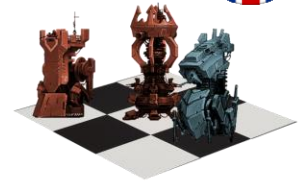


## Example of Cooperative Game



Reduction of Pollution. Let  $\{N, v\}$  be a cooperative game:

| $S$    | $\{1\}$ | $\{2\}$ | $\{3\}$ | $\{1,2\}$ | $\{1,3\}$ | $\{2,3\}$ | $\{1,2,3\}$ |
|--------|---------|---------|---------|-----------|-----------|-----------|-------------|
| $v(S)$ | 10      | 20      | 30      | 40        | 40        | 40        | 90          |

The objective is the gain obtained by the reduction of pollution in million of Euros. If player 1 decides to make it alone, he can gain 10 million of Euros, but if he cooperates with player 2, they will reduce more the total pollution and they will gain 40 million of Euros. If all players cooperate they arrive to reduce more the pollution and they will gain 90 million of Euros

