

ACUSTI.CAT

Sabadell, abril 2016

Pollution! Find a STEM solution!
Projecte Sssplau



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

Pollution! Find a STEM solution!

Projecte Sssplau

- Objectius:

- Disminuir el nivell de soroll del centre amb la participació activa de l'alumnat
- Millorar les competències STEM
- Implicar l'alumnat en un projecte col·laboratiu internacional (Erasmus)



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

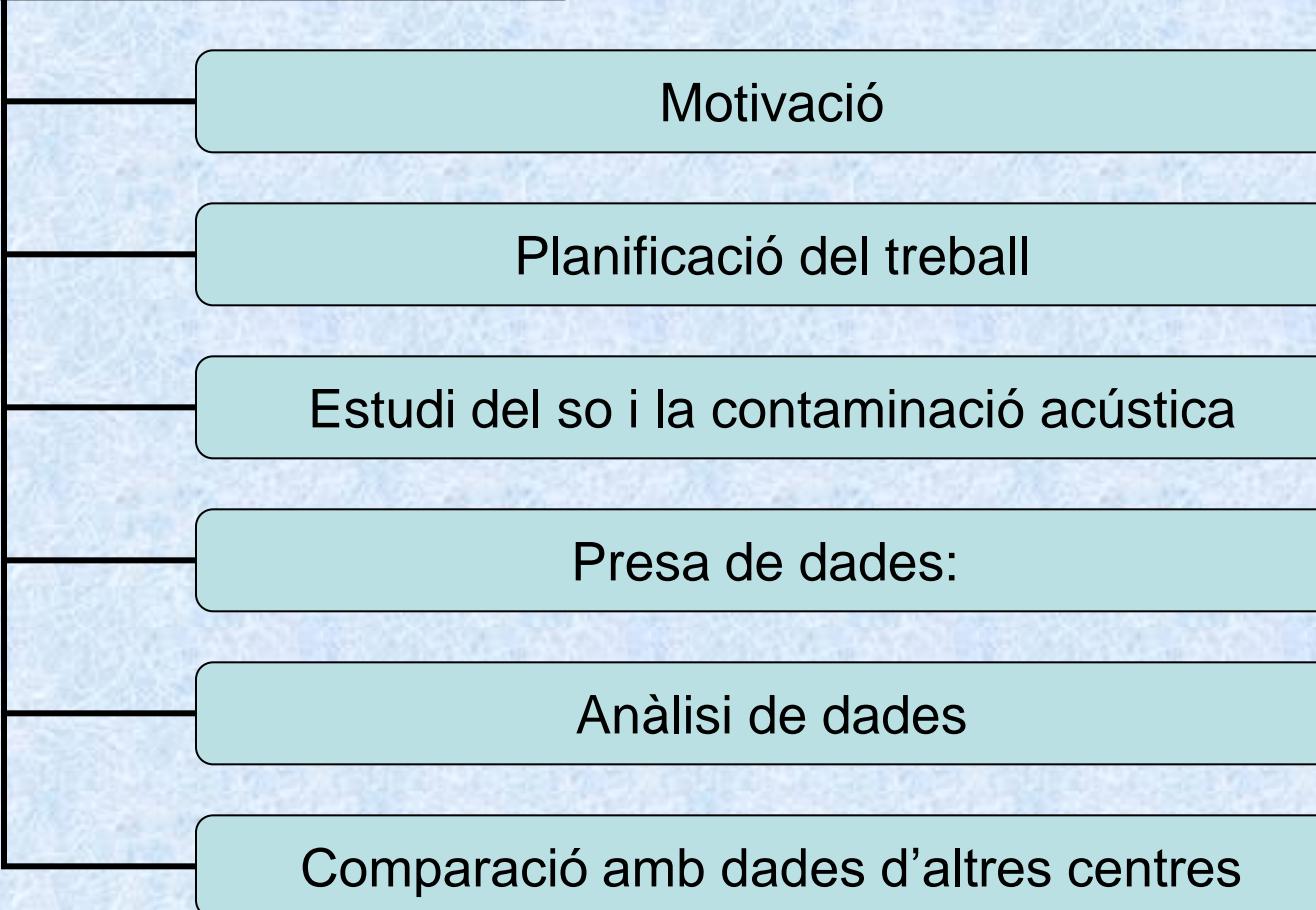
Treball amb l'alumnat



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+



Projecte Sssplau

2014- 2016

Treball amb l'alumnat



The project is co-funded
by the European Union
Erasmus+ programme



Identificació fonts de contaminació

Propostes contra la contaminació acústica

Difusió dels resultats i propostes d'accions

Actuacions

Seguiment de les accions

Avaluació i revisió

Projecte Sssplau

2014- 2016



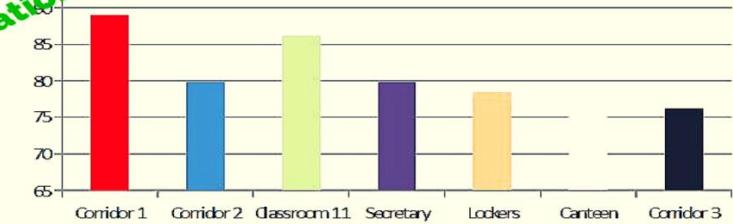
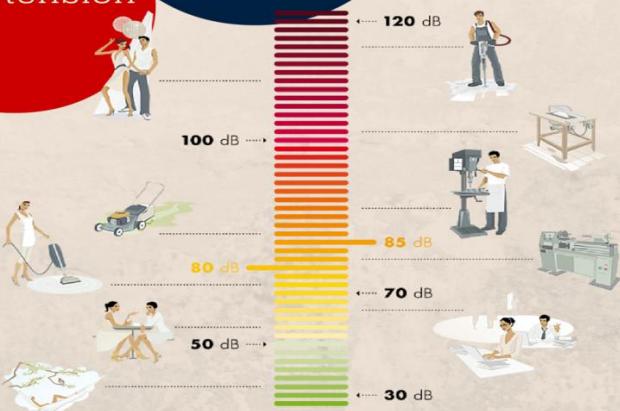
The project is co-funded
by the European Union
Erasmus+ programme



Noise pollution

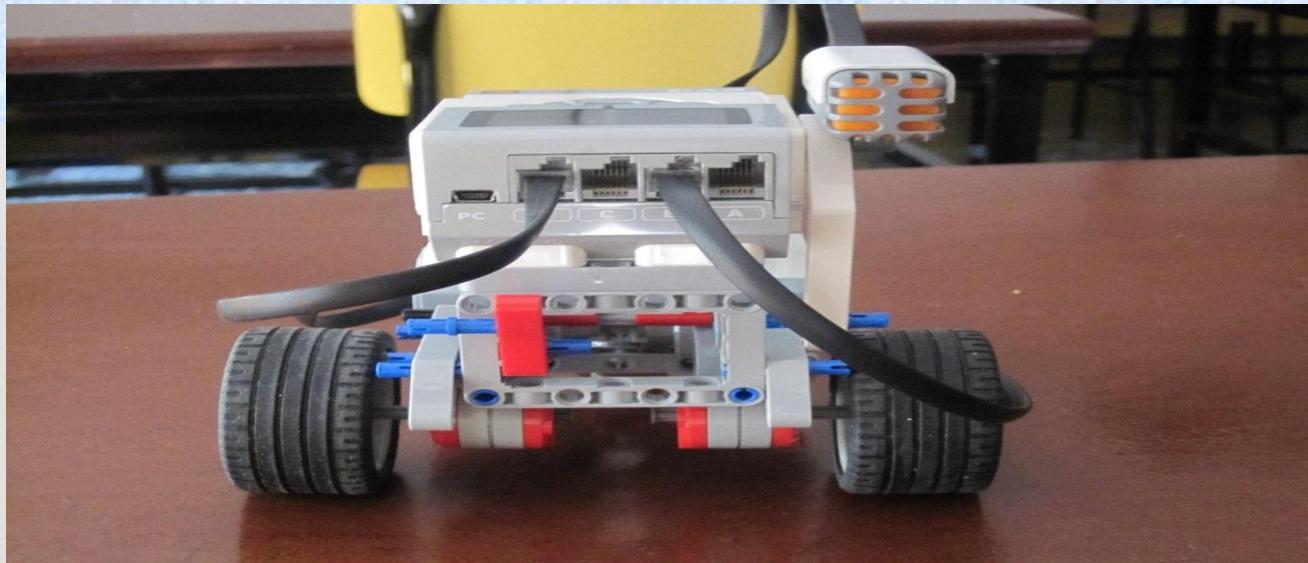


Industrial limit of sound must be
75 dB according to the
World Health Organization



Projecte Sssplau

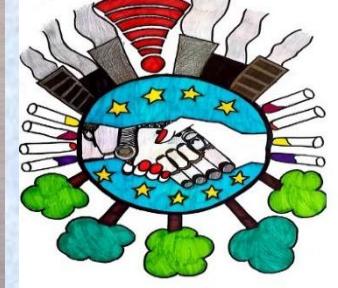
2014- 2016



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+
Institut Ferran Tallada



Projecte Sssplau



2014- 2016



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+



Projecte Sssplau

2014- 2016

	10-10-14	13-10-14	14-10-14	15-10-14	16-10-14	17-10-14	18-10-14	19-10-14	20-10-14	21-10-14
Toquilla	79	55		78		85		93		
Secretaria	80	67	70	85		81	98		72	
Pasillo 2 (Naranja)	87	70	65 69	89	81	90		68		
Pasillo 1 (marron)	89	78	64 80,682,6	76	113			101		
Cantina	93	74	71	92		78		72		
clase	85		54 92			85		88		
Patio				87						

Pasillo 2: $86,6 = \bar{x}$ dB

Pasillo 2: $76,22 = \bar{x}$ dB

Secretaria: $72,5 = \bar{x}$ dB

Toquilla: $70,24 = \bar{x}$ dB

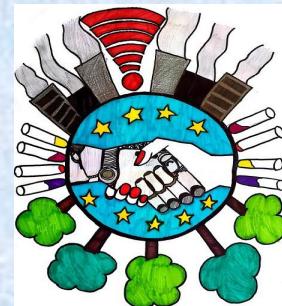
clase: $86,3$

	10-10-14	13-10-14	14-10-14	15-10-14	16-10-14	17-10-14	21-10-14	22-10-14	Mida
Pasillo 1	97dB	78dB	89dB	86dB	113dB	96dB	100dB	85,3dB	91,6dB
Pasillo 2	87dB	70dB	86dB 65dB	80dB		90dB	66dB	92,1dB	75,6dB
Secretaria	90dB	67dB 65dB	70dB		81dB	98dB	67dB	71,8dB	47,5dB
Toquilla	79dB	55dB		78dB	81dB	85dB	93dB	71,8dB	44,1dB
Cantina	93dB	74dB	71dB	92		78dB	72dB	68,3dB	72,1dB
Pasillo 3		79dB	55dB			82dB	72dB	93dB	75,6dB
Patio							85dB		



The project is co-funded
by the European Union
Erasmus+ programme

Erasmus+



Projecte Sssplau

2014- 2016

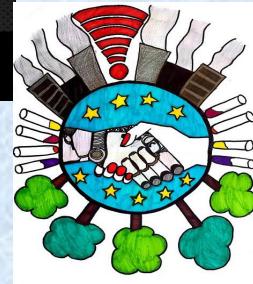
Dia internacional del soroll 2015



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+





The project is co-funded
by the European Union
Erasmus+ programme



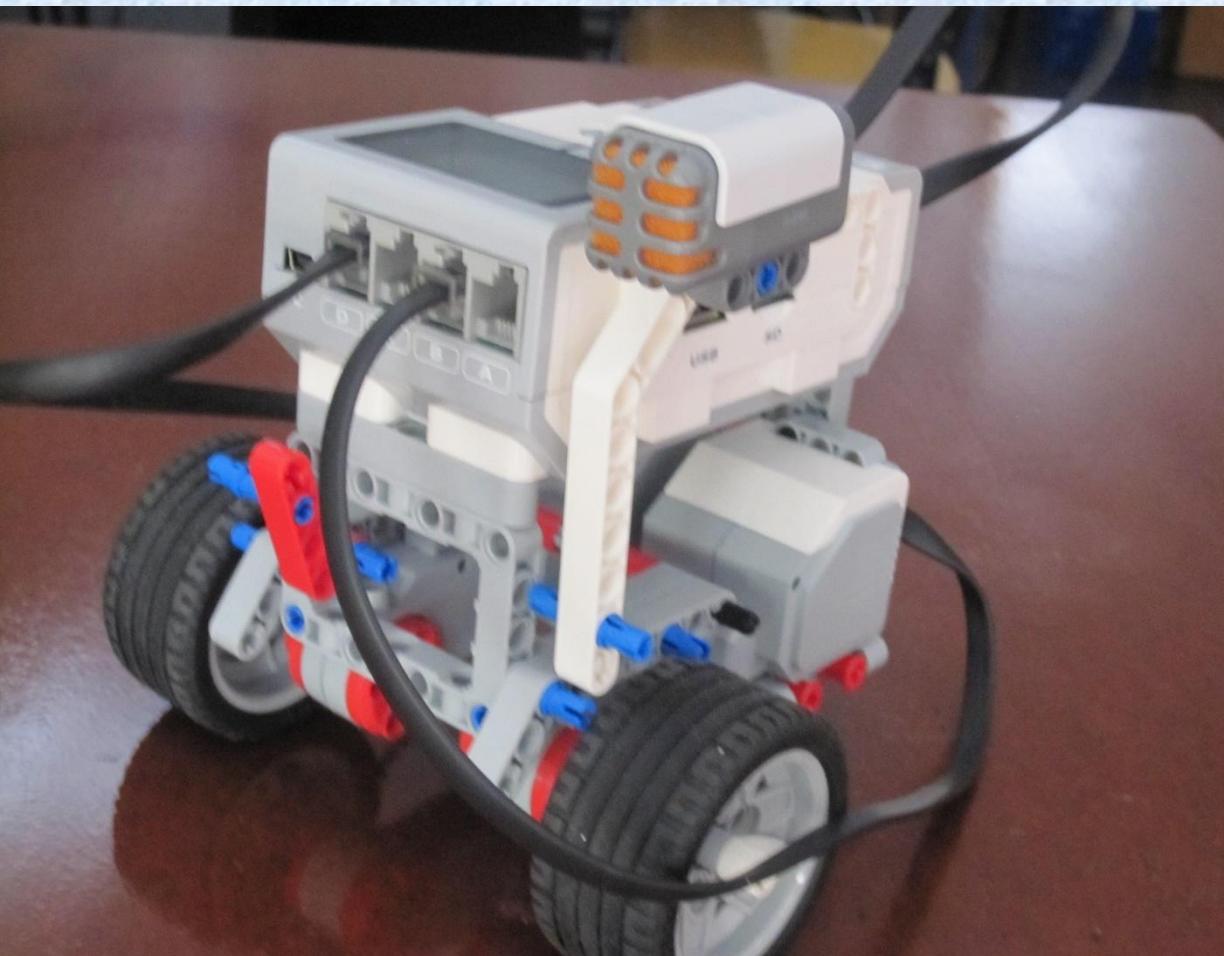
Erasmus+

POLLUTION! FIND A STEM SOLUTION!



Projecte Sssplau

2014- 2016



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

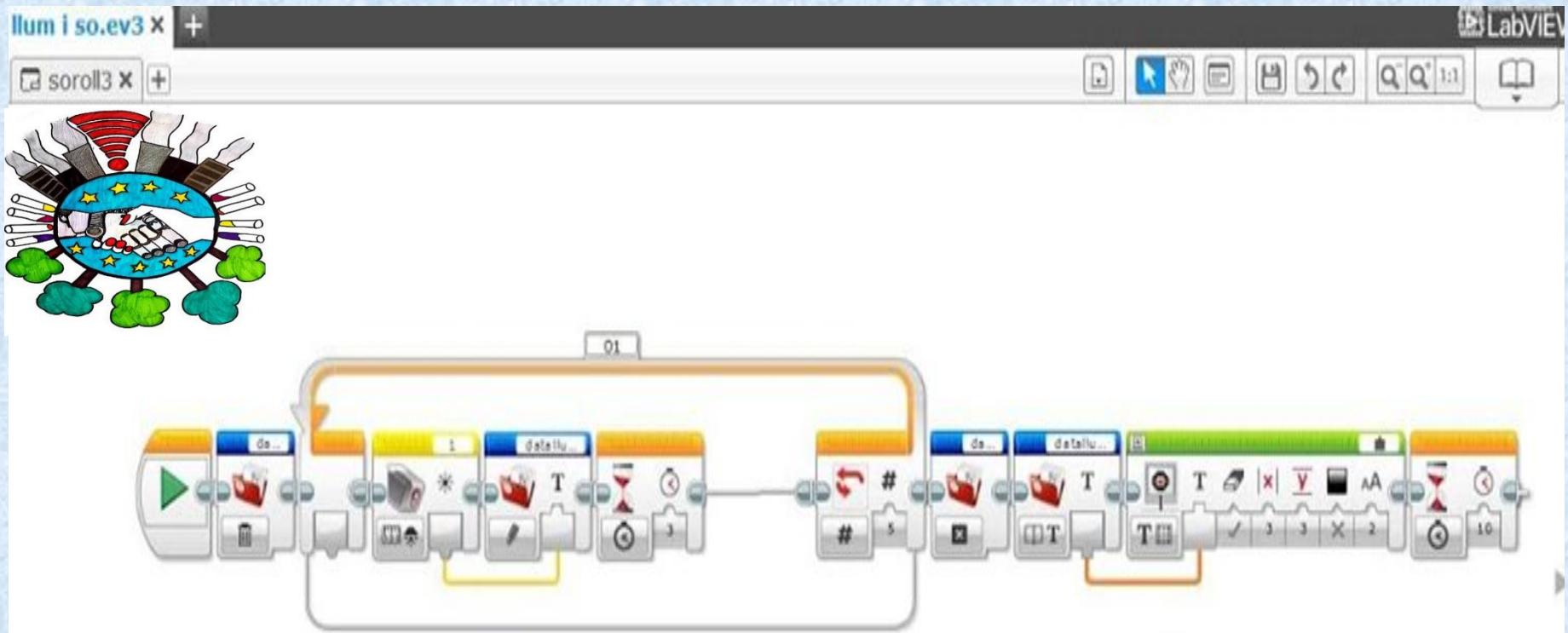


**POLLUTION! FIND A STEM
SOLUTION!**

[https://www.dropbox.com/
s/1ur8tmkd04ltq3x/Erasmus.
ev3?dl=0](https://www.dropbox.com/s/1ur8tmkd04ltq3x/Erasmus.ev3?dl=0)



Projecte Sssplau POLLUTION! FIND A STEM SOLUTION!



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

Projecte Sssplau

2014- 2016



POLLUTION!
FIND A STEM SOLUTION!



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+



Projecte Sssplau

2014- 2016

WORKSHEET: Noise pollution measurements

observers: _____



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

	time and date of measurements	M1	M2	M3	M4	M5	Average Data (dB)	Observations
silent room/classroom with closed doors and windows								
before the arrival of students to school								

Projecte Sssplau

2014- 2016

POLLUTION! FIND A STEM SOLUTION!



iPad 18:11 43%

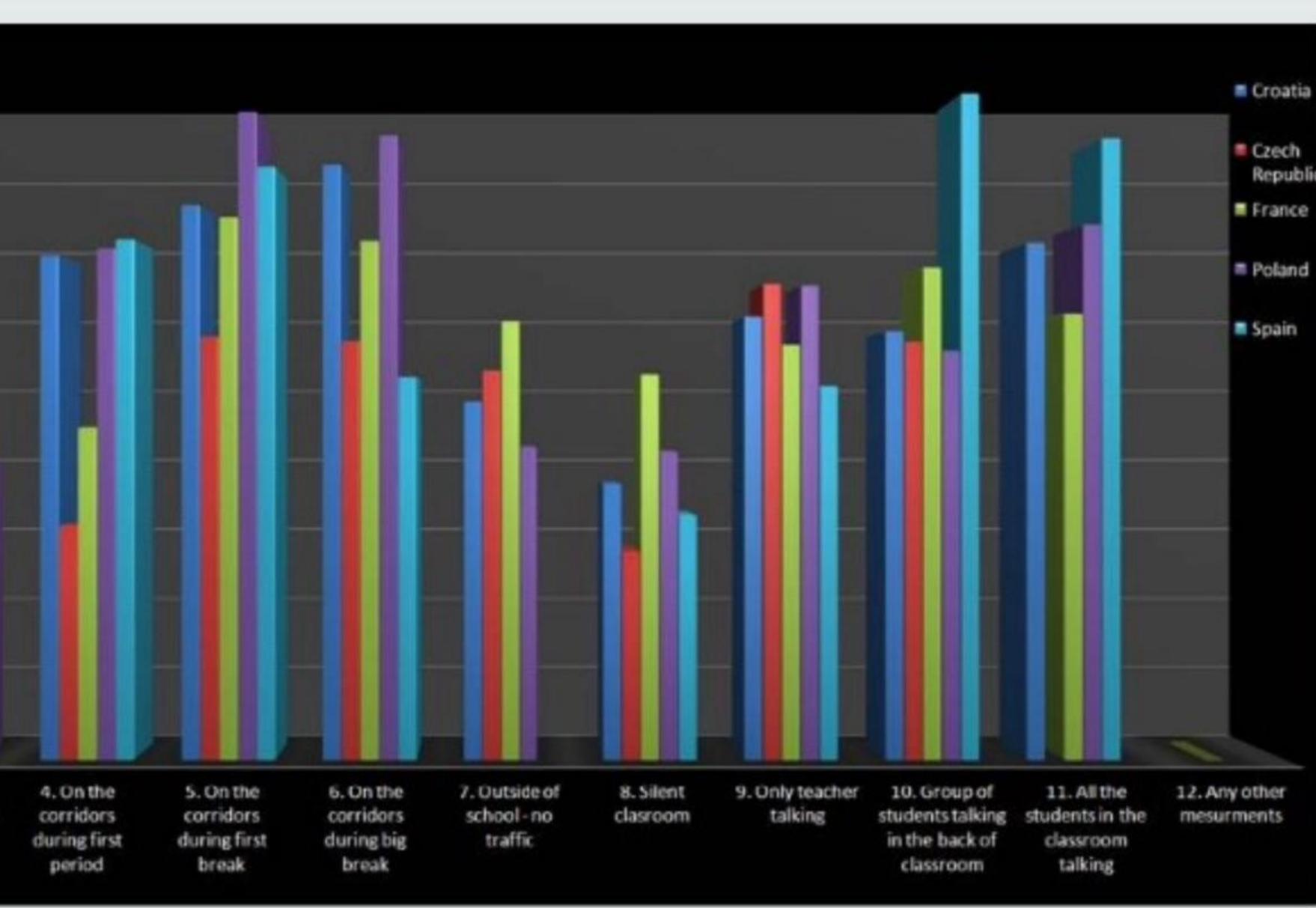
Gmail Noise pollu Noise pollu Error XI Trobada d (61) The Coo mail-attachn Mate +

< > prezi.com

Measurements of noise pollution

Partner country	1. Time and date of measurements	2. Measurements for silent room	3. Before the arrival students to school	4. On the corridors during first period	5. On the corridors during first break	6. On the corridors during big break	7. Outside of school - no traffic	8. Silent classroom	9. Only teacher talking	10. Group of students talking in the back of classroom	11. All the students in the classroom talking	12. Any other measurements
Croatia	18.5.2015 7:00	22,3	62,2	68	74,8	80,3	48,3	37,2	59,8	57,8	69,7	
Czech Republic	26.5.2015 10:00	30,2		31,6	57,1	56,5	52,5	28	64,2	56,4		
France	15.9.2015 11:30	26	48	44,8	73,2	70	59,2	52	56	66,4	60,2	Canteen: 62,1
Poland	1.6.2015 11:15	39,8	39,6	69	87,4	84,2	42,2	41,6	64	55,2	72,2	
Spain	5.10.2015 13:00	32,2		70,2	80	51,6		33	50,4	89,8	83,8	





Projecte Sssplau

2014- 2016

	Class 11	Class 35	Class 34	Canteen	Library
Silent room	37	36	35	33	32
Before arrival students	36	36	37	34	34
On the corridors during a period	72	68	66	51	39
On the corridors during a break	88	82	81	80	57
Outside school	57	57	57	57	57
Only teaching talking	54	66	68		
A group of students talking in the back of a classroom	90	88	86		
All the students talking in the classroom	86	91	89		

Resultats 2015



Projecte Sssplau



The project is co-funded
by the European Union
Erasmus+ programme

2014- 2016

Erasmus+



	Class 11	Class 35	Class 34	Canteen	Library
Silent room	23	38	35	30	32
Before arrival students	24	35	39	35	34
On the corridors during a period	75	69	69	56	42
On the corridors during a break	89	82	83	79	54
Outside school	54	54	54	54	54
Only teaching talking	60	70	70		
A group of students talking in the back of a classroom	71	89	83		
All the students talking in the classroom	75	93	93		

Average of the measurements of noise pollution(db) during two weeks(from 01-04-2016 to 18-04-2016) in FerranTallada Secondary School.



Projecte Sssplau Pollution, Find a STEM Solution

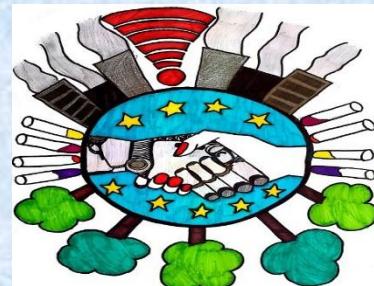
Presentació de constatacions i propostes, reunió transnacional a Chartres, per part de l'equip croata, febrer 2016

- Noise pollution has a very bad influence on the environment, animals and humans.
- Mostly people don't know how dangerous noise pollution is and they don't do anything to prevent it.
- In the world there are lots of vehicles, airplanes, music performances and many other things that cause noise pollution.
- We have to start thinking about noise pollution because we will have many problems with health.
- We need to make the Earth, noise pollution free for our children and next generations!

As our population continues to grow, the sources of noise will continue to become more numerous so we need to reduce noise pollution.

Some of the ways we can do it are:

- 1. Turn off your electronics when they're not in use.
2. Walk on foot more, use cars less.
3. Listen to music quieter.



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

Projecte Sssplau

2014 - 2016

Propostes accions dins de l'aula, 2A

- Posar plaques aïllants a totes les aules/Posar el sostre nou a totes les classes/Més plaques aïllants
- No cridar/Parlar fluix/Baixar el to de veu/Parlar en to de veu normal/Respectar els torns de paraula
- Tancar la porta de la classe per a que no entri el soroll
- Venir calmat a classe/Fer 5 minuts de silenci abans de començar per tranquilitzar-nos. Uns minuts de música per relaxació abans de començar la classe
- Disminuir els aparells elèctrics que fan soroll
- Que hi hagi menys alumnes per classe/Fer menys canvis de classe
- Tancar la porta de la classe per a que no entri el soroll (del passadís)
- Ser conscient del malestar que provoca el soroll i que ens pot perjudicar a nosaltres



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

Projecte Sssplau

2014- 2016



The project is co-funded
by the European Union
Erasmus+ programme



Erasmus+

Projecte Sssplau

2014- 2016



The project is co-funded
by the European Union
Erasmus+ programme

