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Custom-made electronics

A hand is shown pointing forward with the index finger extended. Behind the hand is a very bright, circular light source, possibly the sun or a powerful lamp, which creates a strong lens flare effect with multiple overlapping circles and a rainbow-like halo. The background is a soft, out-of-focus blue and white. The text "The power to control" is centered over the hand and light.

The power to control



Taking manufacturing activities back in your own hands

A background image showing a hand holding a circular lens, with light rays passing through it, creating a bokeh effect.

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Gert D'Handschoetter



## Agenda

- E.D.&A.
- Why starting in-house manufacturing?
- Status 2015
- Positive trends
- Threat

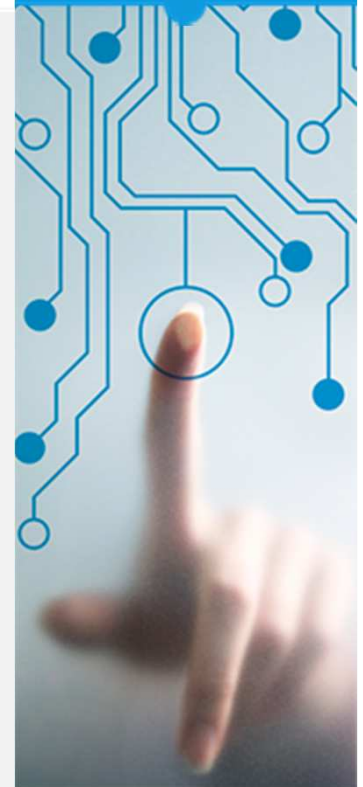


# E.D.&A. (Electronics, Development & Assembling)

- Founded in 1981
- Located in Kalmthout (B)
- 52 employees
- Turnover: €10 million
- E.D.&A. develops and assembles custom-made electronic controllers for machines and devices.



The  
power to  
control



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# Markets: electronic controllers for...



Agriculture



Food industry



HVAC



Laundry



Access control



Energy sector

The  
power to  
create



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# Why starting in-house manufacturing?

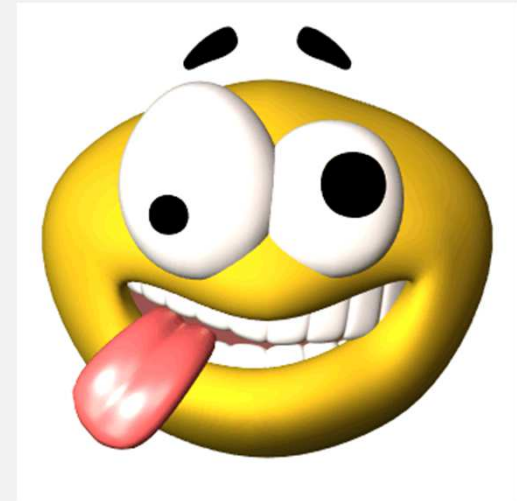
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## And in Belgium?

Labour costs:

Administration:

Taxes:

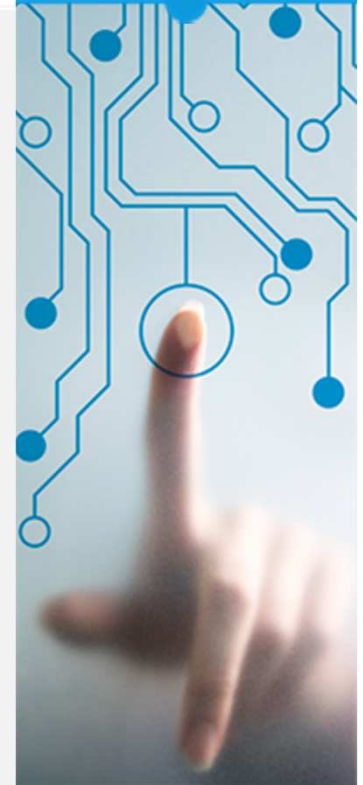


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# Why starting in-house manufacturing?

1. Strategic independent of other companies
  - Some had financial problems (e.g. TBP Geel)
  - Problems with capacity after crisis 2009
2. Improvement of quality
3. Long lead times (e.g. for prototypes)
4. DfM analysis together with partners → difficult!
  - Difficult to get open communication
  - Difficult to get resources
5. DfT analysis → e.g. FPT Test
6. Average yearly growth E.D.&A.: 20%

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# Why starting in-house manufacturing?

2010: Strategic & Financial Plan

2011: Evaluation → Yes we can !!!

→ Start shopping (Productronica)

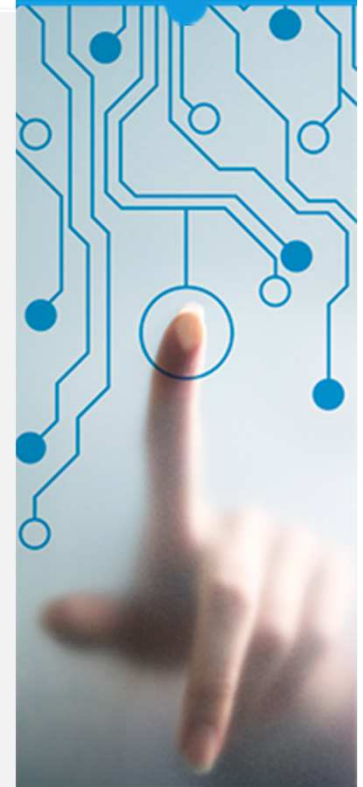
2012: Start installation October 8<sup>th</sup>

2013: January → Starting small production series

2014: Move to a new and bigger site (4.000 m<sup>2</sup>)



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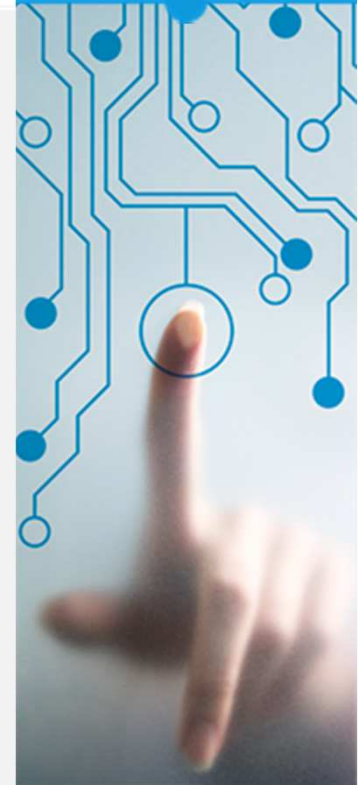


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# Status 2015

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- Synergy between R&D / Manufacturing / Test  
(DfX inhouse → DfM / DfT / DfA)  
→ Much more results as expected!
  - Optimization of footprints
  - Developing products in order to reduce labor  
(non added value labor became visible).
  - Prevention of possible operator faults.
  - Improvement of production documents based on  
operator feedback.
  - Manufacturing challenges R&D.

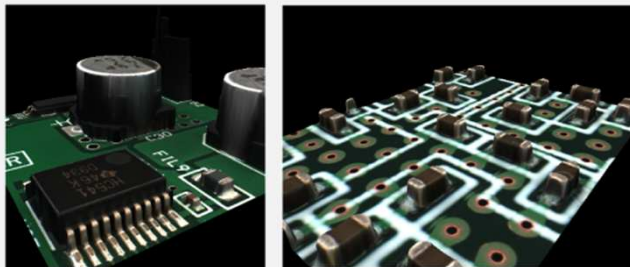
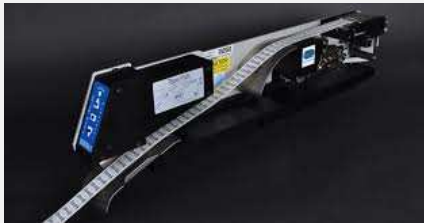


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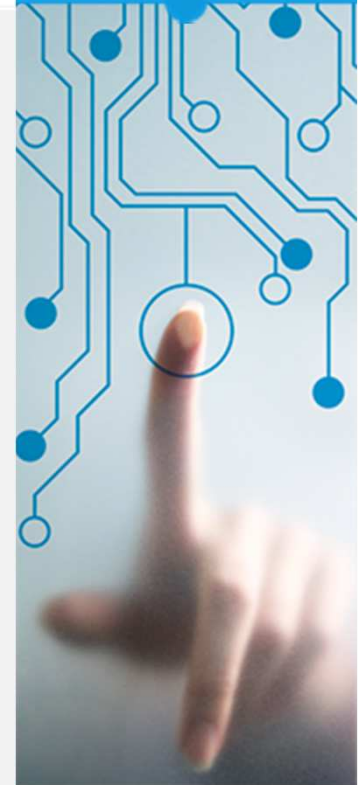


# Status 2015

- Strong focus on automation



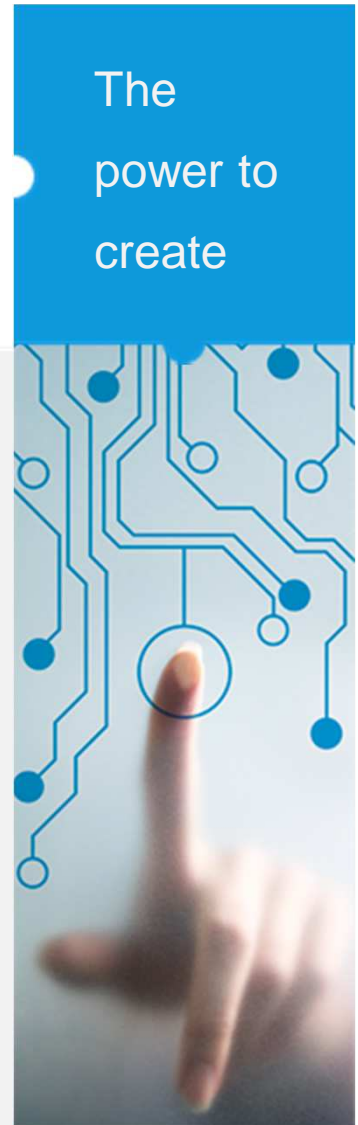
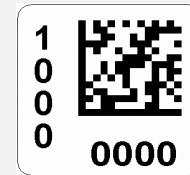
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# Status 2015

- Quality
  - New and State of the Art machinery
  - Full tracking & tracing on component level
  - Internal quality remarks: reduction 10x!



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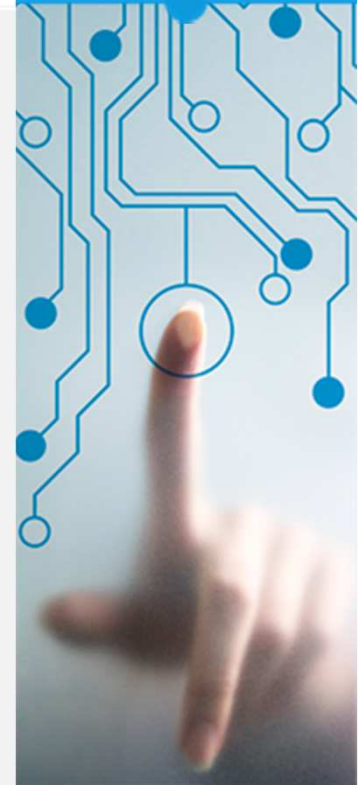
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# Status 2015

- Higher customer satisfaction
  - Lean Manufacturing / QRM
    - Flow
    - Lead times prototypes (and series production) → reduction of 65%
    - Cross functional employees
    - Self managing working teams
- Less operators as expected in Strategic Plan.

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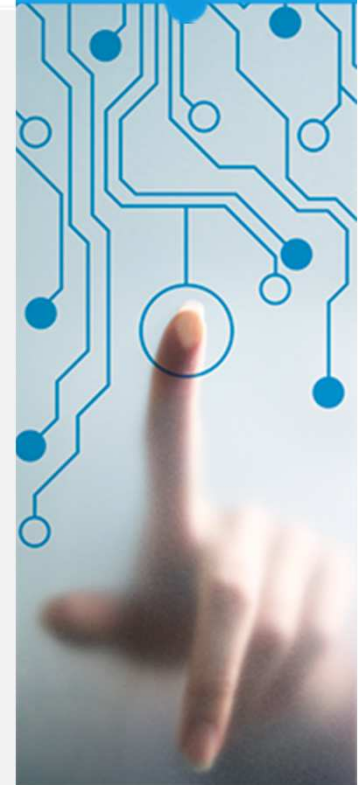
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# Status 2015

- New activities
  - U cell
  - High volume product



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# Positive trends

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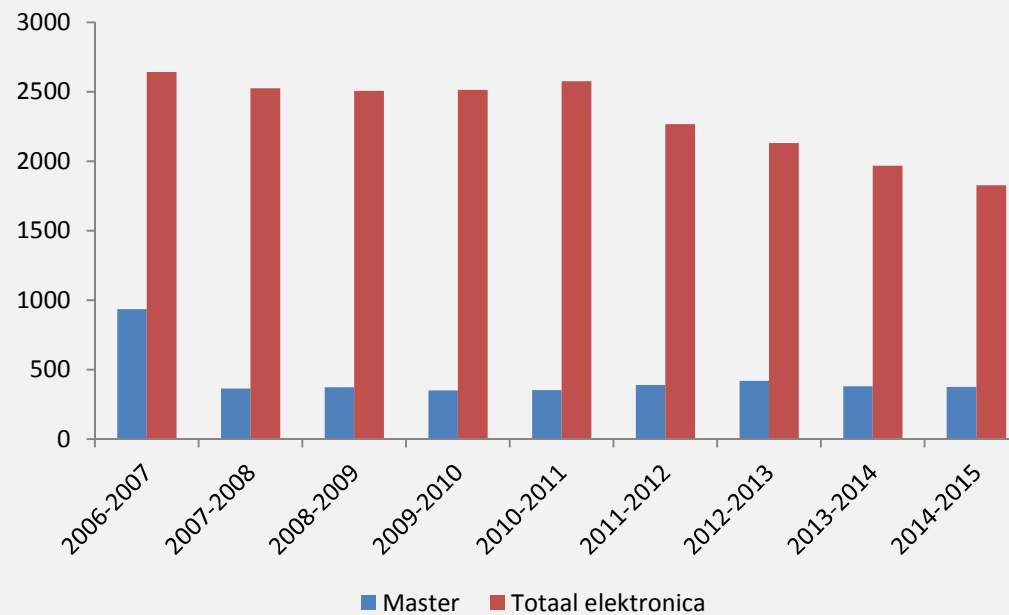
- Automation
- SmartFactory / FoTF



# Threat

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- Evolution starters Electronics-ICT in Flanders



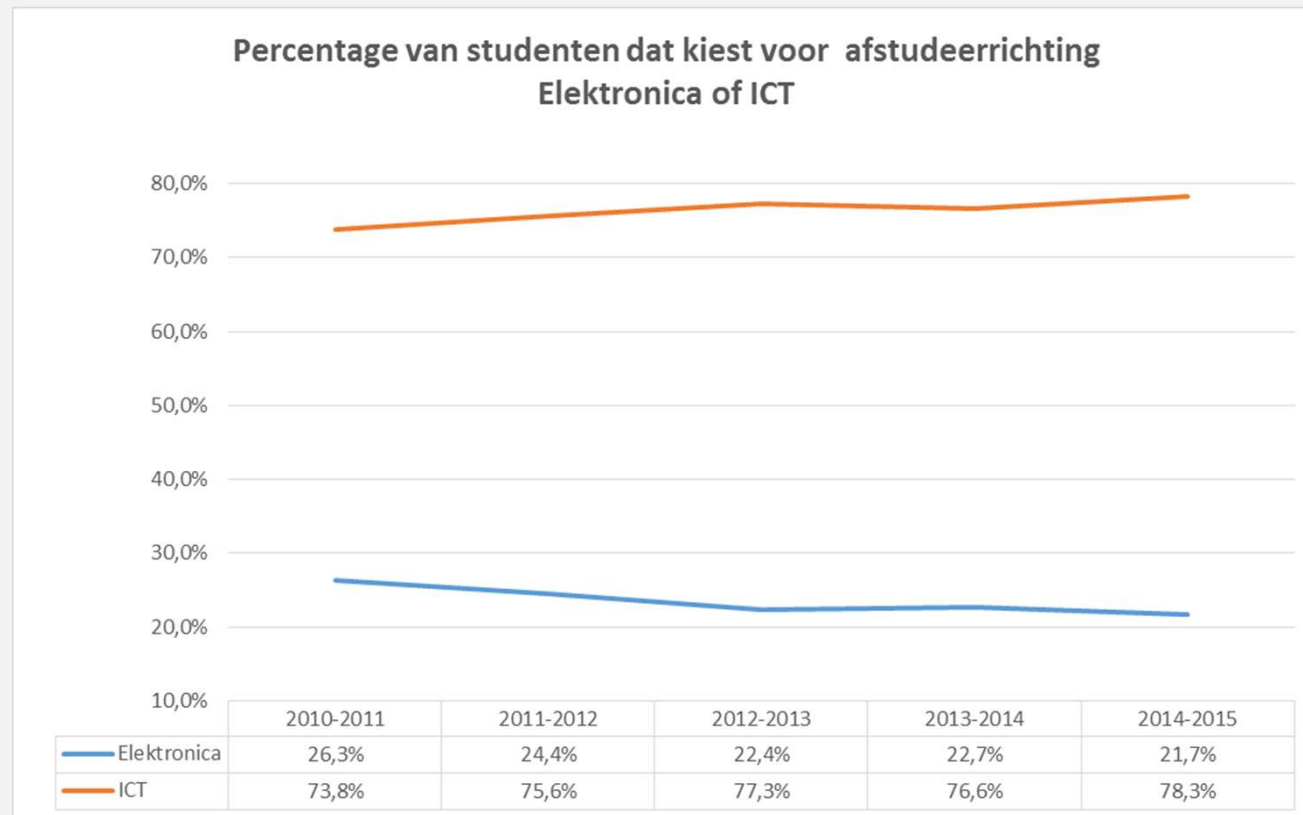
**-31% compared to 2006**

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# Threat

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- Electronics – ICT: Electronics versus ICT (Thomas More campus)



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# Threat

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- Try to motivate younger people to choose electronics as a study
- Opportunity: female students → only 2,5%.
- Communication: there are still electronics companies in Belgium



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Thank you for your attention