



Digital Transformation for Sustainable Management of Water and Environmental Health

DINAPSIS Región de Murcia
C/ Jabonerías, 32
30201 – Cartagena
SPAIN

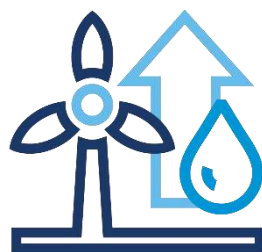
A common challenge:

To offer collaborative solutions to address the challenges of climate change



A GROWING WORLD POPULATION

It is estimated that by 2050 the world's population will have grown to **9.7 billion people** and **60%** will live in large cities.



INCREASING DEMAND OF RESOURCES

Energy demand will increase by **50%**, and the world's water requirements will exceed available supply by **50%** by 2050

CLIMATE CHANGE



AIR POLLUTION

An estimated **7 million people** die every year from urban air pollution



WATER SCARCITY

By 2050, more than **40%** of the world's population will live in areas with water scarcity. Spain is among the most impacted countries.

Keys for a sustainable city

Digitized services connected to people



CIRCULAR

COLLABORATIVE

EFFICIENT

CLEAN

GREEN

DINAPSIS is...

Digital

siNAPSIS (*synapse*)

**...a network of digital transformation hubs for
water management, environmental health and
the ecological transition of the territory**

Dinapsis with local vision

Dinapsis enables digital solutions to be scaled and adapted to each region's real needs, thus ensuring optimum resource management.

**Islas Canarias:
Gran Canaria and
Tenerife**
Desalinated water and
sustainable tourism

Albacete
Water stress and
regional development

**Water Resources
and
Environmental Health**

Costa del Sol
Water resilience and
carbon neutrality

Granada
Metropolitan water and
decarbonisation

Valencia
Sustainable city and
circular economy

**Smart Metering & IoT
Cybersecurity**

Barcelona
Resilient water and
social commitment

Costa Blanca
Urban water management, H₂O,
blue and green infrastructures

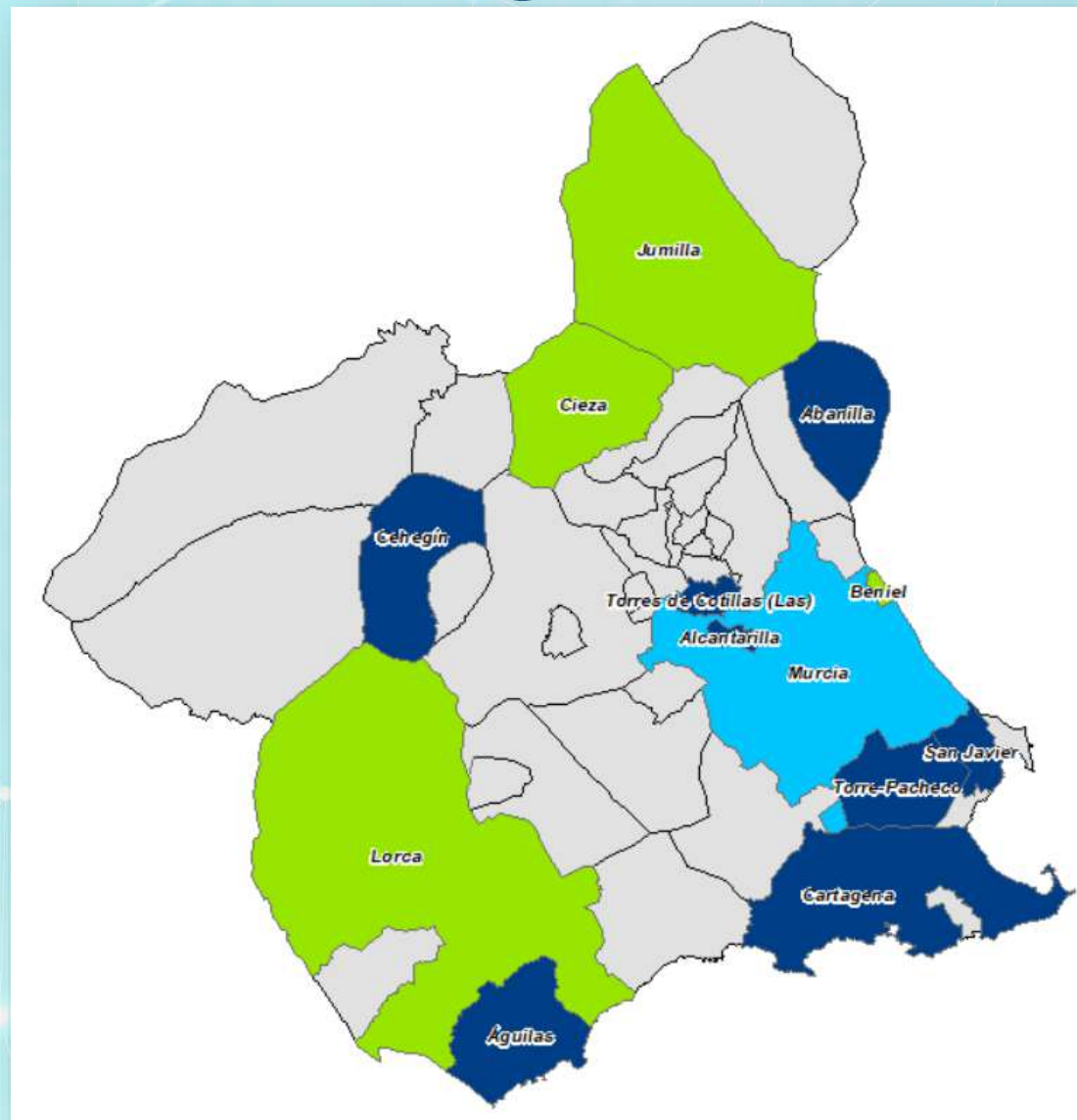
Región de Murcia
Efficiency in Water Uses
and Climate Risk

Your partner to address the environmental
challenges of the 21st century

DINAPSIS Región de Murcia



Región de Murcia



➤ Región de Murcia

- ❖ 1.5M inhabitants
- ❖ 11,300 Km²
- ❖ 45 municipalities

➤ HiDROGEA: 8 municipalities (1/3 population)

➤ EEMM: (1/3 population)

- ❖ 4 municipalities
- ❖ EMUASA (Aguas de Murcia)

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Efficiency in Water Uses

Uses

- Domestic
- Industrial
- Agricultural

Operational Hub

- 24/7
- All HiDROGEA municipalities

Reclaimed Water

- Region of Murcia: 98% reused (of 99% treated) – 121 Hm3 in 2023
- Spain: 9% reused
- Europe: 5% reused



Climate

Risk

Your partner to address the environmental
challenges of the 21st century

Our basic pillars



TECHNOLOGY



EXPERIENCE

INTEGRATION



Experience

Dinapsis' intelligence is based on the diversity and volume provided by more than 150 years of information

Technology

Leaders in integrating disruptive technologies in environmental health and complete water management



IoT



Drones



Artificial
Intelligence



Predictive
Analytics



Virtual
Reality



BIM



Business
Discovery



Smart
GEO



Machine
Learning



Computer
Vision



Mixed
Reality



Numerical
Modelling

Integration

Experts in operational efficiency through
centralized planning

PEOPLE

PROCESSES

TOOLS

Your partner to address the environmental
challenges of the 21st century



Digital services to serve the public

Tracking of water consumption
to control expenditure

Improved bathing water
quality

Knowledge of
environmental health at
municipal level

Increased availability of
green spaces

Reduced impact of extreme
weather events

Preservation of natural
resources for current and
future generations

DINAPSIS is...



**...a network of digital transformation hubs for
water management, environmental health and
the ecological transition of the territory**

**A Smart
Operational Hub**

**A Suite of
Digital services**

**A Place for
Co-Creation and
Alliances**

Your partner to address the environmental
challenges of the 21st century



An
operational
hub

A suite
of
digital
services

A place for
co-creation
and alliances

An operational hub that enables integrated operation of the region's water and environmental health services

Sustainable management
of water and the environment

Access to digitization
for all municipalities
regardless of their size

Transparency and being
close to the public

Swift response
to our customers' needs

DINAPSIS Región de Murcia

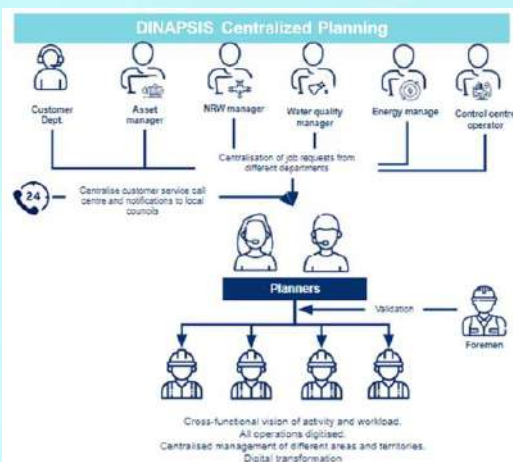
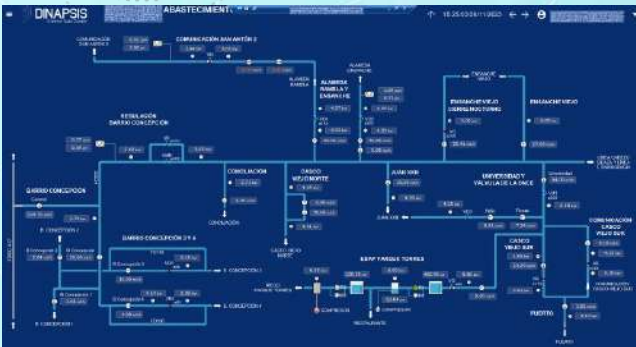


- ❑ 24/7 Service
- ❑ All HiDROGEA municipalities
- ❑ 500.000 inhabitants (1/3 R.Murcia)
- ❑ 5.500 Km pipe networks
- ❑ 30.000 real-time signals
- ❑ 132.000 Work Orders/year
- ❑ Digital Transformation
- ❑ DINAPSIS Suite Solutions
- ❑ Centralized Planning
- ❑ More Efficient Service
- ❑ Increased Sustainability

- 24/7
 - ❖ 7 Control Center Operators
 - ❖ 3 Planners
- NRW Manager
- Asset Manager
- Energy Manager
- Suite Continuous Deployment

DINAPSIS Región de Murcia

- ☐ Monitoring & Control
- ☐ High-Level Data
- ☐ Dashboards
- ☐ Graphs
- ☐ Low-Level Data
- ☐ Control Center Operators



Job listing:
- Relative topography
- Map display



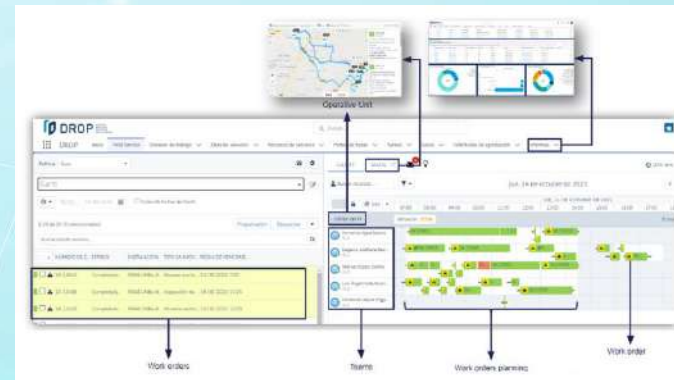
Actions in terminal:
- Notifications to users
- Create jobs in the field
- Take photos/videos
- Office support



Chat integrated in the APP:
- Notifications to users
- Option to attach files



Visual support:
- Visualization of tasks in map
- Optimal routing
- Integrated navigation



- *DINAPSIS Centralized Planning*
 - ❖ Planners
- Real Time
- KPIs
- ✓ More Efficient
- ✓ Better Service
- ✓ More Sustainable

A suite of digital services

An
operational
hub

A suite
of
digital
services

A place for
co-creation
and alliances

24/7

REAL-TIME MANAGEMENT



CYBERSECURITY AND
BUSINESS CONTINUITY

UX

USABILITY OF SERVICES



2,300,000
SMART METERS
INSTALLED



15
TERABYTES OF DATA
GENERATED EVERY DAY

A suite
of
digital
services

Our digital services



Digital services for the
transformation **of the water cycle**

Digital services to help municipalities in their
ecological transition



Digital services to boost the **circular economy**
in the **industry-city alliance**

Your partner to address the environmental
challenges of the 21st century

Digital services to transform the water cycle



CUSTOMER
EXPERIENCE
AND SALES
PROCESSES



SMART OPERATION OF
SUPPLY AND SEWAGE
NETWORKS. 360° VISION



SMART
METERING



ADVANCED ASSET
MANAGEMENT AND
FIELD WORK



ADVANCED PLANT
OPERATION: ROUTE
TOWARD ECOFACTORIES



INTEGRATED
WATER
RESOURCES
MANAGEMENT



INTEGRAL
LOGISTICS
MANAGEMENT

Your partner to address the environmental
challenges of the 21st century

Digital services to help municipalities in their ecological transition



URBAN
EPIDEMIOLOGY
SURVEILLANCE



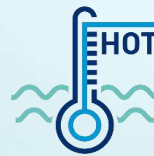
ENVIRONMENTAL
HEALTH AND
URBAN MOBILITY



URBAN AGENDA
AND CITY
INDICATORS



SUSTAINABLE
TOURISM



CLIMATE CRISIS
MANAGEMENT AND
URBAN RESILIENCE



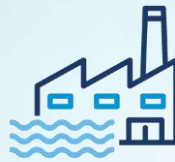
GREEN SPACE AND
BIODIVERSITY
MANAGEMENT



DECARBONISATION

Your partner to address the environmental challenges of the 21st century

Digital services to boost circular economy in the industry-city alliance



—
ADVANCED OPERATION OF
INDUSTRIAL WATER
TREATMENT PLANTS

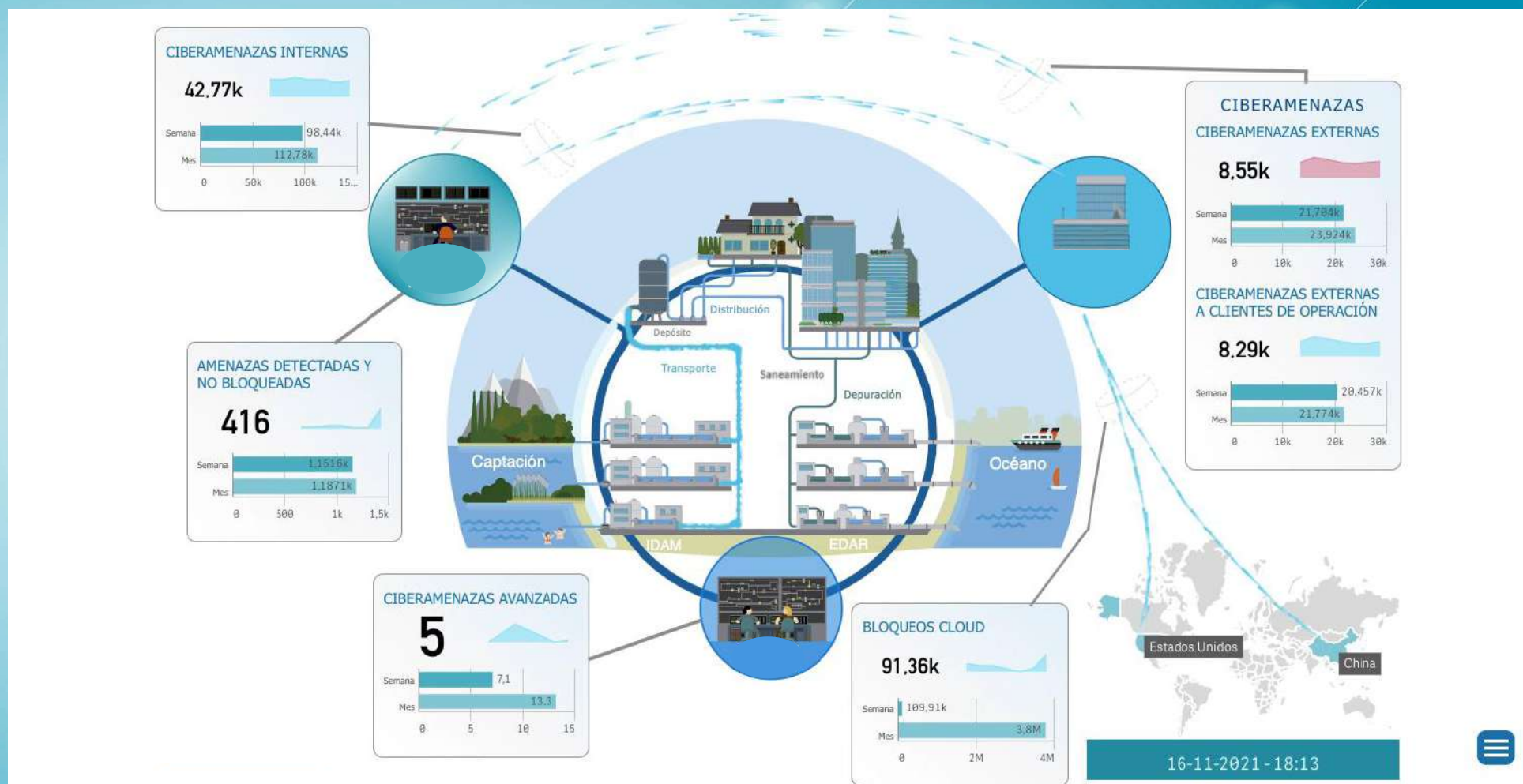


—
SUSTAINABLE MANAGEMENT
OF WATER RESOURCES IN
INDUSTRY

Your partner to address the environmental
challenges of the 21st century

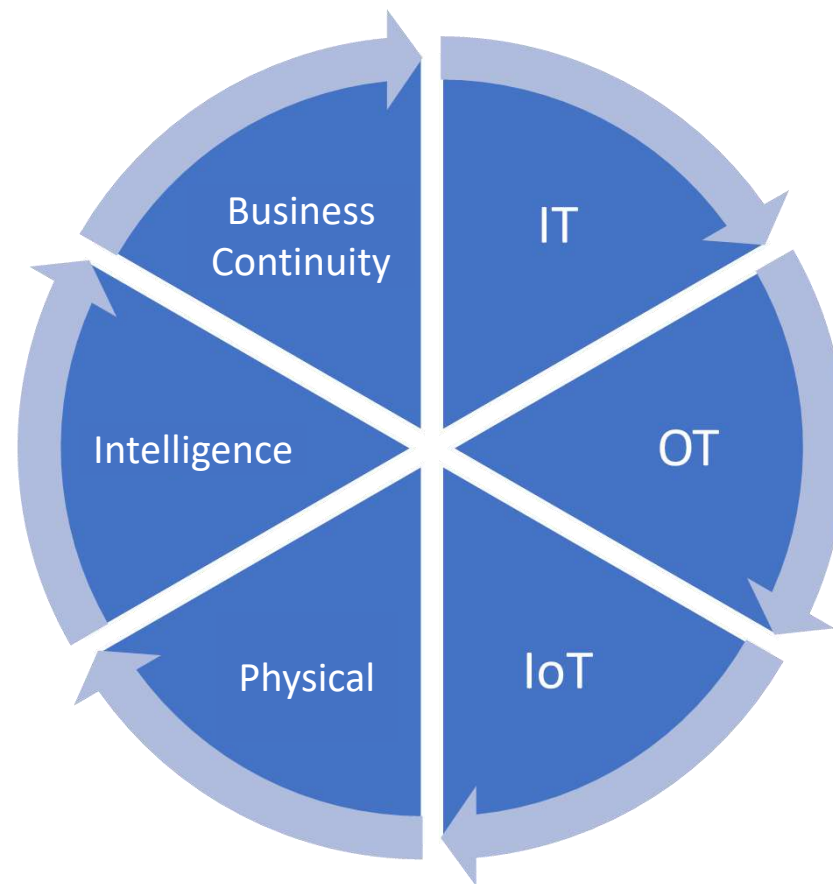
Cybersecurity

Infographic Cyber Attacks - Corporate Critical Infrastructure



Cybersecurity

Full Coverage



Your partner to address the environmental challenges of the 21st century

A collage of three photographs on the left side of the slide. The top photo shows a group of people gathered around a display board with many colorful sticky notes. The middle photo shows three people sitting on chairs in a panel discussion format, with a large screen in the background displaying the DINAPSIS logo and a cityscape. The bottom photo shows a group of people standing around a long white table, engaged in a hands-on activity or workshop.

A place for cocreation and alliances between public administrations, companies, universities, technology centers and start-ups

An
operational
hub

A suite
of
digital
services

A place for
co-creation
and alliances

AN INNOVATION NETWORK

with experts of multiple regions

DINAPSIS DIGITAL PAPER

sharing knowledge and best practices

IOT HACKATHONS

with universities and students

DINAPSIS OPEN CHALLENGE

testing, validating, scaling and
marketing innovative technologies

DINAPSIS Región de Murcia

DINAPSIS
Digital Paper

digital paper 1
CIUDADES SALUDABLES

DINAPSIS

DINAPSIS Focus

Jornada de Ideación

Operación en Redes de
Distribución y Drenaje



DINAPSIS

HIDROGEA



EU Projects



AGBAR
Chairs Network

RED DE CÁTEDRAS
DEL AGUA

JORNADA RED DE
CÁTEDRAS 2022



EVENTS

DINAPSIS
Open Challenge

DINAPSIS

Dinapsis Open Challenge
2nd edition - Región de Murcia

Para startups con soluciones
en eventos climáticos extremos,
optimización del consumo de
agua y aguas residuales.

Inscripciones abiertas
hasta el 6 de diciembre

INSCRIPCIONES



Mar Menor
Technical Table



Working Days



ESAYUNOS
DINAPSIS

Transformación Digital
en la Región de Murcia

Grado de madurez en
Empresas y AAPP



DINAPSIS Breakfasts

DINAPSIS Región de Murcia

EXTERNAL EVENTS



Presentations



Radio Programs



Conferences



Interviews



Round Tables



**We want to be your ally
to overcome the challenges
of sustainable development**

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