



ISS PALUMBO

MOVE YOUR BUSINESS

SMART WORKING & MOBILITY: *Analysis of the impacts on environment and welfare*



Livorno, giugno 2021

INTRODUCTION

This analysis is based upon the data supplied by the employees and the data taken online from the following main sources: ACI, Ministry of the Environment, Ministry of Labor, car manufacturers, etc.

The analysis covers a period between 1.03.2020 and 31.3.2021 (13 months - hereinafter “the year”).

All the employees who have worked in smart working in the period of reference have been interviewed.

The employees in remote working who have accepted to be interviewed are 41, and they work in different company’s functions in the offices of Livorno and Milano.

In the following slides, in order to have homogeneous and objective the values to be calculated, we have considered the following parameters:

- Average daily working time: 7,48 hours
- Total workable days in the period taken in consideration: 250

1. REMOTE WORKING

During the most critical period of the pandemic our company has experimented a new way of work thanks to the adoption of **Remote Working** (hereinafter also **RW**) in its simplified modality.

The «**intelligent**» reconsideration of the modalities by which the working activities have carried out during the past months, has allowed the company, by means of a new organization, to survive.

The mix of the company's needs arisen during the pandemic and the willingness of the employees to remote working, has allowed to carry on the company's activity and has shown how a different modality of working is possible also for those roles whose presence in the office has been deemed absolutely necessary up to now.

In our company, in the period from 1st March 2020 to 31st March 2021, over 50% of the employees worked in remote working and today, more than one year after the beginning of this experiment, we can evaluate the RW from different points of view.

We'll focus in the following slides on the impact that the RW has had on the environment sustainability and on the saving of time and costs due to the reduction of trips from home to the office and vice versa.



*For the Ministry of labor, «Remote Working is a modality of execution of the subordinate employment relationship characterized by the absence of time or space constraints and an organization in stages, cycles and targets by means of the agreement between the employee and the employer; a **modality which helps the employee to match life and working times and, at the same time, to facilitate the growth of his productivity**».*

2. REMOTE WORKING IN ISS PALUMBO

In the following table is reported the detail of the **worked hours** split for each function and for each Italian unit. Then the hours have been converted to days on the basis of the average daily working time.

Unit	Function	RW total hours	RW total days
Livorno	Finance & Administration	6.420	823
	Insurance	908	116
	HR	491	63
	Integrated Logistics	160	21
	Project	6.504	834
	Risk & Compliance	427	55
	Total	14.911	1.912
Milano	Integrated Logistics	61	8
	Project	6.515	836
	Total	6.576	844
Total		21.487	2.755

Average of per person RW days: 67

3. SURVEY ABOUT THE HOME – OFFICE TRIPS

All the interviewed employees go to work by car.

In the following table is reported the detail of the kms driven by the interviewed employees for the route home – office - home.

Data	Daily Kms
Livorno unit	1.202
Milano unit	873
Daily kms total number	2.075
Daily average number of kms per person	51
Total number of kms per person in RW days	3.400
Total number of kms in RW	140.000



Do you know that?

- The equator length is of 40.075 kms: the employees could, with the kms saved in RW, do **3,5 world tours** by passing across the **Equator**
- The height of the **Mount Everest** is of **8.848 mt**: the employees, with the kms saved in RW, could climb **16 times** the Everest....

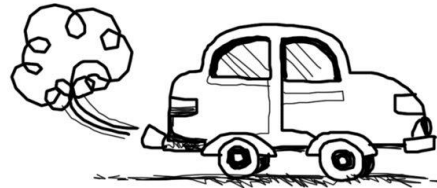
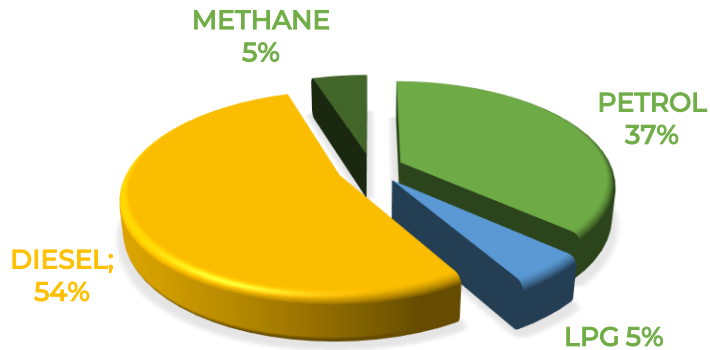
4. CO2 EMISSIONS CALCULATION

The carbon dioxide is a gas which is produced in the combustion processes by the union of carbon «C» contained in the combustible materials, with oxygen «O» in the air (the chemical formula is CO₂). The excess production of carbon dioxide causes **environment damages** as it jeopardizes the existence of **Ozone**, a gas layer in the atmosphere that protects the earth from the harmful action of UV-C rays coming from the sun.

Another effect of the excessive presence of carbon dioxide is the **weather warming**: the higher concentration of carbon dioxide in the air forms a sort of hood preventing the expulsion of the heat absorbed by the earth during the day.

For the cars of each employee, on the basis of the model, of displacement and of the kind of power supply, the value of CO₂ emissions (g/Km) declared by the car manufacturer has been identified.

EMPLOYEES' CAR % COMPOSITION



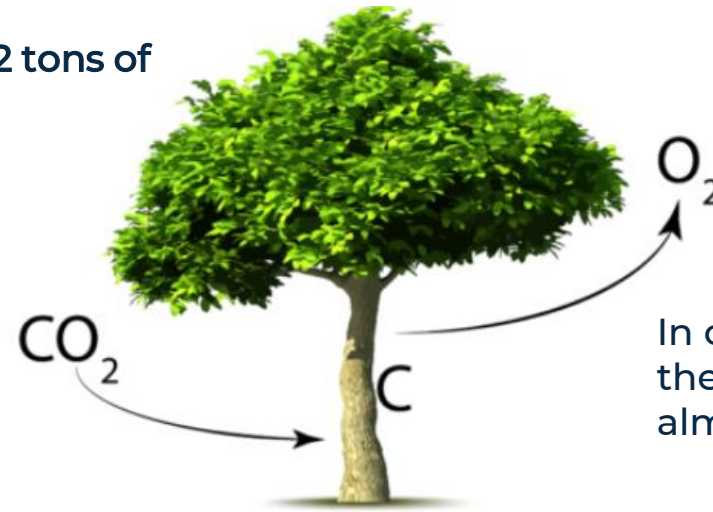
Daily average released CO₂ per person: 6Kg
Average saved total CO₂ in RW: 430 Kg
Saved total CO₂ in RW: 18 tons

5. CARBON DIOXIDE AND ENVIRONMENT

A tree lives and grows by using natural elements: it is essentially created thanks to water, sun energy and carbon dioxide (CO₂) of the atmosphere.

By means of the process of **photosynthesis** the tree naturally subtracts CO₂ from the atmosphere, where carbon dioxide accumulates thanks to the processes of transformation and consumption of energy (especially fossil energy: oil) operated by the mankind.

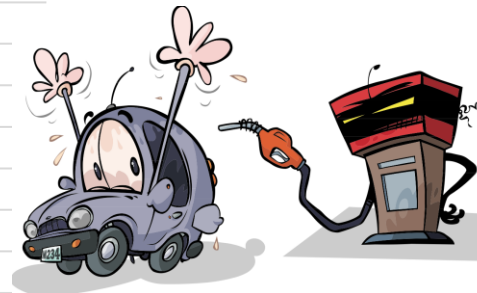
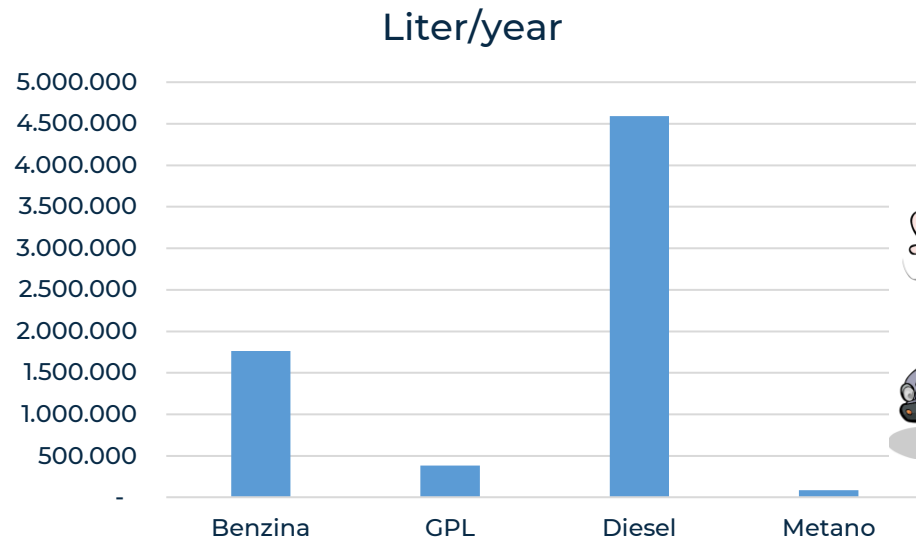
1 hectare of wood can absorb 22 tons of CO₂ a year



In order to dispose of the CO₂ released in the period we took into consideration almost 1 whole wood is necessary ...

6. HOW MUCH FUEL DO WE CONSUME? AND HOW MUCH DO WE SPEND?

For the cars of each employee, on the basis of the model, of displacement and of the kind of power supply, the average consumption l/Km has been identified; then both the effective daily consumption and the total consumption has been calculated on the basis of the hypothesis mentioned in the introduction.



Fuel annual average price (€/L)



- Daily average consumption of fuel: 3 Liters
- Average saved fuel per person in RW: 197 Liters
- Total saved fuel in RW: 8.000 Liters

- Daily average saving in RW: € 4,00
- Average total saving in RW: € 256,00
- Total saving in RW: € 10.500,00

7. HOW MUCH TIME DO WE SPEND IN THE CAR?

The interviewed employees have declared the time taken every day for the trip home – office – home.

Then the **total time** spent in the car both each day and in the total period taken into consideration has been calculated, as follows.



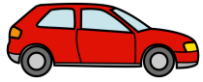
- Time saved by each employee in RW: 52 hours
- Total time saved in RW: 2.120 hours



- * On average each employee spends in the car:
 - **47 minutes** a day
 - In RW each employee has saved **6 days and half**

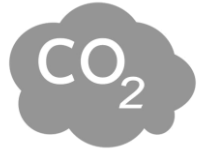
8. HOW MUCH HAVE WE SAVED IN RW

On the basis of our analysis and of the results shown in the previous slides, the saving generated by the interviewed employees in remote working has been calculated.



The adoption of RW has allowed the employees to save **km** for the trips home - office.

140.000 Km



Thanks to the reduction of the number of trip, the production of **carbon dioxide** has been reduced.

18 tons



The reduction of the number of trips has generated a saving of **fuel**.

8.000 Liters

In RW an employee has on average:

- Driven 3.400 less
- Produced 430 kg of CO2 less
- Consumed 197 Liters of fuel less
- Saved € 256
- Had extra 6 days and 1/2 of precious time to be dedicated to other activities



The reduction of the consumption of fule has generated an annual **economic** saving for employess

10.500,00 euro



Without having to go to work by car, the employees have saved precious time for themselves.

2.120 hours



THANK YOU

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