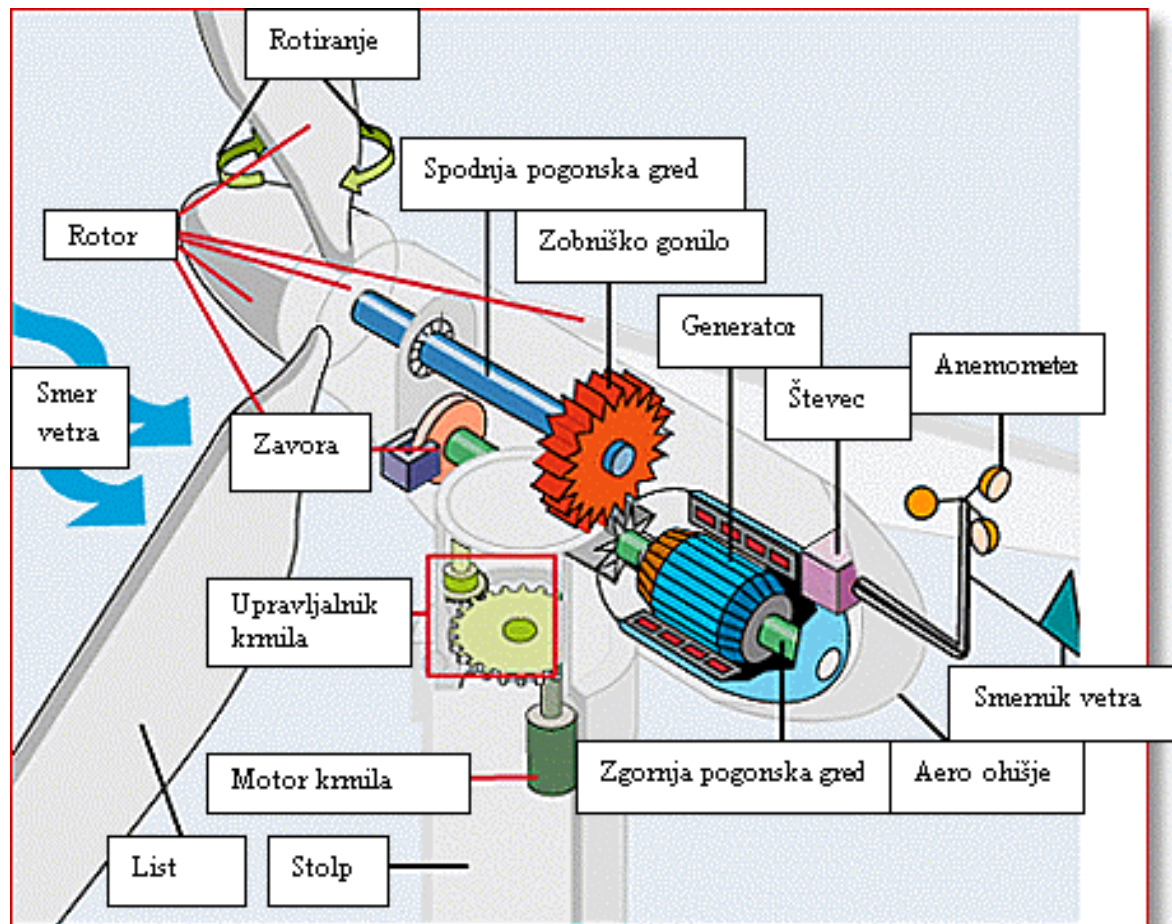
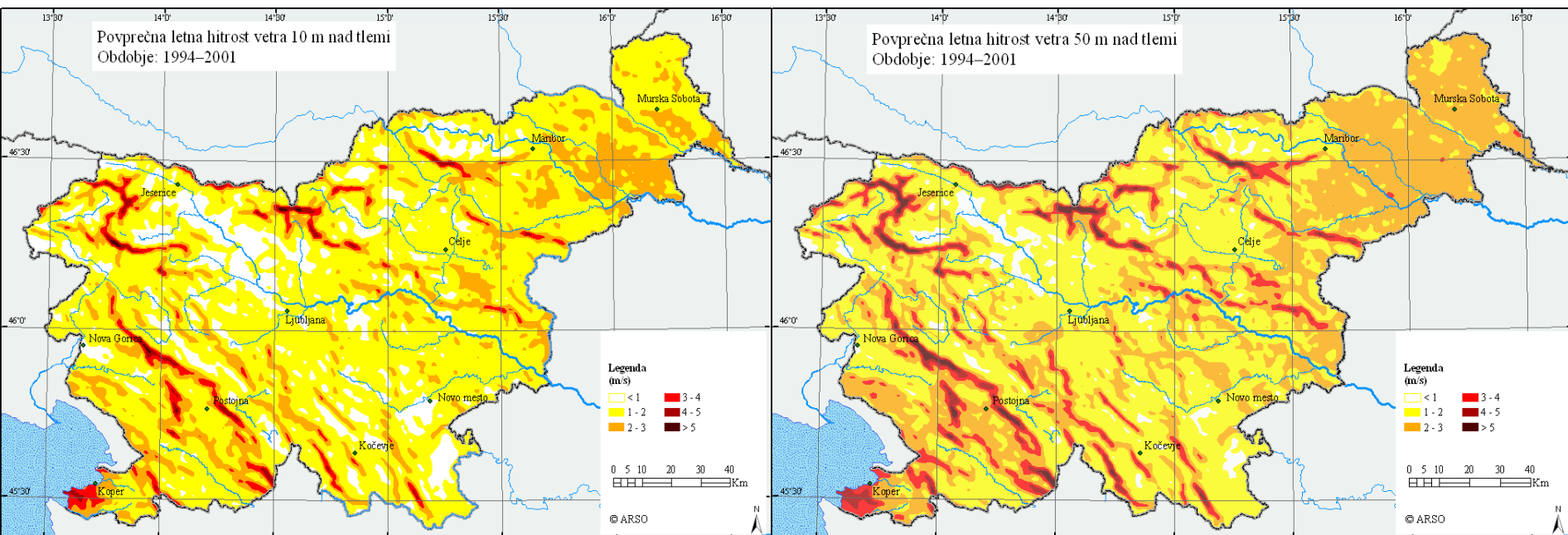
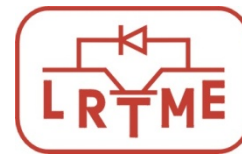


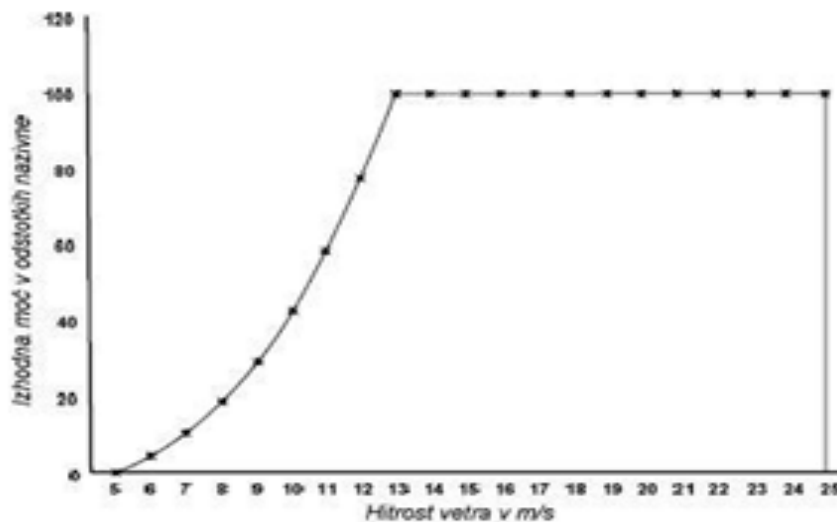
# ***Primeri mehatronskih sistemov***



## Vetrna elektrarna - konstrukcija





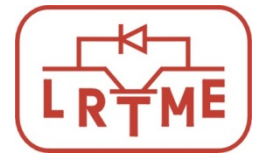


HITROST VETRA (m/s) NA VIŠINI 30m	OCENA PRIMERNOSTI ZA UPORABO
manjše od 3,6	neuporabno
3,7 do 4,6	uporabno
4,7 do 5,6	dober vetrovni potencial
5,7 do 8,0	izvrsten vetrovni potencial
8,1 pa naprej	zelo dober vetrovni potencial

**Hitrosti vetra, ki so primerne za izkoriščanje energije**



# Moč vetra



$m$  – masa vetra

$v$  – hitrost vetra

$\rho$  – gostota zraka

$V$  – volumen

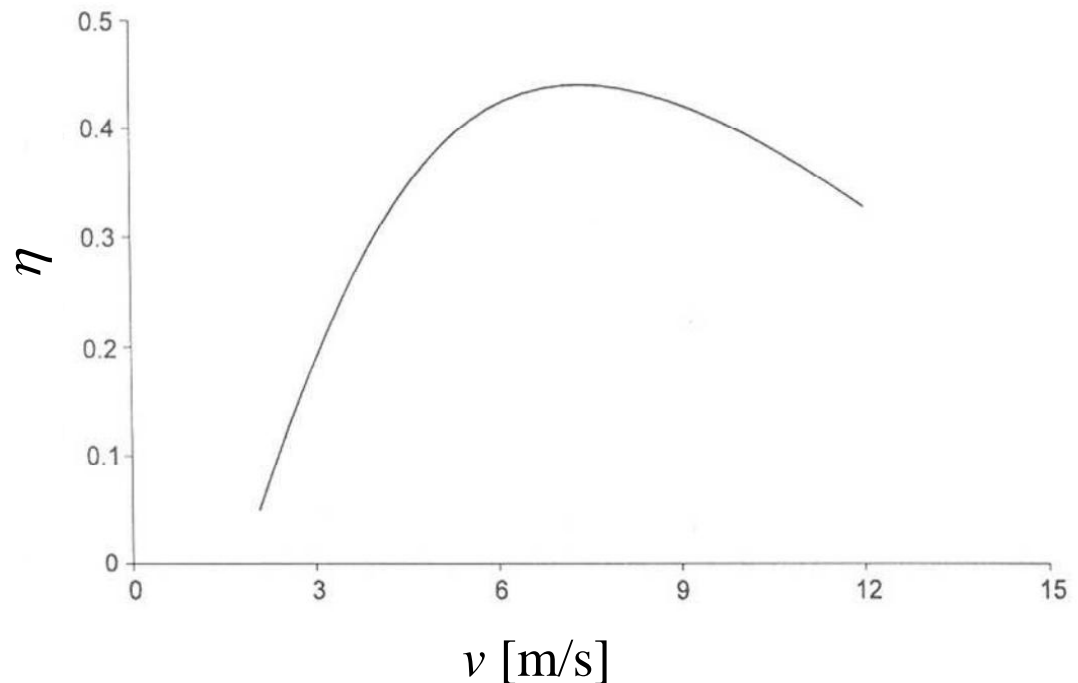
$A$  – površina

$$W = \frac{1}{2}mv^2 = \frac{1}{2}V\rho v^2 = \frac{1}{2}A\rho v^2 = \frac{1}{2}Avtpv^2 = \frac{1}{2}At\rho v^3$$

$$P = \frac{W}{t} = \frac{1}{2}A\rho v^3$$

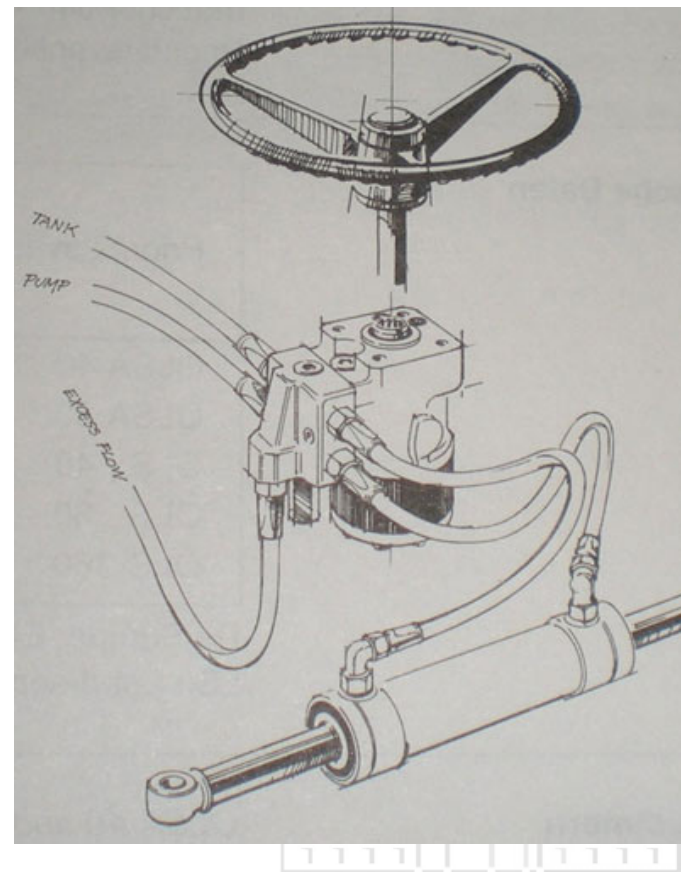
$$P = \frac{1}{2}C_{Betz}A\rho v^3$$

$$C_{Betz} \approx 60\%$$

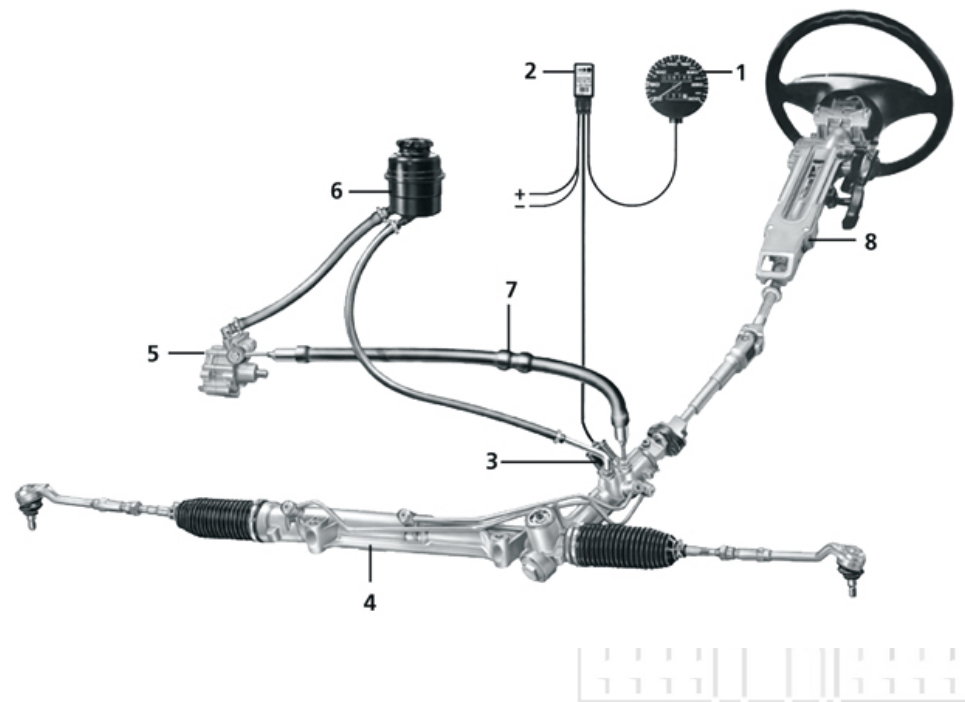
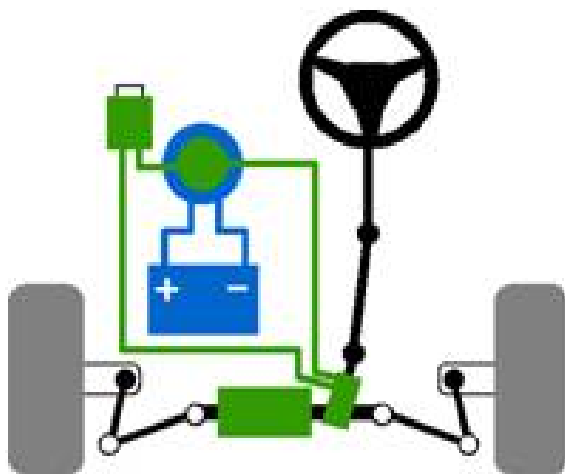


## Hidravlični servo volan

- Preprost sistem
- Stalno delovanje črpalke
- Izguba energije
- Volan kot ventil
- Regulator pritiska



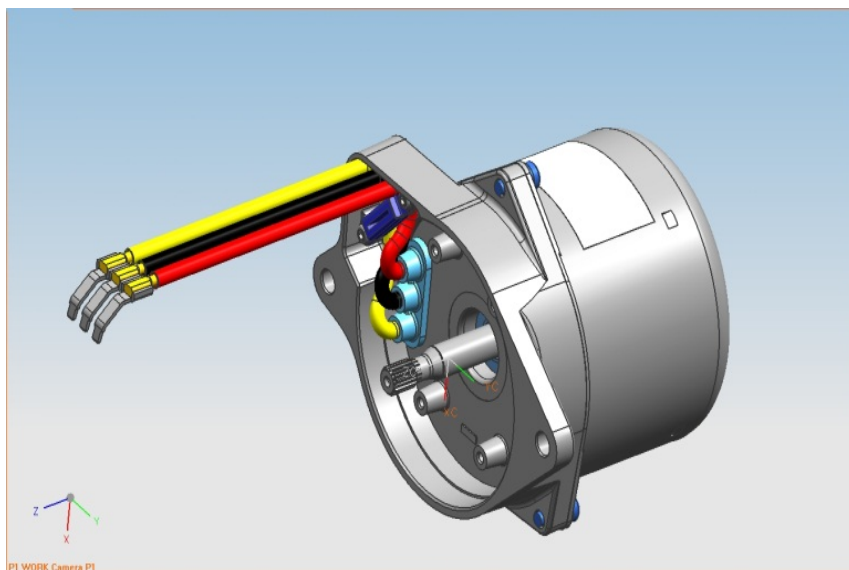
## Sistem EHPS - Electro-hydraulic power steering



## Sistem EPS - Electrical power steering

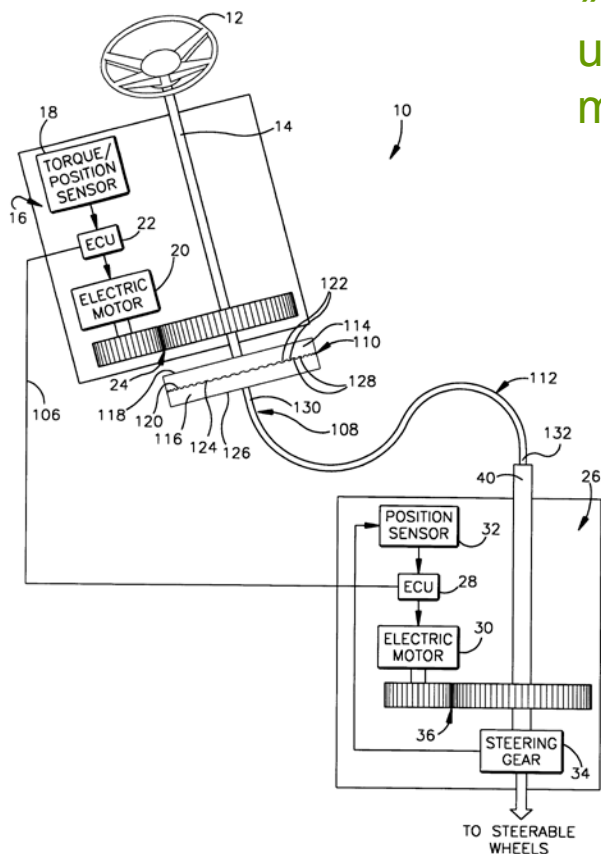


Letrika





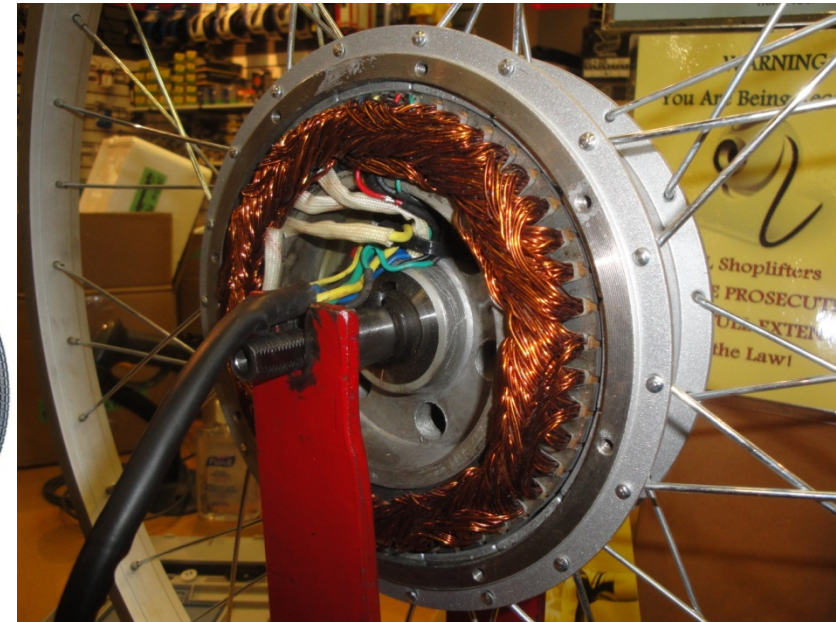
Električni servo volan se ne sme zamenjati s sistemom »drive-by-wire« ali »steer-by-wire«, ki za krmiljenje uporabljajta električni motor, vendar pa so brez vsakršne mehanske povezave do volana.

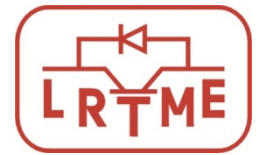


electronics control unit

United States Patent 6655709

## Hub motor

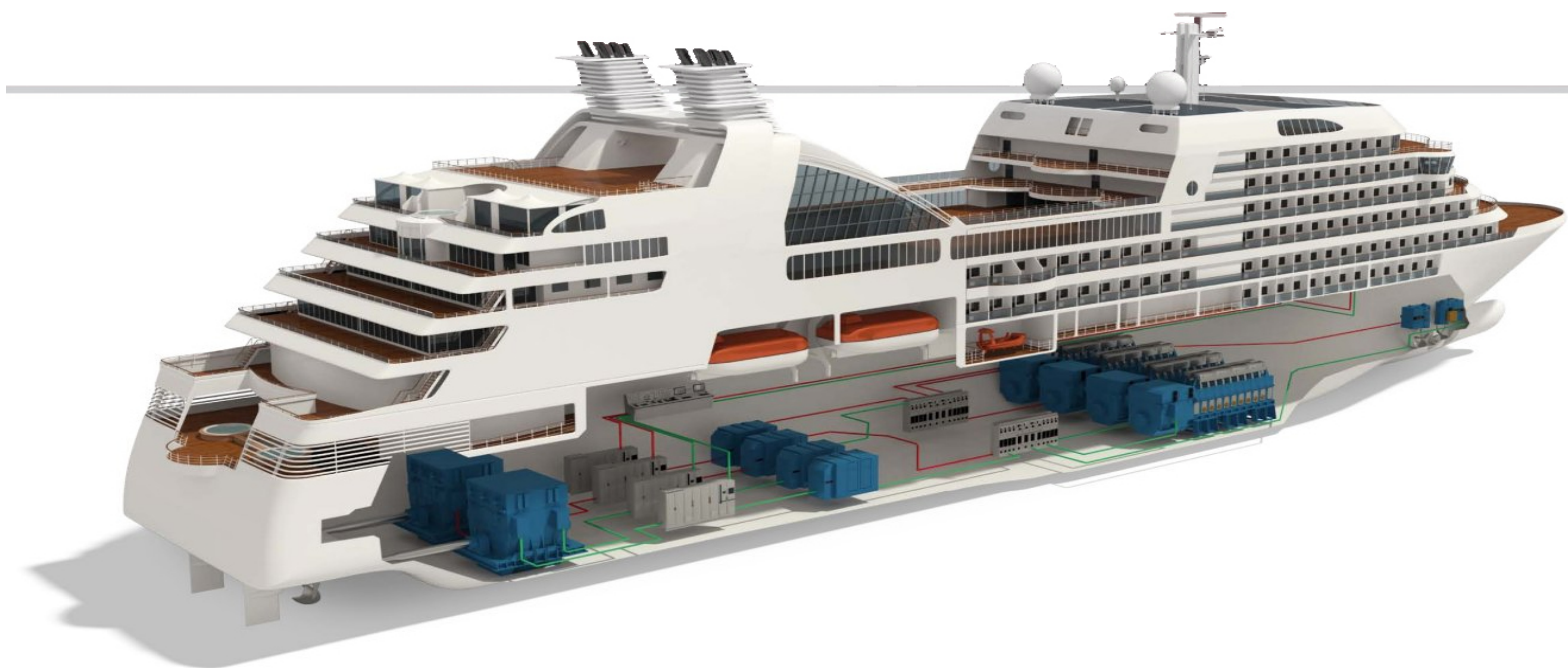


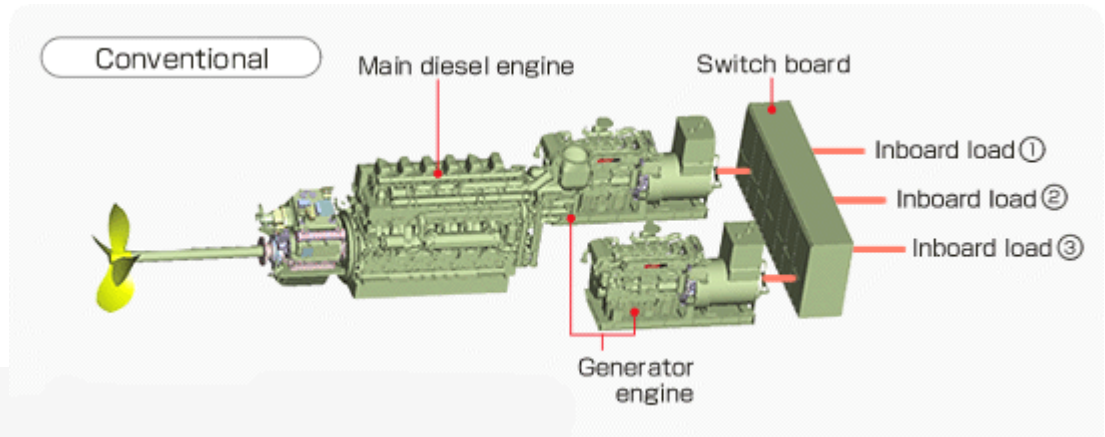
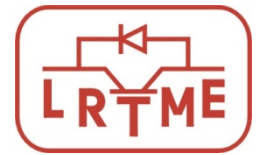


## Prednje kolo – prisilni in verižniprenos

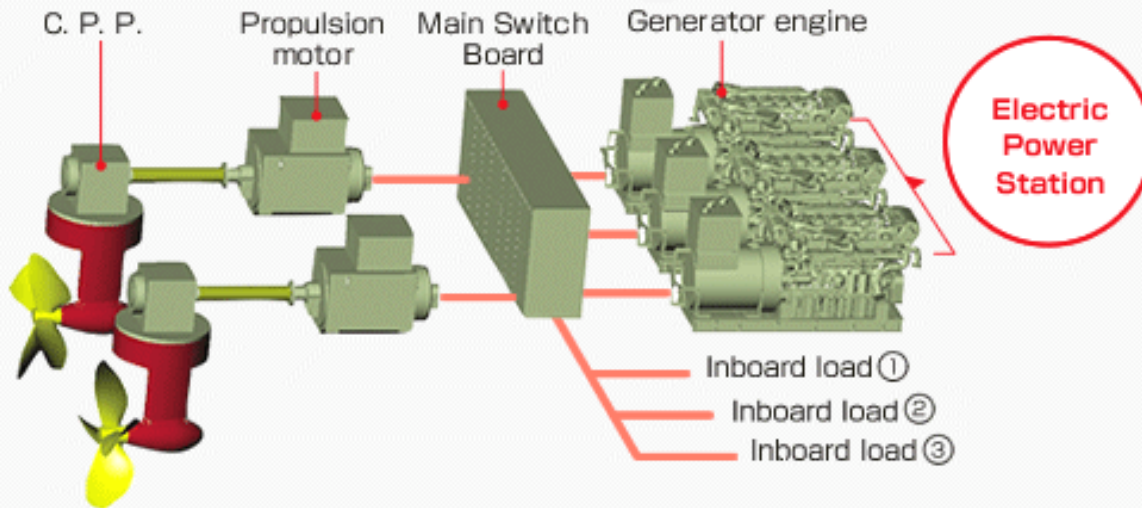


## Električni pogoni v plovilih





### Diesel Electric Propulsion System



## Vgradni (zgoraj) ali bočni pogon (spodaj)

