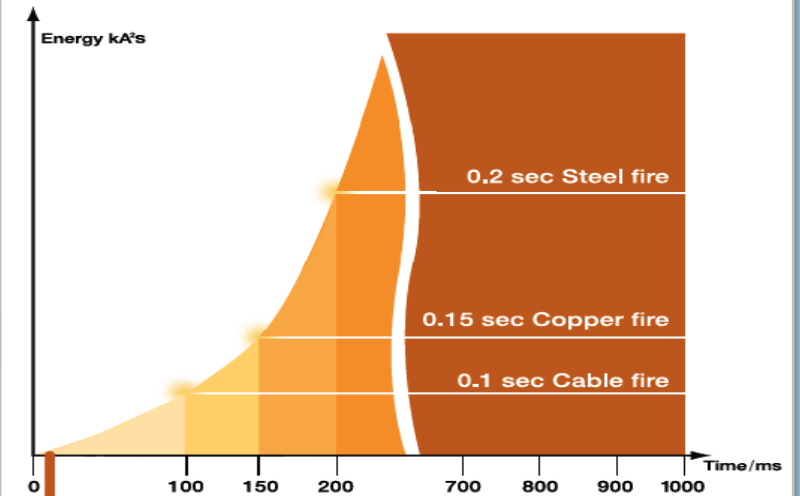
arc cleared in  
~ 60... 80ms

#### UFES® + REA®

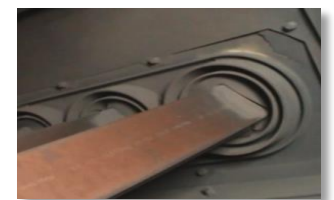


arc cleared in  
< 4ms

### Arc clearance time is the key



Vs.



Min. repair & service, maximized process uptime!

# How ABB makes a difference

## Safe & Reliable – Example: Distribution Automation Solutions

### Where ABB came from



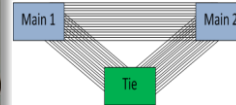
### ABB today: Relion®



### Traditional ☹️



#### E.g. Automatic Transfer Scheme (ATS)

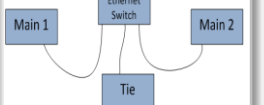


- Single wire pulling & testing one-by-one
- No loss of communication detection

### Relion® with IEC 61850 ☺️



#### E.g. Automatic Transfer Scheme (ATS)



- ✓ Factory pre-tested
- ✓ More than 2x the speed
- ✓ Increased reliability
- ✓ Reduced time & costs

One product family

One look & feel

Native IEC 61850

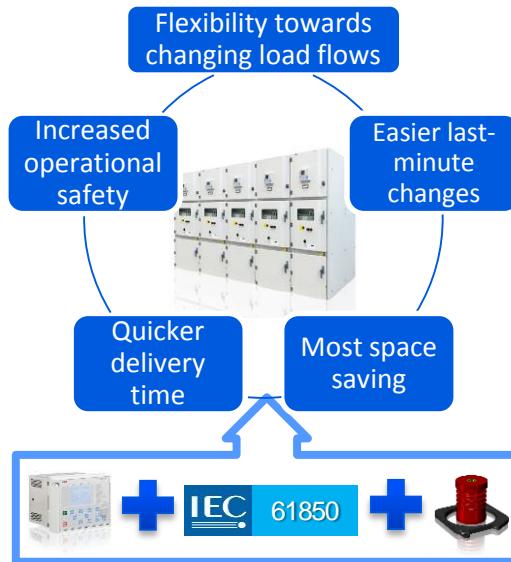
+500.000 relays in operation



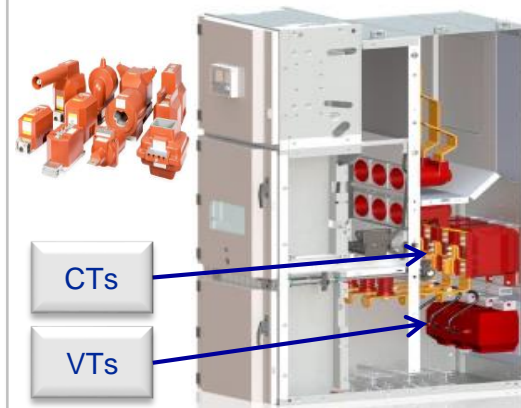
# How ABB makes a difference

## Smart & Efficient – Example: Digital Switchgear

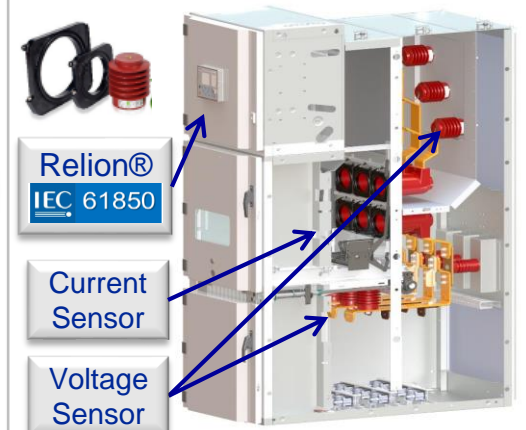
### The “Digital” concept



### Traditional switchgear



### Digital switchgear



“One-size fits all”

Linear slope, no saturation

Quicker engineering,  
installation & commissioning

Increased safety

Reduced size & weight

# How ABB makes a difference

## References for Safe & Reliable, Smart & Efficient Solutions

### International Oil Company in Oman



Ultra Fast Earthing Switch

Min. repair & service, max. process uptime!

### International Oil Company in UAE

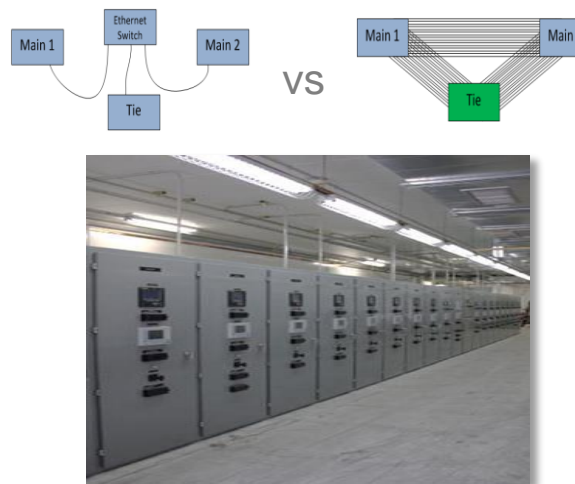
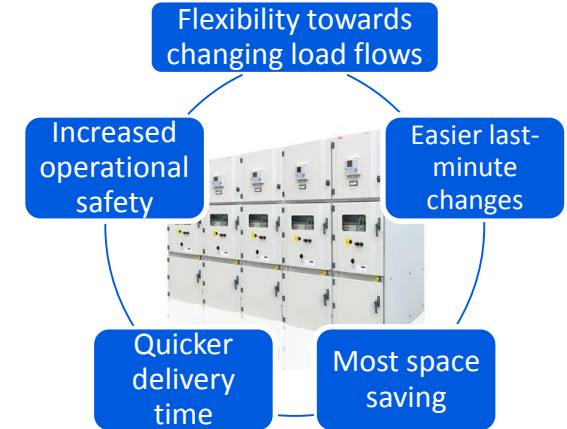


ABB Relion® relays  
with IEC 61850 GOOSE

Increased speed & reliability,  
reduced time & costs

### National Oil Company in UAE



Digital Switchgear

Unique flexibility ("One-size fits all"),  
unique savings (time, costs, space, weight, ...)

# Questions & Answers



Do you think that ABB can help increase efficiency,  
while not compromising safety?

Do you think that ABB can help master the challenges of the future?

Do you think ABB is a partner of choice for Electrification Infrastructure?



Power and productivity  
for a better world™

