

# PSD2: How can it inspire South Med policies and regulations?



José Manuel Aguirre, Director

**Artificial Intelligence Systems S.A.**

June 2022

1987

AIS Group creation

> 250

Clients

30+

Countries

10%

Innovation investment

Applied Intelligence on digital finance for:



Banks



Financial  
Institutions



Fintech



Cars and  
fleets



Real state



Insurances



Retail



Industry  
Smart Cities



# CLIENTS

## Banks



## Retail



## Cards



## Mortgages



## SME credit



## BNPL / eCommerce



## Autos



## Fintech



## Insurance



## Real State



## Telco



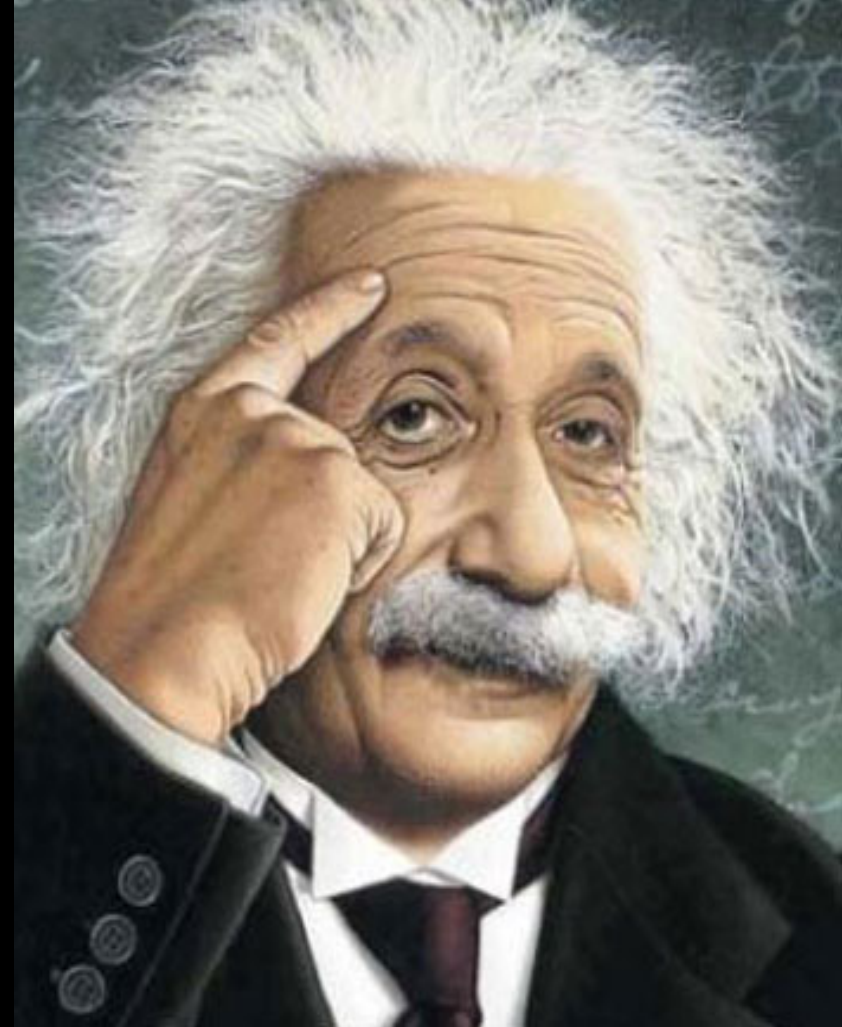
## Others



“  
The world as we have created it is a process  
of our thinking. It cannot be changed  
without changing our thinking.

If you want to live a happy life, tie it to a  
goal, not to people or things.”

Albert Einstein



# AGENDA

- ❖ AIS , the company
- ❖ Changes everything changes
- ❖ How it all started. Players
- ❖ Step by Step Account processing
- ❖ PSD2 Financial data integration

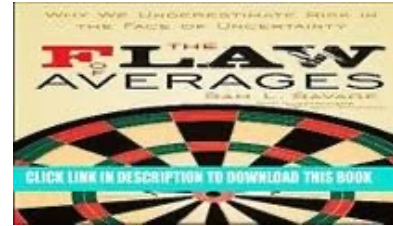
# Changes, everything changes....



**CHANGING LABOUR SECTOR STRUCTURES**  
TECHNOLOGY HAS CONTINUOUSLY CREATED & DESTROYED JOBS



# STATISTICS, BIG DATA AND MACHINE LEARNING



Sam Savage

Consulting professor, Stanford University Dept. of Mgmt. Science and Engineering. Fellow at Judge Business School at the University of Cambridge

[Michael Porter proposed in 1980](#) that companies could be competitively advantaged only through cost leadership or differentiation

BCG. July 22, 2019 By [Hans-Paul Bürkner](#), [Martin Reeves](#), [Hen Lotan](#), and [Kevin Whitaker](#)



Dan Ariely

Professor of Psychology and Behavioral Economics, Duke University

*Big data is like teenage sex: everyone talks about it, nobody really knows how to do it, everyone thinks everyone else is doing it, so everyone claims they are doing it...*

# NEW USERS, NEW FORMS...

Millenials and platforms are changing radically the world we live in and our entire way of life

- Younger customers, more demanding and creative. Digital natives.
- Development of new tools in finance, shopping, payments, entertainment, transportation, etc.



- In entertainment



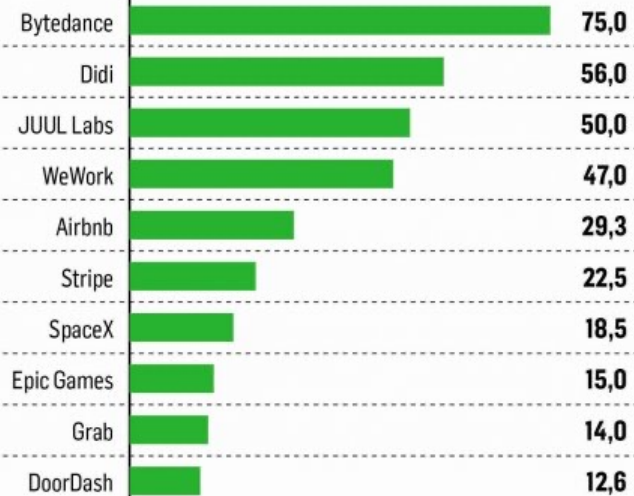
- HatsuneMiku
- The future is not what it used to be ..... The land, machines, communications, data





## Startups world ranking

### Value in billions of US dollars



Fuente: CB Insights

APPLE  
**SPACESHIP**

Cupertino, California

Norman Foster

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# THE ADVANTAGES OF DIGITAL FINANCE NEOBANKS -1

Better knowledge and management of your finances, the key to the new era



Always Available

Now you can Fully manage your bank account on-the-go using the app or desktop site



Financial Control

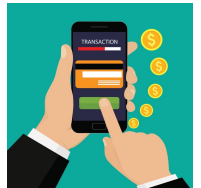
Control your money with unique budgeting tools and real-time actions notifications



Safe & Secure

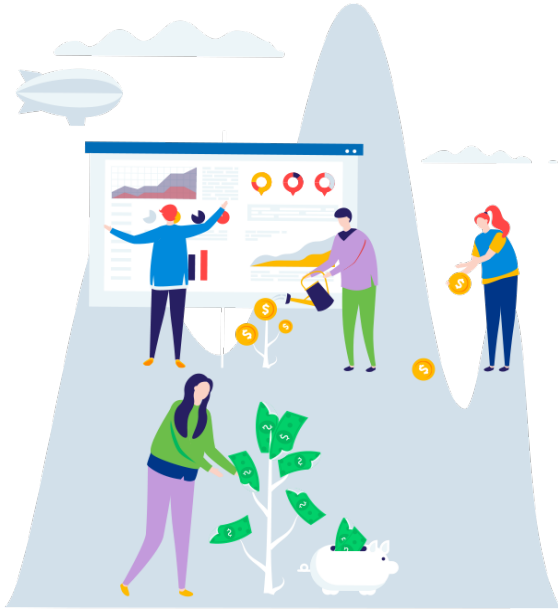
These services uses the highest level of security standards, regulations and funds protection, so your money will be safe

Covid times reinforced the use of distance media transactions

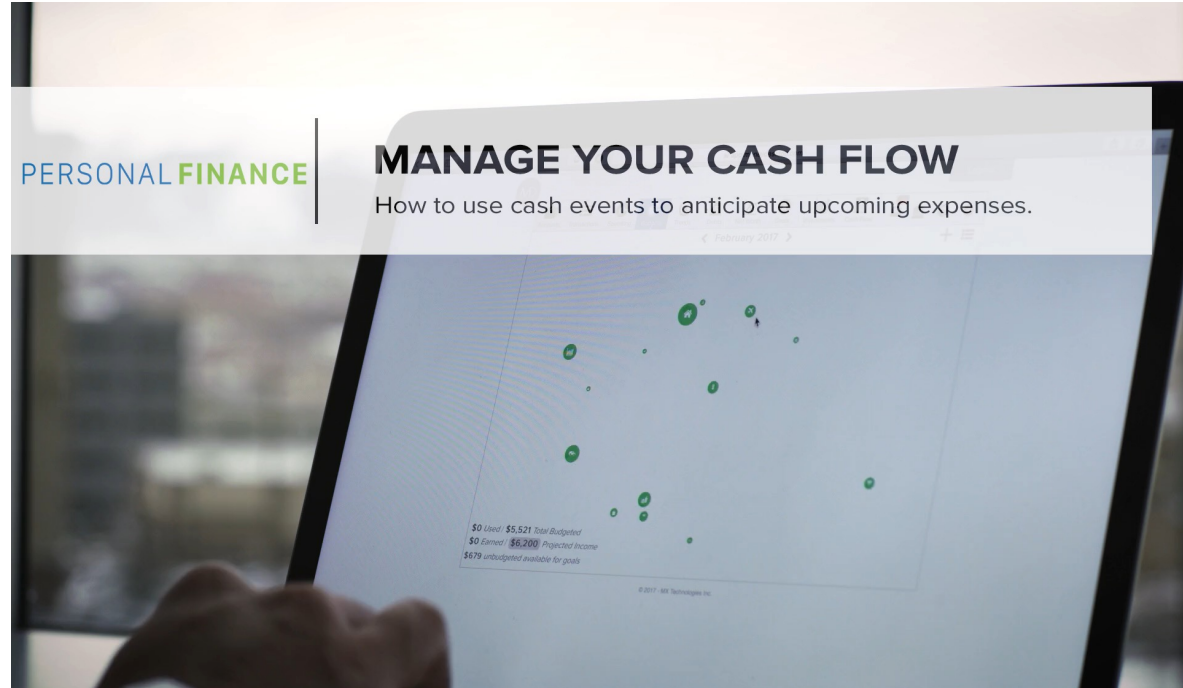


# EDUCATING THE CUSTOMERS

The first step in the innovation process (or just the way around?)



Compare this with an old credit card



# HOW IS MY ENTITY DOING?

OPEN / DIGITAL BANKING STATUS



TECHNOLOGY in A I



CUSTOMERS BEHAVIOURAL ANALYSIS



RESPONSE TIME TO AN APPLICATION



COMPETITIVE ENVIRONMENT



# CREDIT WORKFLOW

Full credit life cycle workflow for managing to grant loan operations including their documents.

Full range of validation/approval including risk committees.

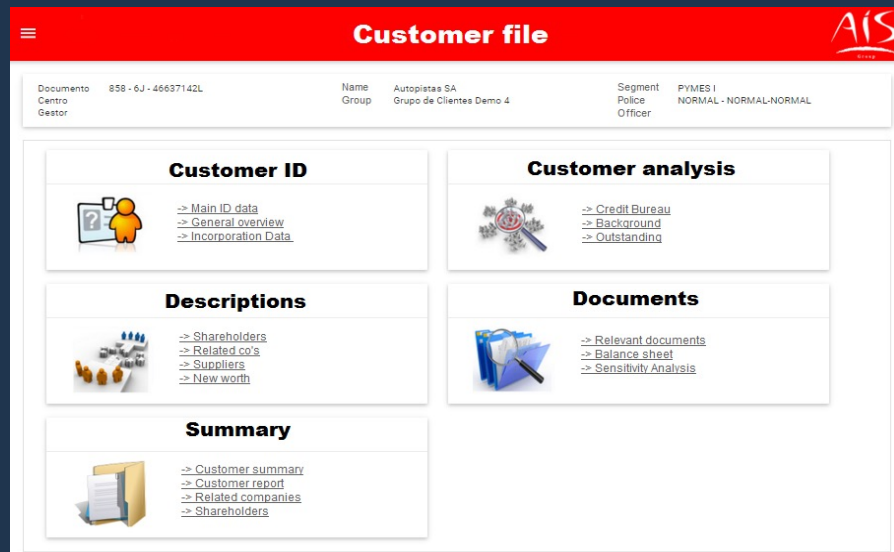
Risk policies, documentation, regulation and product requirements including pricing.

Retail and Enterprise for risk control extended to guarantors, guaranties and economic groups

Assignment of powers by product, amount and other characteristics for easier making decisions.

# SCACS

Complete credit life cycle platform



**Customer file**

Documento	858 - 6J - 46637142L	Name	Autopistas SA	Segment	PYMES I
Centro Gestor		Group	Grupo de Clientes Demo 4	Police Officer	NORMAL - NORMAL-NORMAL

**Customer ID**

- > Main ID data
- > General overview
- > Incorporation Data

**Customer analysis**

- > Credit Bureau
- > Background
- > Outstanding

**Descriptions**

- > Shareholders
- > Related co's
- > Suppliers
- > New worth

**Documents**

- > Relevant documents
- > Balance sheet
- > Sensitivity Analysis

**Summary**

- > Customer summary
- > Customer report
- > Related companies
- > Shareholders

# AGENDA

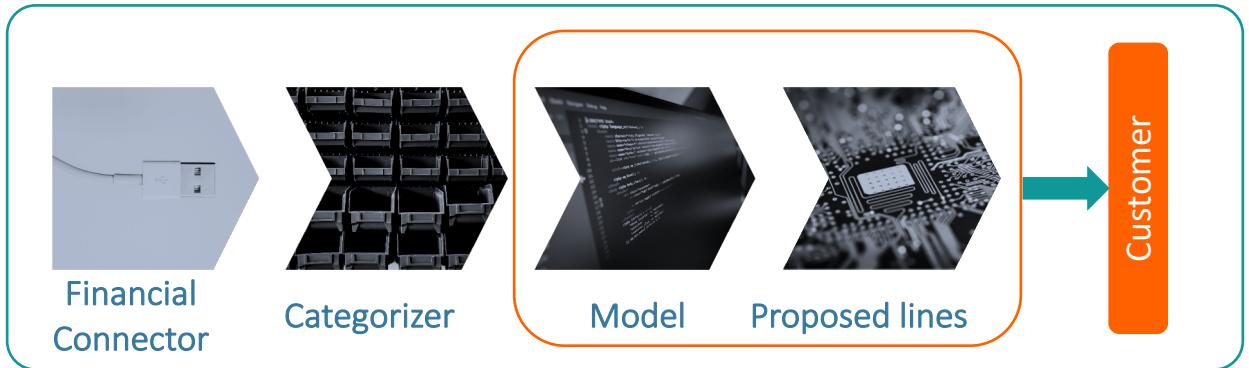
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# AIS KNOWU

## Data Integration

AisKnowU is a software solution that allows financial data integration. There are several alternatives for the integration of data in AIS KnowU, from a total inclusion via webservice, to the acquisition of models and their exploitation in an internal environment:

Webservice





# AIS KnowU

Making new customers

# RESULT OF ACCOUNTS INTEGRATION FOR AN INDIVIDUAL

## Resultados obtenidos Scoring

10/10

Nota	
Scoring	10
Comentarios	
€mes	
Importe alquiler máximo	

## Resumen de productos en la entidad

Número de productos	Balance	Disponible
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	Número de productos	Balance	Disponible
Cuentas	1	95.041,49	
Tarjetas	1	-414,56	2.585,44
Préstamos	1	325.000,00	
Ahorro	0	0,00	
Inversión	1	2,98	

## Información sobre cuentas

### Información Estadística

	Último mes	Últimos 2 meses	Últimos 3 meses
Saldo	95.041,49	94.409,10	95.544,42
Saldo medio	93.775,59	94.517,22	93.824,74
Saldo mínimo (a nivel de cuenta)	92.052,88	92.052,88	90.853,01
Saldo máximo (a nivel de cuenta)	95.041,49	95.822,65	96.408,50
Ingresos mensuales medios	3.177,60	2.567,48	3.957,04
Ingresos totales	3.177,60	5.134,95	11.871,11
Gastos mensuales medios	2.545,21	2.818,94	2.819,15
Gastos totales	2.545,21	5.637,88	8.457,46
Balance de caja	632,39	-502,93	3.413,65

[https://rules.ais-int.net/AISKnowU\\_DemoAlquileres/Login.aspx](https://rules.ais-int.net/AISKnowU_DemoAlquileres/Login.aspx)

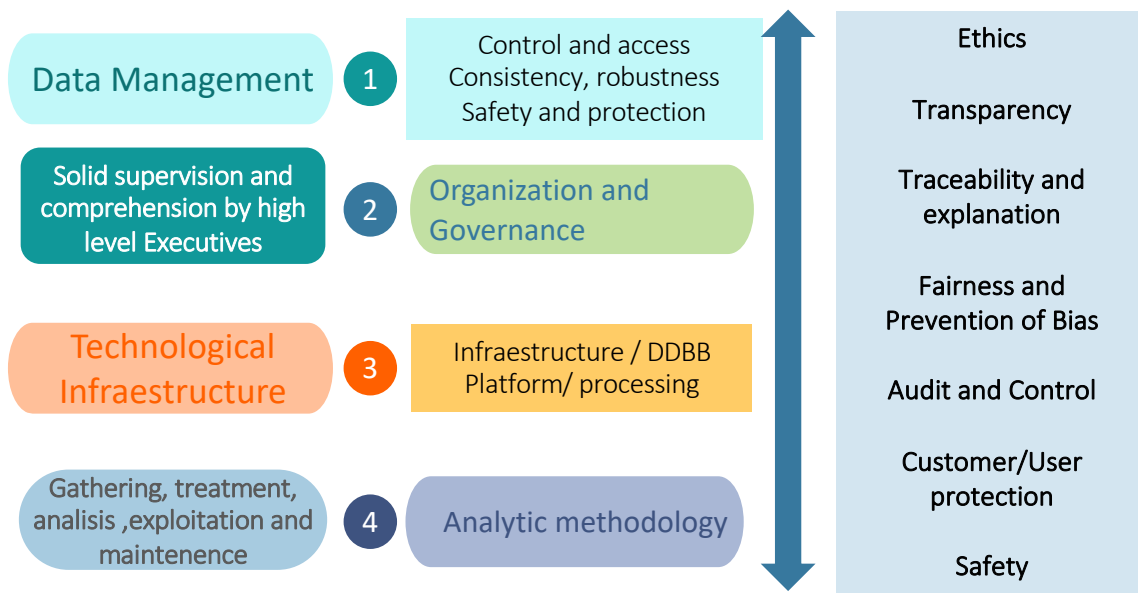
# SUPERVISOR'S POSITION

## European Bank's position

The supervisor is positioning himself in the use of Big Data, ML and Advanced Analytics

The Spanish supervisor, Bank of Spain, took a similar position, encouraging the análisis and use of "new" techniques

- The EBA identifies 4 basic pillars for the development, implementation and adoption of Big Data, ML and Advanced Analytics
- Additionally, it defines a series of fundamental elements of trust that must be adequately and sufficiently addressed and across the 4 pillars



Source: "EBA Report on Big Data and Advanced Analytics", January 2020.

# WHAT IS CHANGING IN THE FINANCIAL SECTORS



## On the Rise of the FinTechs—Credit Scoring using Digital Footprints

...the AUC of the model using digital footprint variables is 69.6%, higher than the AUC of the model using only the credit bureau score (68.3%). ....

FDIC CFR WP 2018-04 [fdic.gov/cfr](http://fdic.gov/cfr)



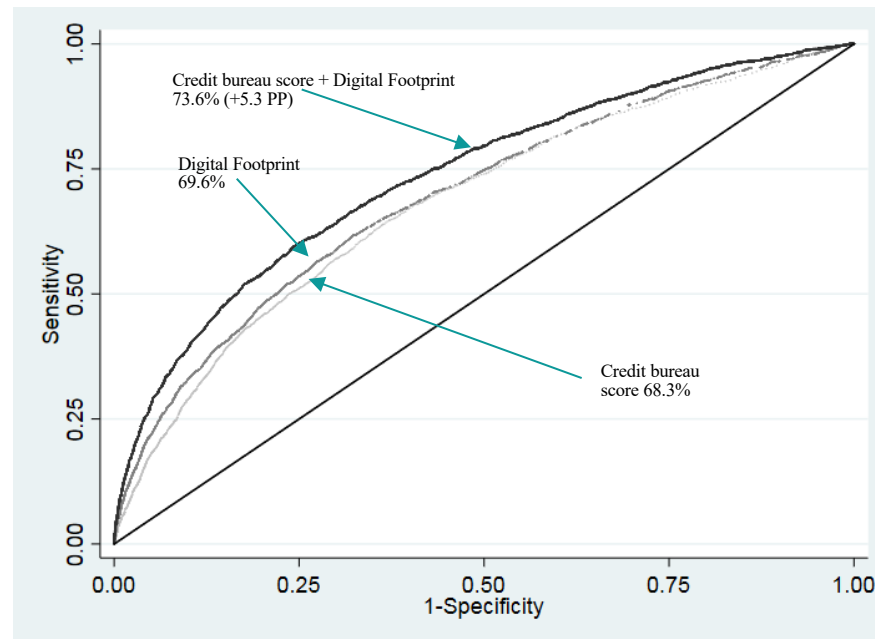
BANK OF ENGLAND

...application of ML techniques to the estimation of mortgage default probabilities - have improved the availability of mortgage credit [3].

Staff Working Paper No. 816

Machine learning explainability in finance: an application to default risk analysis

Philippe Bracke, Anupam Datta, Carsten Jung and Shayak Sen - August 2019



# CREDIT COLLECTION AND RECOVERY

Definition of the procedures for optimal actions by customer segment (Next Best Action).

Managing strategies like Champion-Challenger.

Simulation of collection and recovery strategies portfolio impact.

Integration with previous scoring or rating and client data information.

Agenda for optimal collection and recovery procedures (internal or outsourced)

# RECOVERY STRATEGY

From early unpaid up to legal procedures

Detalle de Cliente

Apellido y Nombre: APELLIDO DE TEST 4260704118540230 NOMBRE DE TEST 4260704118540230 Usuario: 144 - Call Center Externo Area Total: 90,42 Telefono: [Redacted]

Documento: DOC 4260704118540230 Perfil: MUYPC Nota: [Redacted]

Nombre Cliente: 4260704118540230 Nivel de Riesgo: Ciclo 1 Tipo Cliente: V - Cliente Vigente

Concepto Cliente: 1 - Cliente con pasivo superior al activo

COMPROMISO PAGAR A JUZGAL CONVENIO FICHA DOCUMENTACIÓN

PRIS [Redacted]

Fecha	Hora	Recomendado por	Recomendación	Figura
30/01/2019	19:50:00	PABLO	TRP - Llamada por incumplimiento de promesa	T01 - Titular Principal

Datos Generales Relaciones Contactos Pagos Garantías Scoring Datos Historicos

Col. Obligación	Producto	Días Mora	Ingreso Judicial	Moneda	Región	Oficina	Fecha Inicio	Fecha Venc.	Fecha Mora	Datos Historicos
AM03011830	B119 - Prestamos Hipote...	10		Unidad Indexada	09 - AG. RONDEAU	09 - AG. RONDEAU	10/10/2006	10/10/2016	10/11/2015	Saldo de Entrada: 13111,2015 Fecha de Mora: 10/11/2015 Días de Mora: 10 Saldo Interés: 29.725,50 Saldo Capital: 29.457,90 Atraso Total: 2.388,07 Atraso Total (Con): 25.833,84 Atraso Capital: 2.388,17 Atraso Int. Normal: 284,89 Atraso Int. Punitivo: 17,00 Atraso Glos. Cobranza: 0,00 Atraso Seguro: 15,51 Atraso Impuesto: 0,00 Atraso Otros Conceptos: 0,00 Pago Mínimo: 0,00
V0000001649XP	B010 - Tarjeta Visa	0		Pesos Uruguayos	09 - AG. RONDEAU	09 - AG. RONDEAU	29/07/2004			

Gestiones

Fecha	Hora	TAR	Nota	Figura	Usuario	Obligación
30/02/2019	16:44:24	RSCP - Convenio Pago		T01 - Titular Principal	Estadega	
01/12/2018	06:03:30	TACT - Compromiso de Pago Total		T01 - Titular Principal	BOLASAS	
17/11/2015	01:00:00	EREC - Mail Reclamo		T01 - Titular Principal	Estadega	
17/11/2015	01:00:00	ACCE - Asignar Call Center Externo		NP - No Procede	Estadega	

# AiS

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## GROUP

Intelligent Decisions

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We are concerned about UN-GOALS

SUSTAINABLE  
DEVELOPMENT **GOALS**

