

*Common Services Committee of the ORM*  
*CSC # 16*

***ORM SITE MANAGER REPORT***

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### 1. ACCOMMODATION.

Some general information is shown in tables 1&2. Up to August the 31<sup>st</sup>, there has been an occupation of **3.568 ROOMS** in the Residence and the Annexes, which means a decrease of **45%** compared to the mean of the last 10 years as shown in table 1.

Year	Mean 2010-2019	2020	% Var
Residence	4.019	<b>1.615</b>	-60%
Annexes	2.363	<b>1.948</b>	-18%
Hostel (*)	98	<b>5</b>	-95%
Total occup. Rooms	6.480	<b>3.568</b>	<b>-45%</b>

Table 1.

The total stays were **3.623 PAX**. The highest occupation was 53 stays in February the 17<sup>th</sup>, and the lowest, 0 stays in several days of April when the Observatory & Residencia were closed for operation due to Covid 19 alert. The average per stay was 3,4 days, and the daily average accommodation was 14,6. People from 25 different nationalities were accommodated.

Until 31st of August	Mean 2010-2019	Year 2020	% Variation
Rooms	<b>6.480</b>	<b>3.568</b>	<b>-45%</b>
Accommodated people (pax)	<b>6.735</b>	<b>3.623</b>	<b>-46%</b>
Daily average occupancy	<b>26,6</b>	<b>14,6</b>	<b>-45%</b>
Staying average (day)	<b>3,5</b>	<b>3,4</b>	<b>-3%</b>

Table 2.

Figure 1 shows the monthly room’s occupation until August the 31<sup>st</sup>, compared with the mean of last ten years, from 2010 to 2020. Figure 2 shows the last ten years room occupancy accumulated to the 31<sup>st</sup> of August. The occupancy for the current year is 45% below the average of the last ten years in the same period.

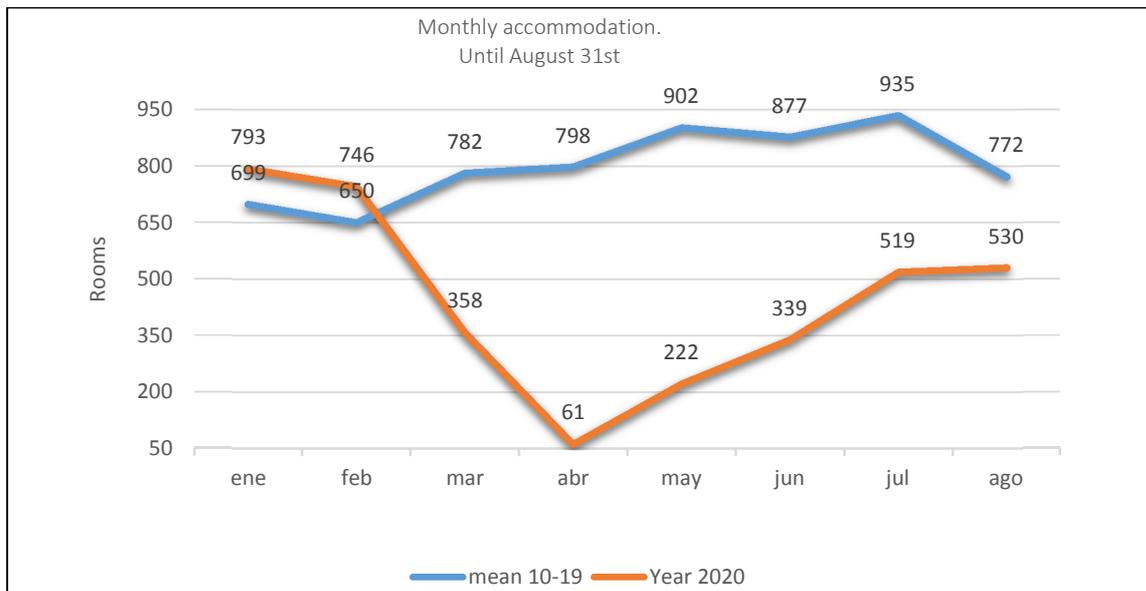


Figure 1.

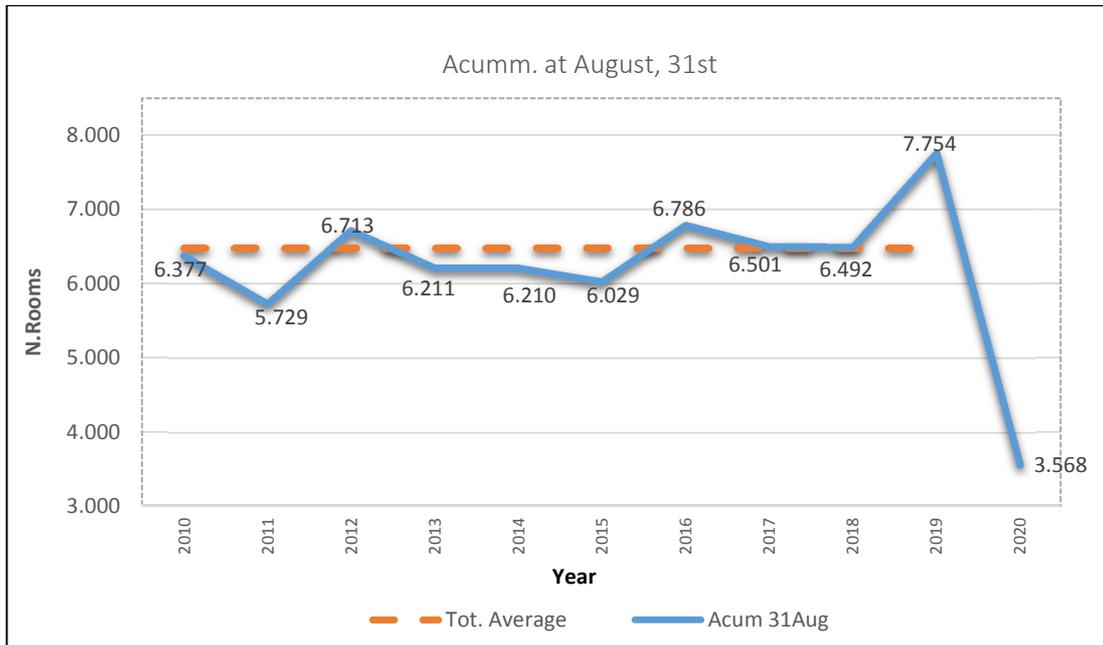


Figure 2.

Figure 3 is the inter-annual accommodation since 2010. The orange line shows the mean value of the last ten years, that is, 9.624 rooms, which it means that the current period is 27% below the mean.

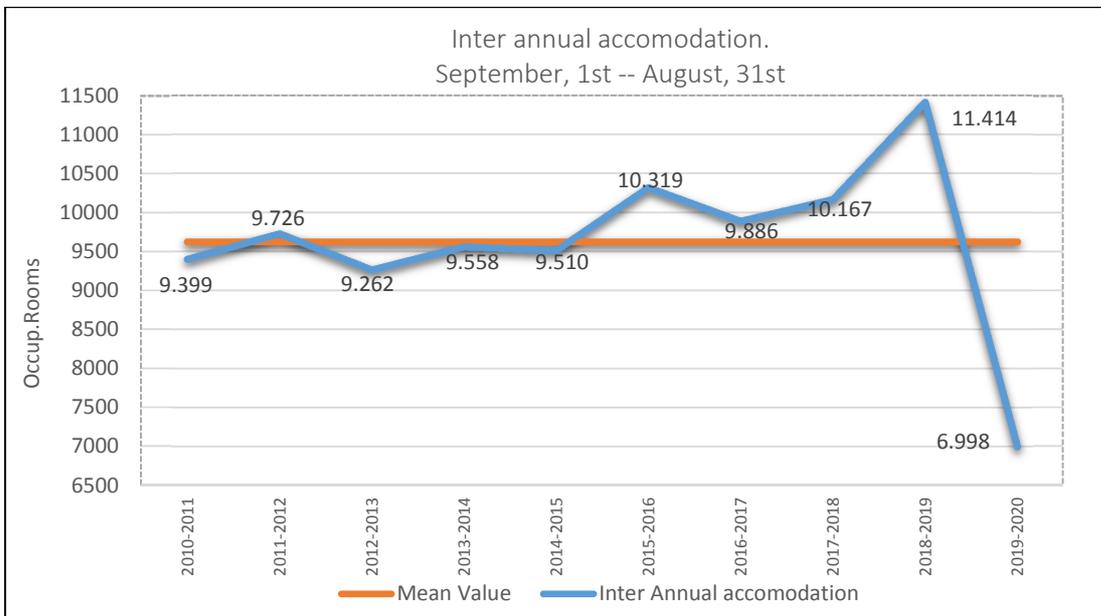


Figure 3.

In table 3 a comparison is made, considering the Residencia stay related to the telescopes. There is a significant reduction of accommodation related to all facilities.

Telescope	Year 2019	Year 2020	% Total	Diff.	% Var.
<b>GTC</b>	<b>1.311</b>	<b>946</b>	<b>26,0</b>	-365	-28%
<b>MAG</b>	<b>927</b>	<b>543</b>	<b>14,9</b>	-384	-41%
<b>TNG</b>	<b>649</b>	<b>455</b>	<b>11,6</b>	-194	-30%
<b>NOT</b>	<b>464</b>	<b>341</b>	<b>9,4</b>	-123	-27%
<b>WHT</b>	<b>1.130</b>	<b>315</b>	<b>8,7</b>	-815	-72%
<b>LST</b>	<b>1.113</b>	<b>307</b>	<b>8,5</b>	-806	-72%
<b>INT</b>	<b>710</b>	<b>282</b>	<b>7,8</b>	-428	-60%
<b>MER</b>	<b>300</b>	<b>190</b>	<b>5,2</b>	-110	-37%
<b>TSS</b>	<b>193</b>	<b>117</b>	<b>3,2</b>	-76	-39%
<b>ORM</b>	<b>85</b>	<b>53</b>	<b>1,5</b>	-32	-38%
<b>GOTO</b>	<b>44</b>	<b>43</b>	<b>1,2</b>	-1	-2%
<b>OTHERS</b>	<b>5</b>	<b>12</b>	<b>0,3</b>	7	140%
<b>LIV</b>	<b>42</b>	<b>12</b>	<b>0,3</b>	-30	-71%
<b>SWASP</b>	<b>25</b>	<b>5</b>	<b>0,1</b>	-20	-80%
<b>DIMM</b>	<b>14</b>	<b>2</b>	<b>0,1</b>	-12	-86%
<b>TOTAL</b>	<b>7.012</b>	<b>3.623</b>	<b>98,8</b>	-3389	-48%

Table 3.

## 2. ORM VISITS.

Due to Covid 19 pandemia and as a general measure, since March 14, any visit (groups of tourist visits, schools, media, etc.) to the telescopes were suspended until the Users Institutions & IAC establish the necessary safety conditions for the staff and the facilities, which are compatible with the groups of visitors.

Exceptionally, three groups have been attended at the Observatory (outside the telescopes):

July 10<sup>th</sup>: OMT group (Organización Mundial del Turismo), 10 journalists (National Geographic, El País, TV Canaria, among others)

August 28<sup>th</sup>: CSIC group (6 people)

September 17<sup>th</sup>: Hispanic American Writers' Congress (20 people) All the group came with the PCR test performed.

### 3. SERVICES AT THE RESIDENCIA

Due to Covid 19, specific protocols have been implemented for the services provided in the Residencia, especially those of rooms and common areas cleaning as well as the catering service. Room occupancy has been limited and some period of time is needed after the checkout to let check-in in the same room. Protective screens have been installed in the places where users and service personnel are in contact. The capacity of the common areas and dining room has been limited. The ORM's Emergency and Safety Committee has met several times in the last six months to agree on the measures to be taken by the staff of the UIs regarding access to the facilities and to advice on the safe use of the Residencia in coordination with the IAC's protocols. It should be noted that the implementation of these protocols has been carried out in an effective manner. From January the 1st to August 31st it has been received 68 users feed-back. In January 2020 we started to send questionnaires to the ORM guests. From January to August a total of 301 were sent to the guests.

Questionnaires / Feedback	January-August 2020
Nº of quest. received by web:	68
Average evaluation of services:	4,4 / 5
<b>Some positive remarks:</b>	<i>The Residencia was absolutely beautiful. The staff were all fantastic and helpful, and patient with my poor (nearly non-existent) Spanish skills. And the mojo was delicious!</i>
<b>Some negative remarks:</b>	<p><i>-The food is very vegetarian unfriendly. I doubt that non-vegetarians would complain if 3 out of 8 options are vegetarian instead of 1 out of 8 as it is presently the case. It is certainly very nice that non-vegetarians can choose between a variety of different meats, fish and seafood in all its forms. But vegetarian food is clearly mainstream nowadays especially in northern and central/western Europe and I think it would be nice if you would cater for them as well.</i></p> <p><i>-En vista del precio de la pensión completa el supersnack debería ser algo más variado, también ofreciendo alternativas más saludables</i></p> <p><i>-The cleaners could be a little quieter in the annexe when cleaning during the day, when the observers are sleeping.</i></p>
<b>Other remarks:</b>	<p><i>-Si es posible, a pesar de las restricciones por COVID-19, sería útil que en los anexos la limpieza comenzara tarde (como hace años, que era a partir de las 16:00) para evitar ruidos ya que son habitaciones para dormir de día. Muchas gracias.</i></p> <p><i>-For observers (night workers) the limit for registration for the night snack (11 AM) is tough, we should have a later possibility.</i></p> <p><i>-Intentar reducir el uso de bolsas de plástico para los snacks y súper snacks</i></p> <p><i>- Despite the unusual circumstance of the pandemic Covid-19 spread and the easing of the lockdown, in phases, we expect the rooms to be cleaned, if not daily, at least once or twice a week.</i></p> <p><i>- Sería útil que se pudiera poder hacer llamadas LOCALES desde los teléfonos. Actualmente no es posible.</i></p>

Table 4.

In Annex is shown the results of the surveys carried out among the users of the Residence. In most of the items, the rating went up compared to the previous semester, General Satisfaction of the users scored 4.4 out of a maximum of 5.

#### 4. BUILDING PERMITS AT ORM.

These are the projects that are pending to get the license from Garafía Municipality: Residencia & Petrol Station Fuel Tanks, the evapotranspiration areas at the output of the purifying plants and the electricity power inner ring.

#### 5. PURIFYING PLANTS.

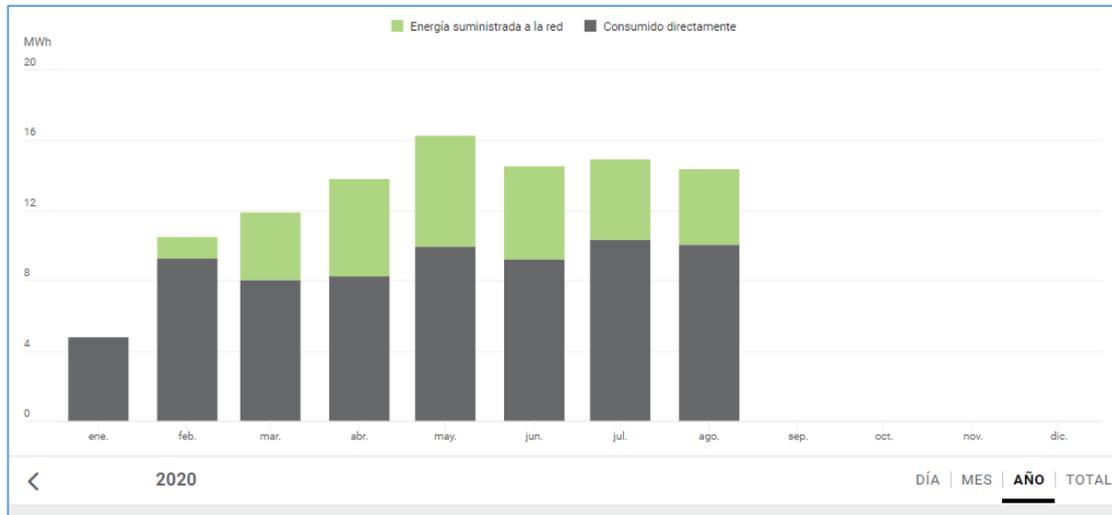
The Island Water Council (Consejo Insular de Aguas) decreed the new discharge conditions for the ORM waste water, whose renewal was requested. The new resolution granted for another five years, considered the authorization for the five discharge points and a lower number of characterization analyses. Some meters have been installed at the output of the five purifying plants that discharge wastewater to the ground. The results of the measured discharge volumes are shown in table 5.

Counter/ Flowmeter	Time Period	Nº days instaled	Nº days with no functioning	Nº days functioning	V (m3)	Q (m3/d)	Equivalent inhabitants
NOT	30/04/2020- 18/08/2020	109	0	109	2,9	0,03	0,4
TNG	30/04/2020- 23/07/2020	84	29	55	12,6	0,23	3,8
WHT	30/04/2020- 23/07/2020	84	43	41	13,0	0,32	5,3
GTC	30/04/2020 - 18/08/2020	109	0	109	10,3	0,09	1,6
RESIDENCIA	13/02/2020- 18/08/2020	187	0	187	309,5	1,66	27,6

Table 5

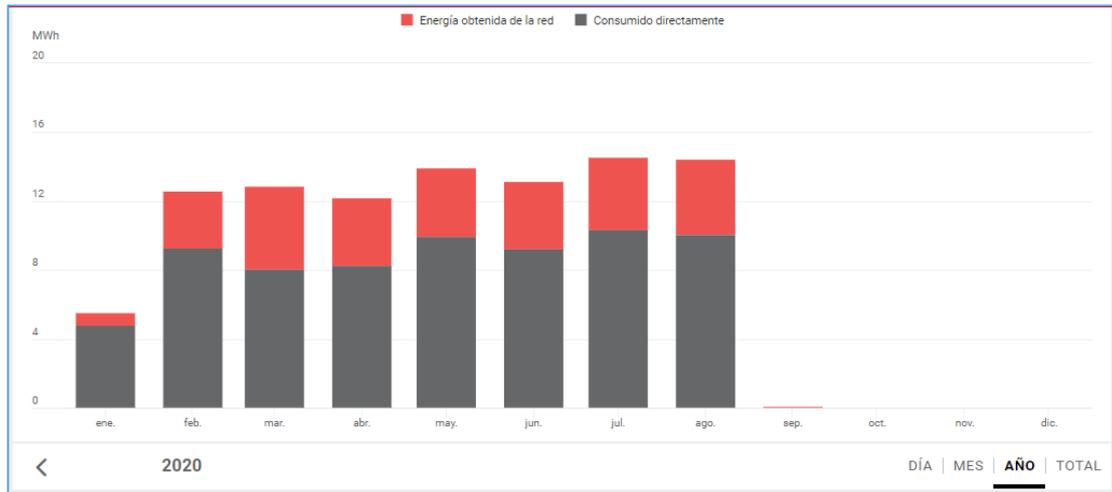
## 6. ORM PHOTOVOLTAIC PANELS.

The production and consumption from the installation along 2020 is showed in the following graphs and tables.



MONTH (2020)	ENERGY SUPPLIED TO THE GENERAL NETWORK (MWh)	ENERGY DIRECTLY CONSUMED FROM THE PANELS (MWh)	PRODUCTION (MWh)	AUTO-CONSUMPTION (%)
January	0,05	4,79	4,84	99
February	1,24	9,30	10,54	88
March	3,86	8,07	11,93	68
April	5,52	8,31	13,83	60
May	6,38	9,95	16,33	61
Jun	5,31	9,25	14,56	64
Jul	4,59	10,39	14,98	69
Ago	4,25	10,06	14,41	70

*ORM photovoltaic production along 2020.*



MONTH (2020)	ENERGY FROM THE GENERAL NETWORK (MWh)	ENERGY FROM THE PANELS (MWh)	TOTAL CONSUMED ENERGY (MWh)	SELF-SUFFICIENCY (%)
January	0,75	4,79	5,54	86
February	3,31	9,30	12,61	74
March	4,80	8,07	12,87	63
April	3,89	8,31	12,20	68
May	3,99	9,95	13,94	71
Jun	3,89	9,25	13,14	70
Jul	4,17	10,39	14,56	71
Ago	4,38	10,06	14,44	70

*ORM photovoltaic consumption along 2020.*

$$\text{Auto-consumption (\%)} = \frac{\text{Energy consumed from panels}}{\text{Energy produced by panels}}$$

$$\text{Self-sufficiency (\%)} = \frac{\text{Energy consumed from panels}}{\text{Energy consumed from panels and external network}}$$

*As reference: a house consumption is usually between 20 and 40 KWh per day.*

## 7. ACTIVITIES, WORKS AND PROJECTS RELATED TO CABILDO INSULAR

- **LP4 Road.** The drafting of the project was awarded. After the delivery of the project and the subsequent tender, it is estimated that work will begin in 2021.
- **Visitor Center.** The project for equipment contents must be completed in April 2021. The power supply will be obtained from ORM power line.
- **CATELP.** The urbanization work in the area may be tender towards end of 2020. It is estimated a period of execution of about 2 years. Throughout 2021 the building construction and strengthening of the slope can be awarded. The term of execution of the work will be of approximately 4 years.
- **Water tank and waste water.** The project for connecting the Residencia purifying plant to the Visitor Centre and pumping gallery water up to a big water tank near to the Residencia, is in progress. The work could be completed along this year.
- **Museo de la Historia de la Astrofísica en Garafía.** The Cabildo Insular and the Ayuntamiento of Garafía acquired a building in Santo Domingo. A tender will be held to award the project to refurbish the building. It would be of great interest to donate old instruments that were a milestone in the history of the Observatory



- **Centro Ambiental de Mendo.** The awarded company gave up the construction of the astronomical park, so the execution of the project will go out again to tender



## **8. MAIN ACTIVITIES AND ISSUES OCURRED DURING THE LAST SEMESTER.**

- Monitoring of the International health alert for Covid-19
- Adapting the Residencia conditions and promoting safety protocols FOR Covid-19
- Applying specific protocols in the Residencia for Covid-19 candidate cases
- ORM Head of Emergency and Coordination with the UI's and the authorities related to the forest fire in Garafía on 21 August
- Meetings with Cabildo to agree the new protocol to drive through the LP4, in case of closed road
- Meetings with Cabildo and Endesa to advance in the renovation and repowering project of the medium voltage power line
- Meetings with the hired company to update the ORM Emergency Plan
- Execution of the works associated with the ICTS projects and Common Service Budget
- Support to the Hispano-American Congress of Writers (September).

## **9. MAIN ACTIVITIES FOR NEXT SEMESTER.**

- Apply the new contract with Telefonica in the data invoicing
- To implement the new ORM Emergency Plan
- Support to LST 2, 3 & 4 telescopes in the procedures.
- Meetings with Cabildo to know the affection of the future LP4 works to daily staff mobility
- Connecting the Visitor Centre to the ORM power line
- To explore with the Cabildo the possibility of integrating our radio communication system, in the Cabildo's emergency network

El Administrador del ORM

Juan Carlos Pérez Arencibia.

**ANEXO: ENCUESTA DE USUARIOS**

		<b>2019</b>	<b>2020</b>	
		<b>(ene-sep)</b>	<b>(ene-ago)</b>	<b>% variación</b>
		<b>Nº encuestas</b>	<b>174</b>	<b>67</b>
<b>RECEPCIÓN</b>	Amabilidad	4,7	4,8	2%
	Eficiencia del serv.	4,4	4,7	7%
<b>LIMPIEZA</b>	Habitaciones	4,6	4,7	2%
	Zona Pública	4,6	4,7	2%
	Comedor	4,5	4,5	0%
	Aseos	4,6	4,6	0%
<b>DESAYUNO</b>	Amabilidad	3,9	4,4	13%
	Eficiencia del serv.	3,7	4,3	16%
	Calidad de la comida	3,1	4,0	29%
	Calidad de la bebida	3,1	3,4	10%
	Variedad	2,7	3,8	41%
<b>COMIDA</b>	Amabilidad	3,8	4,5	18%
	Eficiencia del serv.	3,8	4,5	18%
	Calidad de la comida	3,1	4,0	29%
	Calidad de la bebida	3,6	4,2	17%
	Variedad	2,9	3,4	17%
<b>CENA</b>	Amabilidad	3,8	4,6	21%
	Eficiencia del serv.	3,9	4,5	15%
	Calidad de la comida	3,2	4,1	28%
	Calidad de la bebida	3,7	4,3	16%
	Variedad	3,1	4,1	32%
<b>SNACK Y SUPERSNACK</b>	Amabilidad	3,9	4,3	10%
	Eficiencia del serv.	4,0	4,4	10%
	Calidad de la comida	3,4	4,0	18%
	Calidad de la bebida	3,7	4,2	14%
	Variedad	3,4	4,0	18%
<b>SERVICIO DE LAVANDERIA</b>	Amabilidad	4,2	3,6	-17%
	Eficiencia del serv.	4,0	3,7	-8%
<b>SERVICIOS INFORMÁTICOS</b>	Sala de ordenadores	3,4	3,6	6%
	Wifi	3,3	3,8	15%
	Nivel de la explicación	3,6	4,3	19%

<b>OTROS SERVICIOS</b>	Fax	3,8	3,4	-12%
	Teléfono	3,9	3,5	-11%
	Mantenim. instalaciones	4,0	4,3	8%
	Parking	4,3	4,3	0%
<b>SATISFACCION GENERAL</b>		4,1	4,4	7%