

# Flexible room automation with e.control®

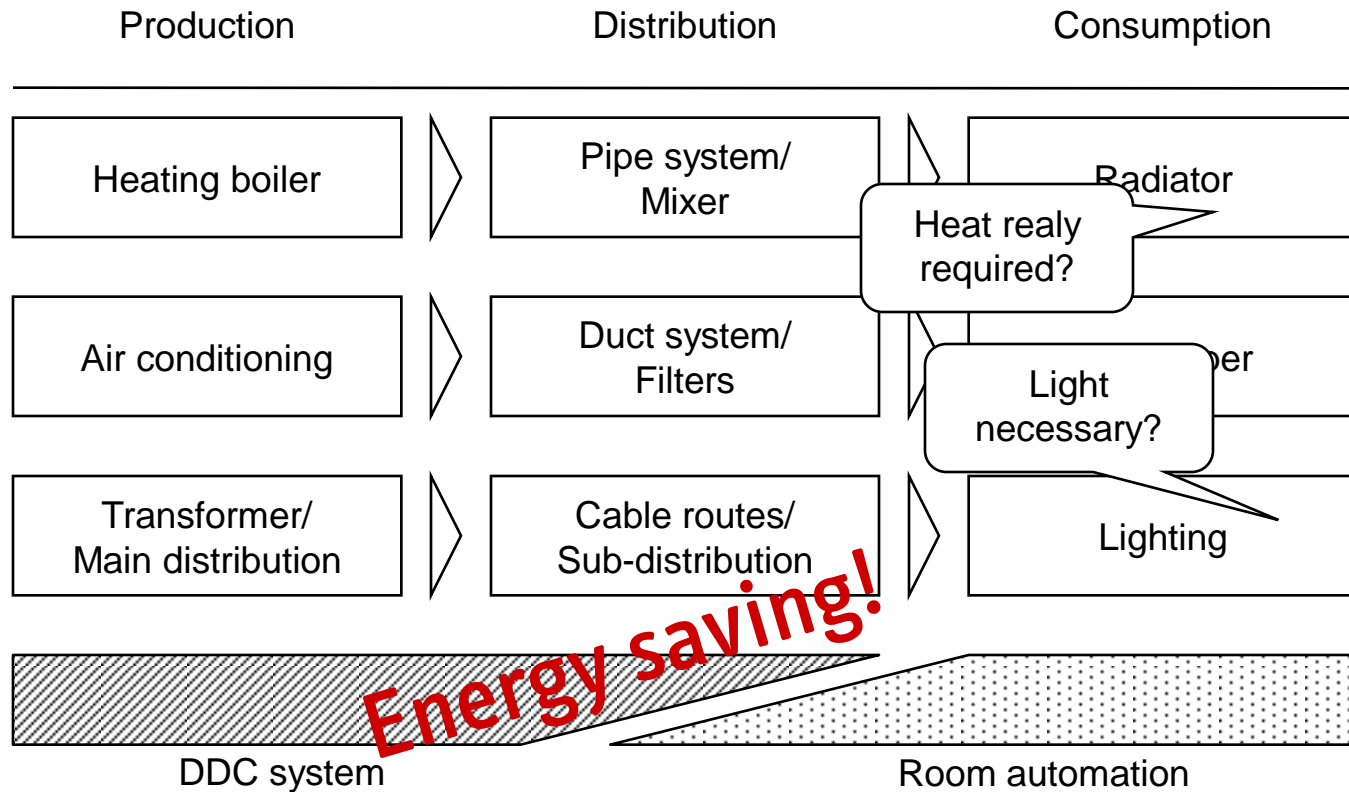
# Agenda

- Why room automation?
- Installation concepts
  - Conventional room-oriented installation
  - Flexible axis-oriented installation
- Automating an office building (Example)
  - with a traditional room-oriented concept
  - with the flexible axis-oriented e.control<sup>®</sup> system
- Advantages of spega's e.control<sup>®</sup> system

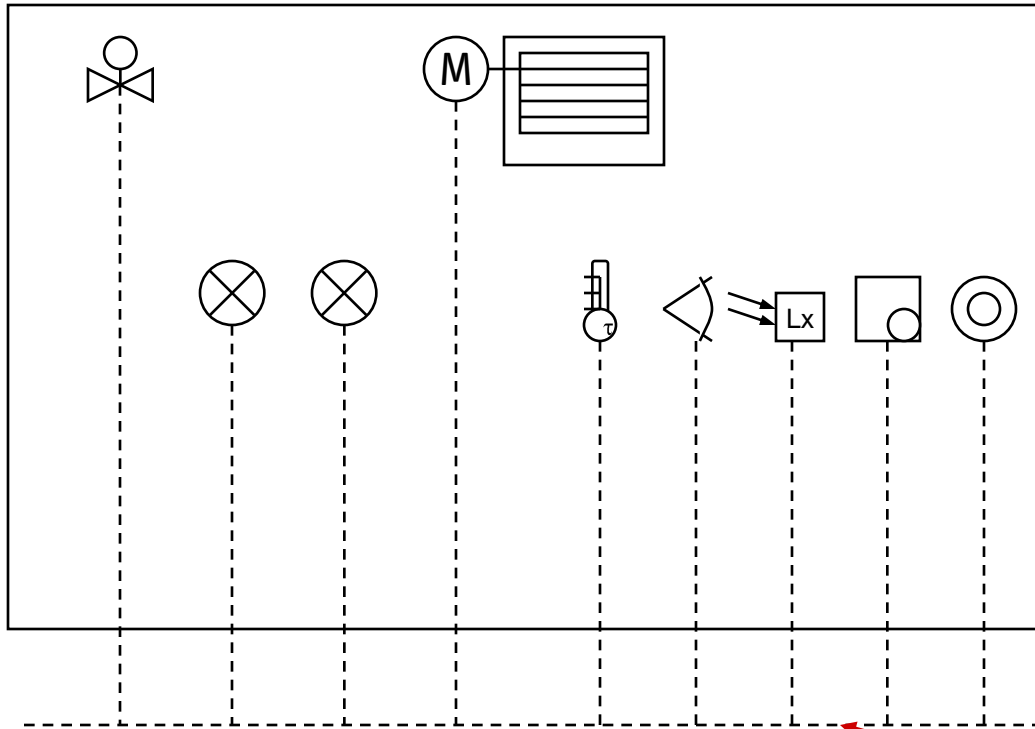
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# Why room automation?



# Energy saving and enhancement of convenience...



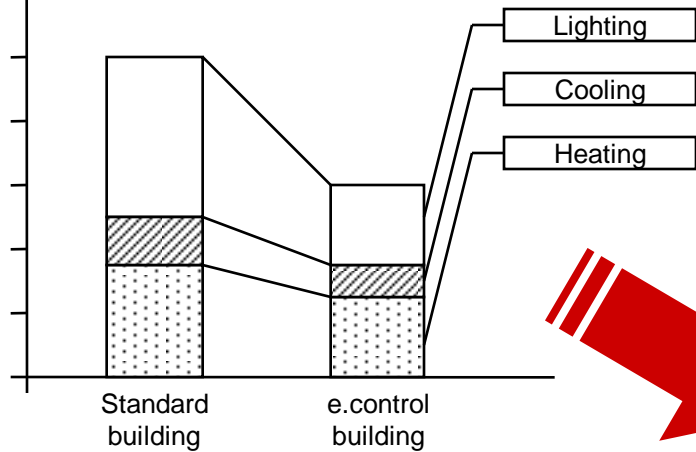
...through integration of

- heating/cooling
- lighting
- sunblind control
- sensors
- operation panels ...

...is most efficient with the powerful and open LON technology!

# Room automation saves energy and costs!

Annual energy demand  
kWh/m<sup>2</sup>a



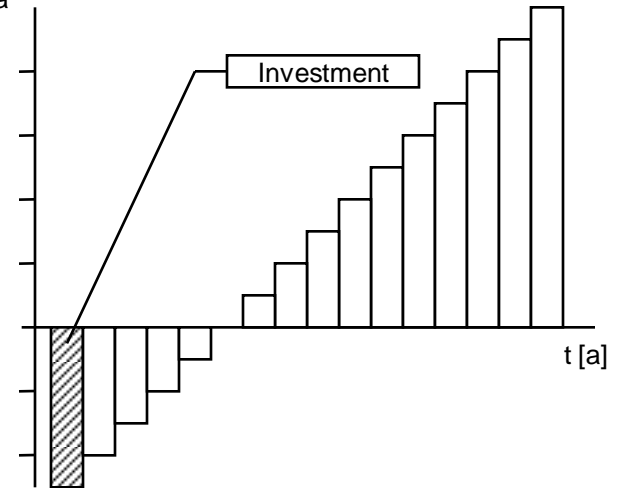
Lighting: >50%

Heating: >30%

Cooling: >20%

Savings per year: > 5 EUR/(m<sup>2</sup>a)

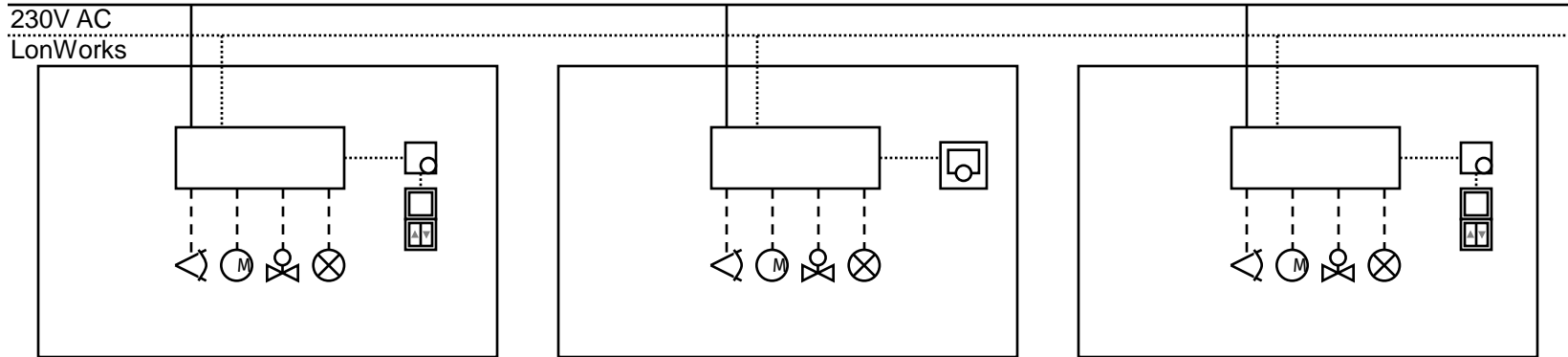
Surplus revenues / expenditure  
100T€/a



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# The missing flexibility in conventional systems ...



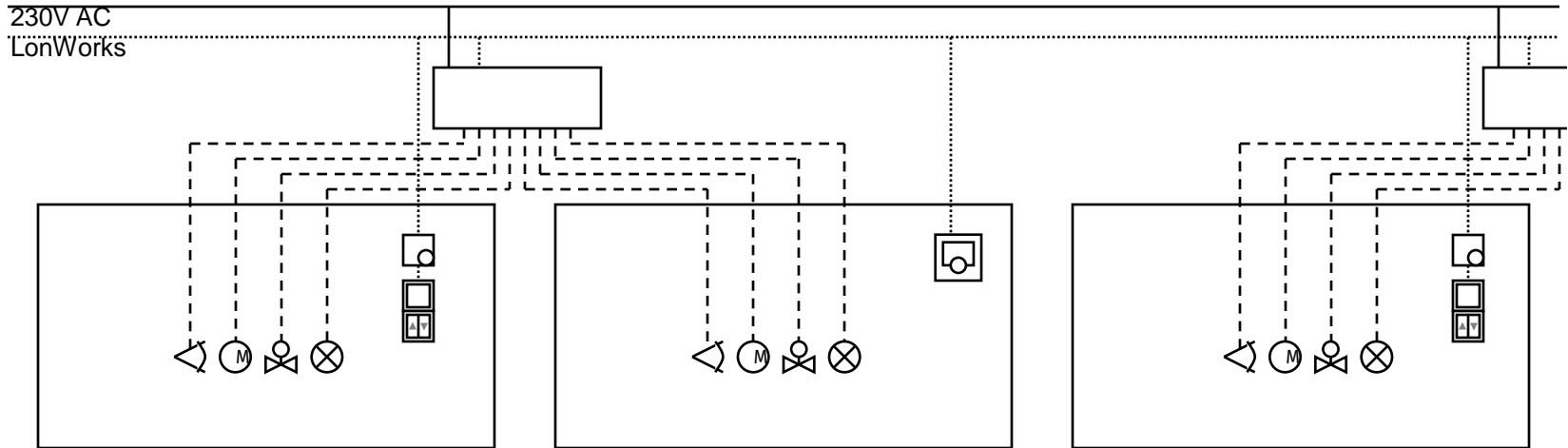
## Conventional room-oriented installation:

- + low installation costs and fire loads
- + high operational availability
- + less space required for technical rooms
- missing flexibility on change of utilisation





...can be solved with an advanced axis-oriented system!



### Flexible axis-oriented installation:

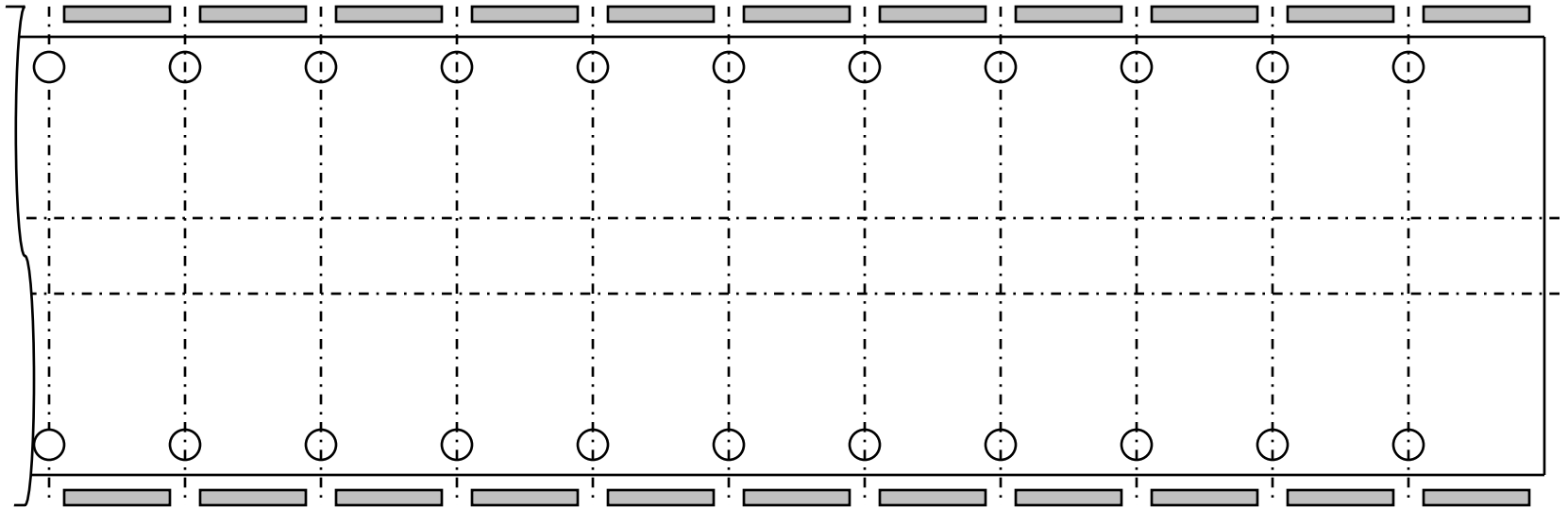
- + low installation costs and fire loads
- + high operational availability
- + less space required for technical rooms
- + full flexibility on change of utilisation

**e.control®**

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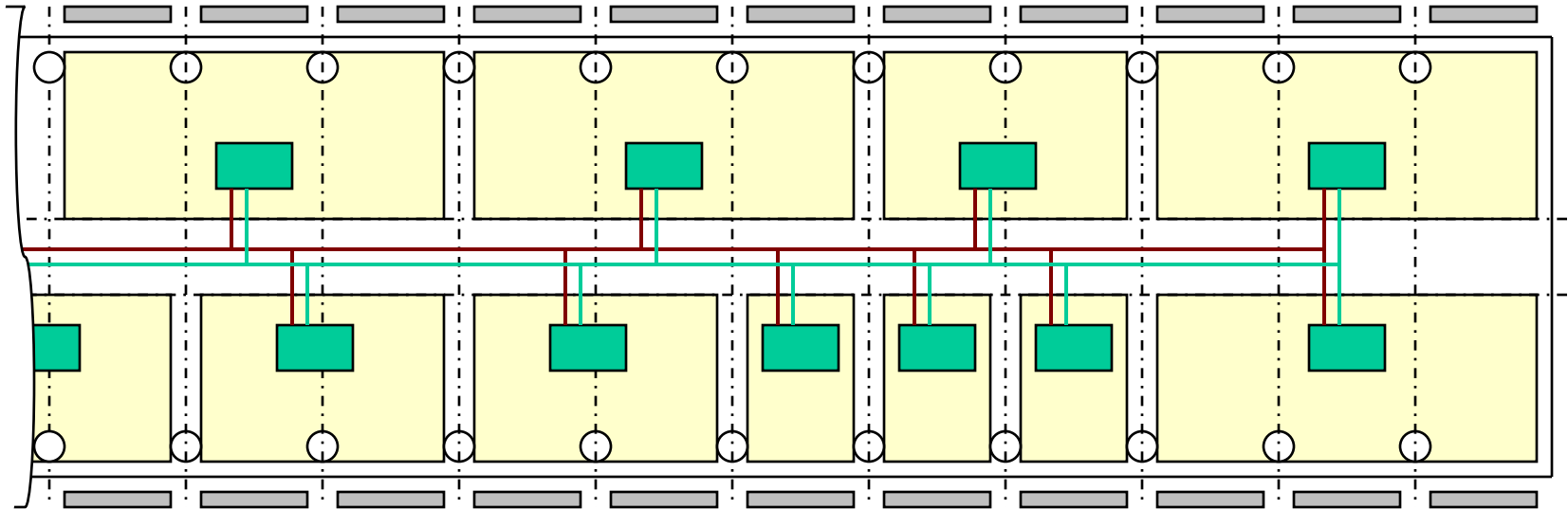
# Example of an office building



Today's demands for an office building:

- + variable utilisation of office space
- + optimised energy saving

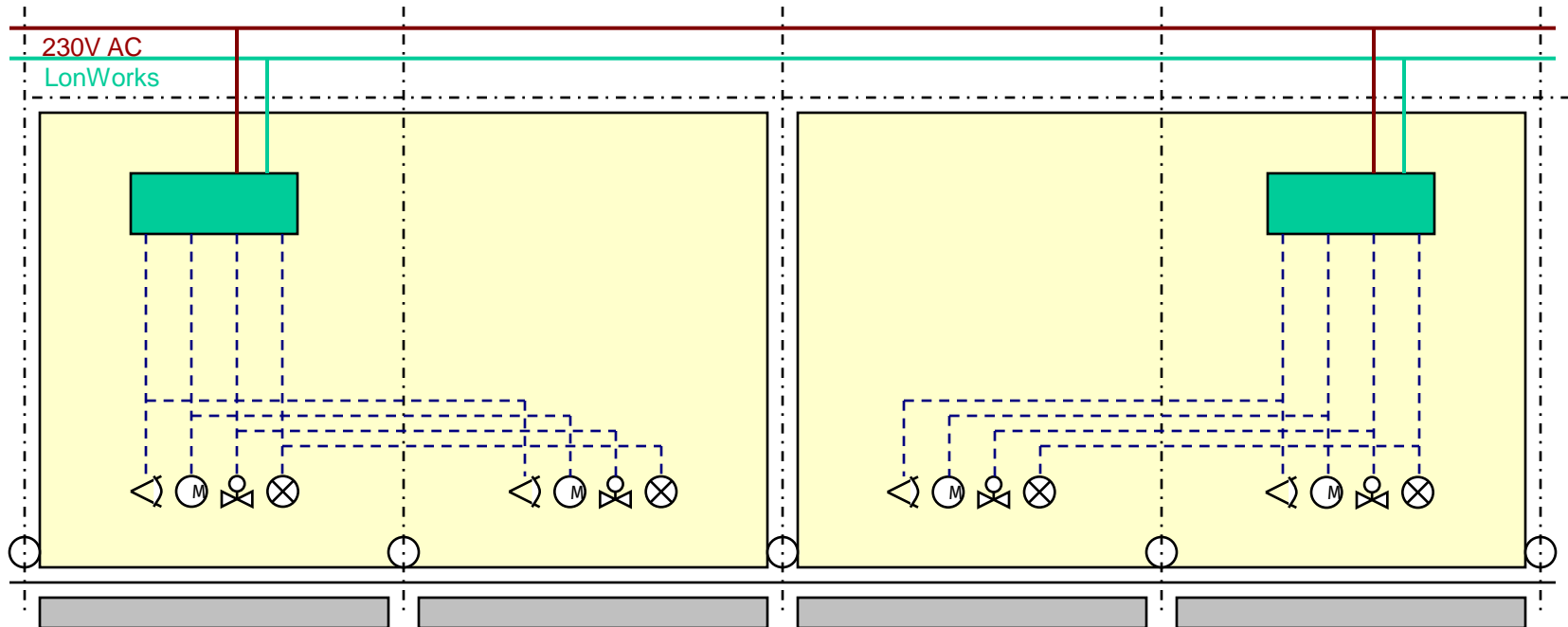
# Limits with a conventional room automation concept



## Problems are:

1. Installation concept depends on room partitioning
2. Different automation components for different rooms needed

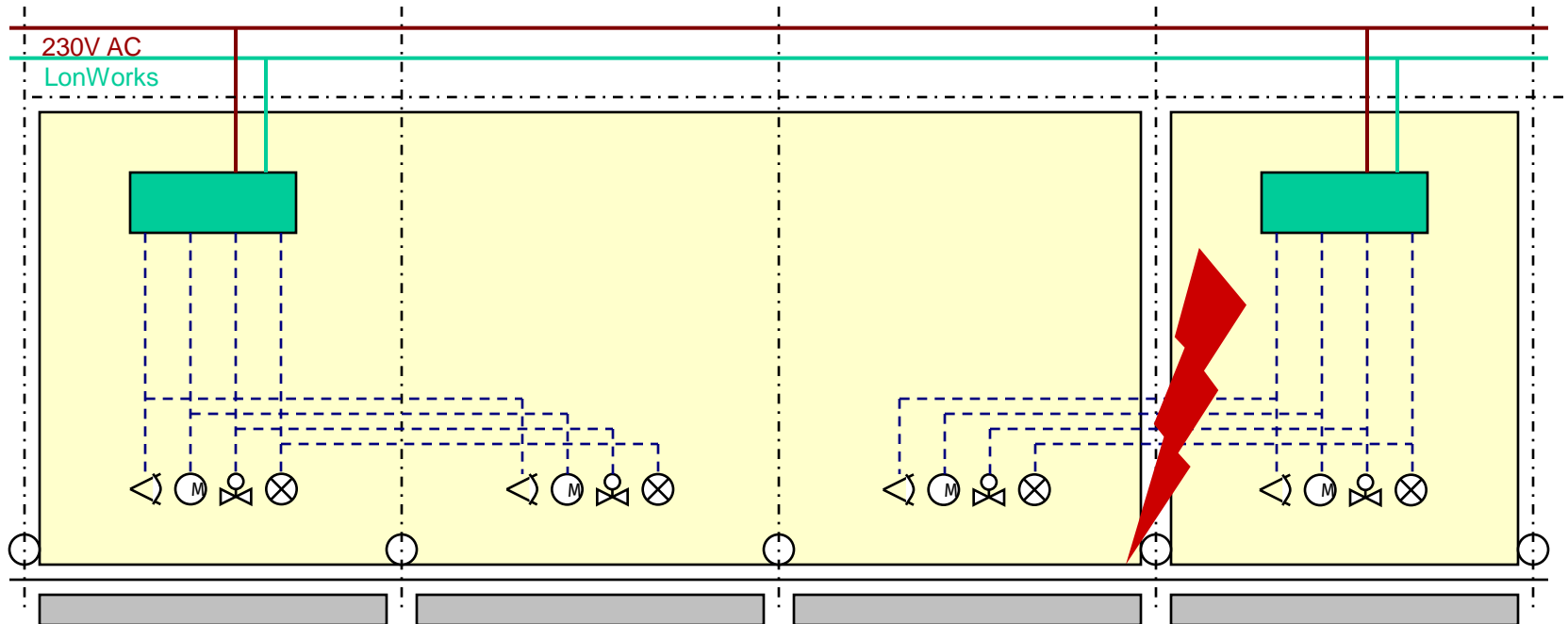
# Limits with a conventional room automation concept



Problems are:

3. Room oriented wiring inhibits the change in utilisation...

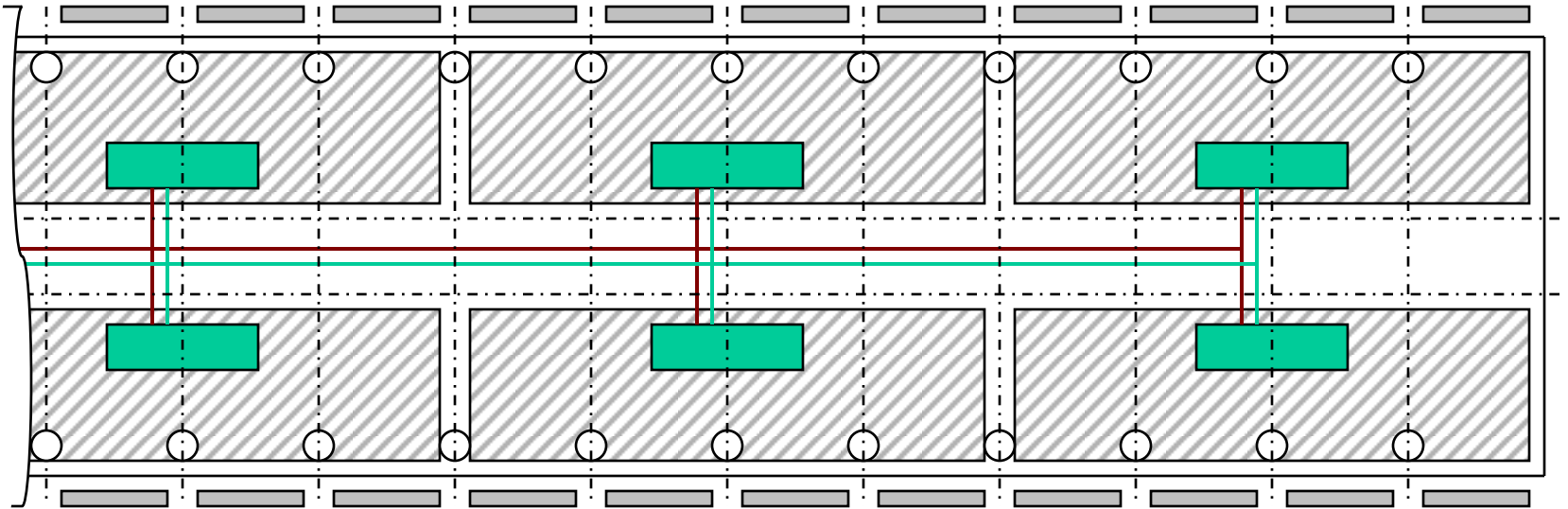
# Limits with a conventional room automation concept



Problems are:

...due to the need of re-wiring!

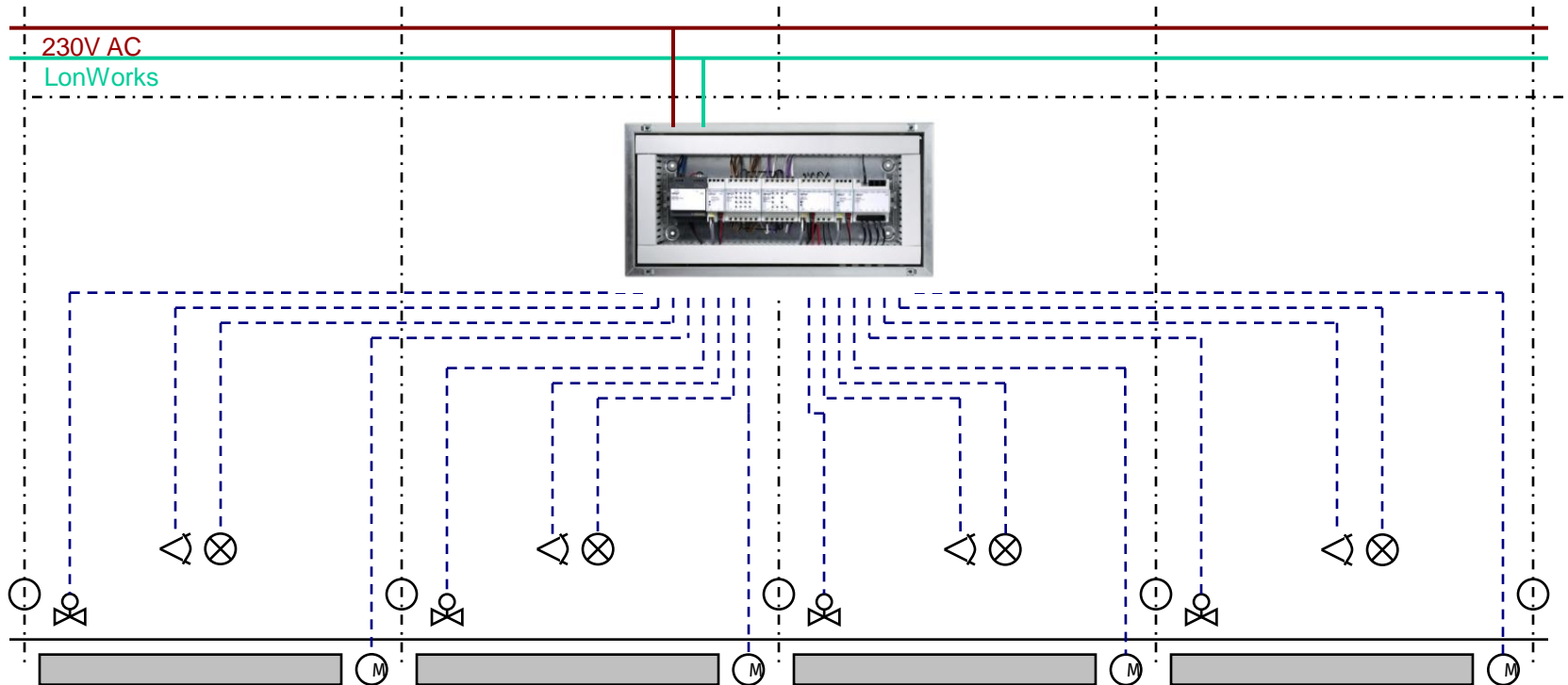
# Flexible e.control<sup>®</sup> system is the solution!



## Axis-oriented installation with e.control<sup>®</sup>:

1. Optimised installation layout – independent from utilisation ...
2. with only one modular system distribution box required ...

# Flexible e.control<sup>®</sup> system is the solution!

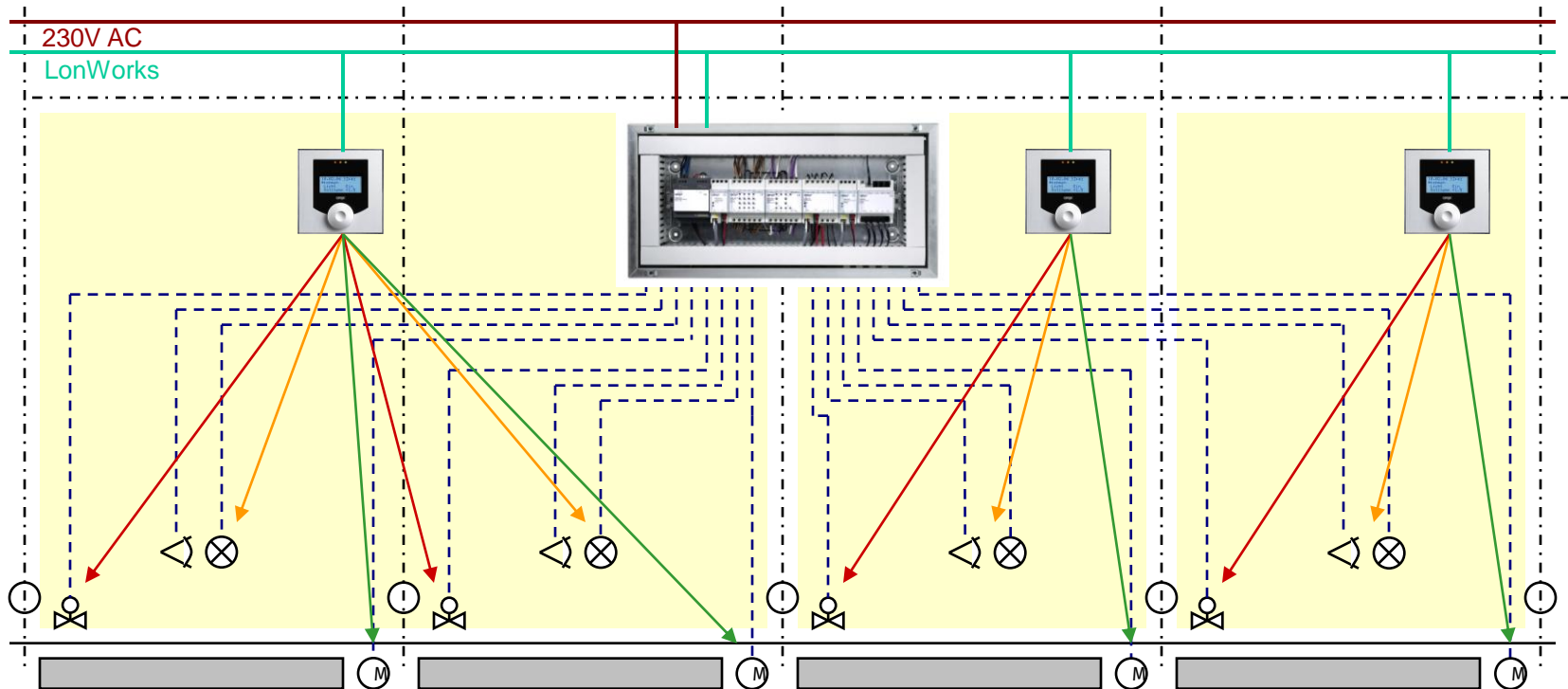


Axis-oriented installation with e.control<sup>®</sup>:

3. for all axis-wise installed sensors and actuators.



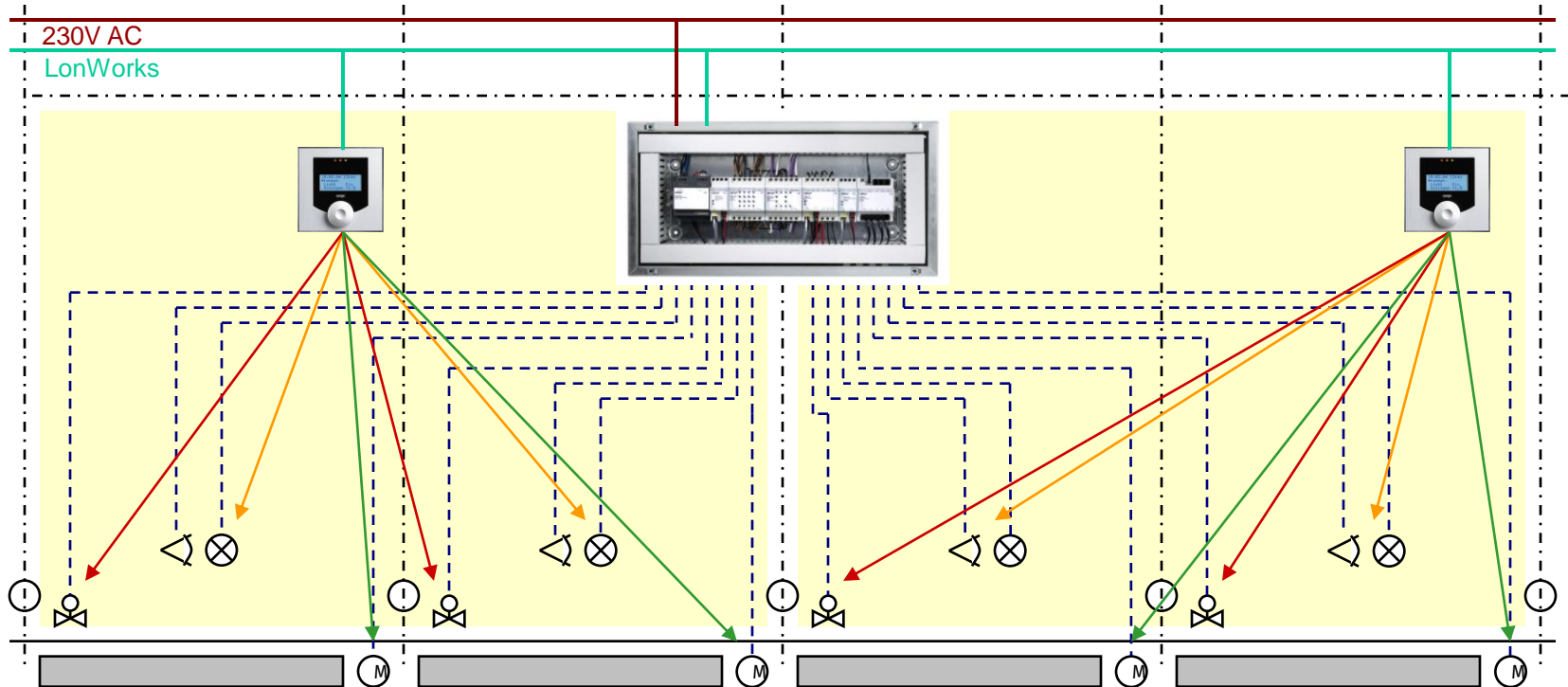
# Flexible e.control<sup>®</sup> system is the solution!



## Axis-oriented installation with e.control<sup>®</sup>:

3. for all axis-wise installed sensors and actuators.
4. After specifying room layouts, operation panels are installed!

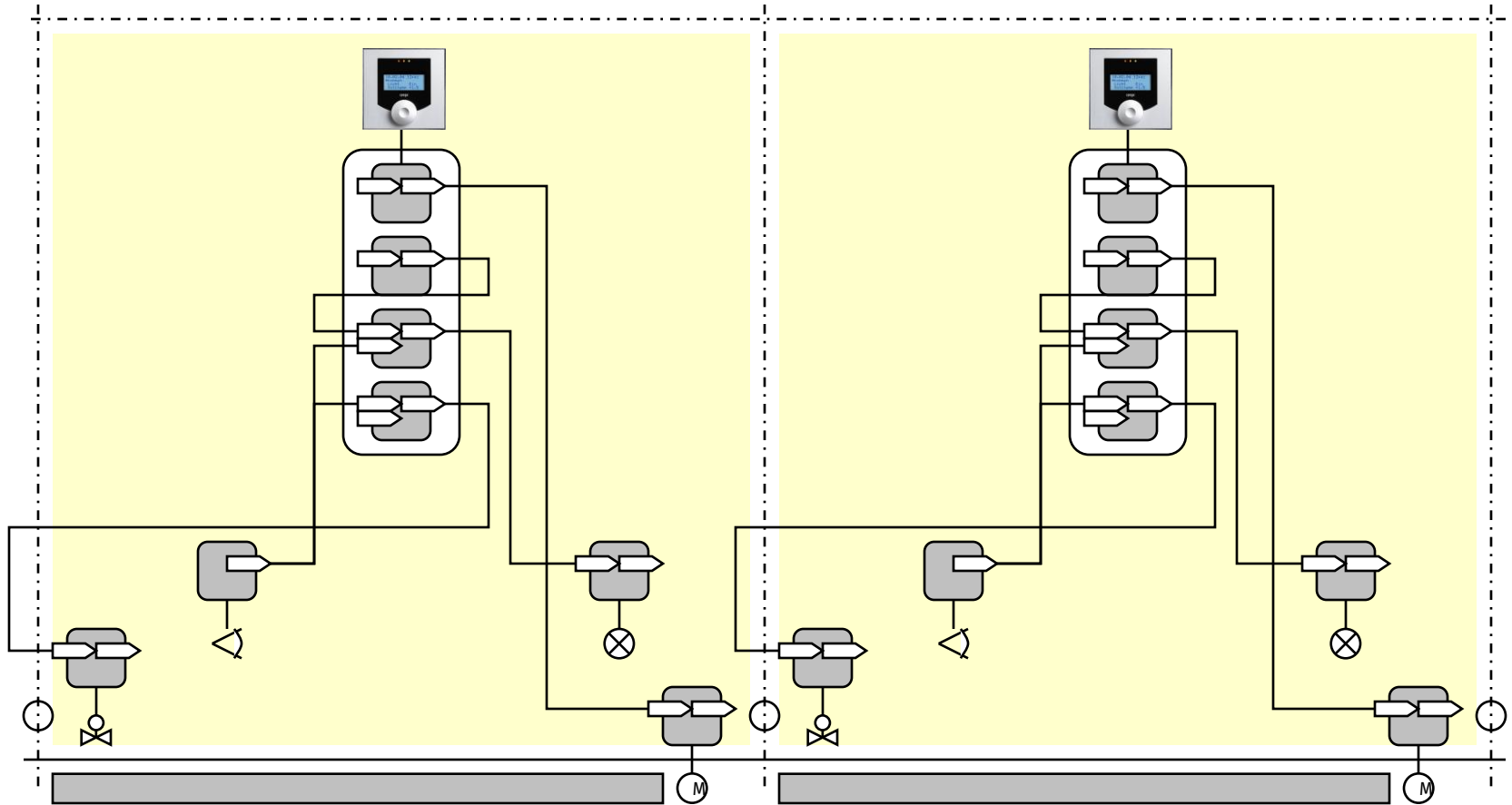
# Flexible e.control<sup>®</sup> system is the solution!



## Axis-oriented installation with e.control<sup>®</sup>:

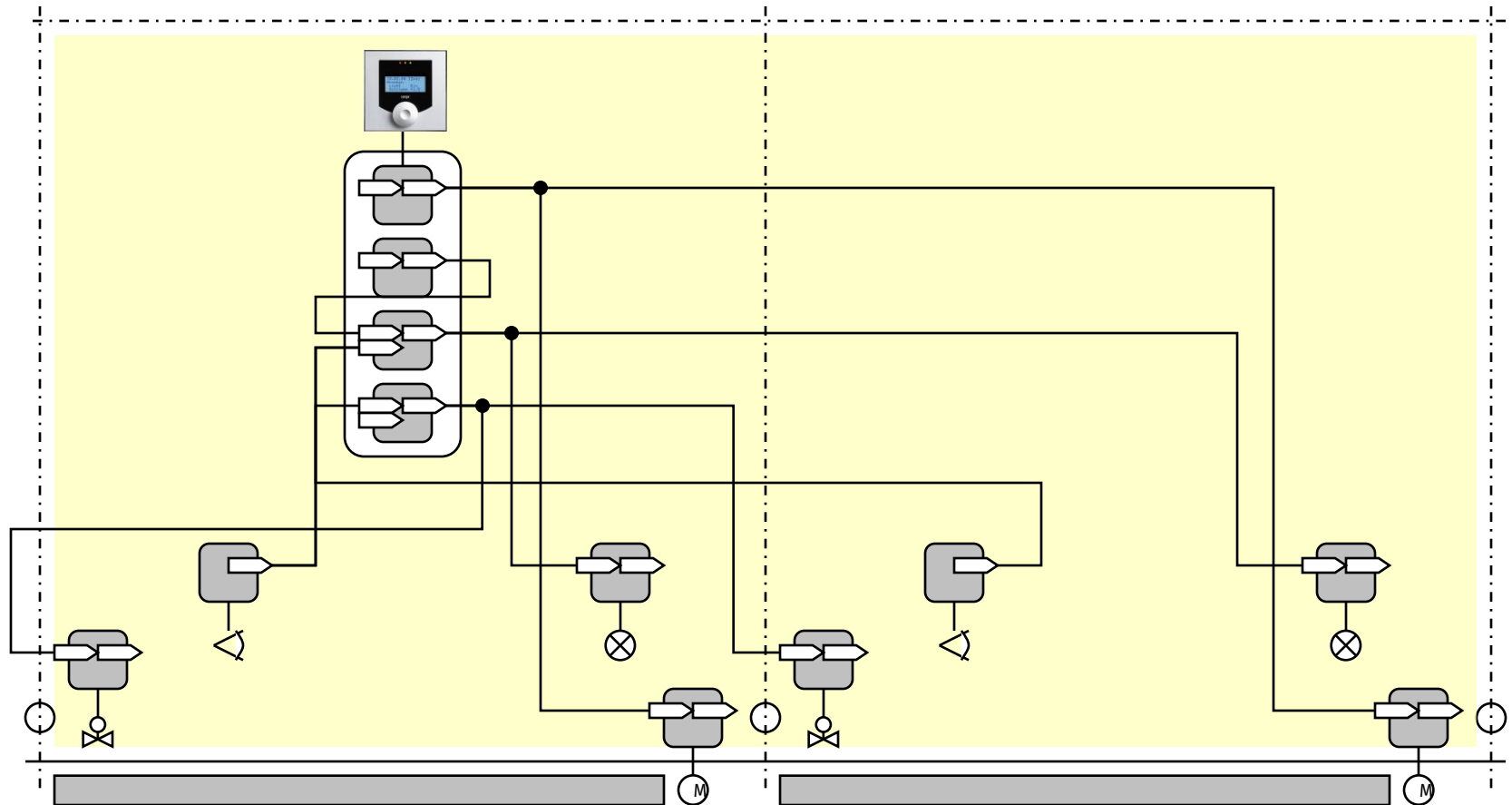
3. for all axis-wise installed sensors and actuators.
4. After specifying room layouts, operation panels are installed!
5. Changes can be carried out without re-wiring!

# e.control<sup>®</sup>: flexibility even in software!



Due to the object-oriented software concept of e.control<sup>®</sup>  
a change in utilisation ...

# e.control<sup>®</sup>: flexibility even in software!



... is just a change of software bindings!

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# Advantages of e.control® ...

- fully compliant to Lonmark standards
- applicable for all trades
- fully independent from utilisation
- cost-efficient through high modularity
- can be installed everywhere
- low installation costs
- low fire load
- fast and stable specification procedure
- fast installation through possibility of pre-fabrication
- easy configuration through object-oriented LNS plug-ins