Miskolc



Satu-Mare Baia Mare

Suceava Botoșan



Converting ordinary hospital facilities into infection facilities in a cost-effective manner

Bucharest 14.12.2023 Ploies **Risto Salin** Mikko Salin Pitest PhD, Director CEO **Inspector Sec Ltd Inspector Sec Ltd** Serbia Finland Finland

Inspector Sec Ltd

- Excellence in indoor air and infection risk management
- Focused on producing solutions to keep old buildings running with low costs
- Extreme level products for Chemical, Biological, Radiological and Nuclear (CBRN) accidents
- Role in E3-project: to provide devices and solutions
- Some references:
 - Indoor air and infection risk management of Oulu University Hospital, 1600 M€ construction project
 - Infection risk management of Finnish Parliament House during the COVID-19 pandemic



ISEC Romanian hospitals



 Ideal buildings to improve air quality, reduce infection risks and manage CBRN risks with reasonable price





Decentralized and movable ventilation and air purification system

Old hospital

- Ordinary facilities
- Ordinary treatment rooms
- Ventilation via windows



Upgraded hospital

- Infection facilities
- Infection treatment rooms
- Ventilation units and air purifiers in rooms

Benefits:

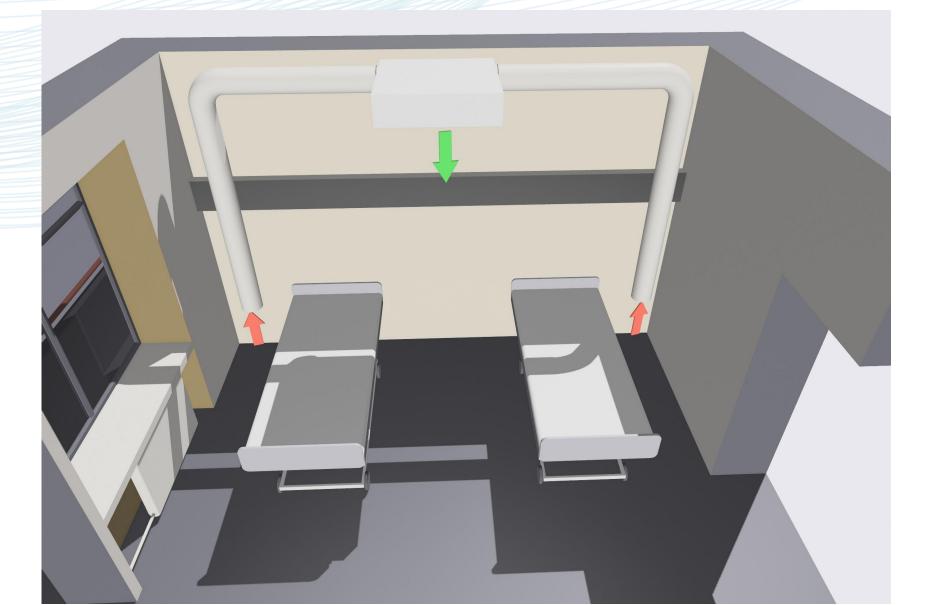
- Inexpensive investment compared to new hospital
- Significant infection risk reduction
- Significant CBRN-risk reduction

Doesn't replace the need for new hospitals, but supports the use of old buildings









Watch video: https://www.youtube.com/watch?v=mklojOwCqcs



Indoor air and infection risk management in nursing homes

ISEC

Air exchange per hour (ACH) capacities

| | | Volume of the room m ³ | ACH 1/h | Roof purifier ACH 1/h (total) | Kuulas ACH 1/h (total) | CBRN purifier ACH 1/h (total) | CBRN w/o activated carbon ACH 1/h (total) |
|--|--------------------------------|--|---------|--|------------------------------|--|--|
| | Matei Bals Covid room | 42 | 1 | 23,1 (24,1) | 7,6 (8,6) | 15,5 (16,5) | 23,4 (24,4) |
| | Matei Bals ICU room | 61 | 1 | 16,1 (17,1) | 5,3 (6,3) | 10,8 (11,8) | 16,3 (17,3) |
| | Finnish treatment room | 95 | 3,5 | 10,4 (13,9) | 3,4 (6,9) | 6,9 (10,4) | 10,5 (14,0) |



Example: from old hospital to infection hospital

| | Beds | Infection rooms needed, % | Infection rooms pcs | Investment compared to a new hospital |
|------------|------|---------------------------------|------------------------|--|
| Matei Bals | 690 | 30 | 207 | 0,6 % |

10 M€ budget: infection room for 2500 people

= 12 hospitals converted to infection hospitals

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