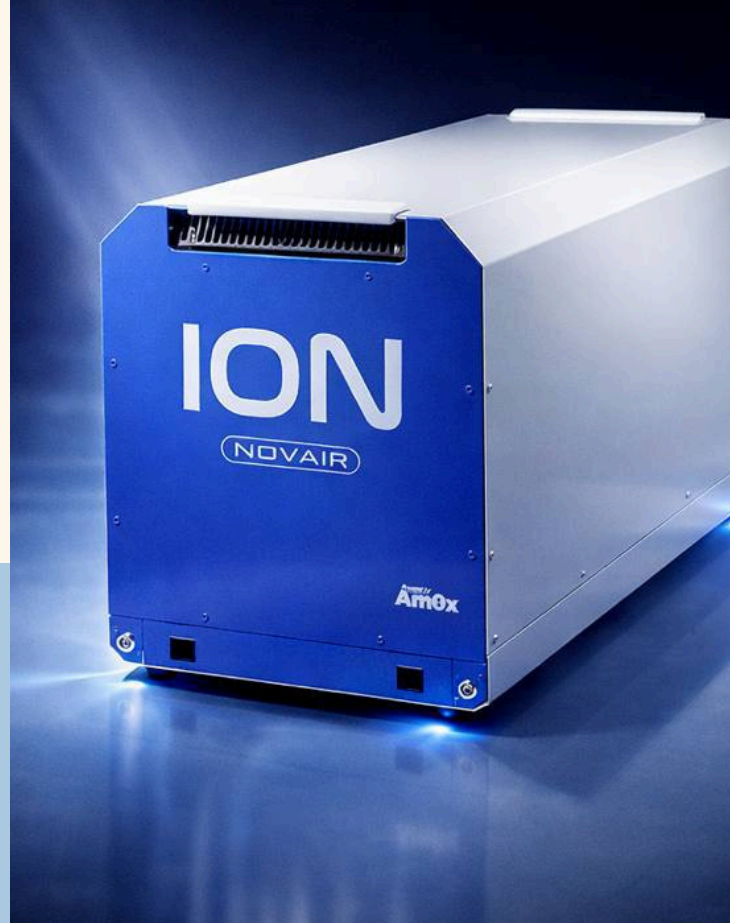




# ROI STUDY ION vs CYLINDERS

## Elemental Analysis Lab



### CASE 1

- 30 samples/day
- 100 analysis / day (approx.)
- 25 000 analysis / year (approx.)
  
- Oxygen consumption 5 bottles / year

### O2 CYLINDERS (OPEX)

O<sub>2</sub> cylinders cost: Bottle + rental + delivery + safety  
600 € / bottle

- Total: € 3 000 / year

HSE / organisation costs: Gas safety training, procedures, audits Storage, handling, HSE responsibilities

- Total: € 2 000 / year

A laboratory encounters at least 1 incident per year related to bottles Supply shortages, contamination, line cleaning, re-analyses, customer delays

- Total: € 3 000 / incident / year (estimated financial impact)

**Total annual cost  
(with 1 incident)  
€ 8 000 / year**

### ION GENERATOR (CAPEX)

Investment : € 35 000

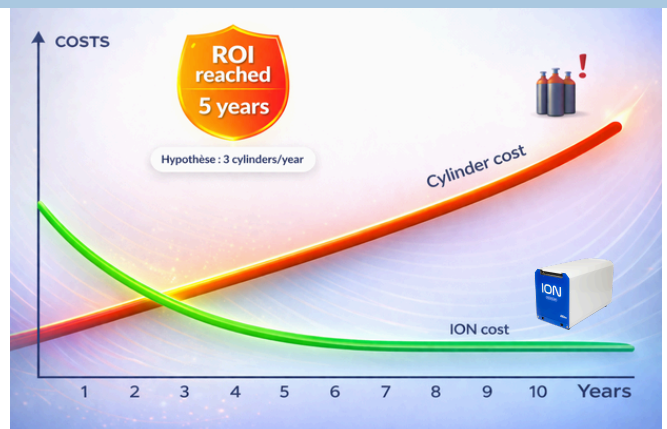
Depreciation : 5 years

OPEX costs : € 400 / year

**Total annual cost**

**€ 7 400 / year**

**€ 400 from year 6**



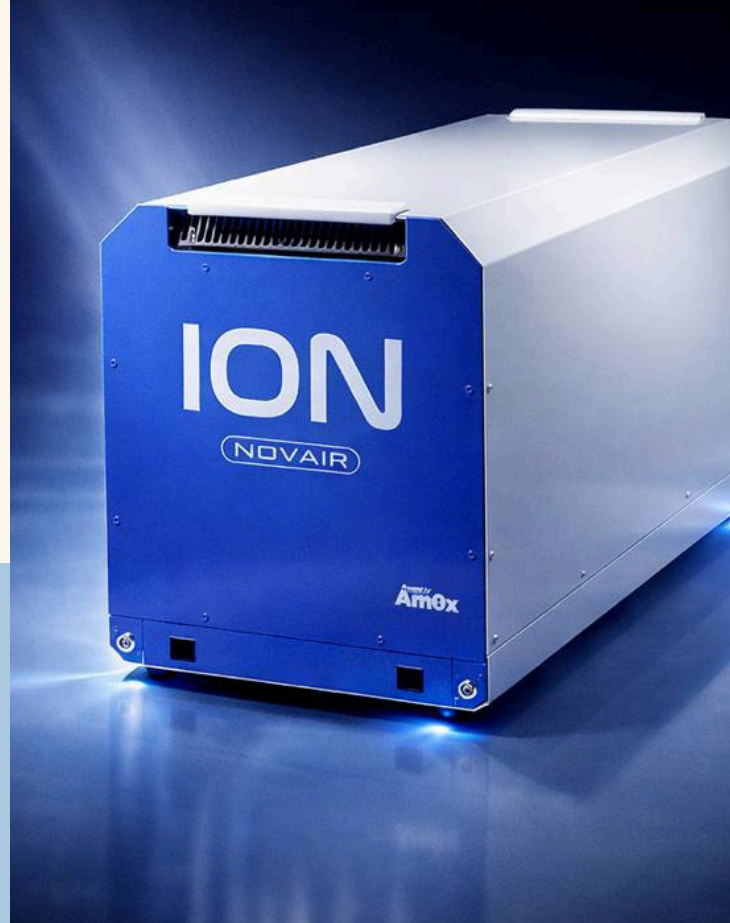
### CONCLUSION

**In a lab with an average activity, the ROI of ION generator is 4.5 years**



# ROI STUDY ION vs CYLINDERS

## Elemental Analysis Lab



### CASE 2

- 50 samples/day
- 150 analysis / day (approx.)
- 37,500 analysis / year (approx.)
  
- Oxygen consumption 8 bottles / year

### O2 CYLINDERS (OPEX)

O<sub>2</sub> cylinders cost: Bottle + rental + delivery + safety  
600 € / bottle

- Total: € 4 800 / year

HSE / organisation costs: Gas safety training, procedures, audits Storage, handling, HSE responsibilities

- Total: € 2 000 / year

A laboratory encounters at least 1 incident per year related to bottles Supply shortages, contamination, line cleaning, re-analyses, customer delays

- Total: € 3 000 / incident / year (estimated financial impact)

**Total annual cost  
(with 1 incident)  
€ 9 800 / year**

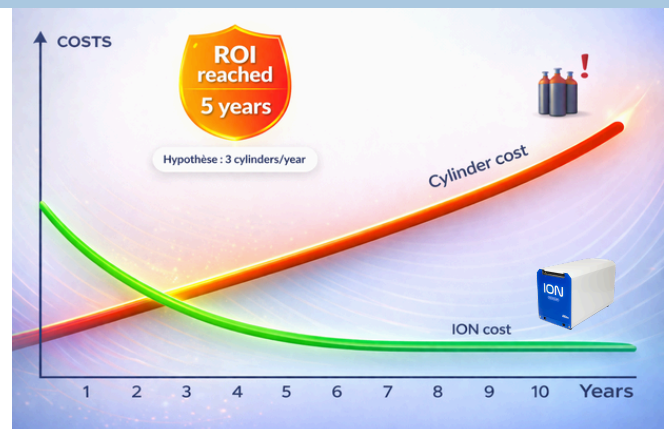
### ION GENERATOR (CAPEX)

Investment : € 35 000

Depreciation: 5 years

OPEX costs : € 400 / year

**Total annual cost  
€ 7 400 for the first 5 years  
€ 400 from year 6**



### CONCLUSION

**In a lab with an average activity, the ROI of ION generator is 3.5 years**