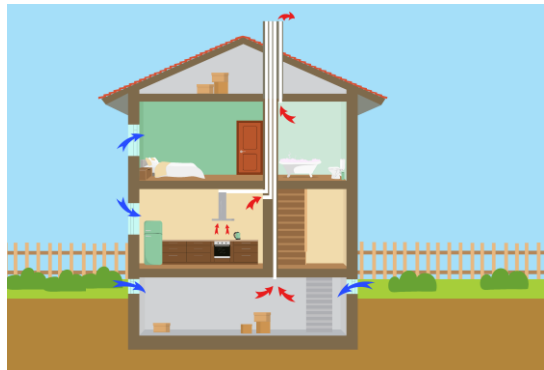


# MECHANICAL AND/OR NATURAL ROOM VENTILATION



Mechanical and natural ventilation is the control of the environment with airflow in order to reduce contaminants to acceptable levels. In ventilation, a distinction is made between general ventilation relying on the dilution of workplace atmosphere and local exhaust ventilation, detailed in a dedicated e-card. However, sizing the general ventilation without taking into account the process ventilation and vice versa can lead to a decrease in the effectiveness of the dynamic containment. Room ventilation is usually not primarily installed as a localized control measure. Obviously, it helps to reduce exposure.

**RMM SPECIFICATION**

Effectiveness	Implementation	Cost	Target group	Lifetime						
<b>Mean: 59%</b> 	<input type="checkbox"/> Ready to use <input checked="" type="checkbox"/> Development required <input type="checkbox"/> Without any maintenance <input checked="" type="checkbox"/> With regular maintenance	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;"><i>Natural / local unit</i></td> <td style="text-align: center; width: 50%;"><i>Mechanical (recirculating)</i></td> </tr> <tr> <td style="text-align: center;">€</td> <td style="text-align: center;">€ €</td> </tr> <tr> <td></td> <td style="text-align: center;">€ €</td> </tr> </table>	<i>Natural / local unit</i>	<i>Mechanical (recirculating)</i>	€	€ €		€ €	<input checked="" type="checkbox"/> Workers <input checked="" type="checkbox"/> Consumer <input type="checkbox"/> Environment	 Years of use
<i>Natural / local unit</i>	<i>Mechanical (recirculating)</i>									
€	€ €									
	€ €									

## ADVICES TO ENSURE THE MAXIMUM EFFECTIVENESS

Installing a mechanical room ventilation is quite complex. However the following elements need to be taken into account:

1. Couple with local suction
2. Compensate air outlets with inlets
3. Position the inlet and outlet openings so that there is a general flow from the clean areas to the polluted areas
4. Avoid dead fluid zones
5. Prevent workers from being between the extraction and the source
6. Discharge polluted air outside the fresh air intake areas
7. Anticipate maintenance and cleaning
8. Train workers
9. Good practices



**To know more**

- Compilation of NM exposure mitigation guidelines relating to laboratories ★★★★★
- Best practices guidance for nanomaterial risk management in workplace ★★★★☆