The magic of DATA collection and processing for CGS

EMGN

EURO-MEDITERRANEAN GUARANTEE NETWORK

AGENDA

1 INTRODUCTION

2 SYSTEMATIZATION AND HARMONIZATION OF INFORMATION FOR PROPER DATA MANAGEMENT

3 TABLE CONVERSATION AND WORKSHOP

AIS GROUP

1987
AIS Group creation

> 250
Clients

50+
Countries

10%
Innovation investment

Applied Intelligence on digital finance for:

Banks

Financial Institutions

Fintech

Cars and fleets

Real state

Insurances

Retail

Industry Smart Cities

Countries where we work

AIS Group branches

www.ais-int.com

CREDIT GUARANTEE SCHEMES EXPERTISE

SPAIN: Client since 2002, we help to the Confederation of 18 CGS on Internal Rate Base modeling foe evaluation of their guarantees, first as a core project for then adapting to the ones that need specifics.

MOROCCO: Client since 2012, we develop their IRB models for risk evaluation (individuals, SMES and startups) and then develop a portfolio decision making platform for piloting their simulations based on stress testing and pricing.

IVORY COAST: Client since 2019, we develop their pricing guarantee mechanism for Project Finance assessment on African's countries including their specifics risks.

CAP VERT: Client started on 2022, we develop their digitization platform for improving theirs procedure, reinforce his mechanism and obtain more productivity working with their partners, the financial institutions.
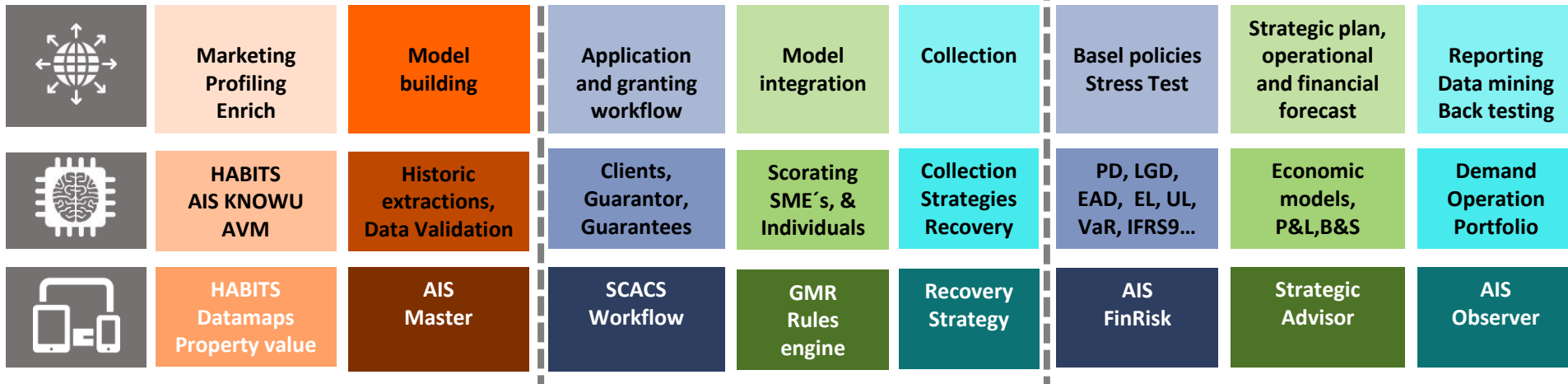
AIS GROUP

Bricks for digitalisation

Risk Management

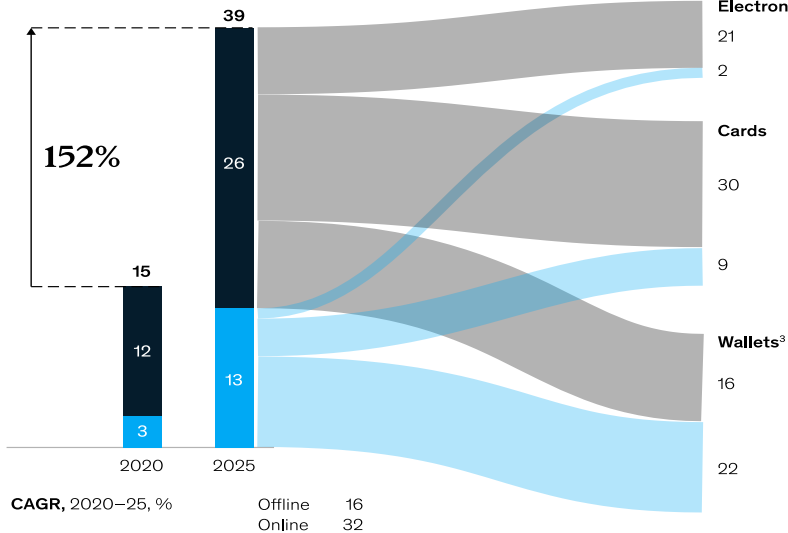|	DATA – Analytics		Operations layer			Portfolio layer		
	Marketing Profiling Enrich	Model building	Application and granting workflow	Model integration	Collection	Basel policies Stress Test	Strategic plan, operational and financial forecast	Reporting Data mining Back testing
	HABITS AIS KNOWU AVM	Historic extractions, Data Validation	Clients, Guarantor, Guarantees	Scorating SME´s, & Individuals	Collection Strategies Recovery	PD, LGD, EAD, EL, UL, VaR, IFRS9...	Economic models, P&L,B&S	Demand Operation Portfolio
	HABITS Datamaps Property value	AIS Master	SCACS Workflow	GMR Rules engine	Recovery Strategy	AIS FinRisk	Strategic Advisor	AIS Observer

DIGITALISATION GROWTH

Africa's electronic-payments market is expected to grow by 152 percent from 2020 to 2025.

Revenue from electronic payments for Africa,[1] 2020–25,[2] billion

■ Offline ■ Online

152%

39

26

15

12

3

13

2020   2025

CAGR, 2020–25, %

Offline   16
Online   32

Type of payment, 2025, %

Electronic transfers
21
2

Cards
30
9

Wallets[3]
16
22

[1]Includes mobile, cards, credit transfers, and direct debits.
[2]At fixed US dollar exchange rates for the entire time series.
[3]Online wallet transactions include all non-CICO (cash-in, cash-out) transactions.
Source: Central bank data; McKinsey Global Payments Map
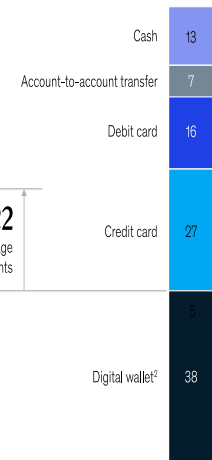
McKinsey & Company

Middle East experts say digital wallets will be the most preferred mode of payments; expectations in Asia are more diverse.

Most preferred payment mode in next 5 years,[1] % of survey respondents

Middle East (n = 30)

Cash   3
Account-to-account transfer   10
Debit card   10
Credit card   17
Digital wallet[2]   60

Asia–Pacific (n = 56)

Cash   13
Account-to-account transfer   7
Debit card   16
Credit card   27
Digital wallet[2]   5
Digital wallet[2]   38
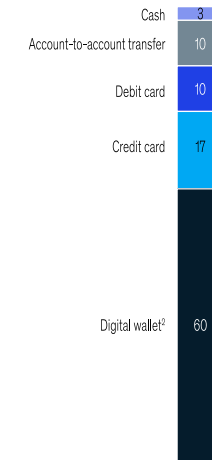
+22 percentage points

Note: Figures may not sum to 100%, because of rounding.
[1]Question: In the next 5 years in your market, what would be the preferred modes of payment for consumers? Rank from most preferred mode to least preferred.
[2]Including mobile money and pass-through wallets (Apple Pay, Samsung Pay, etc).
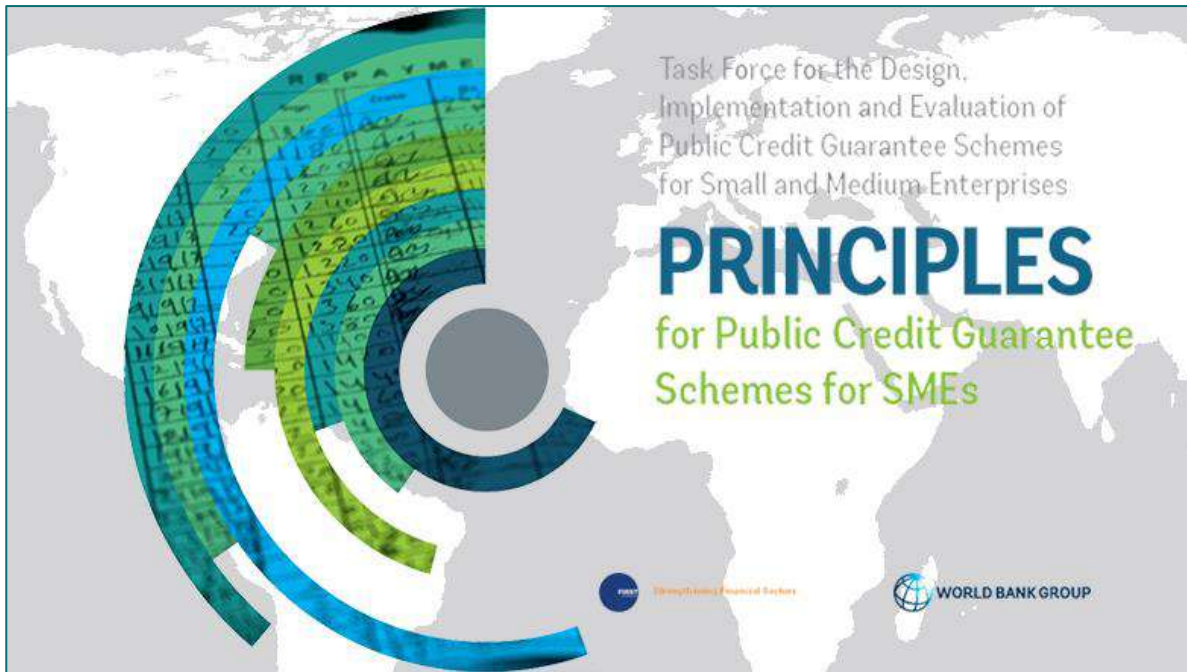Source: McKinsey MEA payments survey and APAC industry survey

McKinsey & Company

AGENDA

1 INTRODUCTION

2 SYSTEMATIZATION AND HARMONIZATION OF INFORMATION FOR PROPER DATA MANAGEMENT

3 TABLE CONVERSATION AND WORKSHOP

[Principles for Public Credit Guarantee Schemes (CGSs) for SMEs (worldbank.org)](worldbank.org)

16 PRINCIPLES OF WORLD BANK'S TASK FORCE

Legal and regulatory framework

1. Establish the CGS as an independent legal entity.

2. Provide adequate funding and keep sources transparent.

3. Promote mixed ownership and treat minority shareholders fairly.

4. Supervise the CGS independently and effectively.

Corporate governance and risk management

5. Clearly define the CGS mandate.

6. Set a sound corporate governance structure with an independent board of directors.

7. Design a sound internal control framework to safeguard the operational integrity.

8. Adopt an effective and comprehensive enterprise risk management framework.

Operational framework

9. Clearly define eligibility and qualification criteria for SMEs, lenders, and credit instruments.

10. Ensure the guarantee delivery approach balances outreach, additionality, and financial sustainability.

11. Issue partial guarantees that comply with prudential regulation and provide capital relief to lenders.

12. Set a transparent and consistent risk-based pricing policy.

13. Design an efficient, clearly documented, and transparent claim management process.

Monitoring and evaluation

14. Set rigorous financial reporting requirements and externally audit financial statements

15. Publicly disclose non-financial information periodically.

16. Systematically evaluate the CGS' performance and publicly disclose the findings.

KNOW YOUR CLIENT
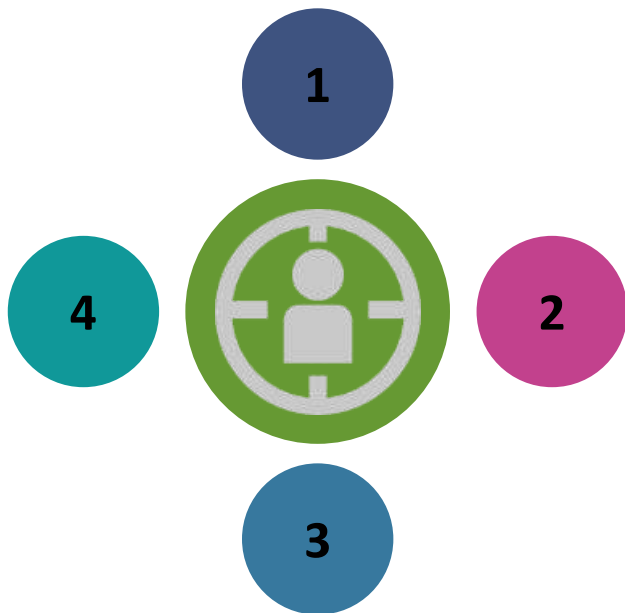
O — KYC:
Take advantage of all possible information you can get from the counterpart and the project.

1 — Integrate (Data mart)
Extra existing data (CGS historic, sector, export, …)

2 — Segmentation
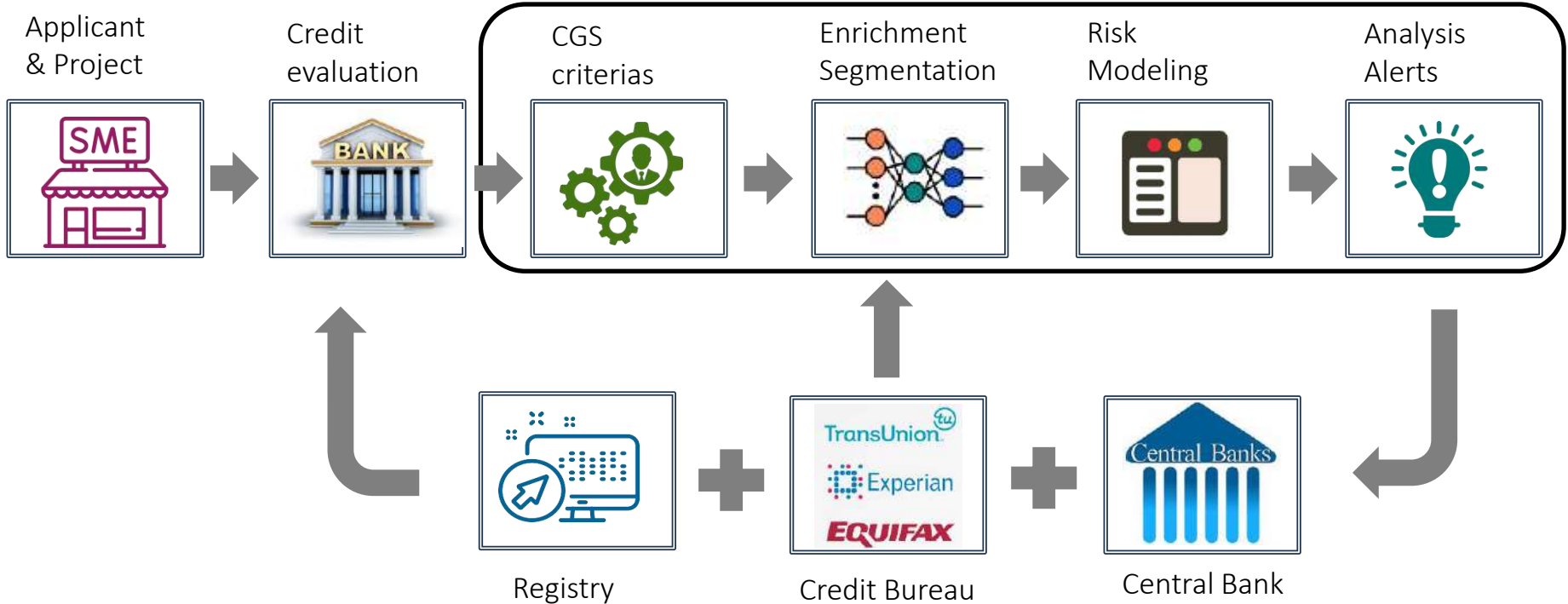 Classify correctly for right analysis and evaluation.

3 — Enrich
Available external data (CRB, Central Bank…).

4 — Update
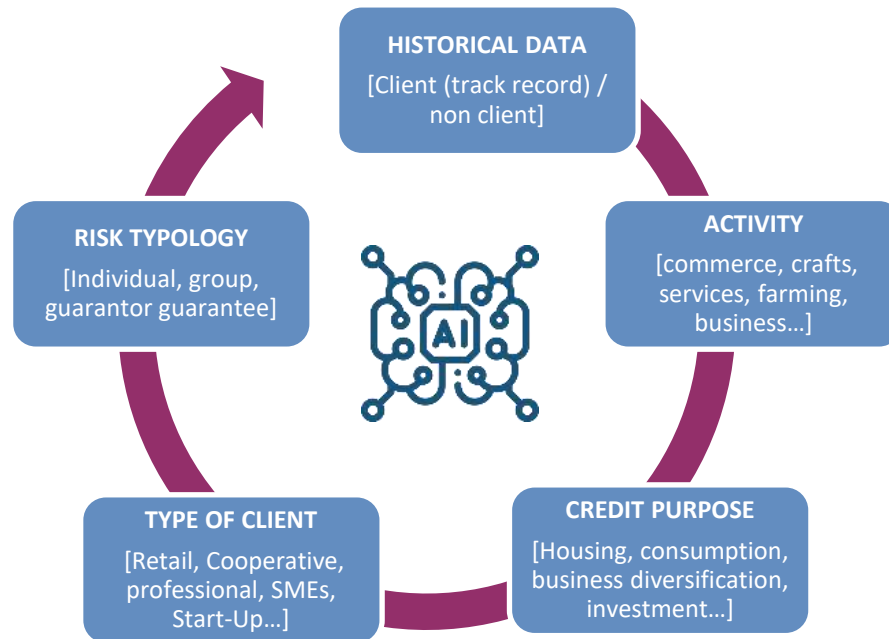Refresh data about payments and new loans.

DATA SOURCES

NEW DATA AND ANALYSIS

STOCK → FLOW

Exploring existing and historical data, we list the different nature of available information that we could potentially integrate for evaluation and follow-up, if it shows enough risk discrimination.
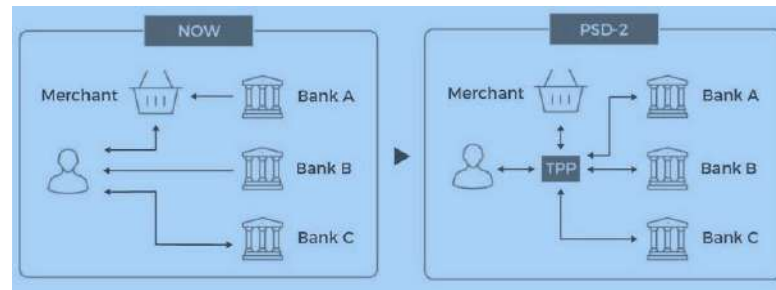
These data could be internal (from the entity or a Group of them) or external (credit bureau, registry, central bank, census…).

Then we develop the suitable applicant procedure and questionnaire for best risk appreciation and better evaluation purpose.

HISTORICAL DATA
[Client (track record) / non client]

ACTIVITY
[commerce, crafts, services, farming, business…]

CREDIT PURPOSE
[Housing, consumption, business diversification, investment…]

TYPE OF CLIENT
[Retail, Cooperative, professional, SMEs, Start-Up…]

RISK TYPOLOGY
[Individual, group, guarantor guarantee]

NEW BUSINESS MODELS

Scrapping data accounts under PSD2

1. Our experience shows that STARTUPS are open banking friendly.
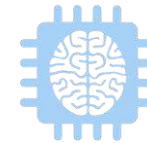2. We experimented better results: fast and cheaper approach.
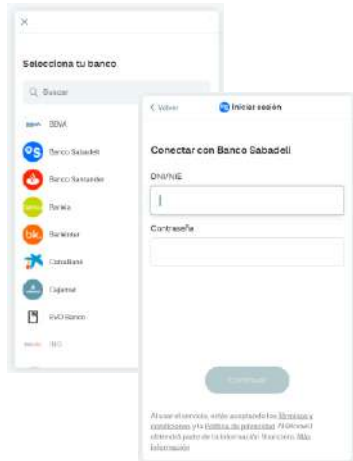
AIS KnowU

Scrapping accounts **53%**

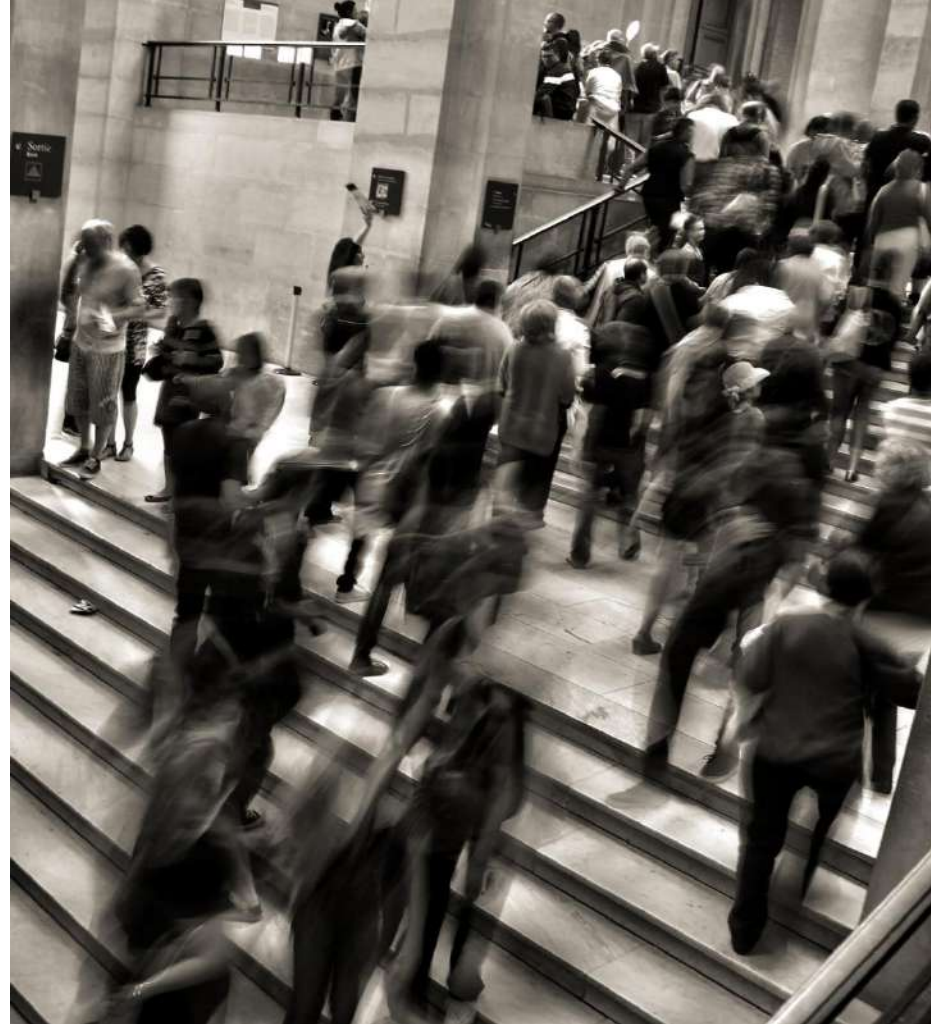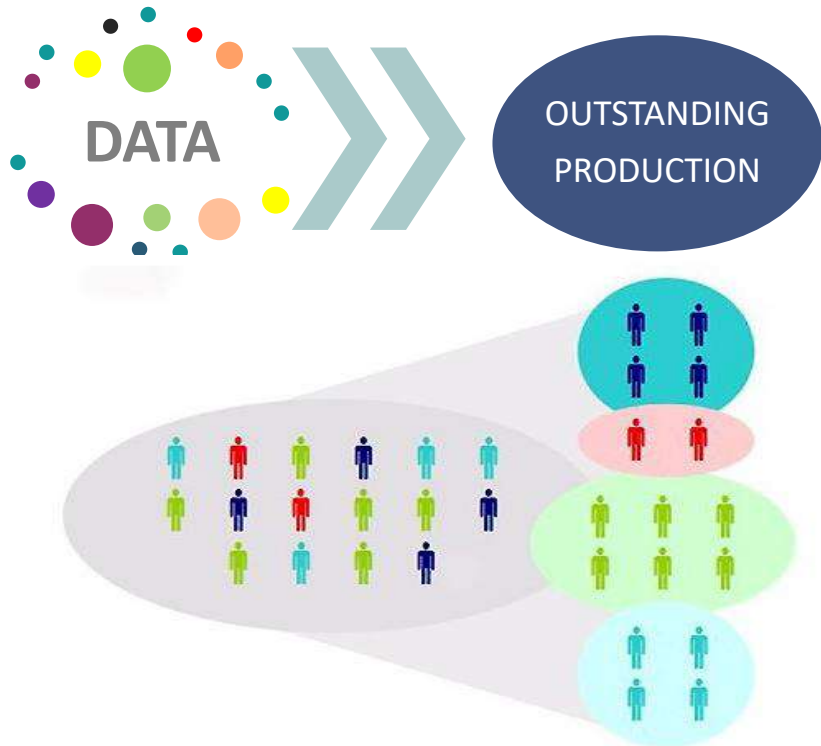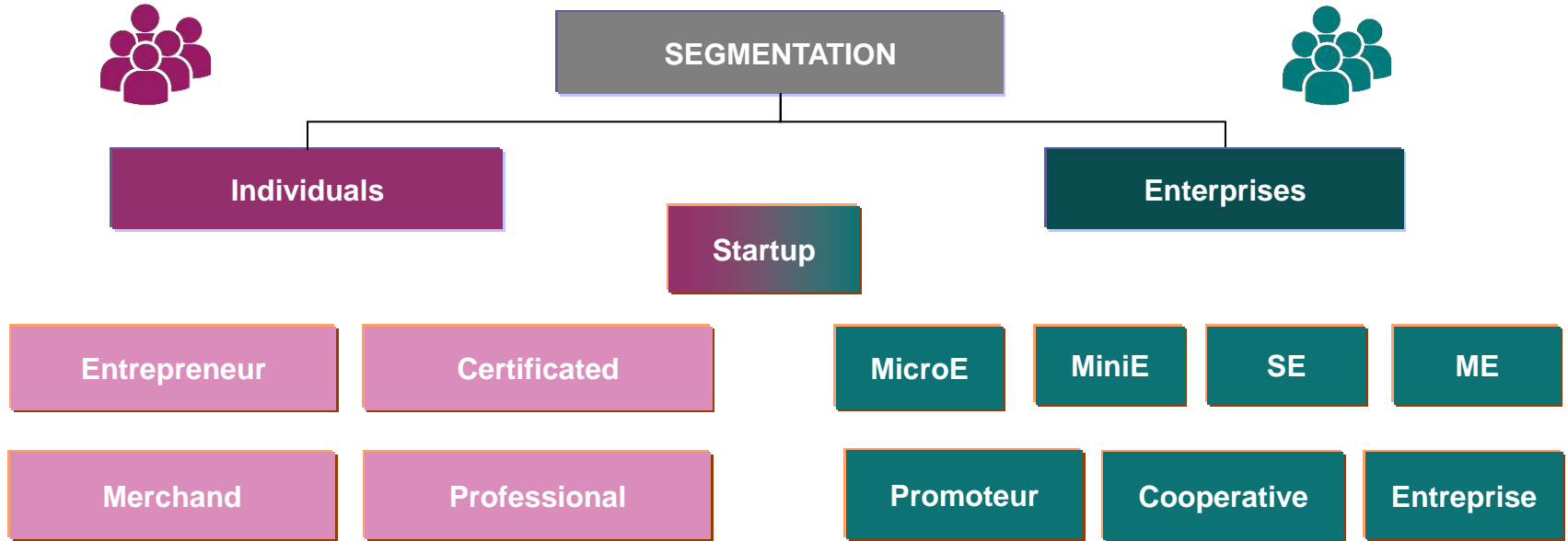45% approval

55% deny

Applicant choice

Conversion results
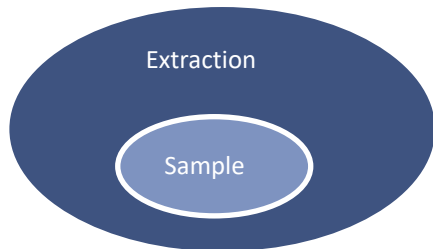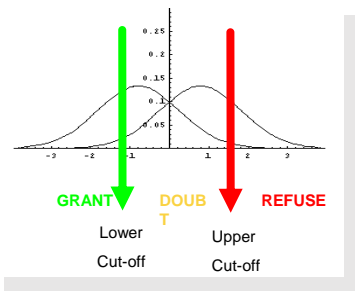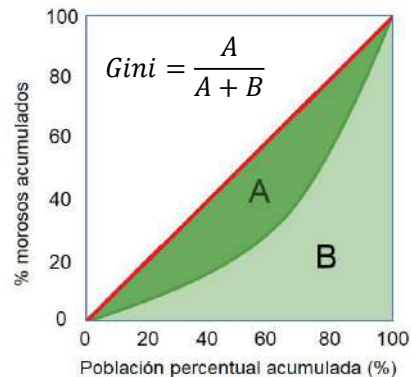
47% Manual data entry

20% approval

80% deny

HOMOGEOUS RISK GROUPS

ALL IS ABOUT SEGMENTATION

MODELING

Extraction

Sample

Two steps clearly different:

1. Modeling

Data for training → **Algorithm** → **Model**

2. Production

New applicant → **Model** → **Predictions**

$$Gini = \frac{A}{A + B}$$

% morosos acumulados (vertical axis: 0, 20, 40, 60, 80, 100)

Población percentual acumulada (%)

A

B

GRANT   DOUBT   REFUSE

Lower Cut-off   Upper Cut-off
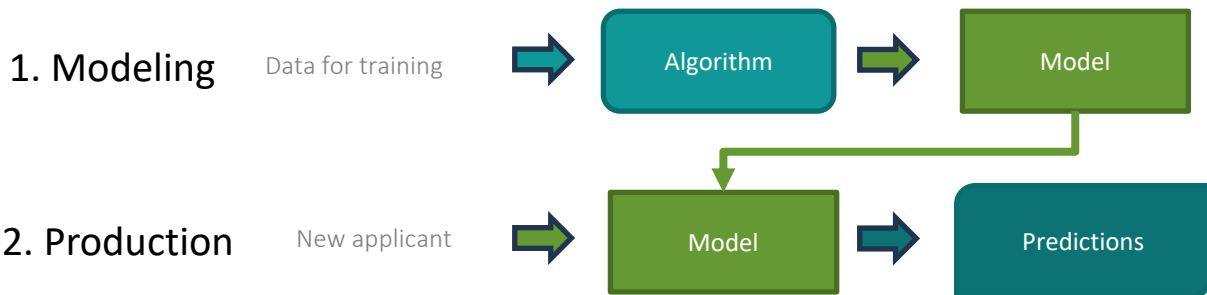
SELECTION AND WEIGHT OF THE DATA (INPUTS)

$$a_0 + b_1*x_1 + b_2*x_2 + ... + b_n*x_n = P_j$$

INPUTS
$x_1, x_2, ..., x$

OUTPUTS
P Answer

Qualitative

Quantitative P&L, B&S

Internal operations

External operations

15%   Weight

40%   Weight

30%   Weight

15%   Weight
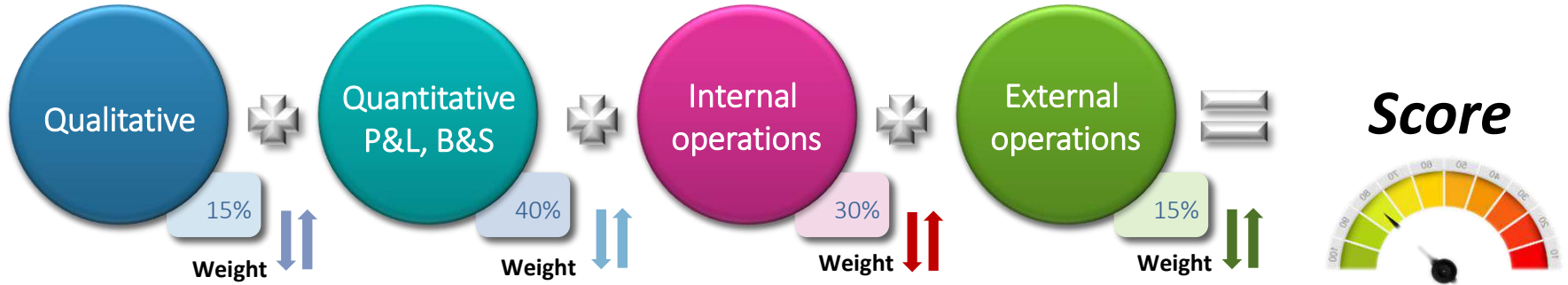
Score

Probability Default = *f (Score)*

OPERATIONAL DATA ORCHESTRATION AND DATAMART

© AIS Artificial Intelligence Systems

www.ais-int.com
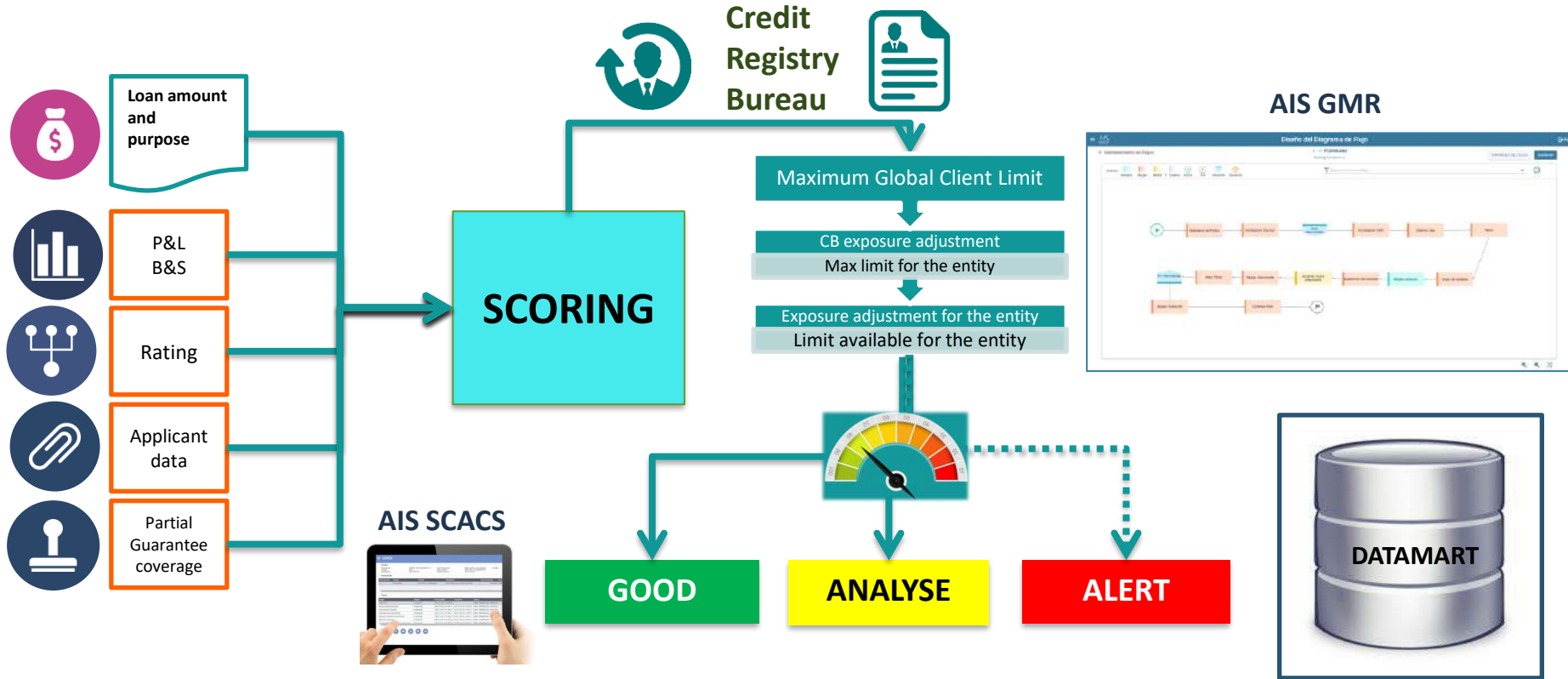
GUARANTEE OF ADDITIONALITY

The mission of the CSG is to grant guarantees for loans that the financial institutions blocks, due to a lack or insufficiencies of the applicant, and so improving the access conditions for SMEs. On the other hand, we don't have to support insolvent clients and unviable projects to maximize the impact and better use of limited resources.

INTERNAL RATE BASE SCORING

Rating	Rate
AAA	0,0015%
AA+	0,0065%
AA	0,0125%
AA-	0,0200%
A+	0,0300%
A	0,0525%
A-	0,1000%
BBB+	0,1650%
BBB	0,2500%
BBB-	0,4000%
BB+	0,6250%
BB+	0,8750%
BB	1,0625%
BB	1,3125%
BB	1,5000%
BB-	1,7500%
BB-	1,9375%
BB-	2,2500%
BB-	2,5000%
BB-	2,7375%
B+	2,9250%
B+	3,2500%
B+	3,7500%
B+	4,2500%
B	5,1667%
B	7,0000%
B-	10,0000%
CCC, SD	18,5000%
D	62,5000%

No efficiency and moral risk

MAXIMUM Efficiency

Not to go

Financial additionality → Economic additionality

FINANCE WITH CGS's GUARANTEE

BANK FINANCIING

EQUITY

ADDITIONAL FACTORS OF PRODUCTION

FACTORS OF PRODUCTION

IMPACTS:
Employment
Income
Capital assets
Exports
Innovation
Financial cost

Fuente: **CONCEPTUAL FRAMEWORK PUBLIC CREDIT GUARANTEE SCHEMES (ALIDE)**

AGENDA

1 INTRODUCTION

2 SYSTEMATIZATION AND HARMONIZATION OF INFORMATION FOR PROPER DATA MANAGEMENT

3 TABLE CONVERSATION AND WORKSHOP

Workshop

CLIENT/BENEFICIARIES SEGMENTS

1) Describe the clients or beneficiaries that you address with your institution.

    -> Fill the boxes

PRODUCT AND CREDIT PURPOSE

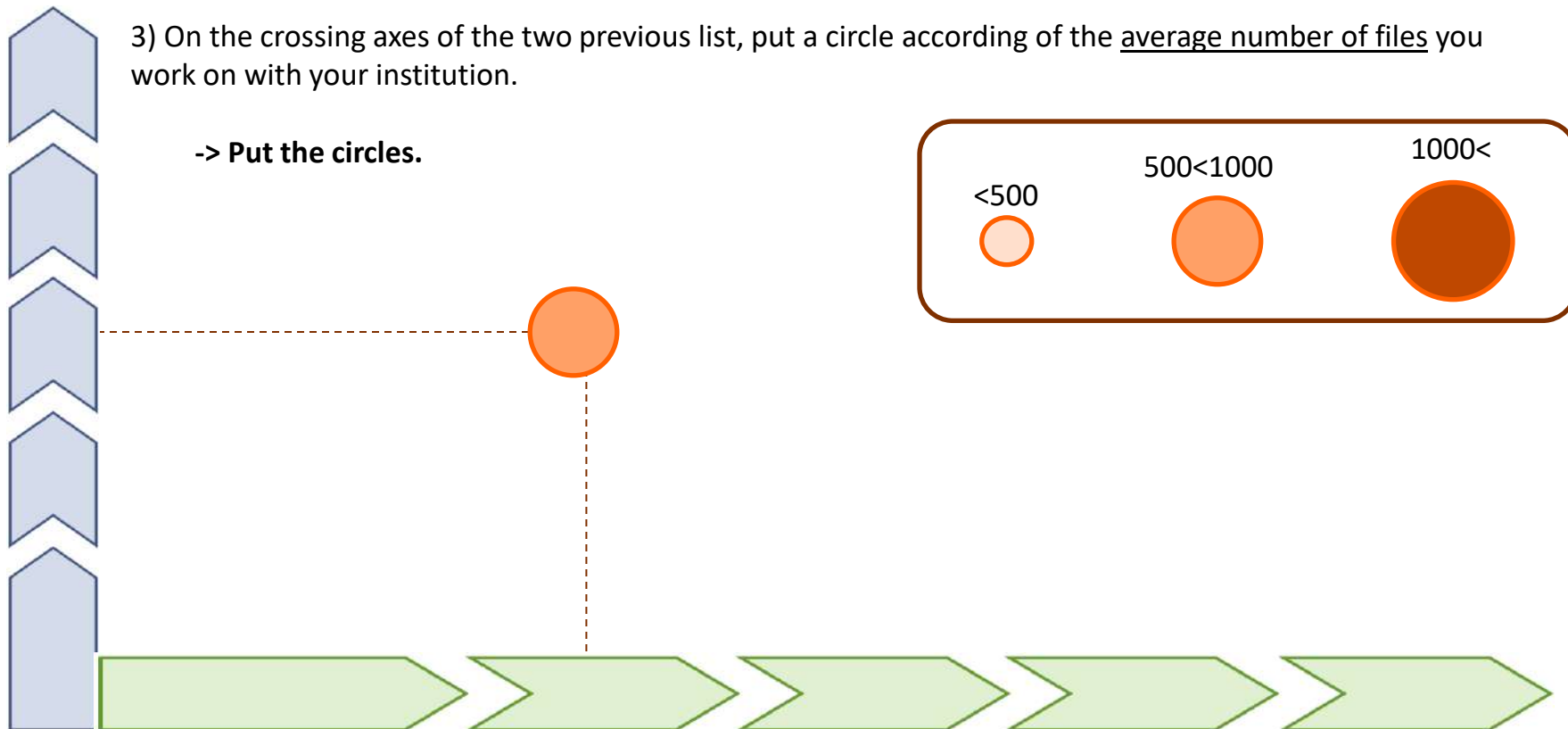2) Describe the product or credit purpose that are eligible with your institution.

-> Fill the boxes

RISK CARTOGRAPHY

3) On the crossing axes of the two previous list, put a circle according of the <u>average number of files</u> you work on with your institution.

-> Put the circles.

1000<

500<1000

<500

Applied Intelligence
daniel.torrents@ais-int.com