

# Drones in utilities day-to-day operations: flight control, backhaul, overcoming limits to line-of-sight operation

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# Agenda

1. **Short overview of EUTC**
2. **Current use of RPAS in utilities**
3. **Opportunities and difficulties of RPAS use**
4. **Needs for future use**

# EUTC – Who are we?

## Full Corporate Members



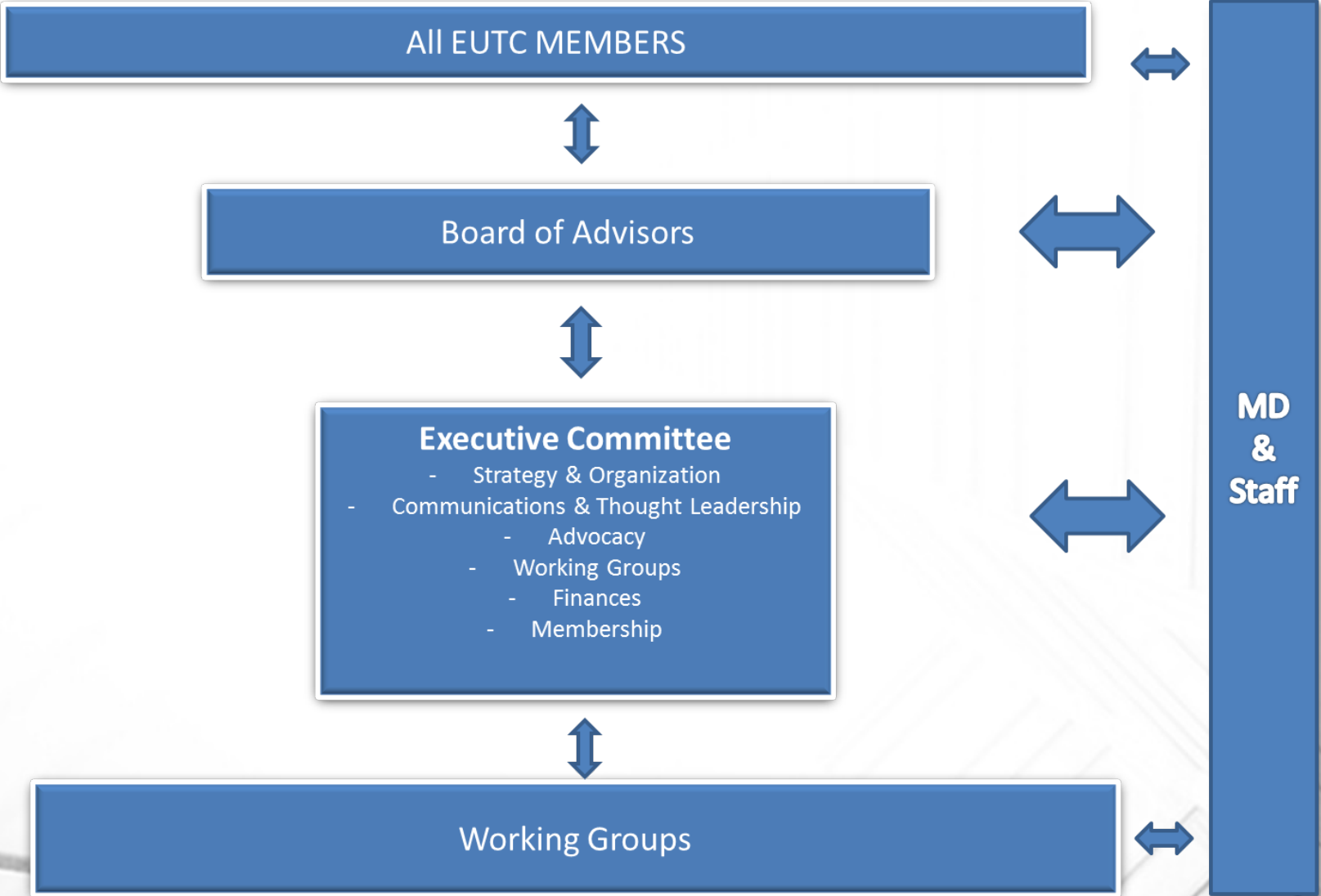
## Full Association Members



## Associate Members



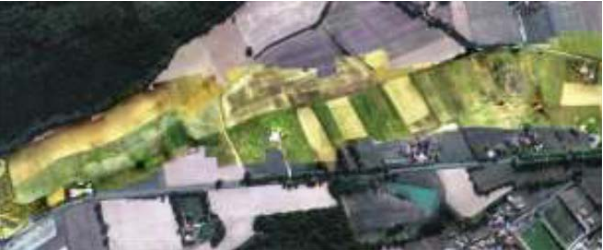
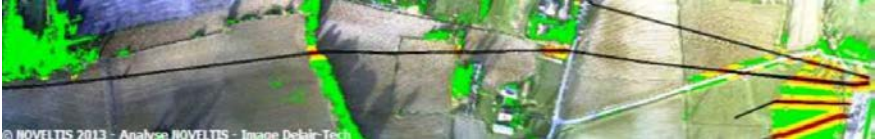
# EUTC's governance structure



# Examples how EUTC members are currently using RPAS



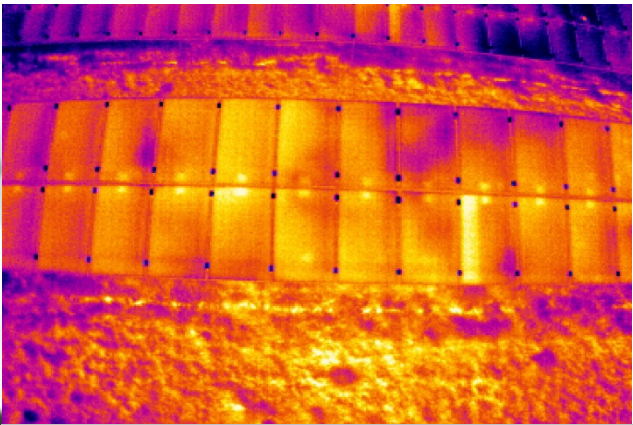
Inspection after storms



Inventory of tree-trimming



3D measurement of HV / MV sub-stations and thermography



Fault identification on PV panels



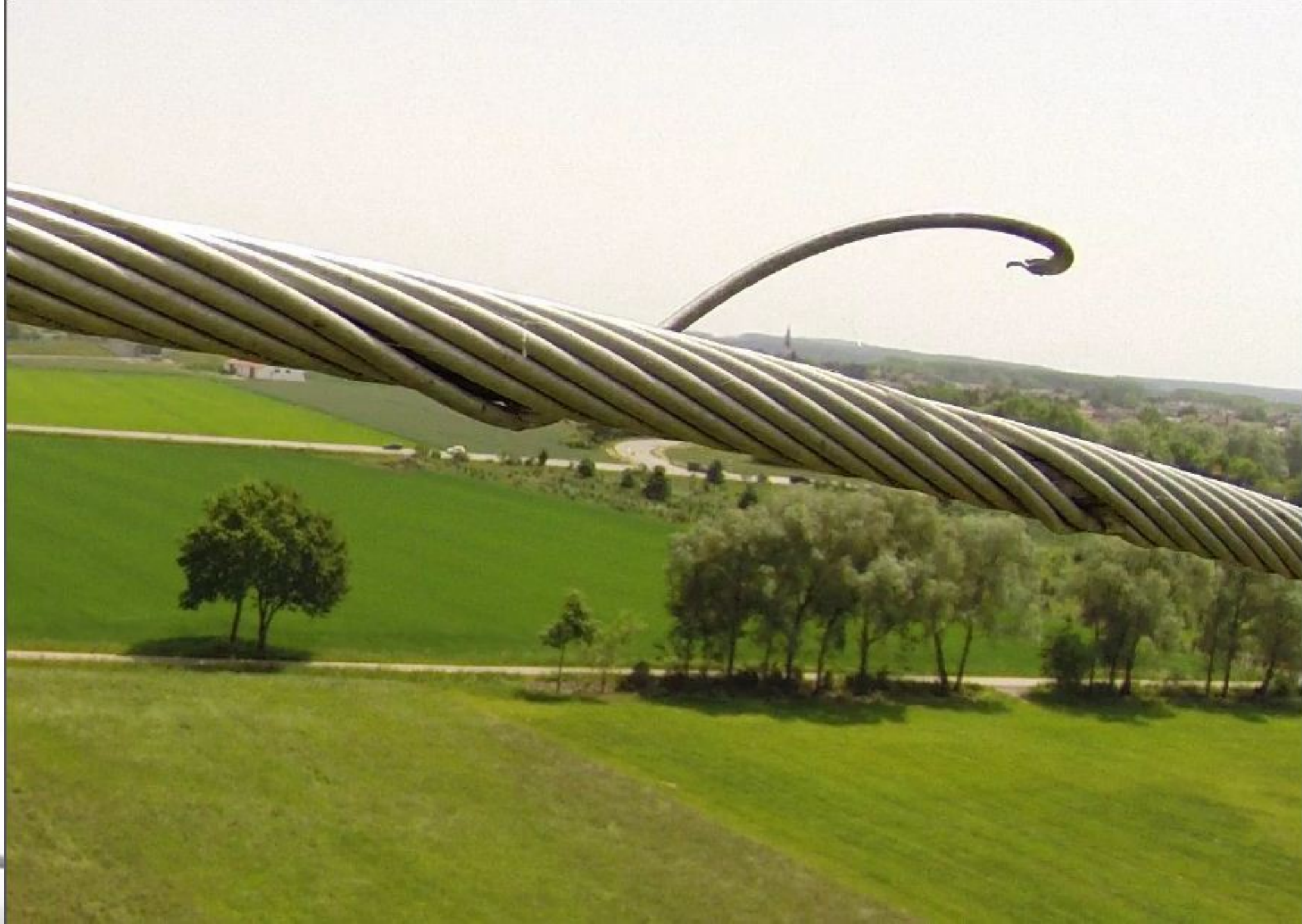
Maintenance



Check of building activities









110 kV kabel installation (ongoing construction project)





# Opportunities and difficulties regarding the use of RPAS

## Opportunities

- Low height of the lines allowing for operation in airspace up to 300m
- Development of sensors allowing lower take-off weight and thus limiting potential hazards
- HSE risks can be significantly reduced with the help of RPAS
- Reduction of environmental impact from current helicopter flights possible

## Difficulties

- Electricity grids can be very close to habitations, covering the entire territory including restricted airspaces
- Long lines that follow tightly the changing terrain including mountain areas etc. with poor coverage

# What would we like to see in future?

1. Coordinated approach regarding BVLOS regulations in Europe that allow manufacturers to develop standardized solutions across countries
2. Own spectrum for data transmission to / from RPAS to support BVLOS as well as automatic data processing during flight
3. Clear guidelines / regulations for RPAS operation by utilities allowing for BVLOS flights along overhead lines / utility installations

# Thank you!

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