Added value of PhD on market today

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My current company

Group Hexagon
- Increase quality & productivity
- Sensing ➔ Thinking ➔ acting
- 18,000 employees
- 23.4% EBIT for 3.1bn EUR Turnover
- 3,400 working in R&D
- Research & technology center (>70 PhD)

Company Tesa
- Sensing ➔ measurement systems
- Develop complex technology
- Local R&D of 40 people (15% PhD)
- Flexibility of mid-size company (>300 FTE)
- The power of a large international group
My Career path
You are shaping your future

Learn how to learn

- Become a peer
- Enrich the organization
- Try to be visionary
- Drive success

Narrow expert

Schrödinger equation

TDSE:
\[ \hat{H} |\Psi\rangle = i\hbar \frac{\partial}{\partial t} |\Psi\rangle \]

TISE:
\[ \hat{H} |\psi\rangle = E |\psi\rangle \]

EPFL, MSc in Microengineering
2002-07

EPFL, PHD in Signal Processing & Measurements Systems
2007-12

Hexagon MI, Project Manager & Metrology Expert
2013-15

Hexagon MI, R&D Sensor Line Leader
2015-17

Hexagon MI, R&D Manager Probes
2017-Present

ALWAYS HAVE FUN

- Learn company world & get skills
- Start solving problems
- Become a leader/expert
- Create value
Values of a PhD

Top 3 mistakes (from HR experts*)

- **Mistake #1** ➔ Entitled To Something (e.g, sales or interpersonal)?
- **Mistake #2** ➔ Best Ideas Win
- **Mistake #3** ➔ PhD As Working Experience?

What does count in Industry

- **Experience**
  - • **STAR** method (situation, task, action, result)
  - • PhD : mgt or communication?

- **Motivation**
  - • Ambitious & endurance
  - • « Keep on pushing »

- **Education**
  - • Expert vs Generalist
  - • You are able to THINK

Values of a PhD ➔ Transferrable skills

**PhD in RESEARCH**

**Technical skills**
- Expert
- Solve unknown problem
- Define Methods & validate/proof them

**Innovation skills**
- State of the art/Scientific papers

**Management skills**
- Thesis planning
- Student projects/class
- Grant approval (EU/Swiss)

**Communication skills**
- International conferences/papers
- Communication to students/hierarchy

**Soft skills**
- Engaged, Endurance, Creativity, Independent

**In INDUSTRY**

**Technical skills**
- Theory/generalist ➔ can rapidly get it
- Root cause analysis
- Requirements ➔ concepts ➔ tests ➔ products

**Innovation skills**
- Patent management, competition survey

**Management skills** ➔ more constraints
- Project planning
- Cross functional Team coordination
- Validate budget with hierarchy

**Communication skills**
- Concise, simplify, how to motivate/lead
- Communication to production/boss/customer

**Soft skills**
- Professional, Entrepreneurship, Innovative, team work, customer focus
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**START NOW to APPLY**
Values of a PhD

PhD profiles in my group

PhD #1 ➔ Experts
PhD #2 ➔ Researchers
PhD #3 ➔ IP experts
PhD #4 ➔ System engineers
PhD #5 ➔ Worldwide project managers

What I am looking into a PhD profile ➔ Somebody who:

1) Works into an international context
2) Has the helicopter view & get the details
3) Thinks “out of the box”
4) Challenges the other “by why” attitude
5) Takes responsibility
6) Plans & controls deliverables
7) Never gives up / find alternatives
8) Is different ➔ BUT BE YOURSELF/HAVE FUN
Questions?