



Cairo, Egypt. November 7-8, 2022

# MENAPS 2022

MIDDLE EAST AND NORTH AFRICA PERFORATING SYMPOSIUM

## EGPC Roadmap to **MISS** misfire and avoid consequences

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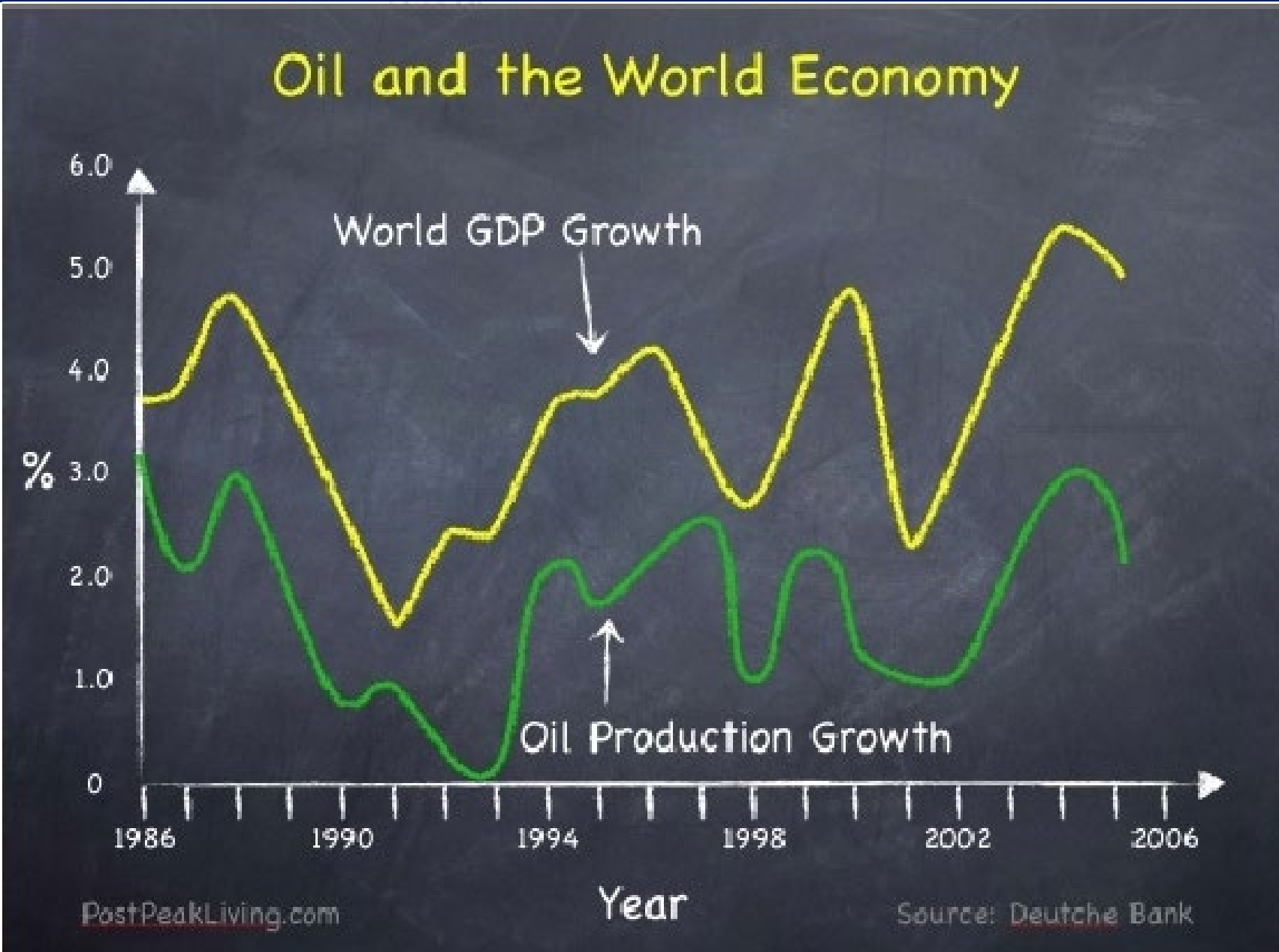
## **Misfire**

Misfire Statistics, and case histories

**04**

## **Road Map**

What is in our mind



## EGPC

Is an economic State Corporation affiliated to the Ministry of Petroleum.

EGPC affiliated companies are 12 Public Sector Companies, 41 Joint Venture Companies, & 87 Investment Law Companies; in which EGPC is a shareholder, either by itself or through other affiliated companies.



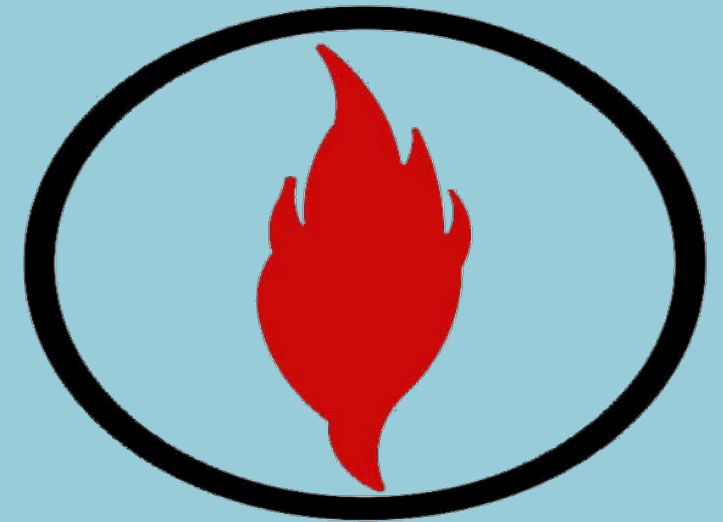
## EGPC Philosophy

### Mision

Diversify petroleum products and services to meet the changing needs of the global market, while satisfying the local demand for petroleum products.

### Vision

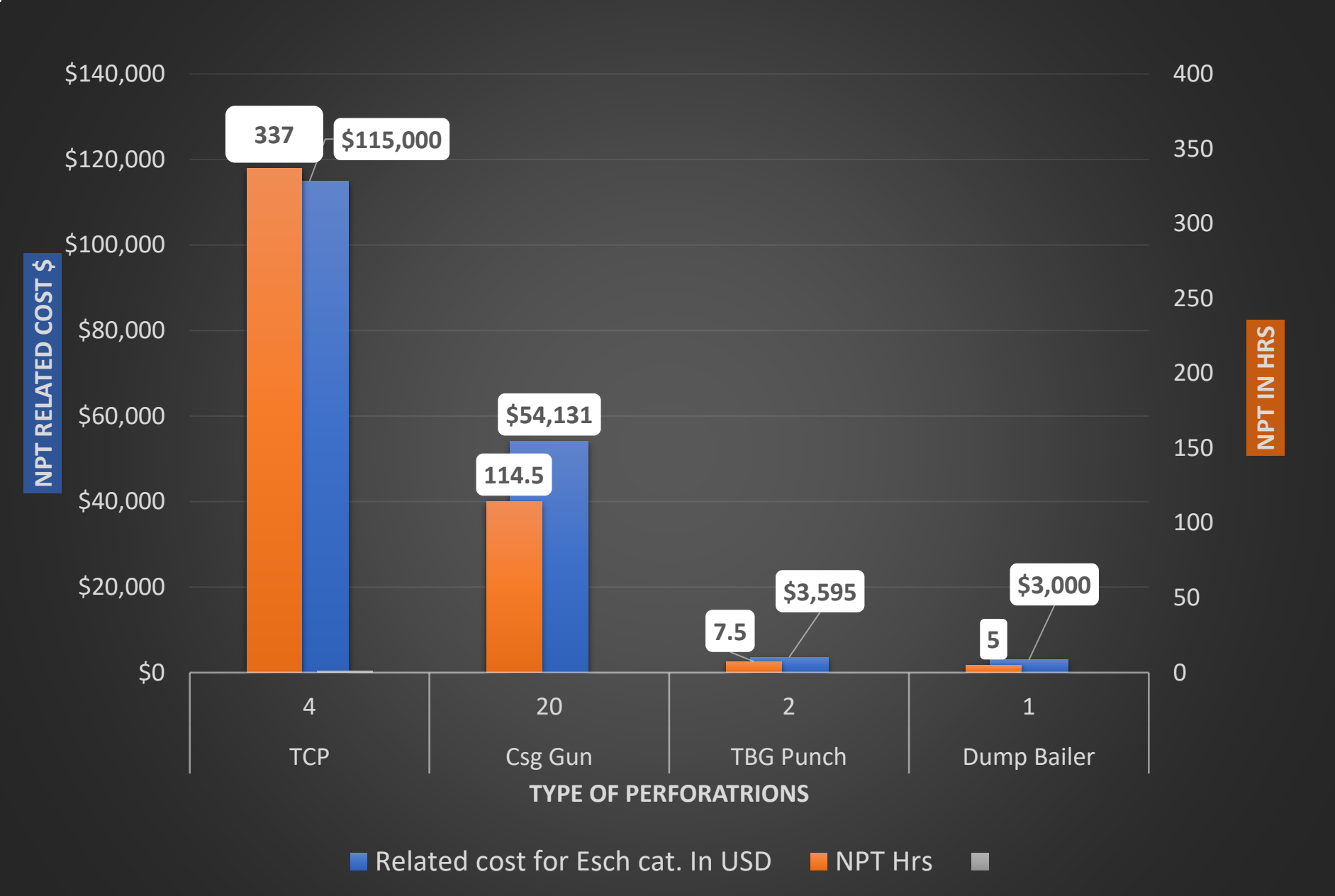
EGPC has a major role in developing the oil business in Egypt, and to be one of the leaders both locally and worldwide.



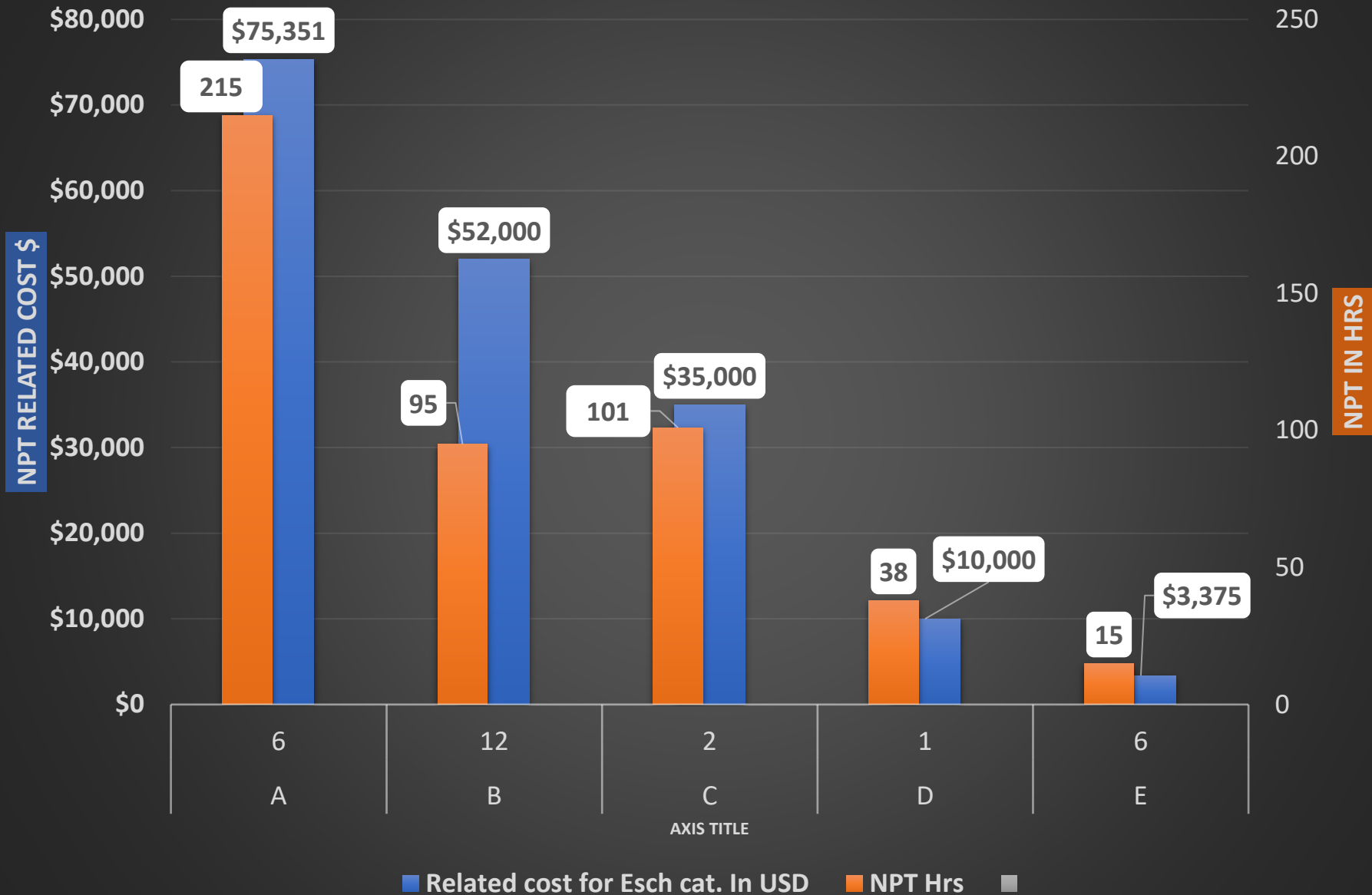
**EGPC**



# MFJ Distributed by Perforations' Type



# MFJ Distributed by Services Companies





# MFJ distributed per Services Co.



<b>Total # of jobs</b>	<b>386</b>	<b>Job</b>
<b>Total # of Runs with Average 2 runs per job</b>	<b>772</b>	<b>Run</b>
<b>Total # of Miss fires</b>	<b>12</b>	<b>Run</b>
<b>Misfire %</b>	<b>1.55%</b>	<b>%</b>

**\$ 870,000**

NPT and Deferment Production



## Summary

After loading Guns **10** SPF as per design and RIH, correlated and shot Gun with good Current and Tension Indication.

Started Pooh, on surface **found 5 random scallop places didn't fire and found 3 scallops cracked but didn't make normal hole as other loaded shots.**

Proceed with Second gun after shooting with good current and tension indication Pooh, and on surface found **one scallop cracked in middle of gun.**



# Case History-1



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**One scallop cracked in middle of gun**



# Case History-1



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# Case History-1



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## Causal Factor: **Charges experienced low order detonation**

1. Why?–P/C didn't have good contact with charge primer.
2. Why?–P/C slipped to the side of the charge clip while placing charge
3. Why?–P/C not properly clipped
4. Why?–Difficulty in assembly for **10SPF**
5. Why?–Human Performance

**Most Probable Root Cause**  
**Human Performance Difficulty**

## Summary

Drop the bar and perforate ARG formation. Good sound indications for fire and clear click at annulus gauge

## Firing Bar Guidelines

The Bar we used is standard firing bar is 1.25 in. O.D. x ft.14 long .  
Firing bars have the same fishing neck (7/8 in. O.D. x 7.6 in. long).







## Summary

1. Decision was taken to splice two guns together 15 ft and 10 ft .
2. After correlating and shooting the gun a very good indication was present by the tension fluctuation and short circuit.
3. At Surface , it was observed that only the top 15ft carrier was fired but the bottom 10ft carrier was still intact.
4. Pressure was bled off and the splice adaptor was unscrewed and no boosters or primercord were present.
5. After the chassis was taken out and observing the charges, there was no primercord found and it had completely burnt away

## Root Cause:

1. The Splice was done by placing the booster Side to Side connection where one of the boosters might have been affected by Humidity or Humidity in the Primercord.
2. Bad crimping technique and not following Stranded work instruction (SWI) results on low order detonation causing bottom gun not to fire .



## Action Items:

- ✓ Refresher training for Gun Loading including FE and Operators.
- ✓ Engineer to create learning from incident report and share it with the operation team to avoid incident recurrence in future operation.
- ✓ Start ordering 30 / 20 ft carriers to avoid guns splice in future operation.



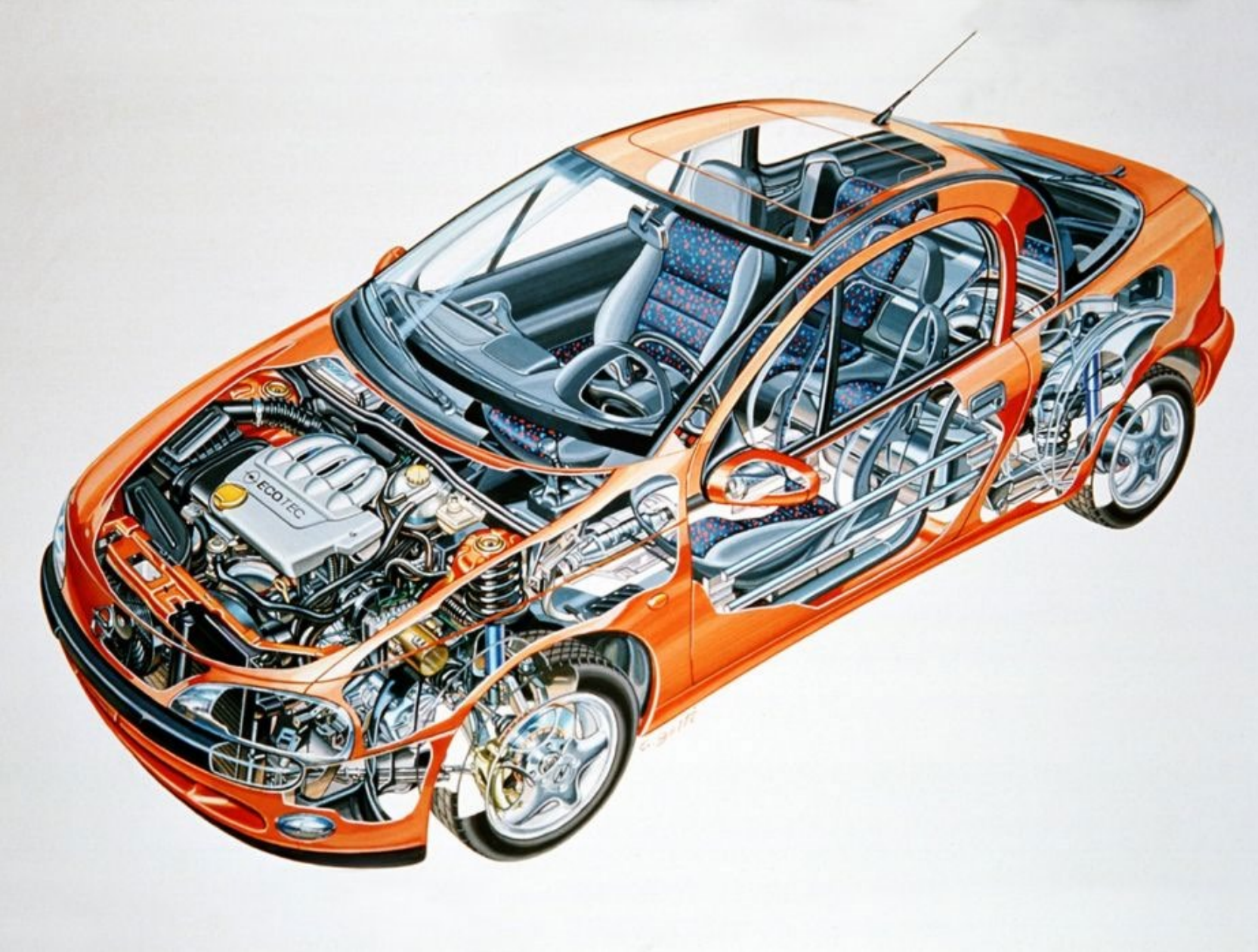
# EGPC Road Map

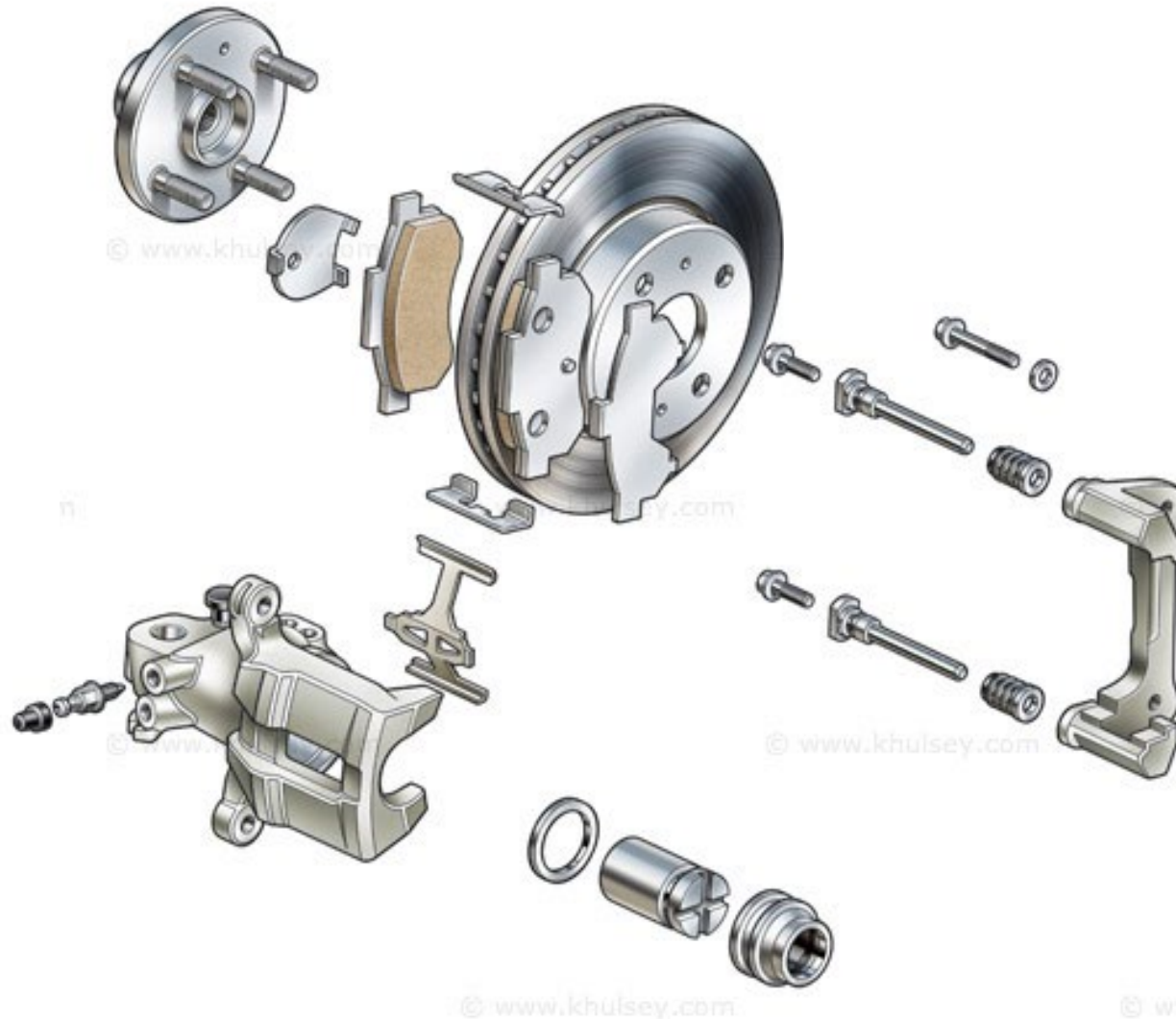


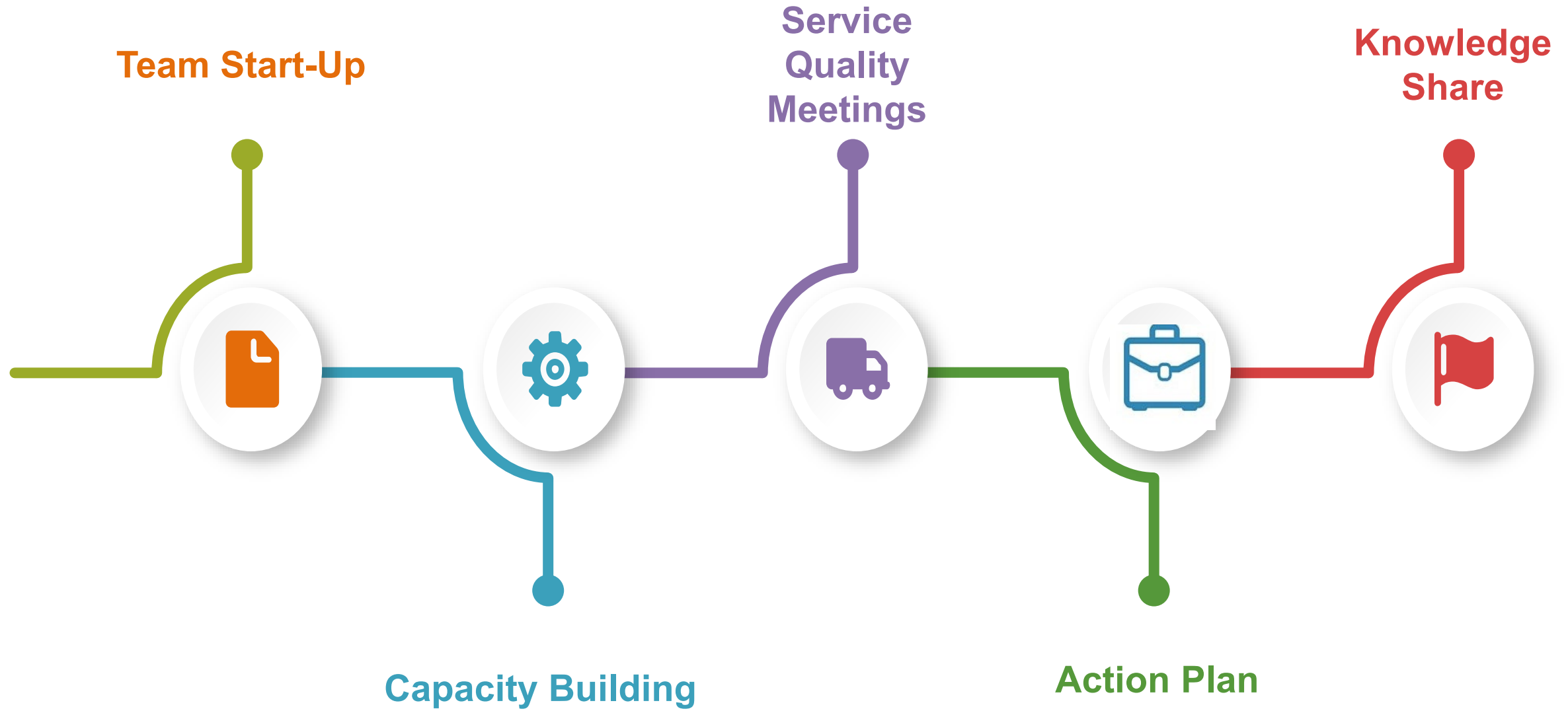


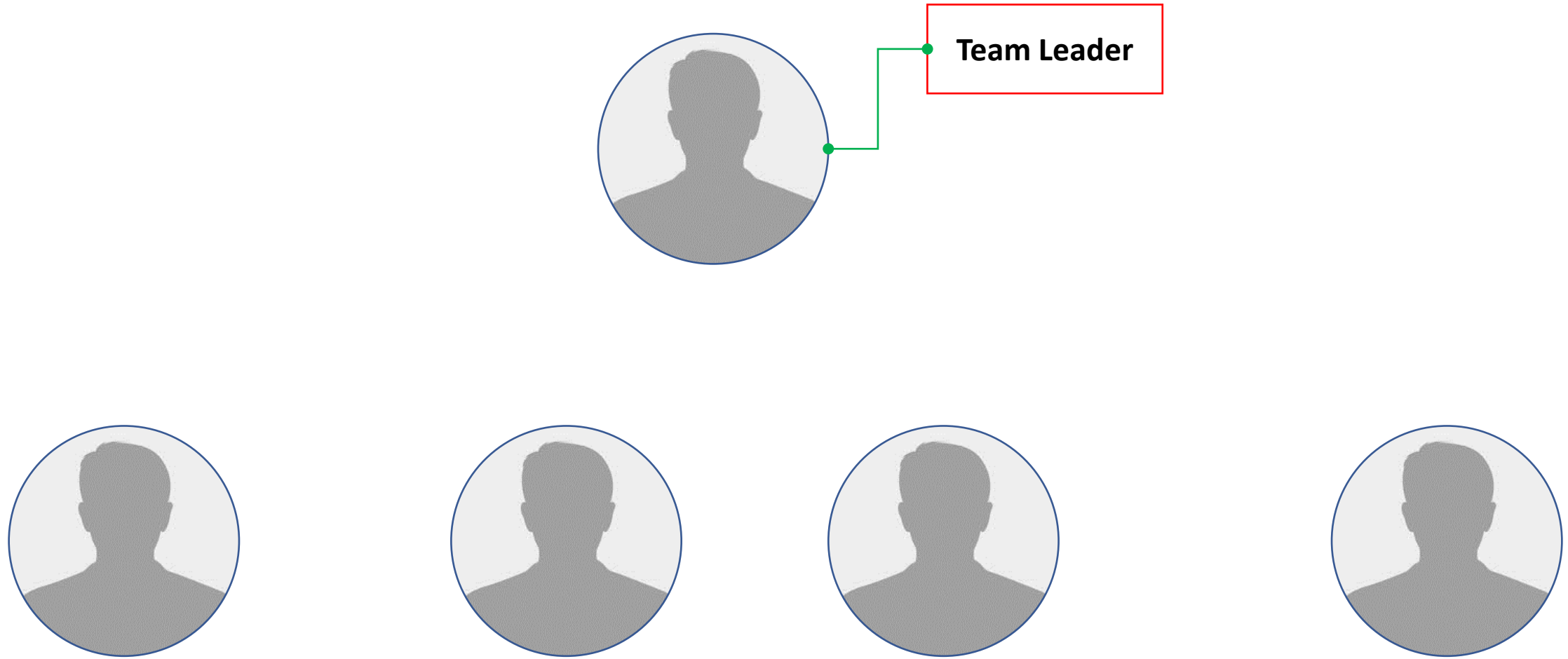














# Capacity Building



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# Q&A

