LHC Career Networking Event

Costanza Cavicchioli

Lead Engineer at Baker Hughes

At CERN

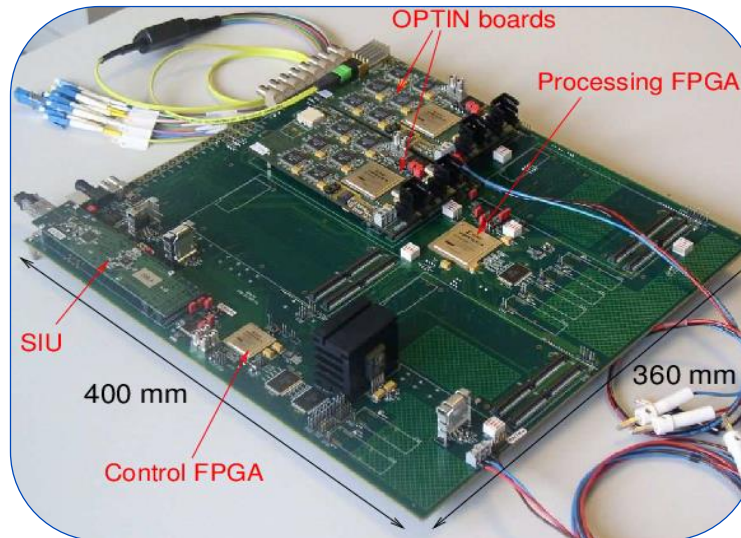- 2005 - Summer Student
- 2006 - Technical Student
- 2008 - Doctoral Student
- 2011 - Fellow
- 2015

Electronic hardware and firmware design
Commissioning and optimisation of ALICE SPD Pixel Trigger
Firmware, software, automatic procedures

Detector expert
Shifters training, operational procedures, on-call

At CERN

- **2005 - Summer Student**

- **2006 - Technical Student**

- **2008 - Doctoral Student**

- **2011 - Fellow**

- **2015**

Microelectronic circuit design

Monolithic pixel sensors for ALICE ITS upgrade
Studies for radiation hardness

Detector expert

Detector and trigger operation during runs, on-call

CERN guide

Evaluating changes

WHY: flat structure, hard to stay permanently, right age for a change

WHAT: set priorities to navigate thousands of job openings
- Job sector, career development, big/medium/small company, geography, …
- Go for your top 5 dream companies

HOW: consider multiple sources of job openings
- Companies websites, Linkedin, recruiting websites, networking, …

WHO: get help and sponsorship
- From your network, colleagues, mentors at Universities, …

WHEN: start early
- Time to hire 5-6 months on average

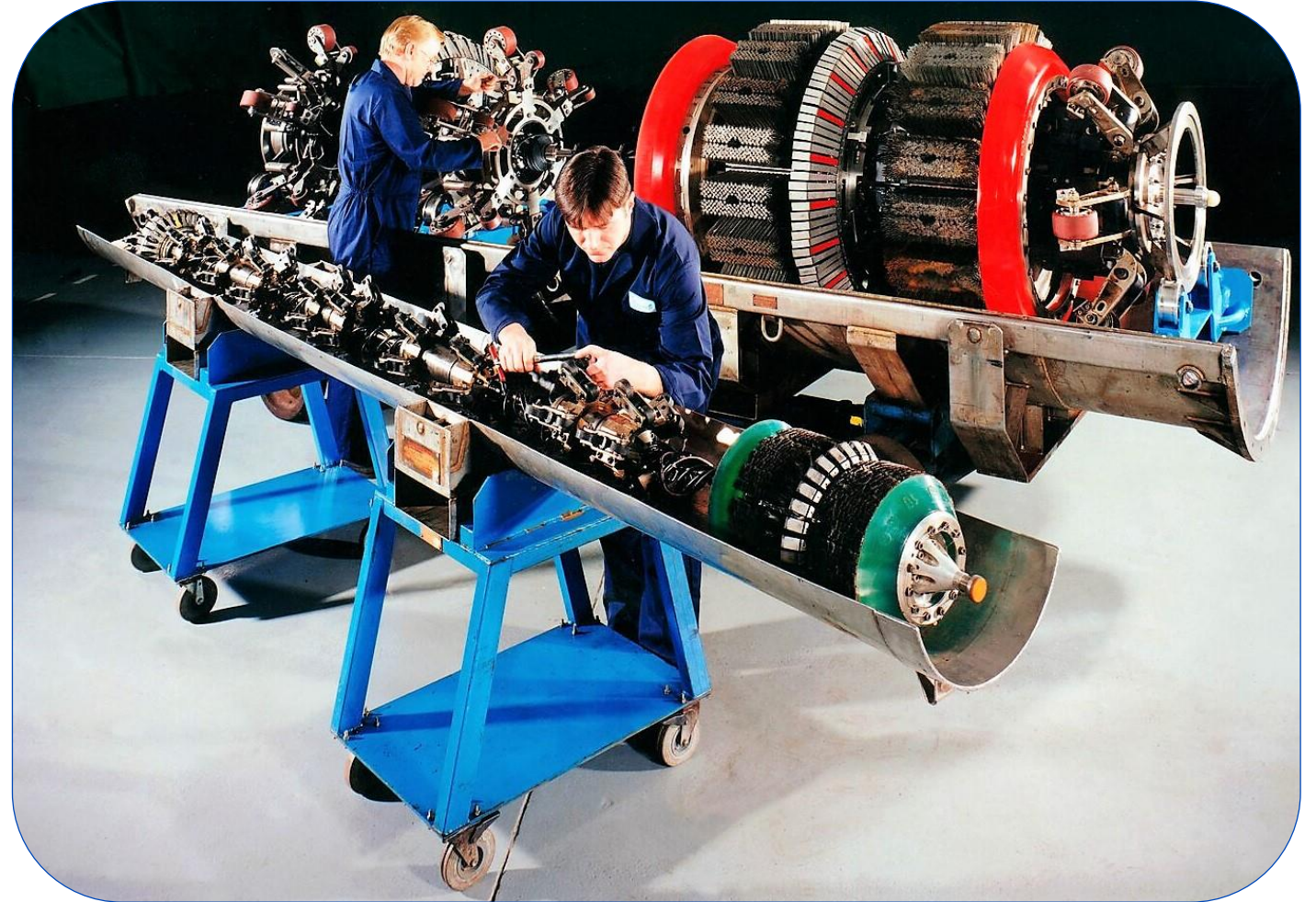# At General Electric (later Baker Hughes)

Energy technology company

"We take energy forward - making it safer, cleaner, and more efficient for people and the planet"

- 120 countries

- 58000 employees

- 17 global innovation centres

- ~2700 patents issued in 2019

- 8 additive manufacturing centres

- 75 new product launches in 2019

- 14.5% electricity from renewable sources

At General Electric (later Baker Hughes)

2014 - Electronics Engineer
General Electric, Oil&Gas
Newcastle upon Tyne, UK

2017 - Engineer Embedded Software
Baker Hughes, a GE Company
Newcastle upon Tyne, UK

2018 - Lead Electronics Engineer
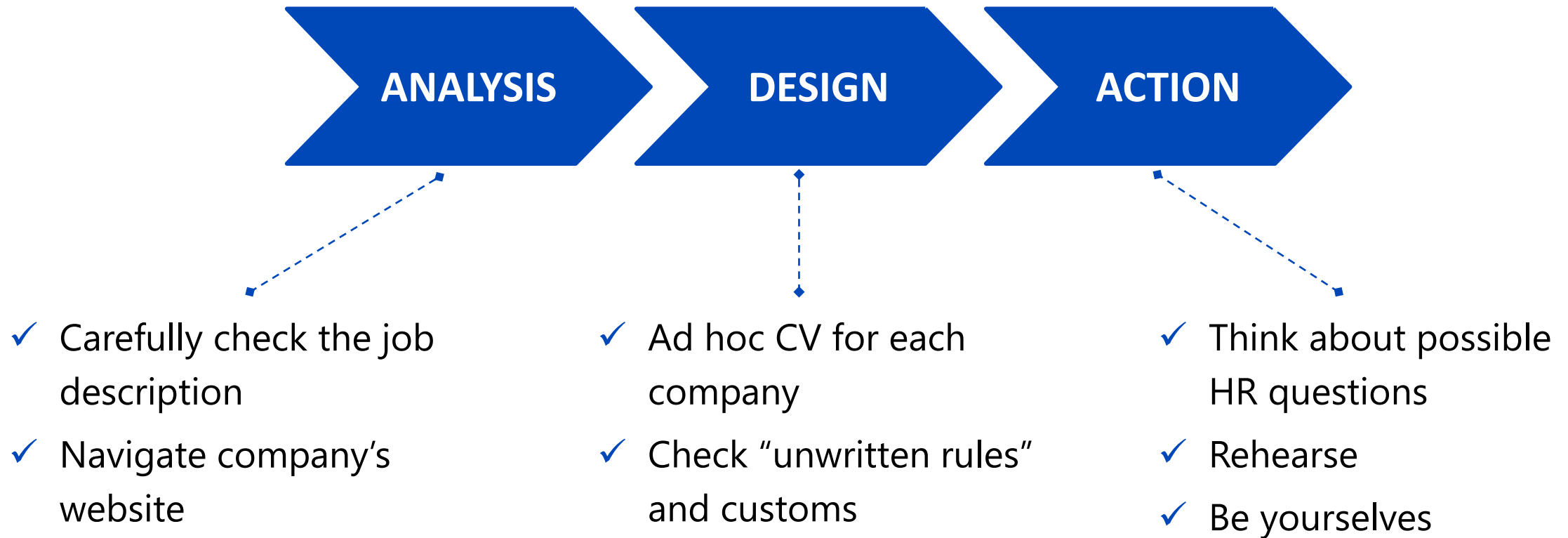Baker Hughes, a GE Company
Paris, France

At General Electric (later Baker Hughes)

- International team (UK, France, Germany, Canada, USA)

- Managing firmware and hardware designs
    - Magnetic flux leakage, ultrasound sensors, phased arrays

- Design authority for data acquisition units and Graphical User Interfaces
    - Multiple levels of data elaboration and storage

- Six-Sigma Green Belt
    - Certification for process improvement

Prepare your application

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ANALYSIS  →  DESIGN  →  ACTION
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- ✓ Carefully check the job description
- ✓ Navigate company's website

- ✓ Ad hoc CV for each company
- ✓ Check "unwritten rules" and customs

- ✓ Think about possible HR questions
- ✓ Rehearse
- ✓ Be yourselves

😉 TIP: take care of your digital footprint

In the company's shoes

What could they be looking for?

- Effective and efficient solutions

- Working under pressure, with tight schedules

- International and multidisciplinary experience

- Autonomy, self-management

- ....

Yes, we do all this at CERN !!

🙂 Speak the language of your interviewer (HR, technical manager, department head ...)

My experience

CERN vs industry

Similarities	Differences
Innovation spirit	Daily pace
International environment	Project size and speed
Attention to training	Navigating the hierarchy
Technical skills	Development and growth plan
	Ratio manager / entry-level employer

Questions

Most effective way to obtain interviews?

Are CERN alumni more/less appreciated than others?

Fundamental research or industry?

Most important skills acquired at CERN?