

# Personal Experience in Founding and Growing an IT-Security Business in Bochum

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ESCRYPT – from Zero to Hero!

# Curriculum Vitae



## Education

- Master of Science, Electrical Engineering, (Worcester, MA, USA)
- Ph.D. in Cybersecurity, Ruhr-University Bochum (Bochum, Germany)

## Experience

- Secunet (Germany): Security Engineer
- Worcester Polytechnic Institute (USA): Researcher
- Ruhr-University Bochum (Germany): Researcher
- ESCRYPT / ETAS / Bosch (German):
  - Co-Founder
  - Chief Sales Officer
  - Managing Director
  - Chairman of Managing Directors
  - Vice President
  - Portfolio Manager Cyber Security



## Innovation Management

- Analyze the strength of Bochum
- Find new fields for future actions
- Realization of new ideas



## Internationalization

- Represent the industry of Bochum abroad
- Connect foreign companies with the ecosystem in Bochum
- Attract companies to invest in Bochum

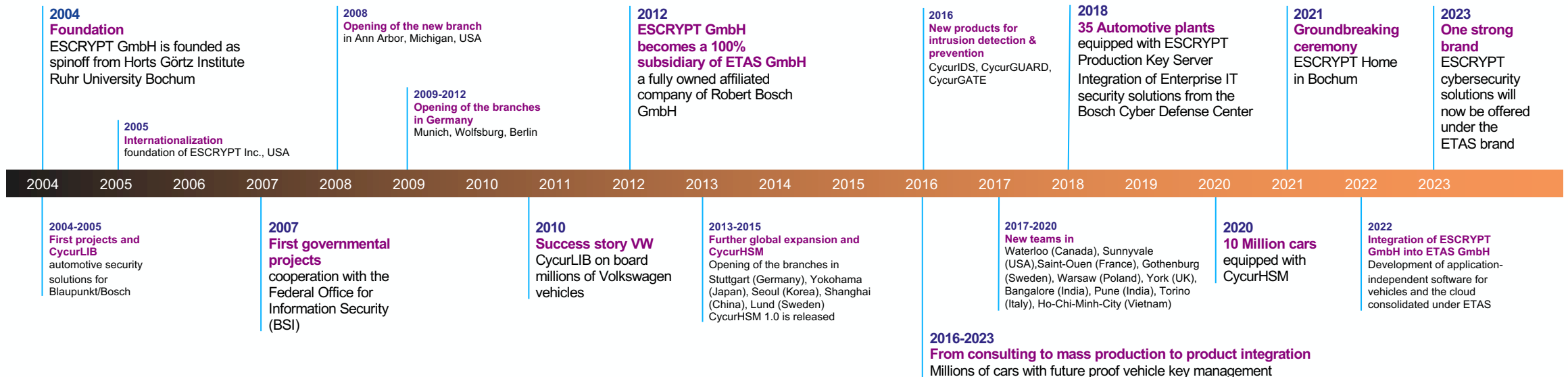


## Enhancements of IT-Security

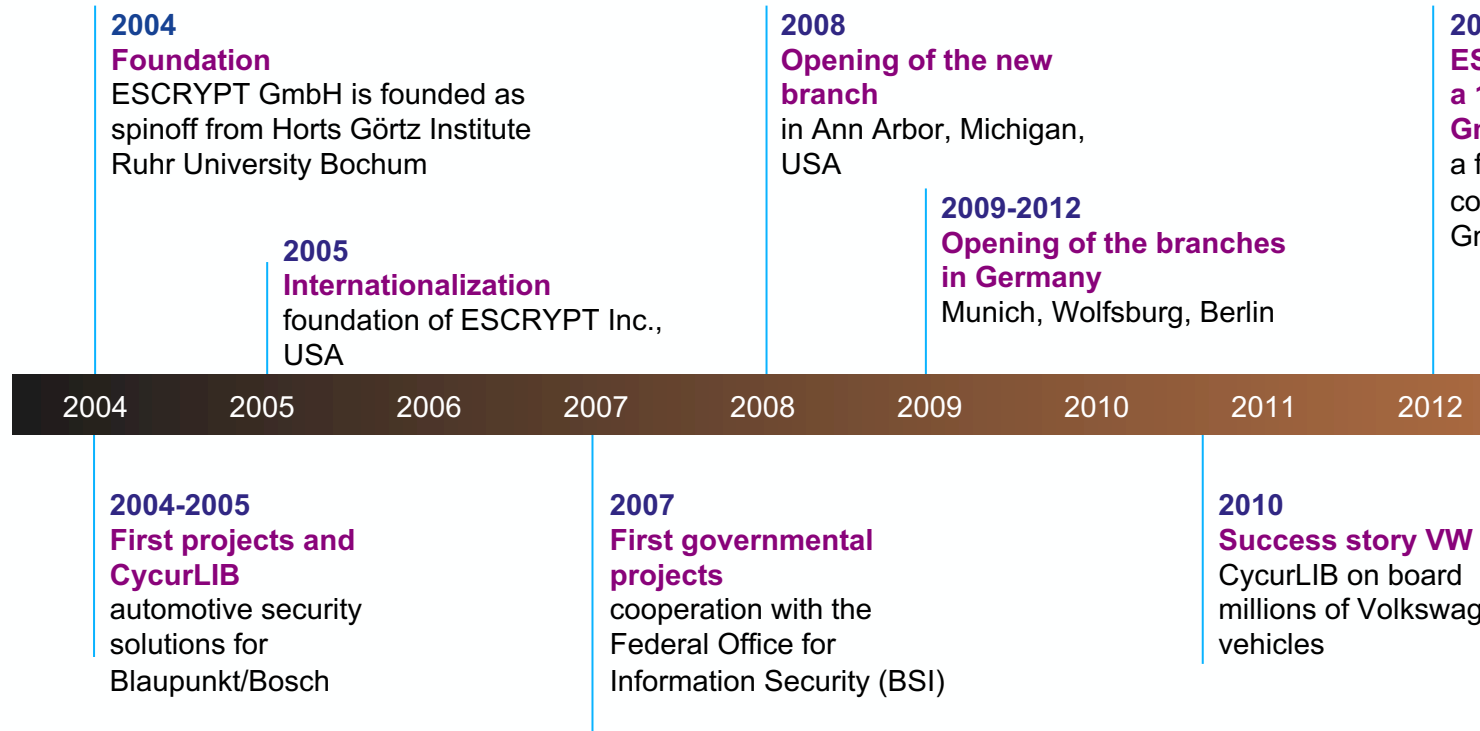
- Support networking between different players (industry, academia, politics, associations, ...)
- Accommodate the needs of the security players in Bochum
- Enables events

# The History of ESCRYPT

- ESCRYPT is technologically pioneering for automotive cybersecurity
- ESCRYPT offers holistic cybersecurity solutions
- ESCRYPT automotive security solutions (today from ETAS/Bosch) are used millions of times around the world to secure vehicle systems
- ESCRYPT set standards for the cybersecurity of software-defined vehicles, intelligent traffic systems and connected vehicle fleets.



# The History of ESCRYPT



# Were We Set Up For Success?

- No, only consulting service and no scalable product
- No, our potential customers did not understand why security is important für automotive industry
- No, real scaling (international) sales strategy. Our Strategy “We wanted to get money from the 5 German car manufacturer in the first 12 months”.
- **Fact:**
  - **Investors would never have given us money**
  - **We were successful in signing contracts within the first 12 months with:**



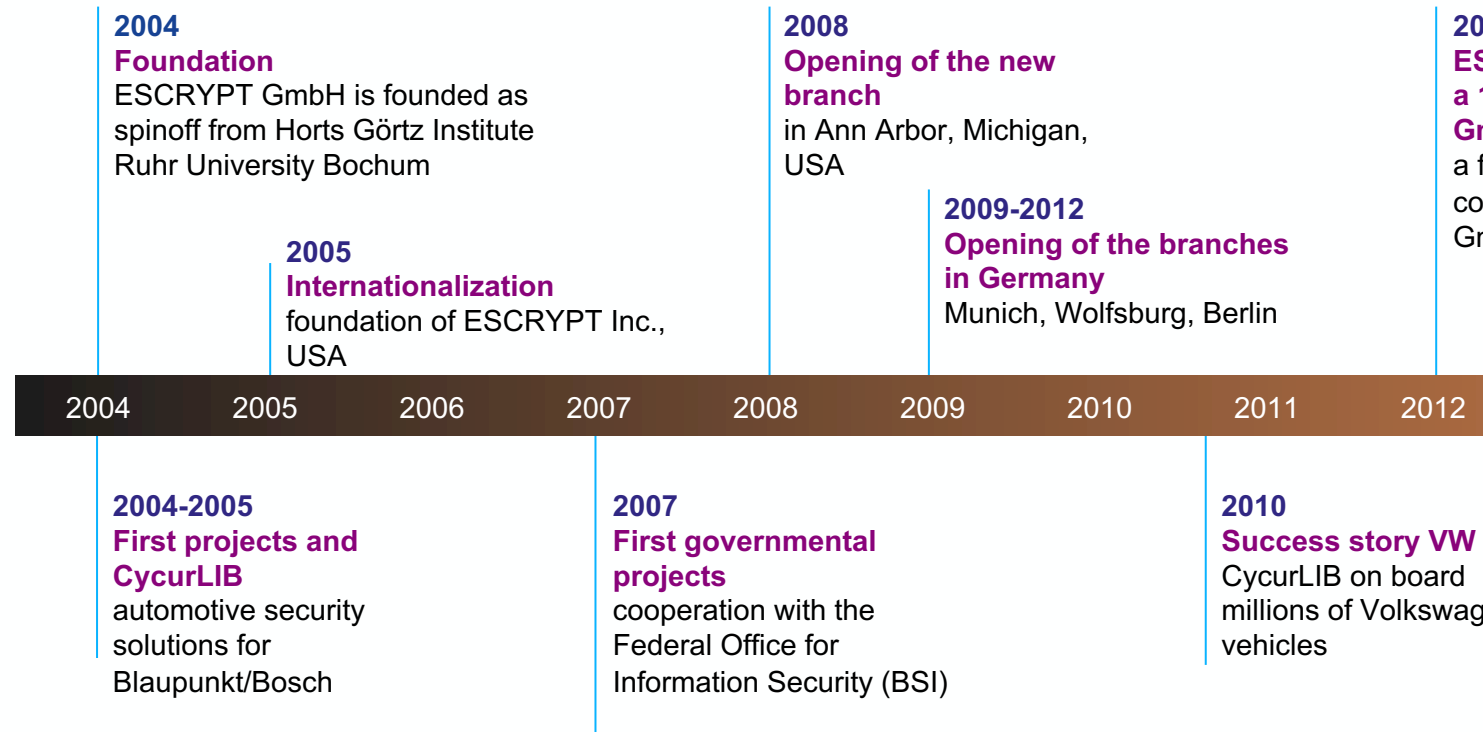
# Did We Have A Good Team?

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- Yes and No, I just finished my technical PhD in Cybersecurity (like some other member of our team). The team members told me:
  - Thomas, you know how to “speak”, and you know Security
  - Thomas you are the CSO (chief sales officer) of the company
- **Fact:**
  - **We were able to run a positive business from the first day**
  - **Later the sales was getting larger, and we needed a “real” salesperson**



# The History of ESCRYPT



# How About your International Strategy?

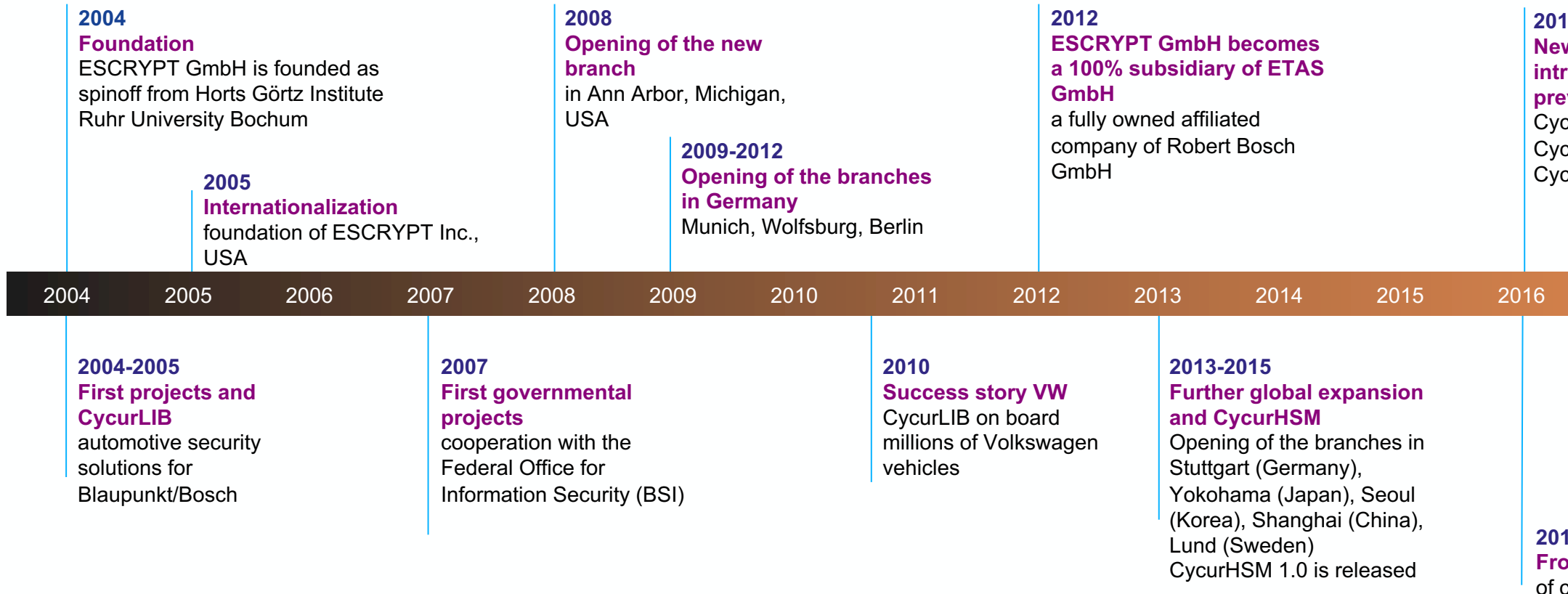
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- We were greenhorns in the international market:
  - ESCRYPT Product name “ES” plus abbreviation
  - Software library -> esLIB
  - We started our sales activities in the USA and the pronunciation was “E-SLIP” (suddenly, we were in the market of selling “electronic underwear”) -> We needed a new name
- **Fact:**
  - **The product (today called CycurLIB) is used in millions of vehicles worldwide**
  - **We have excellent teams in the USA / Canada and around the world**





# The History of ESCRYPT



# Did You Prepare For The Selling of ESCRYPT?

- We did not prepare at all!
- We needed the money for investing in products (our customers asked for)
- 2012: 3 different companies wanted to buy us -> we sold to ETAS / Bosch
- **Facts:**
  - **Bosch invested heavily in us**
  - **We are now the by far biggest Cybersecurity team within Bosch**
  - **The manager that signed our first contract @ ESCRYPT (in 2005) also signed the contract of buying the company**

**ETAS**



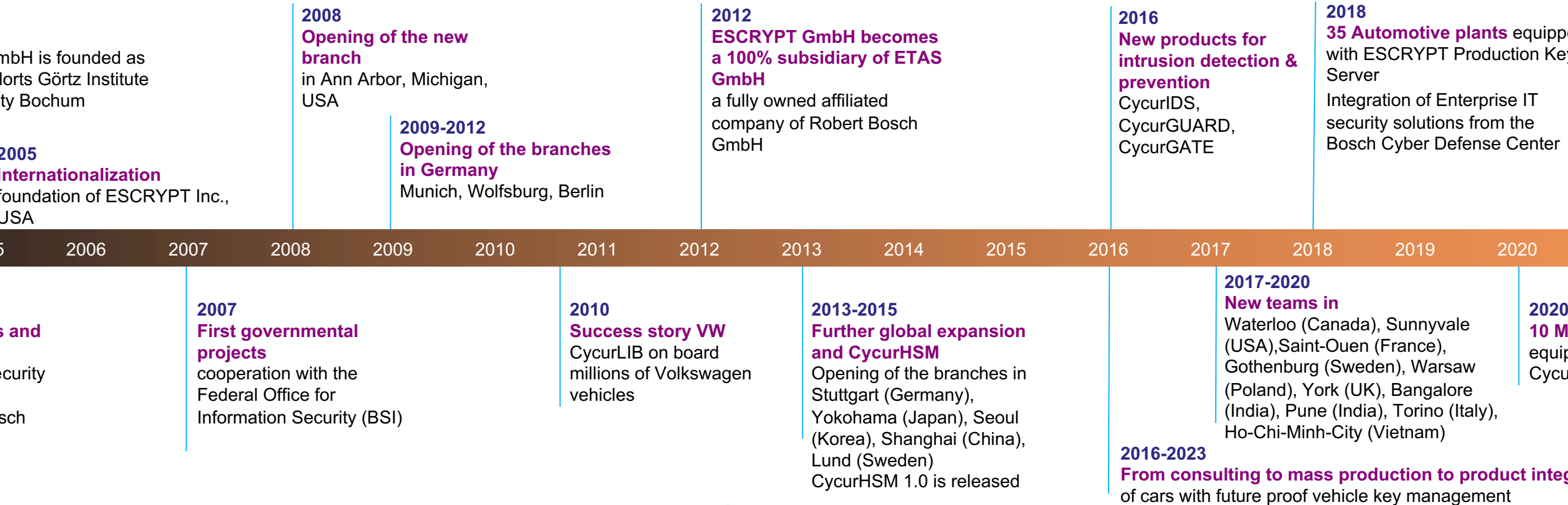
**BOSCH**

# Did You Imagine The Big Success?

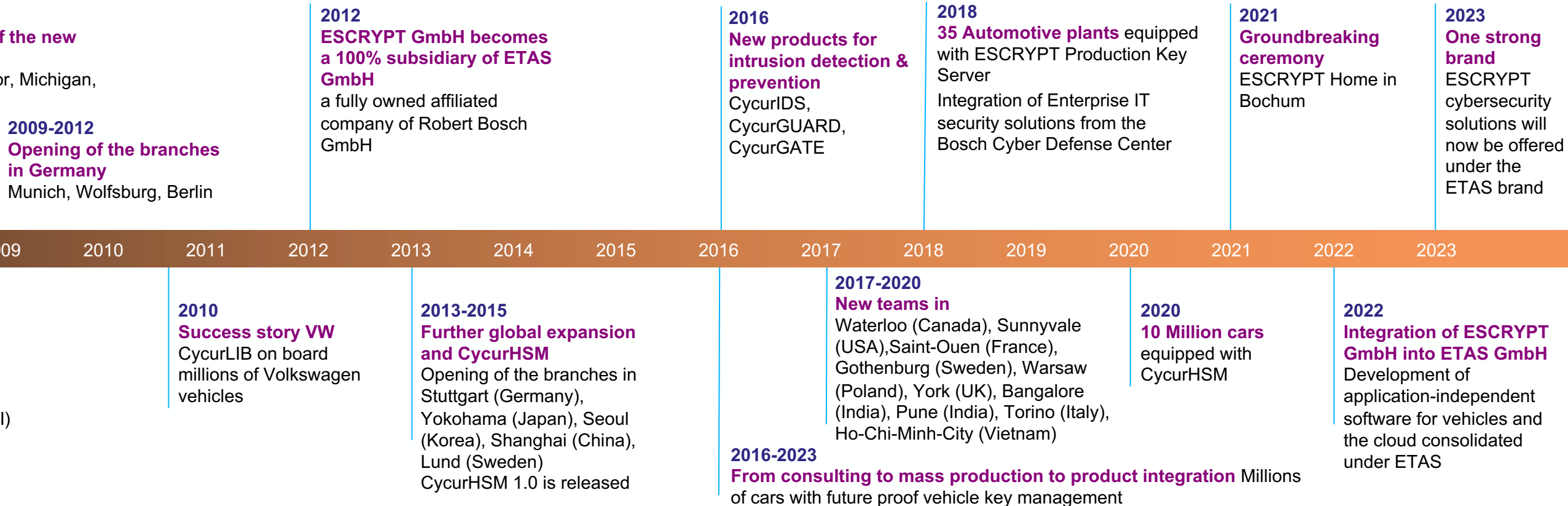
- In 2005: We went everywhere in the automotive industry and told them „how to do security“ -> Hero mode to go automotive market
- Earned most money with Government and public funded project
- Starting about 2015 the competition went strong -> more and more players on the market.
- **Fact:**
  - **Bosch helped us (financial power, global footprint, stable processes, certifications, ...)**
  - **You need be lucky once in the while**



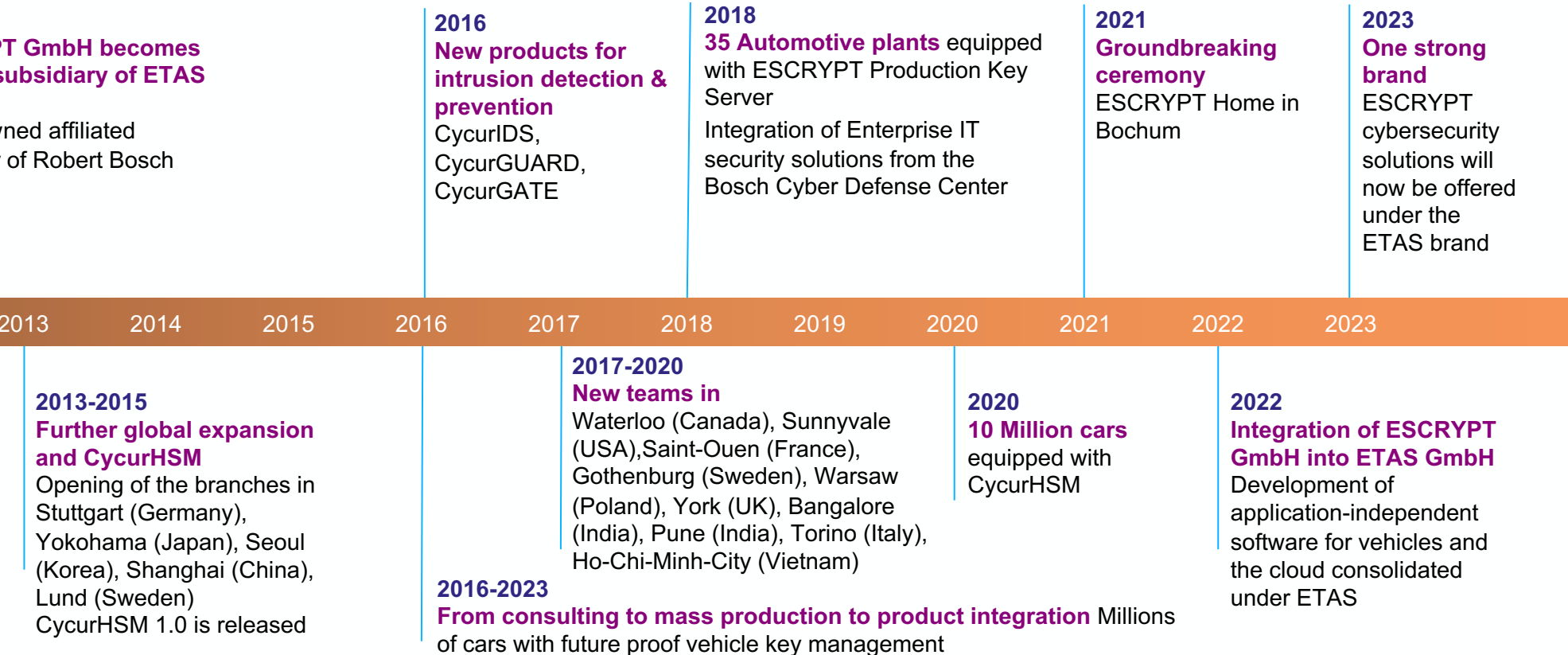
# The History of ESCRYPT



# The History of ESCRYPT



# The History of ESCRYPT



# Why Are We Still in Bochum?

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- We were not too lazy to move ;-).

## Facts:

- We bought our own property
- We moved into our own building



# Cutting-Edge IT- Security Research @ Bochum





# Highly Qualified Student @ Bochum



```
perceval were-rabbit 2.52b (gizpaz_fuzz)
```

process timing		overall results	
run time	0 days, 0 hrs, 1 min, 0 sec	cycles done	60
last heap crash	0 days, 0 hrs, 1 min, 0 sec	total paths	4
last malloc heap	none seen yet	malloc crashes	0
cycle progress		malloc hangs	0
time processing	2 (100.00%)	map coverage	0.13% / 0.49%
path timed out	0 (0.00%)	count coverage	1.18 bits/byte
map progress		favor of path depth	0 (0.00%)
map cycles	33/32 (100.00%)	new edges no	4 (100.00%)
total memc	17%	new crashes	0 (0.00%) (misses)
map speed	2720/sec	total faults	0 (0.00%)
Pathing strategy yields		path geometry	
bit flip	N/A, N/A, N/A	len	2
bit flip	N/A, N/A, N/A	pending	0
arithmetic	N/A, N/A, N/A	new inv	0
enum	N/A, N/A, N/A	non finite	3
enum	N/A, N/A, N/A	imported	N/A
division	N/A, N/A, N/A	stability	100.00%
maxc	0/63.96, 0/108		
size	0.00/20, N/A		

(passed: 9%)

# Enabler City @ Bochum

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 **BOCHUM**  
Wirtschaftsentwicklung

# Ecosystem @ Bochum

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**WENN,  
DANN  
HIER.**

**MARK  
51'7**

Ministerium für Wirtschaft, Innovation,  
Digitalisierung und Energie  
des Landes Nordrhein-Westfalen



Ministerium für Heimat, Kommunales,  
Bau und Gleichstellung  
des Landes Nordrhein-Westfalen



# Culture @ Bochum

A photograph of a stone building with a glass facade. The building is constructed from light-colored stone blocks and features several windows with decorative iron grilles. A central entrance is reached via a set of stone stairs with black metal railings. Several people are visible: a woman in a blue jacket stands on the stairs, a man in a white jacket stands near the entrance, and a man in a black jacket and a woman in a yellow jacket are walking up the stairs. A man in a brown jacket is sitting on a stone ledge in the foreground. The building is surrounded by green trees and a grassy area. A blue horizontal line is positioned below the text 'Culture @ Bochum'.

# Museum @ Bochum

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# Night Life @ Bochum

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# Nature @ Bochum

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# Free-Time Activities @ Bochum

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# Simply saying “We just like it in Bochum”

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## **Bochum Wirtschaftsentwicklung**

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44787 Bochum

[www.bochum-wirtschaft.de](http://www.bochum-wirtschaft.de)

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