

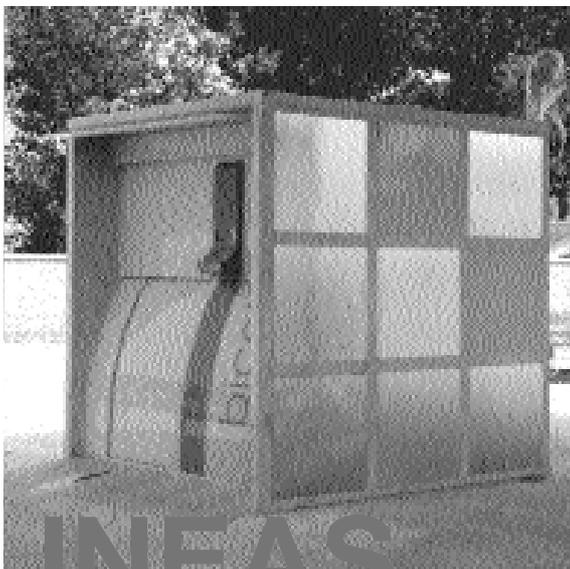
LUZYDIA

23/46/69/92 BICYCLES



LUSIA

23/46/69/92 BICYCLES



LINEAS

23/46/69/92 BICYCLES

AUTOMATIC
PARKING
for
BICYCLES



biceberg



B-23/2

The user

- *What is biceberg?*
- *Operation and use*
- *Chip card*



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The installation

- *The park*
- *Civil work*
- *Safety:*
 - *for user*
 - *for bicycle*



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Management and maintenance

- *Management and operation:*
 - *management options*
 - *examples of management*
- *Application form and contract for cards*
- *Exploitation for advertising purposes*
- *Maintenance:*
 - *on-line*
 - *preventive*
 - *contracting*



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Documentation

- *Any installations already made*
- *Information and Operating Instructions*
- *Civil work plan*
- *EC Declaration of Conformity*

The user



B-23/3

biceberg is the ideal complement for the development of bicycle as an alternative urban non-contaminating transport.

What is biceberg?

biceberg is an **underground, automatic, intelligent** parking system which receives and returns bicycles on street level or at a platform in a time less than **30 seconds** and which also allows us to keep some additional elements related with them such as a backpack or a helmet.

biceberg is the safest bicycle custody and safe-keeping system in the market, also introducing the advantage of a checkroom or left-luggage locker.

The access to biceberg is made through a user-friendly, functional, urban element of a limited impact which offers the opportunity of the installation of various public services (interactive information, vending machines, advertising).



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You must also follow a series of recommendations:

- Insert the rear wheel first
- Observe the dimensional limits
- Observe the authorized load / non-authorized

Operation and use

The parking and retrieval of bicycles are made by means of biceberg **park chip cards**. The information about the user and the park is recorded in this chip.

The operation is very simple:

- Insert your card
- Type your code
- Choose an option
- Park / Remove your bicycle
- Remove your card

A clear indication shown in the biceberg itself reminds the user the operation mode. The instructions are complemented with some intuitive drawings which make them easier to understand for everybody.

■ Documentation: Information and Operating Instructions.



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Chip card

biceberg card grants the park all the advantages provided by a control system with smart access.

The **encrypted** information about user number, secret code, expiry date of the card, scope of using, available balance and any other detail which may be of interest are recorded in the card's chip.

One of the features of chip card is that it offers an **automatic language recognition** system pre-selected by the user when applying for biceberg card.

To gain access to the parking space you must type a personal identification number (**PIN**), which works as a user verification system and which will disqualify the card in case of a erroneous input in three consecutive attempts.

After the operation, the card will be returned to the user provided that the operation is terminated in a correct way (load allowed, no overweight, balance available).

The installation



B-23/3

The park

biceberg is a modular park which holds **between 23 and 92 bicycles**.

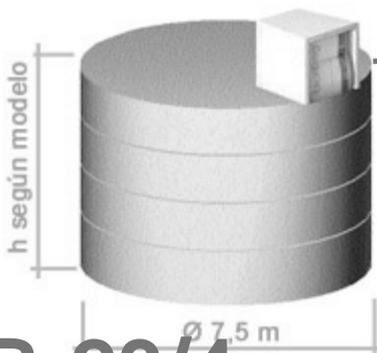
The installation includes the provision and assembly of the park, the urban element based on model "Lusia" (prefabricated concrete) and the set-up of the park.

biceberg product line includes also complementary systems such as: video surveillance systems, card management and emission systems and independent units for the recharge of cards with bank notes.

As an option, you can also install other models of urban elements:
"Líneas", (concrete panels coated with stainless steel), and
"LuzyDia", (safety glass).

When the park is already in operation, the technical specifications include:

- Maximum power: 2200 W
- Voltage: 220 V A.C., 50 Hz
- Consumption: 0,01 Kwh/parking
- Basic telephone line



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Civil works

biceberg's installation requires an underground space to house the civil work.

The basic dimensions of the space are: a free internal diameter of 7,5 m and a free height between 1,5 m. and 5,25 m depending on the model.

As a supplementary installation, a single-phase 5500 W power supply must be made available and also a basic telephone line.

- Documentation: Civil work plan.



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Safety

The **EC Declaration of Conformity**, together with the EC logo on biceberg park guarantee the compliance with Safety Directives:

- Directive on machines, 98/37/EC
- Directive on electric material, 73/23/EEC
- Directive on electromagnetic compatibility, 89/336/EEC

biceberg guarantees safety for both the user and the bicycle and the objects deposited, provided that the park is used in a proper way and according to the purpose of the same.

Documentation:

EC Declaration of Conformity

Safety for user

biceberg has the following safety devices:

- **Door reopening:** A sensitive device reopens the door in the presence of any obstacle which offers a resistance of 150 N. or more.
- **Microwave radar:** At the storing unit there is a radar microwave system which prevents the storing of a non authorized load (living creatures, fuels, etc.) reopening the door until the unauthorized item is removed.
- **Load cell:** The maximum allowed weight is 50 kg. In case the limit is exceeded an alarm is activated and the load rejected.
- **Mechanical lock:** Should the system fail, the opening of the access door is blocked to prevent the user entering inside the park.
- **UPS:** The park has a UPS (uninterruptible power supply), which turns on automatically and allows the user to finish the operation in a normal and controlled way in case of mains power supply failure.

Safety for bicycle and accessories

The chip card access system guarantees the inviolability of the park by means of two **verification codes** and a **personal identification code**.

The park can be supplemented with **video surveillance systems** which digitally record the introduction and removing operations of the bicycle.

Besides, the storing of the accessories in independent tight compartments gives biceberg the greatest reliability in terms of safekeeping and custody.

Management and maintenance



B-EXP

Management and operation

biceberg can offer not only **safekeeping** and **custody** of bicycles but also some additional services (**bicycle hiring**, etc.) This option gives biceberg the opportunity of offering an efficient solution to the new demands of modal transport interchanges.

Management options

biceberg operates with several management software packages which offer different exploitation options:

- Public / Free: Regulated by a maximum parking time.
- Public / Fee: Exploitation fee x time.
- Public / Season tickets: monthly, annual.
- Public / Hiring: Bicycle hiring (traditional, electrical, ...).
- Private: Parking space in freehold.
 - Restricted: Provision for communities.
- Mixed: The combination of any of the systems mentioned (an example for a 69 places biceberg: 30 free places max. 24 h., 19 places for monthly tickets and 20 places for bicycle hiring)
- Other systems: On request.

For the exploitation systems through a fee, there is an autonomous unit for biceberg **card recharge** with bank notes.

Examples of management

Management adopted by the following organizations:

- Zaragoza Town Council: mixed system, free with a 24 hours limited parking time and paid for monthly ticket.
- Huesca Town Council: System fee x time. According to municipal ordinance the fee has been fixed in 0,12 euros/hour.
 - Aragón Government: Mixed system, free annual ticket for its employees and free 24 hours limited parking time for general public.



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Application form and contract

The application for cards can be done through the company awarded with the exploitation, through the collaborating entities (local authorities, bank offices), or by Internet.

We recommend the applicant to attach a photocopy of his/her identity card to the application form.

In the utilization contract of biceberg card you will find the general conditions of use, among which we could mention: the term of the contract, rights and duties of the holder, obligations of the management company and limitation of liabilities.



B-23/3

Exploitation for advertising

A recent study made by several companies involved in urban elements points out that the performance of biceberg as an advertising vehicle is superb.

Self-amortization is estimated in a 5-8 years time, depending on the localization and frequency of the publicity impact, both with integrated stands in the biceberg itself and in accompanying mupis.

There is also a possibility of developing a tailored urban element with the **corporate image** of the organization, company or sponsoring entity. (For instance: biceberg in Blanes, Girona, stainless steel covering with the anagram of "Transportes Públicos de Catalunya").

You can also take advantage of the advertising space offered by the back of biceberg card.



A high level language software monitorizes via modem the history of operations, control of images, checking of alarms, modification of data in the memory, the condition of the receptacles and also makes general verification tests of the status of the park. All this in **real time and remotely**.

The online maintenance service works **bi-directionally**, with the centre establishing a communication with the park to know its status and the park connecting with the centre in case of detection of any failure foreseen in the programming.

Preventive maintenance

To guarantee the functionality and the life of the park there is a Maintenance Manual which determines how and when to perform the maintenance inspections.

The maintenance company will determine the frequency of those inspections as monthly, quarterly, half-yearly or yearly, or otherwise per operations made, providing always a comprehensive annual revision which will be reported in writing to ma-SISTEMAS.

ma-SISTEMAS authorizes maintenance companies through its training courses.

The **authorized companies** have the support of ma-SISTEMAS technical service.

Contracting of maintenance

The company or companies awarded with the maintenance of a biceberg will be liable of performing the maintenance service which includes the following concepts:

- Preventive maintenance.
- Civil liability insurance.
- Bimonthly cleaning of the urban element.
- Annual general cleaning of all the system.
- 24 hours service to the customer.
 - Insurance against damages, failures, including vandalistic acts, and also damages suffered by the owners of the kept bicycles for their deterioration, robbery or impossibility of using them.
- Presentation of reports related with the uses of the park.

Documentation



Attached documentation

- *Any installations already*
- *Operation instructions: Available for the user in the park itself.*

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- *Civil work plan.*
- *EC Declaration of Conformity.*

Any installations already made



B-23/2

B23/2, LUZYDIA

- Location: Plaza San Pedro Nolasco, Zaragoza.
- Developer: Aragón Government.
- Capacity: 46 bicycles.
- Urban element: Safety glass (18 mm).
- Management: Free annual ticket for its employees and free 24 hours limited parking time for general public.



B-23/3

B23/3, LUSIA

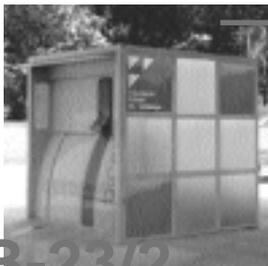
- Location: Avenida Juan XXIII, Huesca.
- Developer: Huesca Town Council.
- Capacity: 69 bicycles.
- Urban element: Prefabricated concrete, panels thickness 20 cm.
- Management: System fee x time. According to municipal ordinance the fee has been fixed in 0,12 euros/hour.



B-23/3

B23/3, LUSIA

- Location: Calle Menéndez Pelayo, Zaragoza.
- Developer: Zaragoza Town Council.
- Capacity: 69 bicycles.
- Urban element: Prefabricated concrete, panels thickness 20 cm.
- Management: Free with a 24 hours limited parking time and paid for monthly ticket.



B-23/2

B23/2, LINEAS

- Location: Bus Station de Blanes, Gerona.
- Developer: Generalitat de Catalunya.
Departament de Política Territorial i Obres Públiques.
Direcció General de Ports i Transports.
- Capacity: 46 bicycles.
- Urban element: Prefabricated concrete panels 9 cm thick with stainless steel covering.
- Management: Undetermined.

biceberg

automatic parking for bicycles



biceberg

biceberg is an underground, automatic, intelligent parking system which receives and returns bicycles on street level or at a platform and which also allows us to keep some additional elements related with them such as a backpack or a helmet.

It loads and unloads the bicycle in less than 30 seconds.

biceberg is the ideal complement for the development of bicycle as an alternative urban non-contaminating transport.

reccomendations

When loading, introduce the bicycle first and then the luggage in the base. When unloading, remove your luggage first and then the bicycle, this will make things easier.

If you are carrying kids seats, saddlebags or any other accessory which exceeds the allowed dimensions, disassembly them before gaining access to the park.

If your saddle is too high, put it down; if your handlebar is too wide you can turn the wheel.

Introduce your bicycle and luggage completely, and make sure there is some space left with the limit of the door.

Take care of your biceberg, keep the closing area of the door clean (leaves, papers), and encouraged the other to do the same.

when you ride a bicycle ...

Travel on the right if there is no signalling indicating otherwise.

Indicate your manoeuvres in advance.

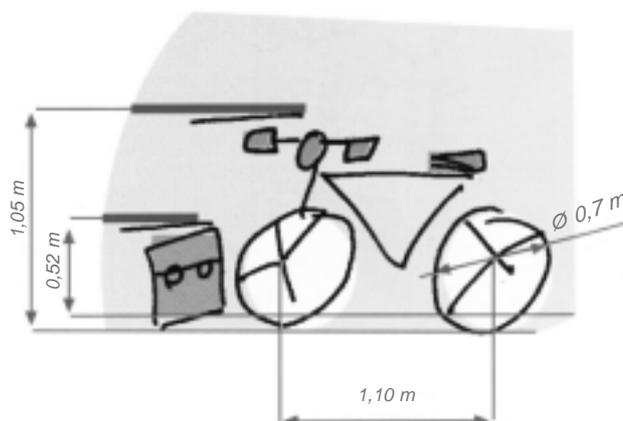
Respect the general traffic regulations.

If you want more safety, travel with a helmet and reflective materials.

frequently asked questions

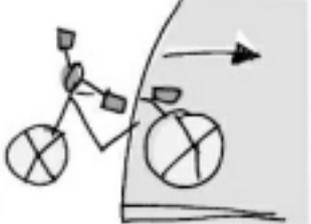
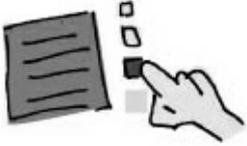
Where can I get my biceberg card? Call..... and we will inform you.

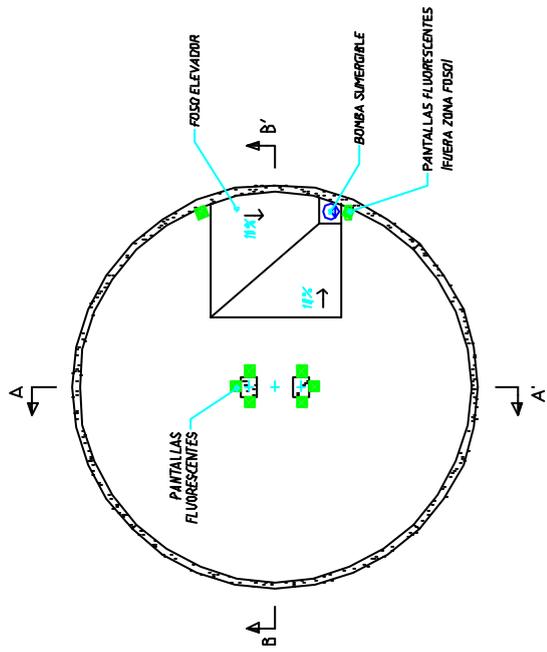
What kind of bicycles can I store? Almost everyone, biceberg admits a maximum height of 1,05 m., and a maximum width for the handlebar of 0,6 m. In biceberg you can keep any bicycle with a maximum wheel diameter of 0,7 m. and a distance between the axles of 1,10 m.



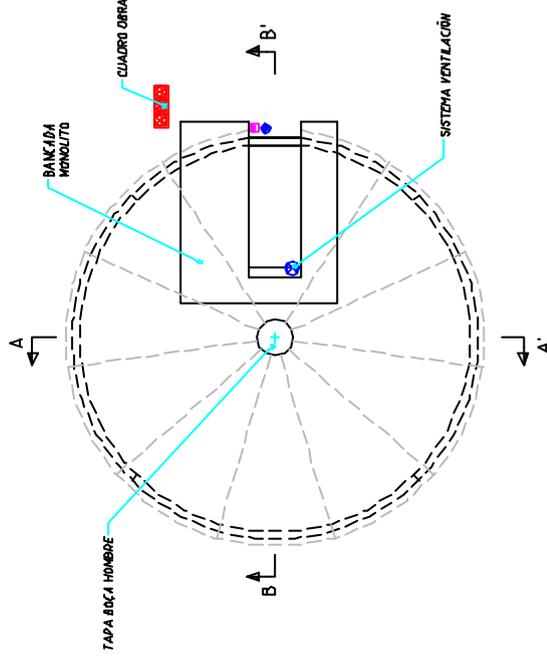
Why biceberg is so safe? biceberg is safe for you because its EC Compliance Declaration guarantees that it complies with Safety Directives. And biceberg is safe for your bicycle because its access system by means of a chip card guarantees the inviolability of the park through verification and personal identification codes.

GENERAL INSTRUCTIONS

| How to operate? | How to park the bicycle? | Warnings |
|--|---|--|
| <p>1. INSERT YOUR CARD</p>  <p>2. TYPE YOUR CODE</p>  <p>3. SELECT AN OPTION</p>  <p>4. PARK / REMOVE YOUR BICYCLE</p>  <p>5. REMOVE YOUR CARD</p>  | <p>1. INTRODUCE THE REAR WHEEL FIRST</p>  <p>2. RESPECT:</p> <ul style="list-style-type: none"> ■ BICYCLE HEIGHT LIMIT ■ LUGGAGE HEIGHT LIMIT ■ KEEP DOOR CLOSING AREA CLEAN  <p>3. REMEMBER:</p> <ul style="list-style-type: none"> ■ LEAVE THE LUGGAGE AT THE BASE OF THE CONTAINER. ■ DON'T LEAVE ANYTHING HANGING FROM THE BICYCLE. ■ DO NOT PILE UP OBJECTS.  | <p>1. AUTHORIZED LOAD: ONE BICYCLE AND 25 KG OF LUGGAGE</p>  <p>2. UNAUTHORIZED LOAD: PEOPLE, ANIMALS, MOTORCYCLES, MOPED, AND FUELS</p>  <p>3. USERS: USE FORBIDDEN FOR PEOPLE UNDER 14</p>  <p>4. IN CASE OF FAILURE, PUSH CANCEL, REMOVE YOUR CARD AND RESTART THE PROCEDURE</p>  <p>5. CONSULTING TELEPHONE:</p>  |

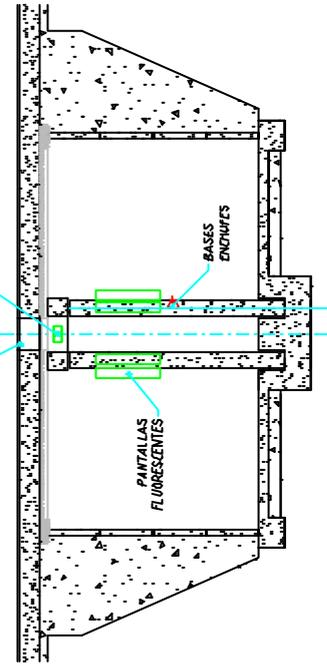


LOSA CIMENTACIÓN

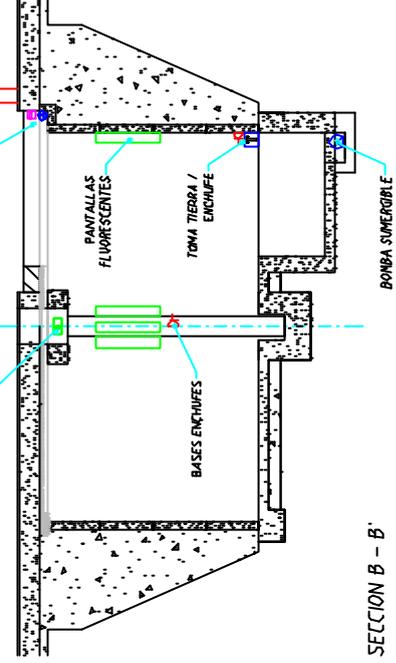


LOSA SUPERIOR

| CANT | PARTE | DESCRIPCIÓN |
|-------|----------------|---|
| 1 | LOSA SUPERIOR | CUADRO OBRERA |
| 1 | BOQUETE | GRASA VENTILACIÓN |
| 1 | BOCA TIERRA | TOMA TIERRA / ENCHUFE |
| 1 | PUZOS | BOCA HONOLITO |
| 1 | PUZOS | BASES DE ENCHUFE DE OBRAS / OBRERILE |
| 1 | ARBUJETA MOTOR | LINEA ELÉCTRICA / CABLE CON MOTOR / EXTRACTORIAL |
| 1 | ARBUJETA MOTOR | LINEA ELÉCTRICA / CABLE PARA OBRERA |
| 1 | BOCA HONOLITO | BOCA HONOLITO 3 TRANS VAL 150 mm |
| 1 | BOCA HONOLITO | BOCA HONOLITO 4 M |
| 1 | PUZOS | MANILLA FLUORESCENTE ESPALDA 25 X 1 |
| 1 | BOCA HONOLITO | PANTALLA FLUORESCENTE ESPALDA 25 X 1 |
| 1 | BOCA HONOLITO | BASES DE ENCHUFE DE MANTENIMIENTO, QUIMICALES O A |
| TOTAL | | |



SECCION A - A'



SECCION B - B'

OC-02

Instalaciones auxiliares. E 1/100

Aparcamiento automático para bicicletas bioberg

Mayo 2008



ma-SISTEMAS, s.l. persigue un constante desarrollo de sus productos. Por esta razón, no puede derivarse derecho alguno basándose en los datos, dibujos y descripciones de presente plano.

DECLARACION "CE" DE CONFORMIDAD

"CE" DECLARATION OF CONFORMITY

La Empresa: MA-SISTEMAS, S.L.
The company: Ctra Zaragoza, Km. 67
CEEI Aragón, nave 1
22.197 - CUARTE (HUESCA)

Declara que el diseño, el desarrollo y la producción de la máquina:
Declares that the design, development and production of the machine:

Modelo: BICEBERG 23/3
Model:

Nº serie: B-03/00
Serial No:

Año de construcción: 1.999
Year of manufacture:

Es conforme a las disposiciones de:
Complies with the requirements of:

- LA DIRECTIVA SOBRE MAQUINAS, 98/37/CE
- LA DIRECTIVA SOBRE EL MATERIAL ELECTRICO DESTINADO A UTILIZARSE CON DETERMINADOS LÍMITES DE TENSION, 73/23/CEE
- LA DIRECTIVA SOBRE COMPATIBILIDAD ELECTROMAGNÉTICA, 89/336/CEE
- Y LA MODIFICACIÓN POSTERIOR A LAS ANTERIORES DIRECTIVAS 73/23/CEE Y 89/336/CEE: 93/68/CEE
- THE MACHINERY DIRECTIVE, 98/37/EEC
- THE ELECTRICAL EQUIPMENT DESIGNED FOR USE WITHIN CERTAIN VOLTAGE LIMITS DIRECTIVE, 73/23/EEC
- THE ELECTROMAGNETIC COMPATIBILITY DIRECTIVE, 89/336/EEC
- AND THE AMENDMENTS TO THE PREVIOUS DIRECTIVES 73/23/EEC AND 89/336/EEC: 93/68/EEC

La declaración de conformidad CE adjunta, junto a la marca CE colocada sobre el producto, constituye un elemento fundamental y parte integral de la máquina: garantizan la conformidad del producto a las Directivas de seguridad anteriormente citadas.

The enclosed CE Declaration of conformity, together with the CE mark on product, are fundamentally important and represent an integral part of the machine; both guarantee product conformity with the aforesaid safety Directives.



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Firmado:
Signed:

MIGUEL ALONSO OLLACARIZQUETA
DIRECTOR DE PROYECTO/PROJECT MANAGER

Cuarte, HUESCA, ESPAÑA, julio de 2000.

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