

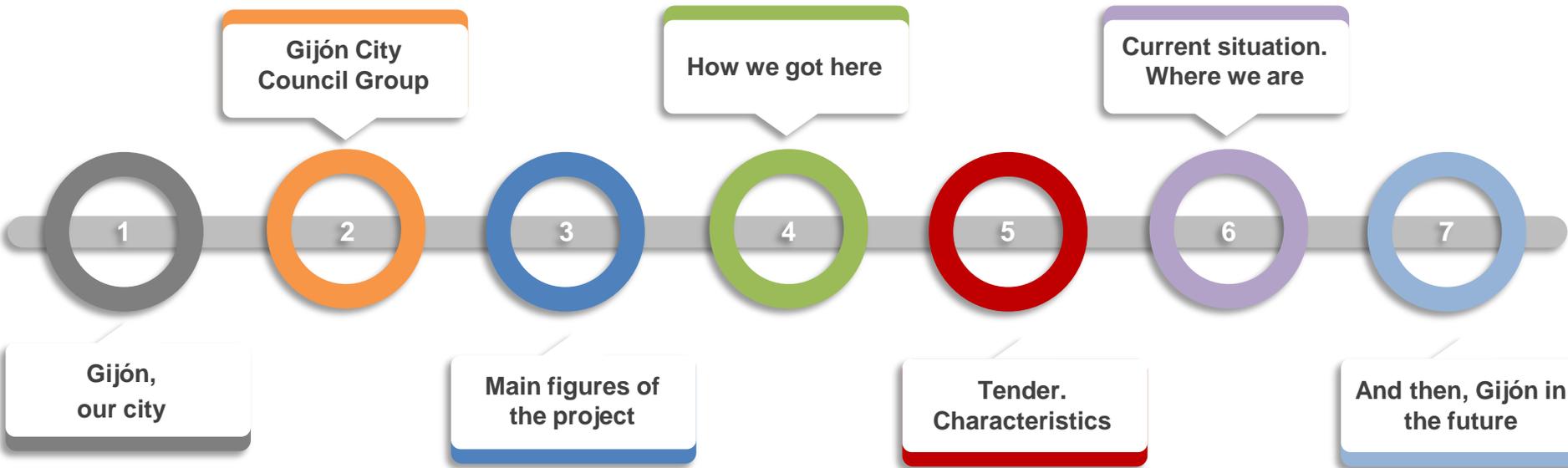
City Project

INTEGRATED AND INTELLIGENT MANAGEMENT OF PUBLIC LIGHTING AND MUNICIPAL BUILDINGS



Ayuntamiento de Gijón/Xixón







The city in data

- **Location :**
 - North Iberian Peninsula
 - City with the largest population of the entire Cantabrian coast
- **Territory :**
 - Municipal area : 181,70 km²
 - Superficie ciudad: 13,9 km²
- **Population :**
 - Total population (2020): 271.717 inhabitants
 - 93% live in urban area
 - 25% are over 60 years old



Gijón City
Council Group

Gijón

Gijón City Council Group

- Gijón City Council

Gijón

Gijón

GIJÓN IN ⁷ELEVADO
AL FUTURO

- Municipal autonomous organizations

Gijón | Cultura
y Educación

Gijón | Servicios
Sociales

Gijón | Deporte

- Municipal companies

Gijón | ema

Gijón | EMTUSA

Gijón | EMULSA
medio ambiente

Gijón | impulsa

Gijón | :Divertia

Gijón | Vivienda

- Municipal and private companies

cegisa
CEMENTERIOS
DE GIJÓN, S.A.

CENTRO DE TRANSPORTES DE GIJÓN

EMTC
Empresa
Mixta
de Tráfico de
Gijón, S.A.



The City Council in figures

- **Budget :**
 - City Council 2021 : 207,81 million €
 - City Council Group(2020): 320,07 million €
- **Staff :**
 - City Council staff (2020): 971
 - City Council Group staff (2020): 2.875
- **Buildings and infrastructure :**
 - Total Municipal building: 447
 - Public schools : 36
 - Nursery schools 0-3 años: 13
 - Museums and exhibitions : 11
 - Integrated municipal centers : 5
 - Sports facilities : 18
 - Swimming pools : 6
 -

The City Council in figures

- **Budget :**
 - City Hall 2021 : 207.81 million €.
- **Consumption**
 - Electricity consumption (2020): 49,489,314 kWh/year
 - Natural gas+oil+biomass consumption (2020): 13,847,070 kWh PCI/year
- **Vehicles:**
 - Owned vehicles: 55 Vehicles in shared fleet leasing: 47
 - EMA vehicles: 52
 - EMULSA vehicles: 285 vehicles
 - EMTUSA vehicles: 84 buses + 2 vans + 1 car
 - Total vehicles: 526



Main figures of the project



15 Years
INTEGRAL MANAGEMENT

35,5 Millions of Investment
TOTAL MODERNIZATION

28,8 Millions
SAVINGS

43.000
LUMINAIRES
WITH INTEGRATED IOT NODE

INTERNET OF THINGS NETWORK
INTEROPERABLE

157 BUILDINGS
INTEGRATED MANAGEMENT

CONNECTIVITY



80.295 Tons less CO₂ in 15 years
EMISSIONS REDUCTION
5.353 Tn CO₂/year less

199.985.085 kWh reduction in consumption over 15 years
REDUCTION IN LIGHTING CONSUMPTION
13.332.339 kWh/year less

45.33%
MINIMUM ENERGY SAVINGS

100%
RENOVATION OF LUMINAIRES

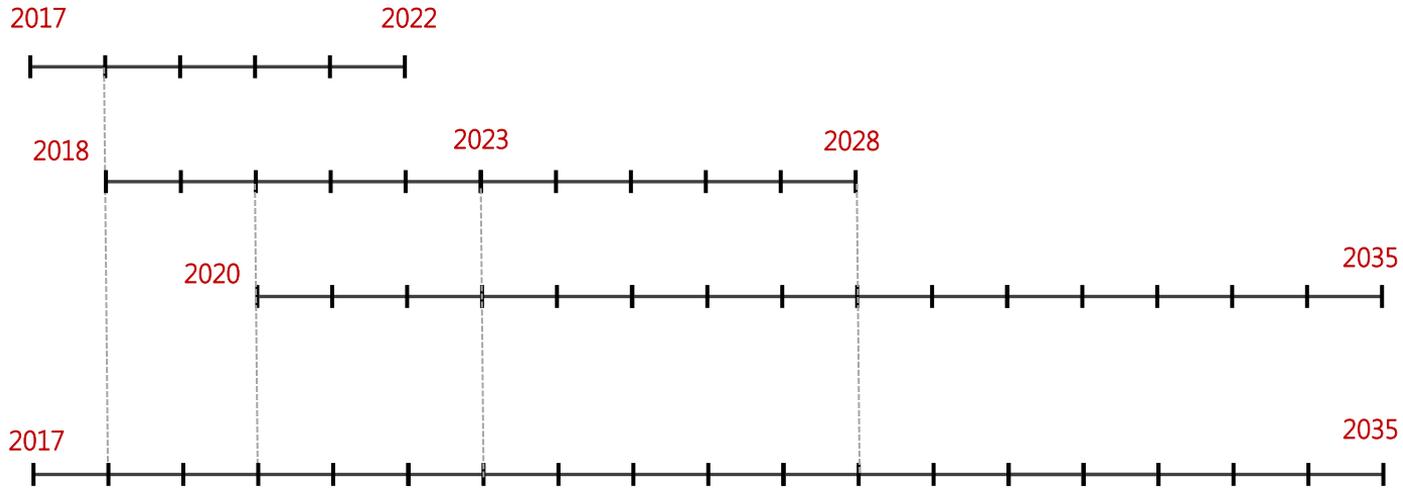
100%
GREEN ENERGY



How we got here



Smartlighting Project





How we got here



Audit

- Investment grade energy audit
- Inventory:
 - Equipment, lighting map, installations and consumption.
 - Service management model: point-to-point management; IoT network and city platform with the verticals of intelligent and integrated management of lighting and municipal buildings and facilities.

Economic Scenarios

- Technical and economic feasibility
- Contract duration: 15 years
- Initial investment recovery by the awarded company: tenth year.
- Benefits last 5 years: shared between the company and the City Council.



How we got here



- C4 IoT Smart Lighting
- C5 Air Quality
- C6 Smart Buildings
- C8 Social innovation center
- C9 Web portal - IoT open data
- C10 Smart citizenship
- C12 Citizen participation
- C14 City-City Council Integration
- C15 Intelligent Public Streets
- C16 Dashboard

**Innovation of
municipal services**



How we got here

Gijón

Gijón | DemoLAB



Gijón | GIJÓN IN ^TELEVADO AL FUTURO



CHECK

INSTALL IN REAL ENVIRONMENT

VERIFY





How we got here

Specialized external technical assistance

- Investment grade energy audits, scenarios and technical and economical feasibility
- Legal consulting
- Technological, operational and service management model consulting

Preliminary market consultation in accordance with art. 115 LCSP

- 10 companies in the sector respond to the questions posed
- Contributions to the specifications
- Consultation content
 - Special performance criteria and conditions
 - Social / Environmental / Innovation
 - Management model: governance of services
 - City Council / contractor / technical office / technology / innovation ecosystem / Center for Social Innovation / DemoLAB



Tender.
Characteristics**Tender. Characteristics :**

- **General:** Integral contract for the entire City Hall Group
- **Typical in these contracts:**
 - Energy management and supplies
 - Maintenance and upkeep
 - Total guarantee
 - Investments in renovation of consuming installations
- **Disruptive:**
 - Investments in energy saving and renewable energies
 - Independent control and contract monitoring office
 - Innovation: DemoLAB office, collaborative governance plan, social innovation center, etc.
 - Sustainability: climate neutrality and social and territorial cohesion.
 - Equality
 - Corporate social responsibility (SDGs)





Purpose and scope of the contract:

Service P1- Energy management and energy supplies:

- Energy management for the optimization of consumption.
- Energy supply: electricity, gas and fuels necessary for the operation of the facilities.



Service P2- Maintenance and upkeep

- Operation and maintenance tasks for perfect operation.



Service P3- Total and integral guarantee

- Total and integral guarantee on all the elements that are part of the investment

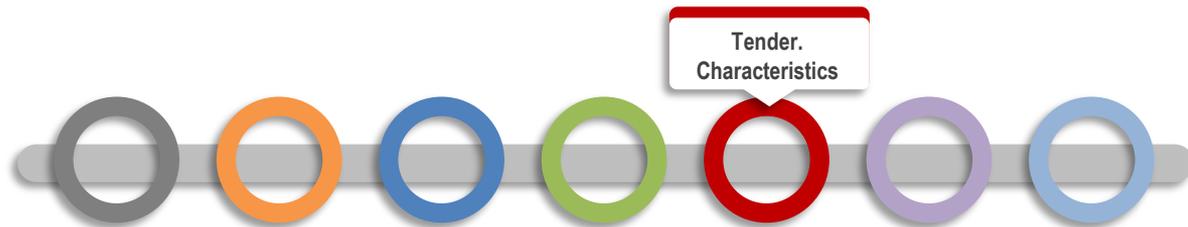


Service P4- Investments for the renovation and improvement of energy-consuming facilities

- Execution and financing of works for the improvement and renovation of installations. : 2.354.768,08 euros per year; 35.486.521,20 total euros. (29.327.703 excluding VAT).
- Lighting investment :
 - 19.439.488,45 €
 - Replacement of luminaires and installation of the IoT network
- Investment in municipal buildings:
 - 3.576.544,15 €
 - Replacement of lamps and luminaires, incorporation of lighting regulation systems and building sensorization.

Service P4	Anual
Lighting investment	19.439.488,45 €
Investment in buildings	3.576.544,15 €
Profit	6.3113670,87 €
Base	29.327.703,47 €
VAT	6.158.817,73 €
TOTAL	35.486.521,20 €





Service P5: Investments in energy saving and renewable energies

- Promote the improvement of the city's energy efficiency through the incorporation of:
 - Equipment and installations that promote energy savings
 - Smart grids
 - Energy communities
 - Use of renewable and residual energies
- These installations will be studied, proposed and executed by the successful bidder, after validation and acceptance by the City Council
- They will be financed through European, national or regional financing lines, through energy savings or sale of energy
- They will have no economic impact on the budget of this contract.





Tender.
Characteristics

Service P6- Other work directly related to the above services:

- Quality control systems and independent monitoring of the contract
- Other work and services

Gijón DemoLAB Office :

Their purpose is to involve the people and agents of the city in technological progress, in the transition to a new energy model and in the way energy services are provided.

1. Innovation
2. Sustainability
3. Gender equality
4. Corporate social responsibility



Deadline

The contract will have a maximum term of fifteen years and six months (186 months), with the following detailed duration for one of the services:

Service	Months of duration
P1 Electric	183
P1 Thermic	186
P2P3 Electric	184
P2P3 Thermic	186
P4	180
P5	186
P6	186

Budget

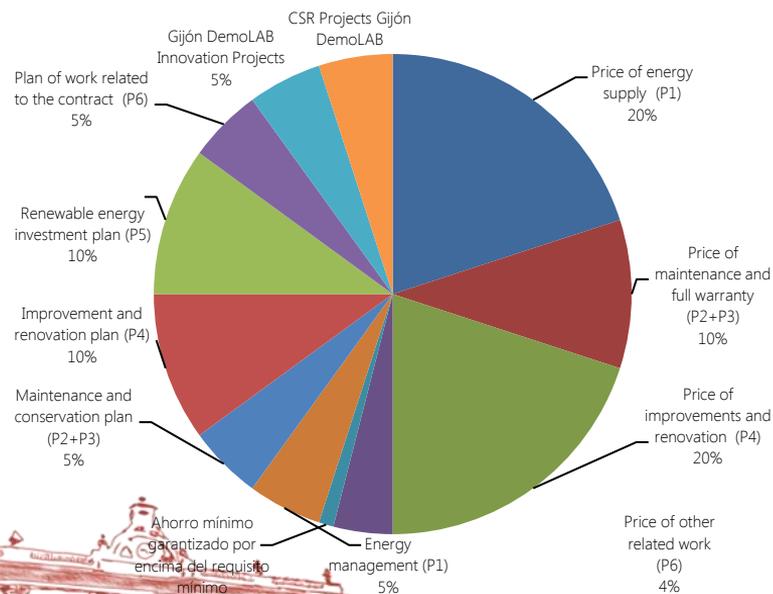
The tender budget, distributed by services, is as follows:

Prestaciones	Annual	Contract total
P1- Energy management and energy supplies	7.258.657,62 €	108.879.864,33
P2P3 – Maintenance and upkeep and total and integral guarantee	3.363.684,01 €	50.455.260,08
P4 – Investments for the renovation and improvement of energy-consuming facilities	2.365.768,08 €	35.486.521,20
P5 - Investments in energy saving and renewable energies	0,00 €	0,00
P6 - Other work directly related to the above services	619.891,71 €	9.298.375,68
TOTAL	13.608.001,42 €	204.120.021,29 €





Tender evaluation criteria



Current status

- **Tender evaluation:**
 - Tender evaluation criteria
 - Multidisciplinary team
- **Tenders received:**
 - ACCIONA ESCO S.L. y ACCIONA CONSTRUCCION S.A. en UTE
 - ETRALUX, S.A. y CLECE, S.A. en UTE (UTE HEMERA)
 - IMESAPI S.A., FCC MEDIO AMBIENTE, S.A.U y FCC INDUSTRIAL E INFRAESTRUCTURAS ENERGÉTICAS, S.A.U en UTE (UTE ESE GIJÓN-XIXÓN)
 - FERROVIAL SERVICIOS, S.A. e IBERDROLA CLIENTES, S.A.U. en UTE
 - VEOLIA SERVICIOS NORTE S.A.U. y SOC. IBÉRICA DE CONST. ELÉCTRICAS S.A. (SICE) en UTE
 - ELECNOR S.A.
- **Adjudication:**
 - Before the end of 2021 (forecast without resources to the process)

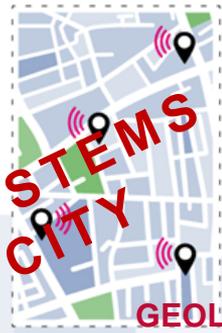
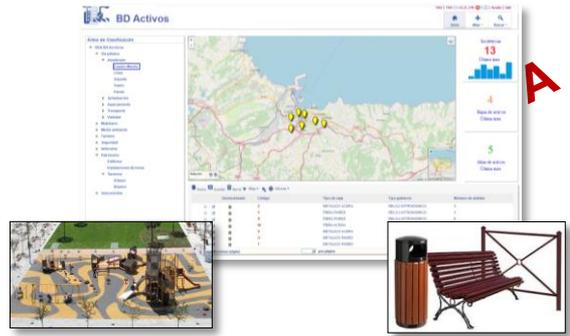


And then, Gijón in the future



The city as a platform: Another new public infrastructure

A SYSTEMS CITY

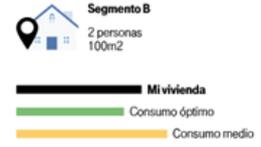


GEOLOCATION



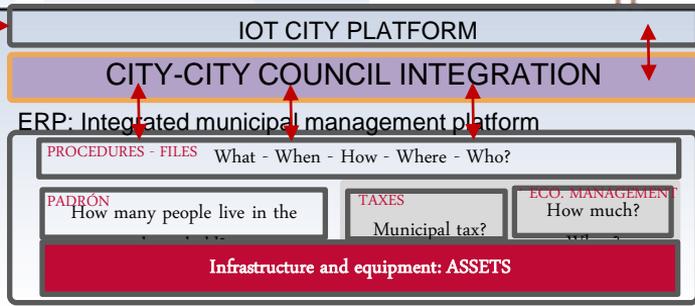
City services

Things are spoken and spoken to us, listened to and understood.



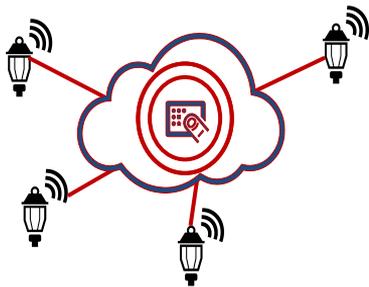
Reasonability!
Citizenship
Ecosystem

SINGLE DATA



- Furniture
- Tree planting
- Containers
- Counters
- Fountains
- Signs
- Playground equipment
- Trees
- Traffic lights
- Street lamps





THANK YOU VERY MUCH



Ayuntamiento de Gijón/Xixón

