ANIE FEDERAZIONE
FEDERAZIONE NAZIONALE IMPRESE ELETTROTECNICHE ED ELETTRONICHE

CONFINDUSTRIA

AssoAutomazione
Associazione Italiana Automazione e Misura

Case history: AGV

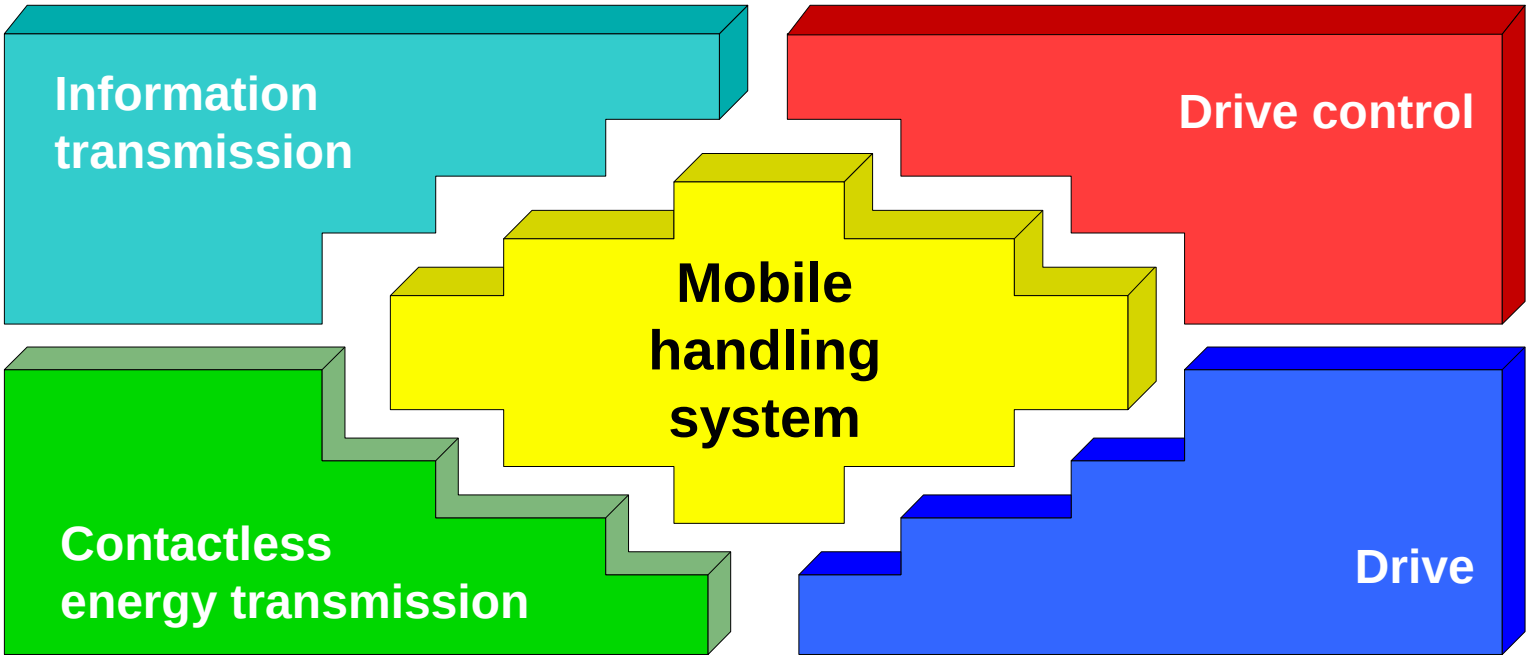
Dimensionamento e interazione tra diversi componenti meccatronici.

Alessandro Cerrina – SEW Eurodrive

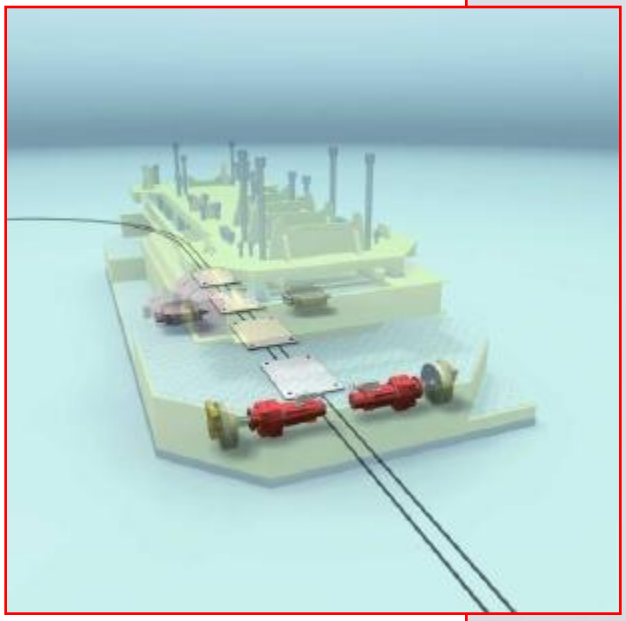
Il “mobile handling”: applicazioni AGV nell’intralogistica.

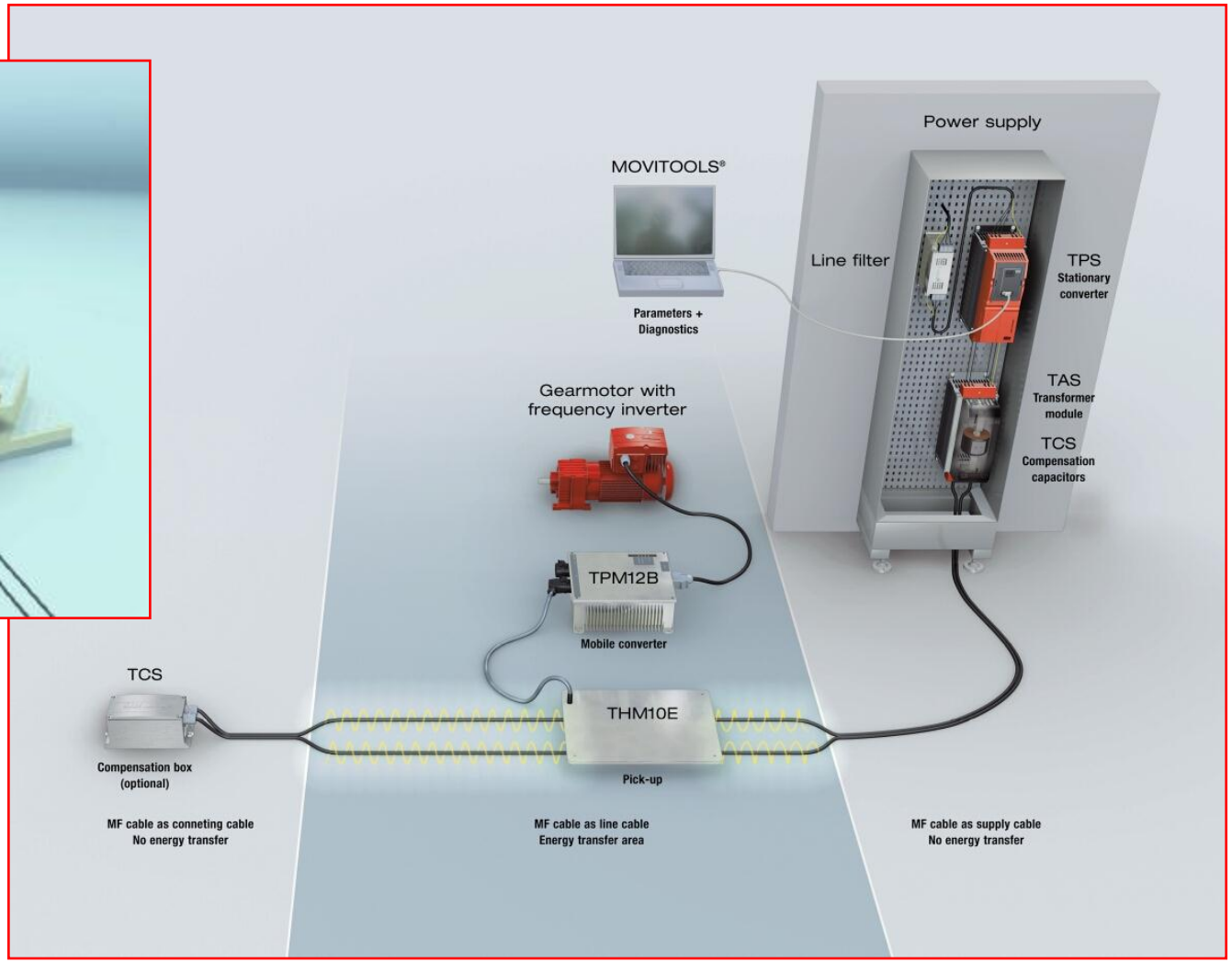
Il “mobile handling” e la meccatronica

Le applicazioni di “Mobile Handling” (es. AGV / EMS) sono un classico esempio di integrazione e di progettazione meccatronica:



Trasferimento dell’energia senza contatti.





Selezione della motorizzazione.

1) implementazione del diagramma di carico.

2) dati applicazione.

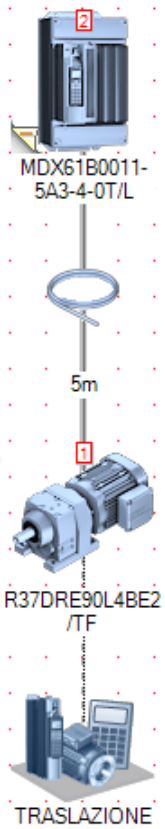
Pos		R	Accel.	v Start [m/s]	v End [m/s]	a [m/s²]	Time [s]	Distanc [mm]	Pos [mm]	Accum. time [s]	Ma stat [Nm]	Ma stat+dyn [Nm]	Fz stat [N]	Fz stat+dyn [N]	mech. Brake	Emerge
1	↔	+	lin	0	1	0,2	5	2500	2500	5	26,10	92,77	0	0		☐
2	↔	+	-	1	1	0	45	45000	47500	50	26,10	26,10	0	0		☐
3	↔	+	lin	1	0	-0,2	5	2500	50000	55	26,10	-27,90	0	0	☐	☐
4	•	+	-	0	0	0	30	0	50000	85	0	0	0	0	☑	
5	↔	-	lin	0	-1	0,2	5	-2500	47500	90	8,700	30,92	0	0		☐
6	↔	-	-	-1	-1	0	45	-45000	2500	135	8,700	8,700	0	0		☐
7	↔	-	lin	-1	0	-0,2	5	-2500	0	140	8,700	-9,300	0	0	☐	☐
8	•	+	-	0	0	0	30	0	0	170	0	0	0	0	☑	

3) selezione della motorizzazione.

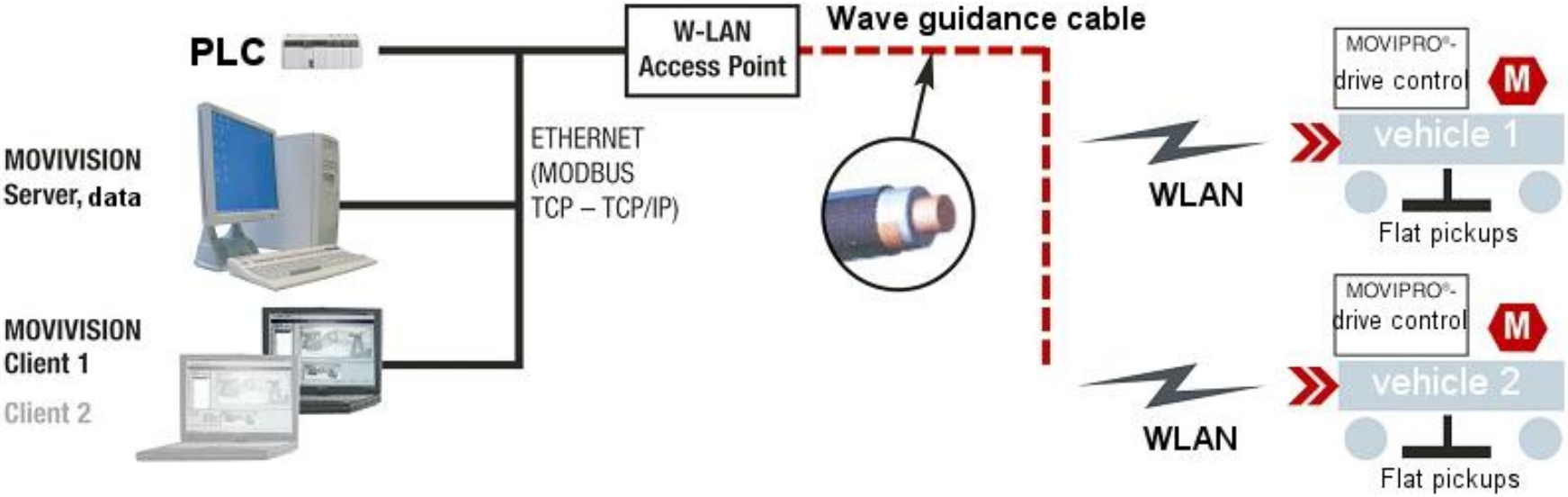
Drive selection

Gear unit size 0 | Gear ratio 0 | Motor size 0 | Speed class 0 | 0 Nm

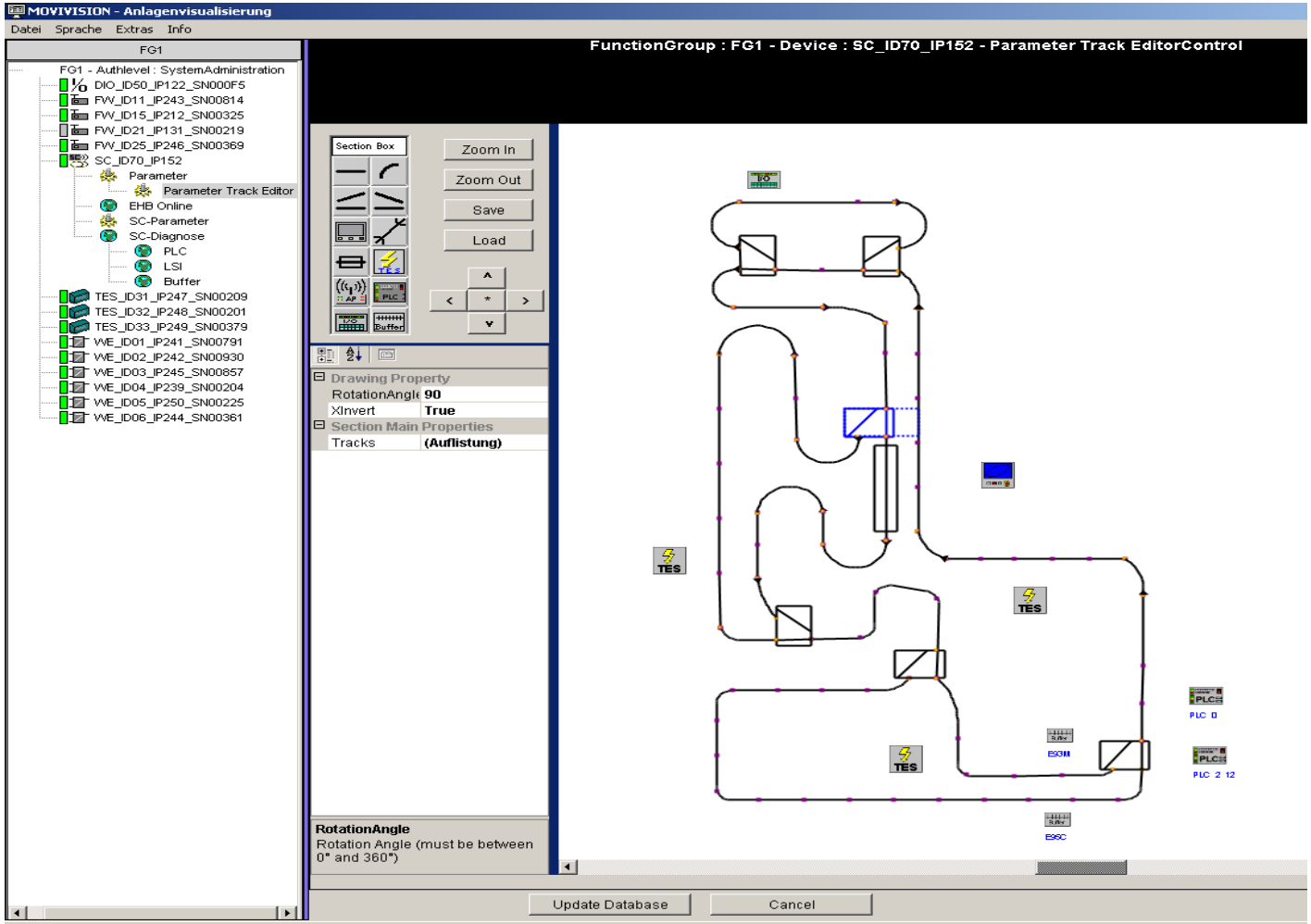
S 1	S 2	Serial	Catalog designation	Output tor [Nm]	Speed cla [rpm]	Act. motor [rpm]	Rated mot [Nm]	Gear ratio	Output spe [rpm]	Servic	max. gear [%]	Eff.mot.loa [%]	Max.mot.l [%]	Jx/Jm+b
✔	✔	1	R37DRE90L4BE2/TF	92,77	1430	1265	10	13,25	95,47	1,40	48,8	20,32	73,3	35,32
		2	New drive											



Trasmissione delle informazioni.



Controllo dell'azionamento.



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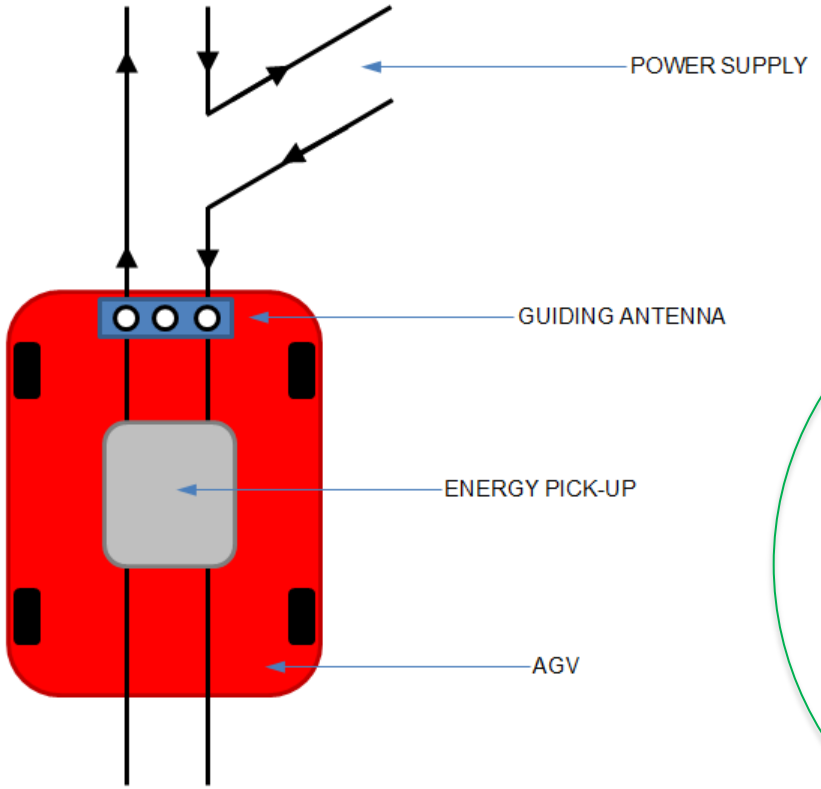
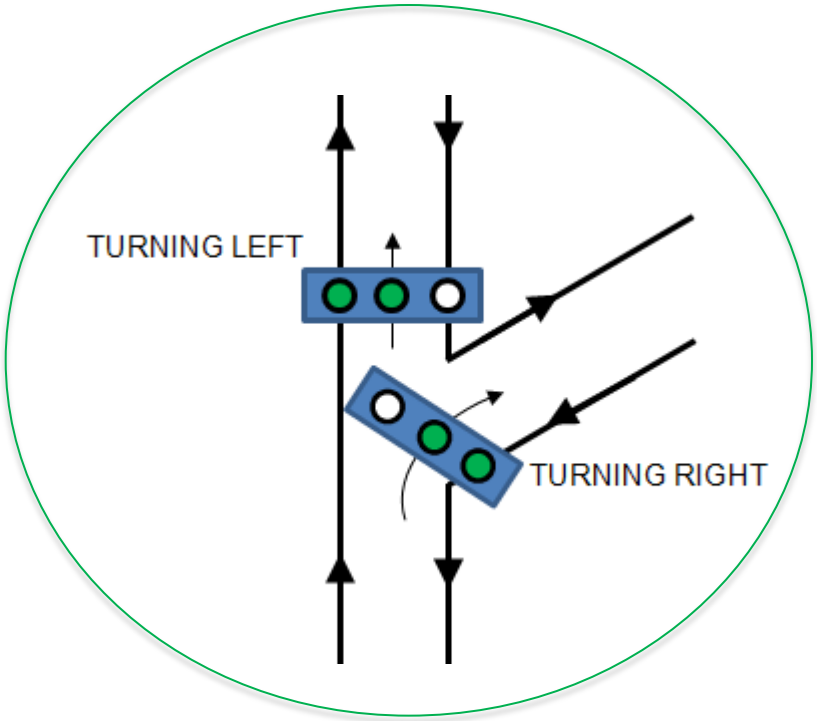
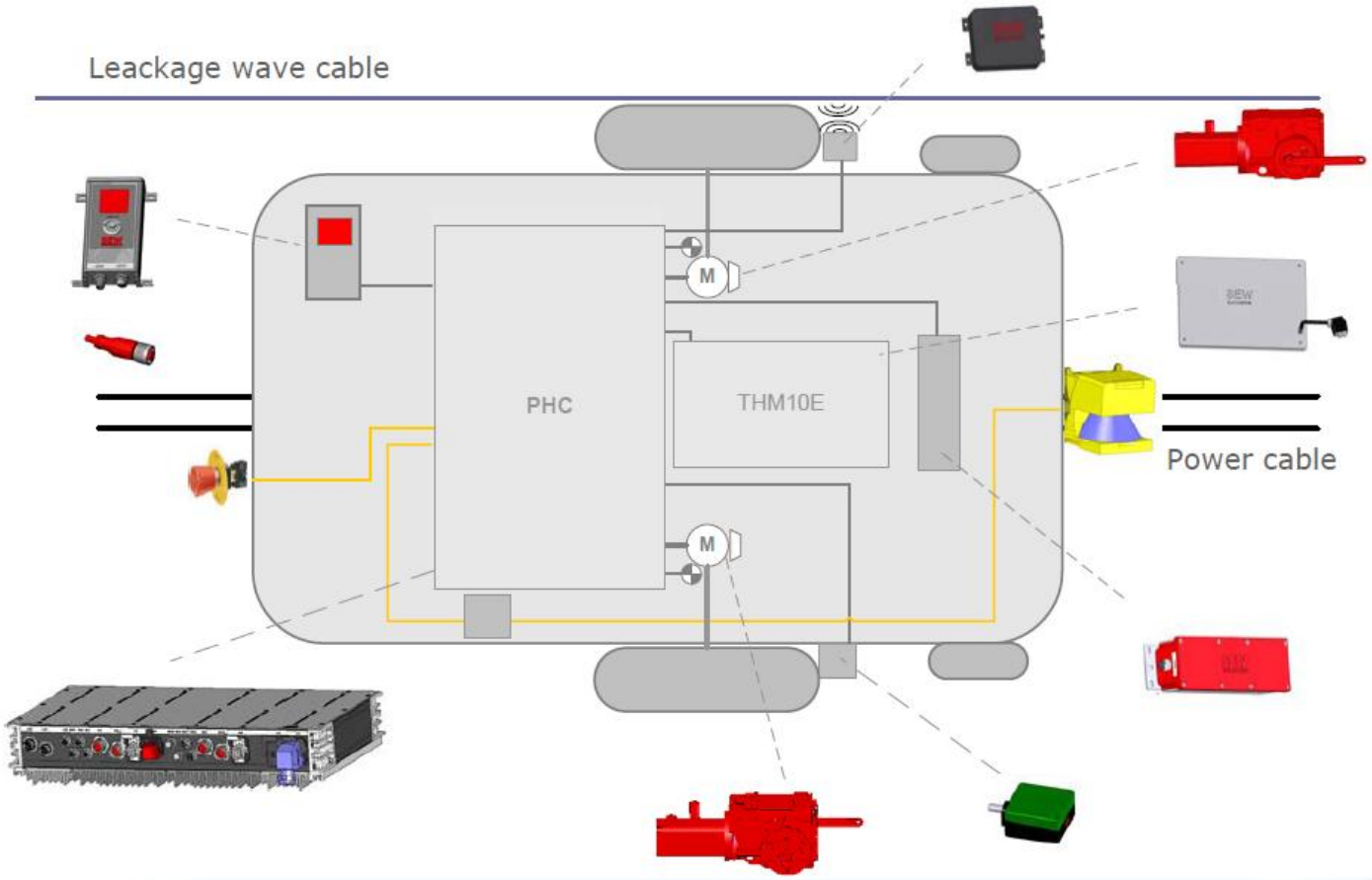




diversi componenti…un’unica soluzione!



Grazie per l'attenzione

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