APPROACH

ADVANCED PHOTONIC PROCESSES FOR NOVEL SOLAR ENERGY HARVESTING TECHNOLOGIES

CASE STUDY: Iron Analytics Spinoff

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This project receives funding from the European Commission's
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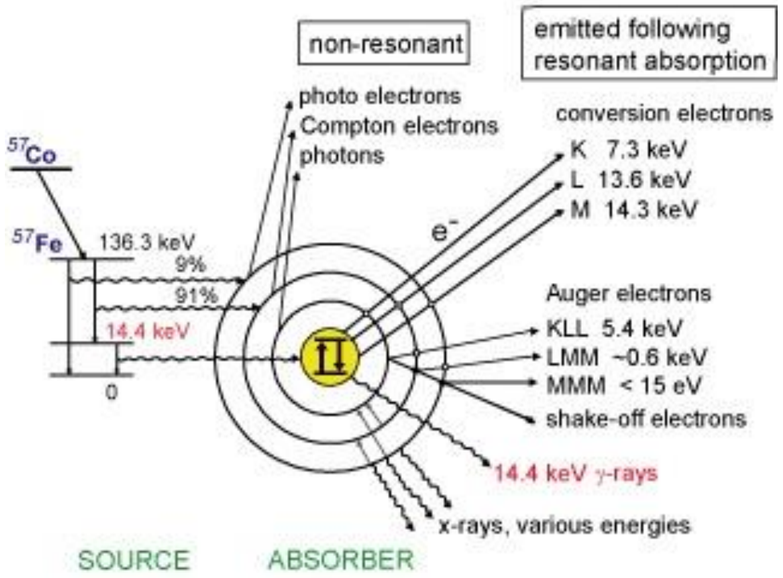
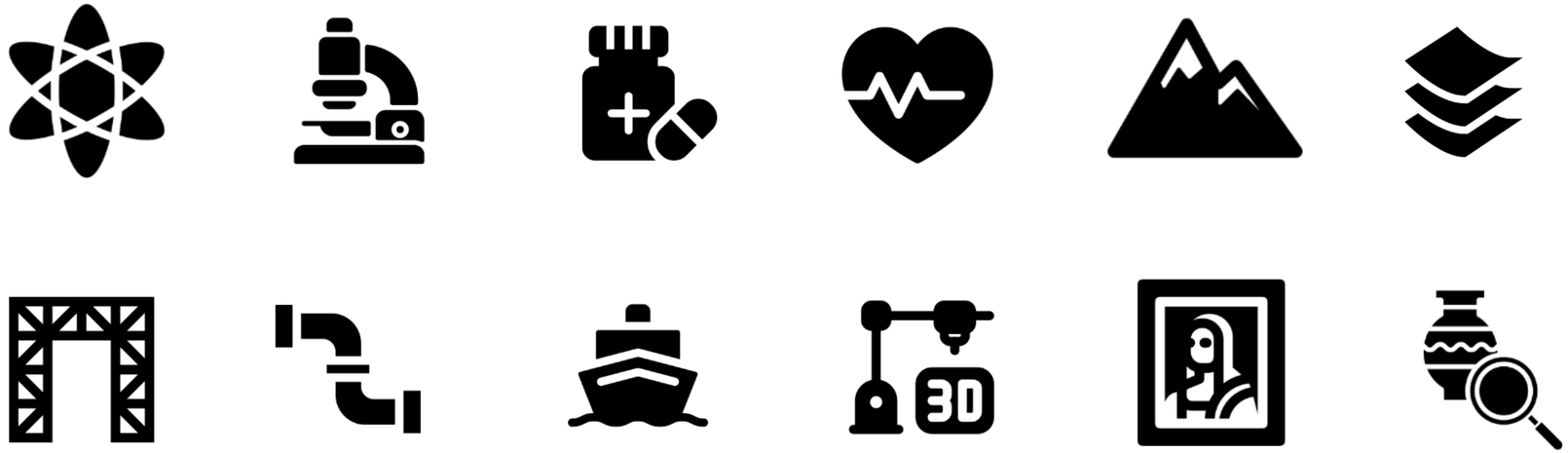
Mössbauer Spectroscopy

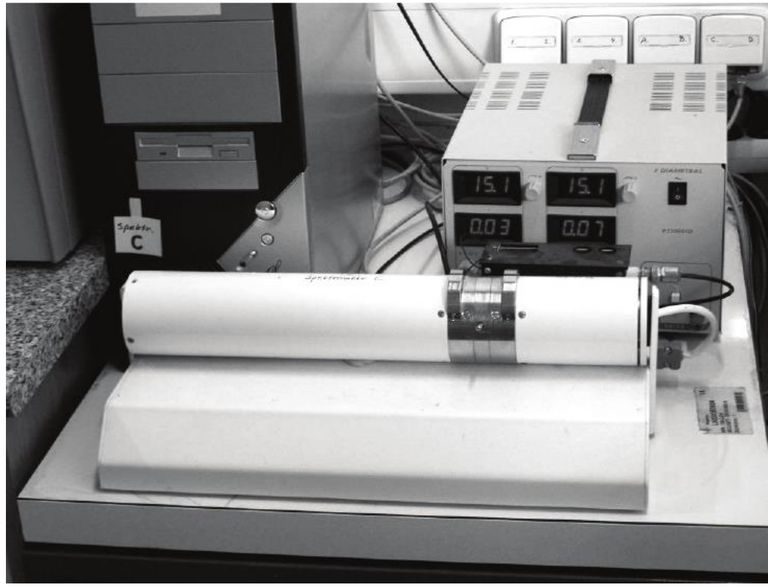
- Advanced non-destructive analytical method
- Gamma spectroscopy
- Applications in science, industry, pharmacy, helath, quality control, etc.





Mössbauer Spectroscopy at UPOL

- 1st Generation in 1993, design originated in Belarus
- 2nd Generation in 1996
- 3rd Generation in 2015 (Navařík Ph.D. thesis)
- 4th Generation in 2021 – commercial usage focused
  = Spinoff established
- 5th Generation currently in design



1993 original design

Palacký University Olomouc

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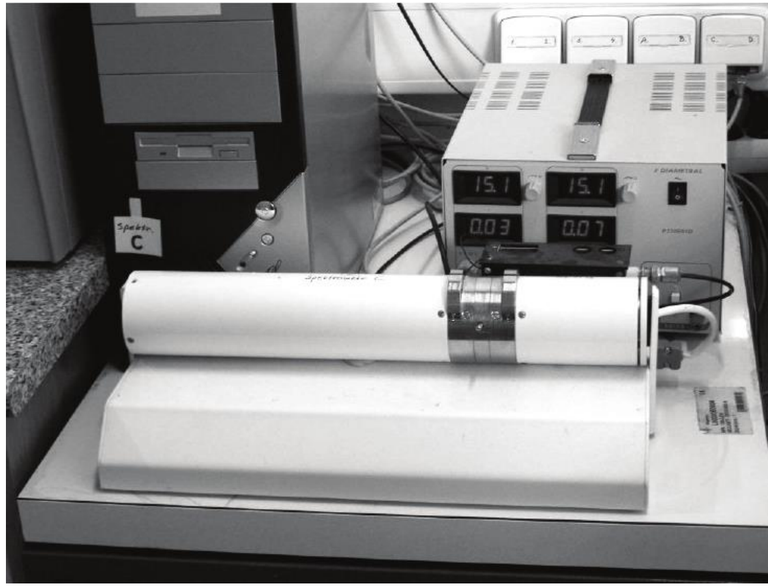
Mössbauer Spectroscopy sales

- Until approx. 2011 only sporadic, in almost 30 years less than 20 sales
- First focused marketing from 2011
  = 1st significant sales increase from 2014



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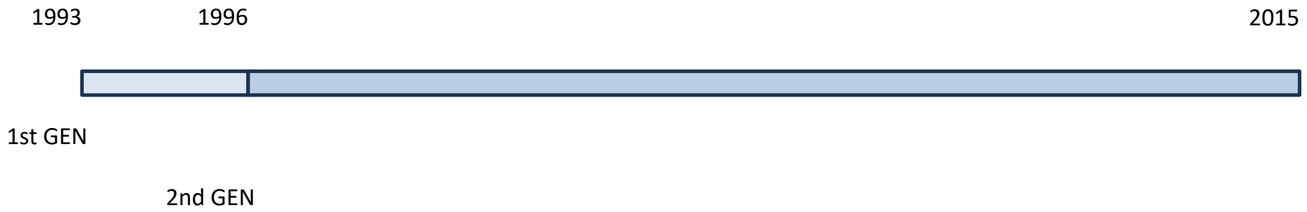

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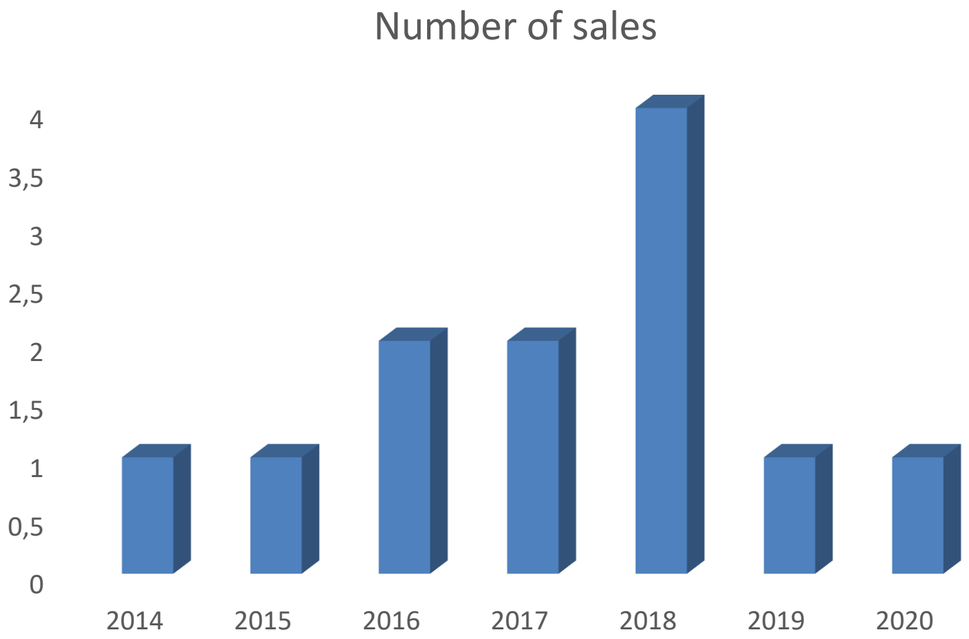
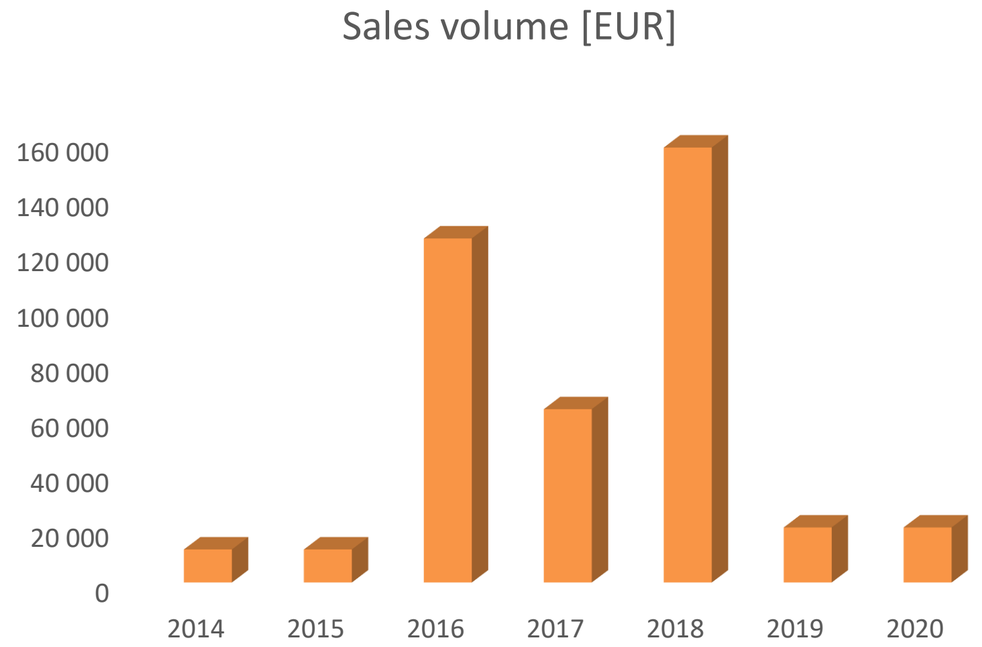
Mössbauer Spectroscopy sales

- Slow increase in sales during years
- We found a limit: extreme administration obstacles of UPOL!
- Possible future growth limited, potential locked





Spinoff establishment

- Main reason – to avoid obstacles and unlock the potential

- 2015 New know-how designed
- 2019 Professional external SWOT study
- 2019 Professional external possible licencing analysis
- 2019 University management agreemen
- 2019 University board agreement
- 2019 Faculty disagreement
  = know-how damaged, process stoped!

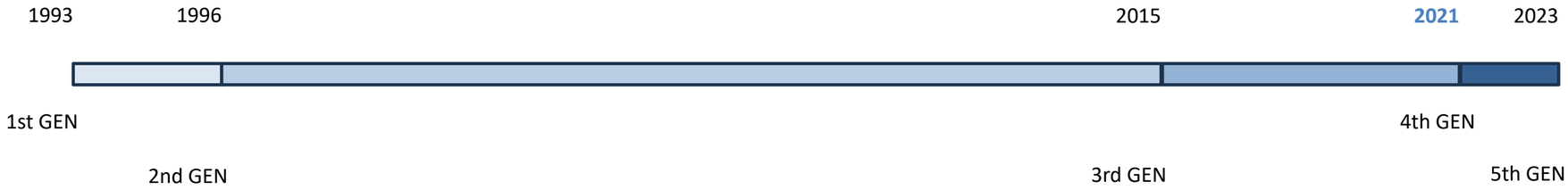
- 2020 CATRIN established
- 2020 New know-how deigned under CATRIN
- Catrin agreement
- Spinoff founded

Iron Analytics

CERTIFIED ISO 9001:2016 COMPANY

Mössbauer Spectroscopy sales

- Until approx. 2011 only sporadic, in almost 30 years less than 20 sales
- First focused marketing from 2011
  = 1st significant sales increase from 2014
- Professional marketing from 2021
  = 2nd significant sales increase from 2024



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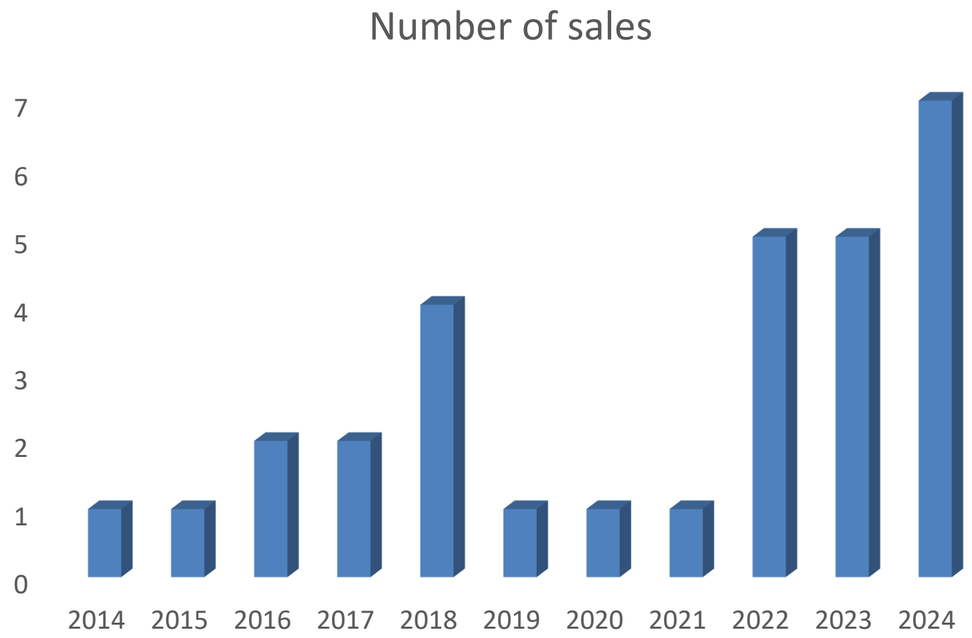
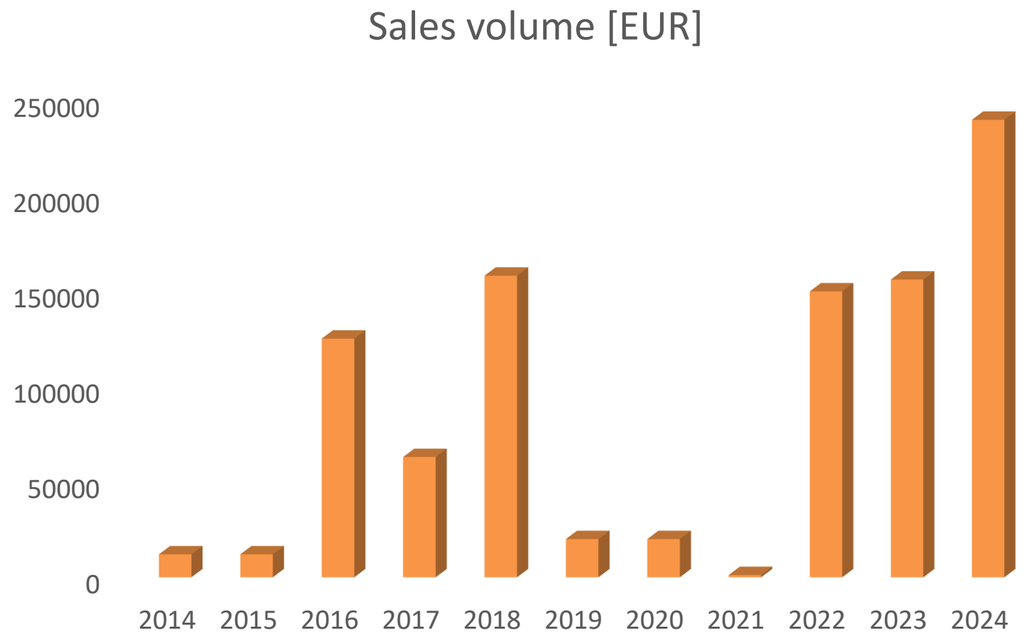
Mössbauer Spectroscopy sales

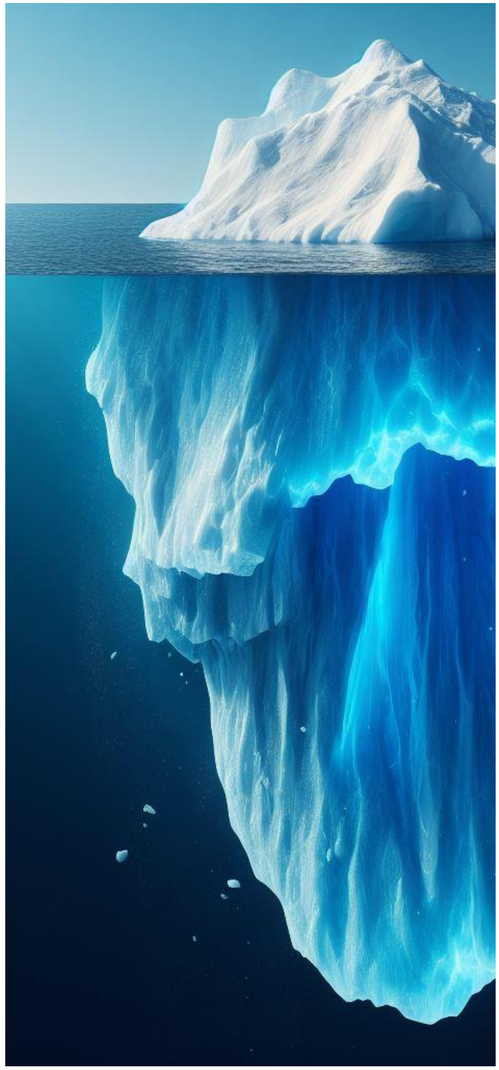
- Increase scenario repeated
- Potential unlocked, growth continues
- New possibilities: ISO certification, sub-contractors, projects





Potential unlocked

- Increasing income, world leader
- 4 part-time emplyoees
- Synergy with CATRIN
- New projects and new markets = new opportunities



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FW09020048

Industrial Mössbauer spectrometer

- **Project supported**, 260 000 EUR
- In collaboration with CATRIN UPOL

CZECHINVEST

Radioactive materials as Mössbauer sources

- Project applied, approx. 180 000 EUR

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Artificial Intelligence in Mössbauer spectroscopy

- Project applied, approx. 28 000 EUR

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THANK YOU

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