FROM LEADING DEVICES TO COMMERCIAL SUCCESS

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Introduction

What was the highest point in my career so far?



Getting in touch with photonics





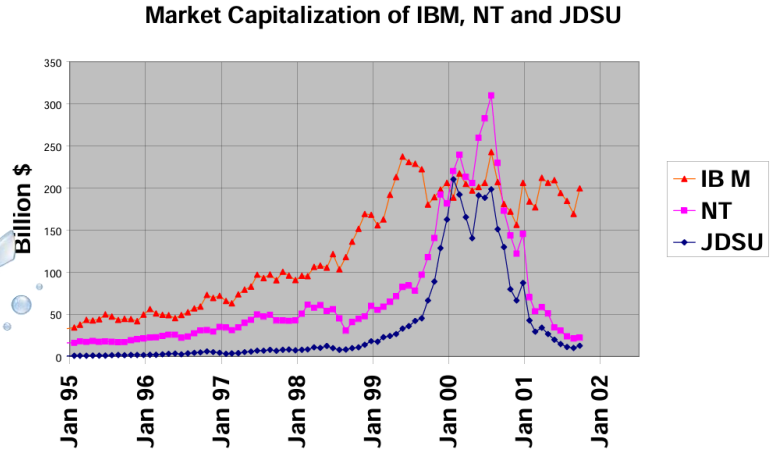
1998 uniphase laser enterprise

1999 JDS Uniphase

2001 NORTEL NETWORKS™

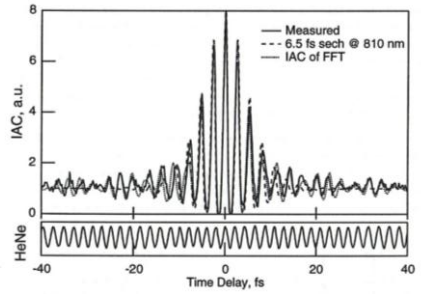
Telecom Bubble

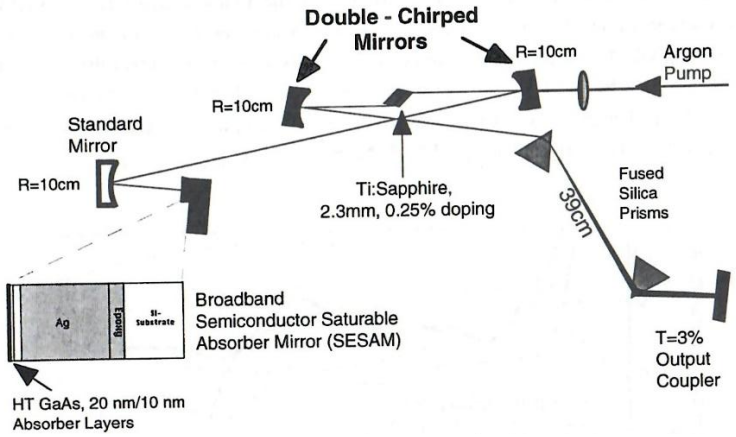


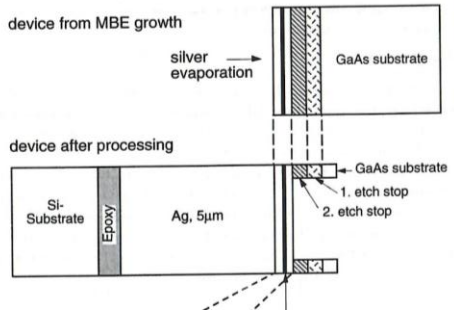


→ The bubble burst.
The knowledge remained

ETH zürich
1994-97







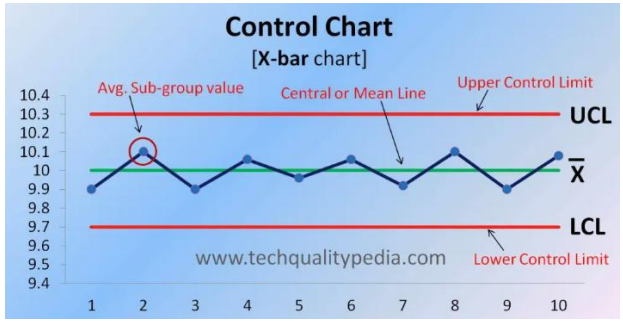
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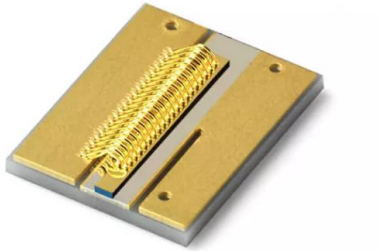
How to ramp from 5 to 100 lasers per week

Laser WL	wk 4	wk 5	wk 6	wk 7
980nm	1	2	2	0
976nm	2	2	3	2
974nm	0	1	0	1

From fab:

- Planning with Excel tables
- Visual inspection by putting a transparent folie on a monitor
- Pedigree review – select the best lasers by experience
- Lot of manual processes



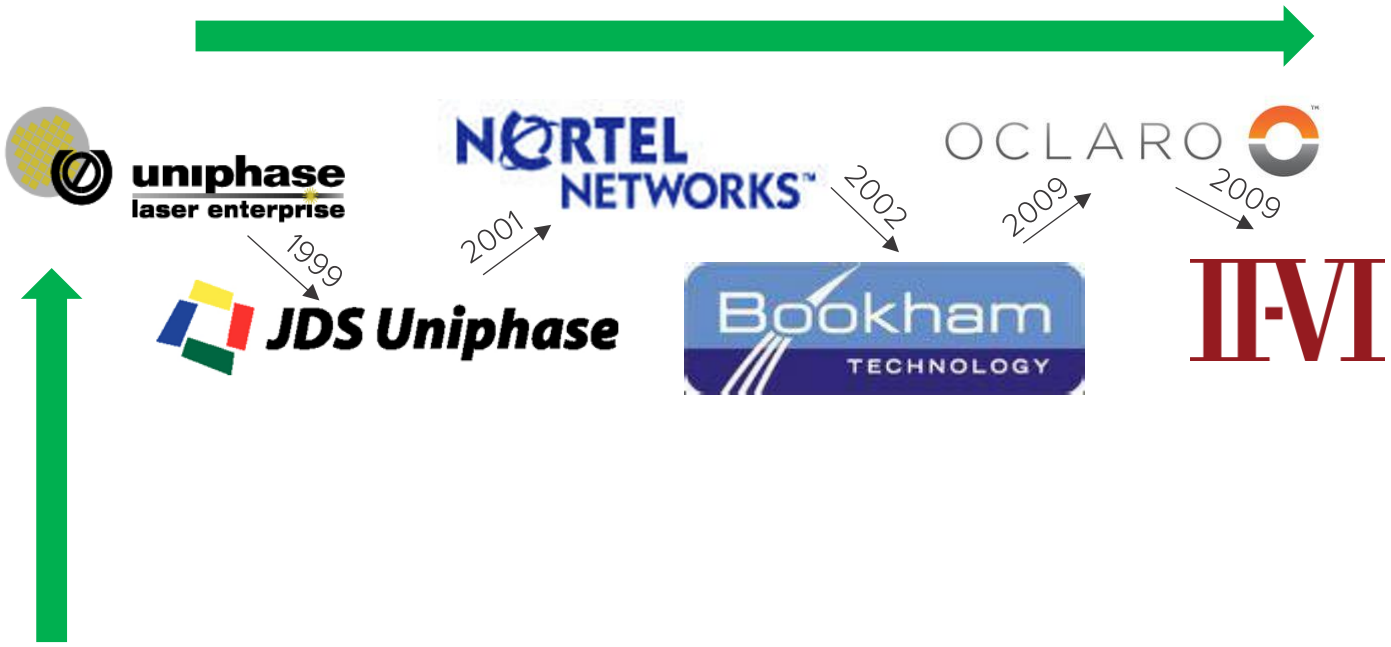




To lab:

- ERP systems – Oracle, SAP, …
- SPC and statistical process control
- Automated lot validation with defined specifications
- MES system – even if home-made
- Automated equipment for die and wire bonding
- The best teachers: our customers

Photonics turn around to recovered success



ETH zürich

Photonics pioneers started

SWISS PHOTONICS

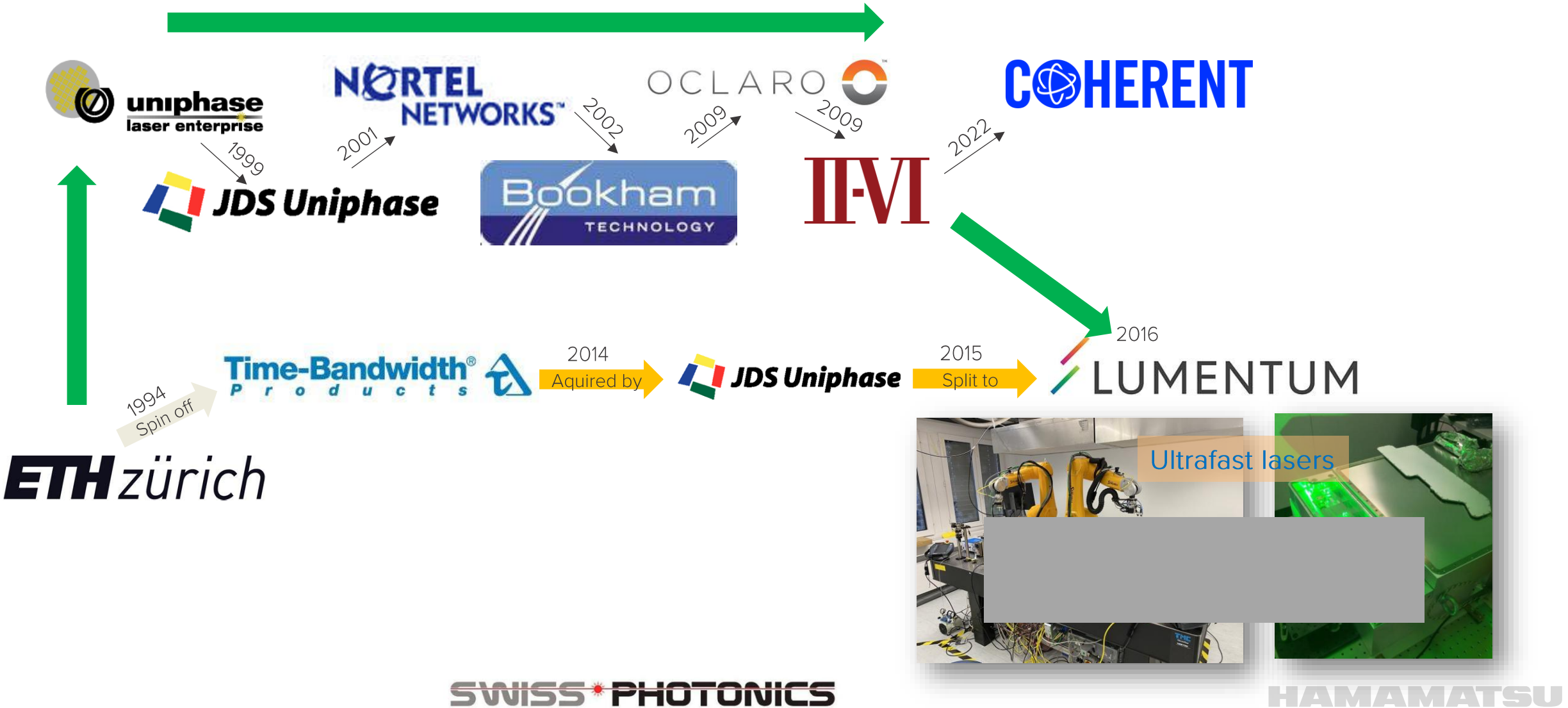
Started in 2006

Following the telecom bubble innovative products win and photonics business continues to be successful by

- **Diversification** in market applications
  - Telecom/datacom
  - Material processing
  - Medical application
  - Consumer applications
- Plenty of **mergers and acquisitions**
- Vertical integration versus contract manufacturing
- Going off-shore
- While still working on
  - improved performance
  - cost reduction by automation

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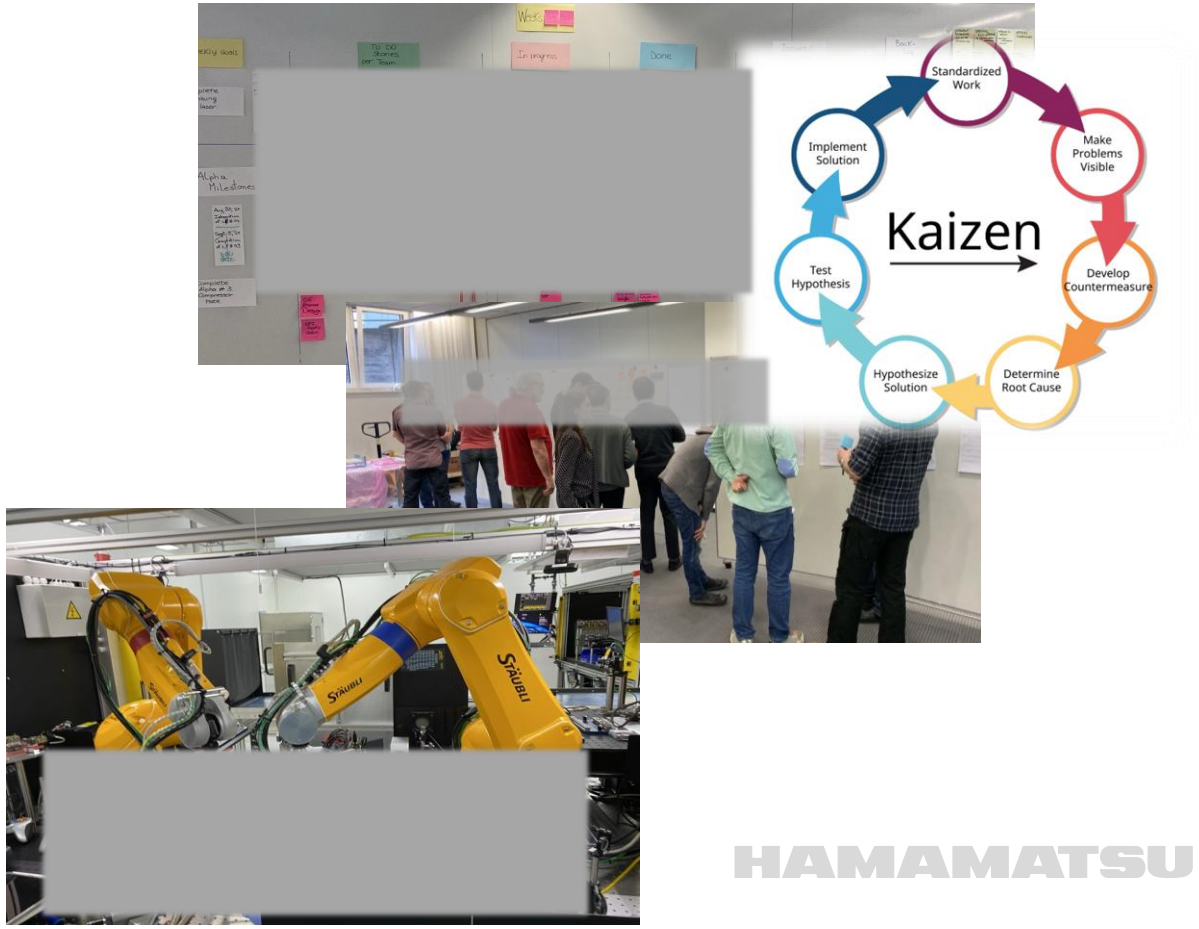
Back to the photonics roots



Manufacturing of photonic components - the next level

Technology was there but how to excel at high-volume, high-quality manufacturing while remaining profitable?

- Learning from automotive industry
- Kaizen methodoly
- Enhanced robotics
- Structured product development processes
- Desgin for manufacturing – from the beginning
- Strategic supply chain
- Processes for operators: Poka Yoke, special trainings
- Enhanced customer focus and RMA handling



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Transferring products to Thailand during Corona



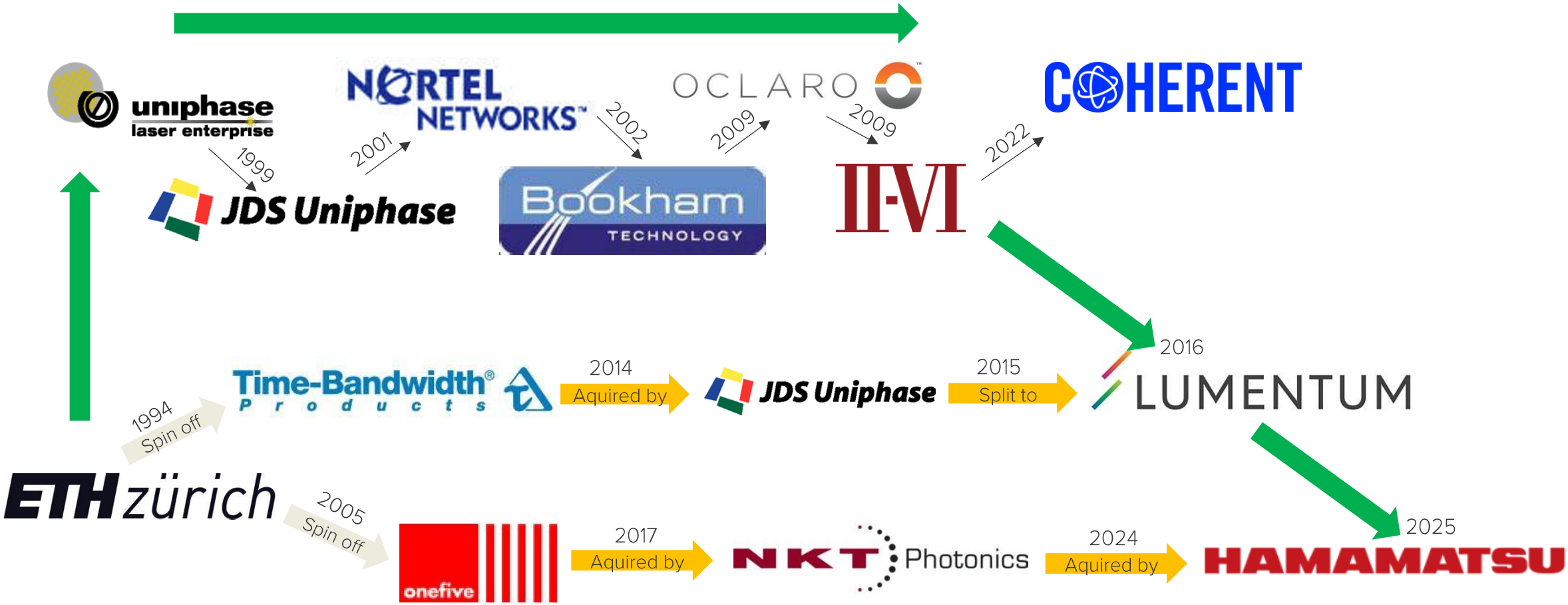
Photonics enabled us to overcome the Corona barriers.

Production transfer via

- cameras
- Teams meetings
- remote control
- Cloud based data

Solutions which were very useful going forward !

Combining photonics experience



SWISS PHOTONICS

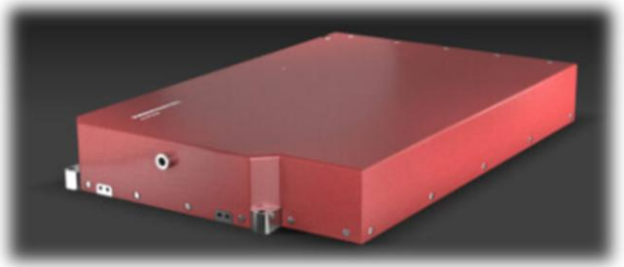
2006

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From leading devices







Innovation

Understanding finance

Supply chain strategy

Capacity ramp

MES and ERP system enabler

with operational experience

Customer focus

People management

Continous improvements

Design for manufacturing

Automation

to commercial success

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A companion throughout my photonics journey

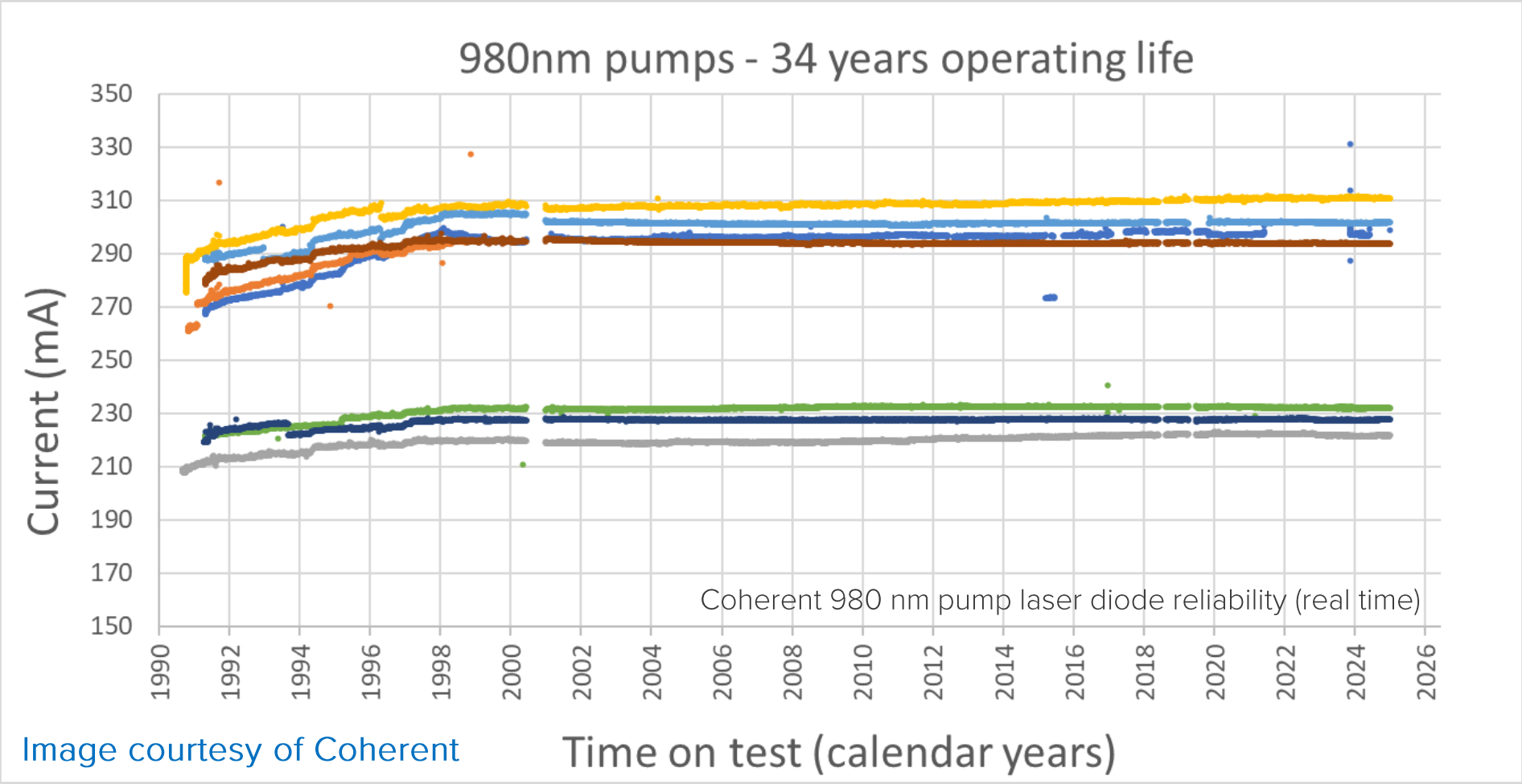


Image courtesy of Coherent

university → industry → Swiss photonics → Photonics everywhere →

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