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learningDAY 2021

Customer centricity during challenging times

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The challenges facing the collections industry – can you recognize any of these topics?

Data quality and accuracy at an early collection stage

Identifying the right strategy and channels

Lack of Automation

Pressure from new regulations

Difficult in accessing and using the most valuable information

Cost reducing measures and new revenue streams

Lack of Technology

Lack of Collections Strategy

Justisminister Monica Mæland (H) var i vår klar på at inkassosalærer og purregebyr raskt måtte nedjusteres som følge av svekket betalingsevne i kjølvannet av koronapandemien. Illustrasjonsfoto/iStock: Totojang

Nå er inkassosalærer og purregebyr halvert

JU§NYTT. Endringene trådt i kraft 1. oktober 2020.

Nytt inkassolovforslag kan kutte gebyrene med to milliarder kroner

Et utvalg vil nekte inkassoselskapene å kreve store gebyrer ved ubetalte bompenger, telefon- eller legeregninger. Det kan spare forbrukerne for store summer.

Lindorff

KOMMENTAR

Tøffe, men nødvendige endringer i vente for inkassobransjen

Det blir tøft å tilpasse seg kutt i gebyrsatsene og andre forslag til endringer i inkassoloven. Men vi som bransje må forandre oss, skriver Lindorff-sjefen.

«Loft over samlede omkostninger»

2. Loft over samlede omkostninger

Aftalepartierne er enige om samtidig at indføre et loft over de samlede omkostninger for forbrugslån uden sikkerhed på 100 pct.

Med et omkostningsloft sættes der en entydig og effektiv grænse for, hvor meget en forbruger i alt kan komme til at betale for et forbrugslån uden sikkerhed over dets løbetid, også selv om forbrugeren ender i en situation, hvor der på et misligholdt lån pålægges gebyrer, strafrenter mv. Dette omkostningsloft vil gælde alle selskaber og personer, der driver erhvervsvirksomhed med at udbyde forbrugslån uden sikkerhed.

These changes create greater pressure on debt collection companies .....

More pressure on operating efficiency and automation

Accurate information and early identification

Effective collection strategies

A trusted partner

Ongoing addition of new data sources

Future-focused analytis and modeling tools

Industry expertise

Strengthening our RKI brand (DK)

Improving technology and software capabilities

Focus towards collections

📅 Agenda

10:15	**Welcome & Introduction** **Per Ivar Kristiansen** – Sales Director and Site Manager, Experian Norway
10:25	**What did we learn from the financial crisis and where are we today?** **Peter Linzenbold, Nordic Client Director, Experian Nordics**
10:50	**Covid-19 Impact on Nordics Credit Activity and Future Expectations from Experian's Point of View** **Buse Hanci, Analytics Consultant**
11:05	**Break**
11:20	**Optimizing your debt collection strategies through data and analytics** **Martin Haraldseth - Analyst, Experian Norway & Kjell Tofte – Senior Product Manager, Experian Norway**
12:15	**Closing & thank you** **Bo Rasmussen** - Chief Customer Officer and interim Nordic Market President, Experian Nordics

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Four core lessons for Financial Institutions from the last financial crisis

Significantly higher outstanding debt due to job losses and income shocks

- Existing customer will increase borrowing to bridge income gaps (Consumers & SMEs)
- Existing customers are likely to change profiles and become more sub prime

Asset quality deterioration as more customers become vulnerable

- Portfolio loss rates and capital adequacy requirements will need to be re-visited as the profile of the overall portfolio changes
- Need to identify the vulnerable customers and do stress testing to account of economic scenario changes

Lending to new customers will decrease as consumer profiles and banks risk appetite changes

- Exsisting application scorecards may not work
- Profile of customers seeking credit will shift to more sub prime populations
- Pressure to reduce costs will force people to go more digital and automate pocesses

Increased stress on collections processes and business operations in general

- More people are likely to go into hardship and increased stress on the collections process
- There will be an increased need to control costs and cutting.
- Hard to ramp up effectively and cope with immediate demand due to recruitment and training timescales.

The challenges faced within collections

- Poor data quality and lack of contact information

- Lack of customer insight and only limited focus on early warnings

- Manual processes which reduced collector efficiency

- Painful integration, hard to overcome legacy constraints

- High dependency on front office staff with limited collections knowledge

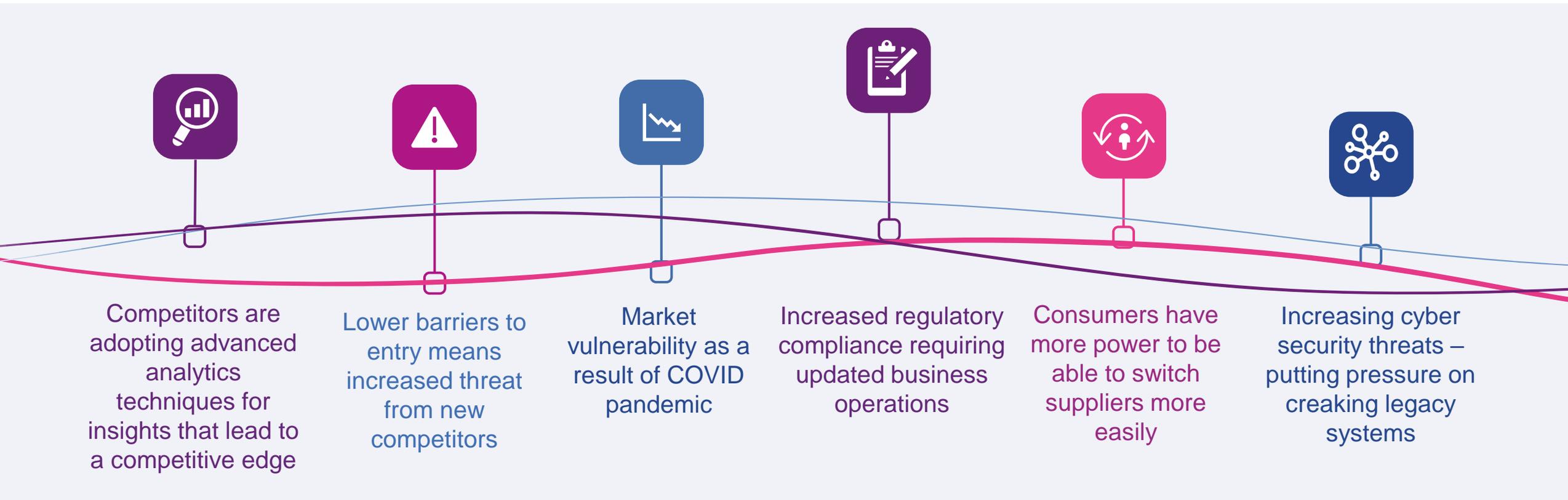- Organisational silos with limited co-ordinations and alignment

A changing market is forcing organisations to reshape the customer journey but this task is filled with obstacles

Competitors are adopting advanced analytics techniques for insights that lead to a competitive edge

Lower barriers to entry means increased threat from new competitors

Market vulnerability as a result of COVID pandemic

Increased regulatory compliance requiring updated business operations

Consumers have more power to be able to switch suppliers more easily

Increasing cyber security threats – putting pressure on creaking legacy systems
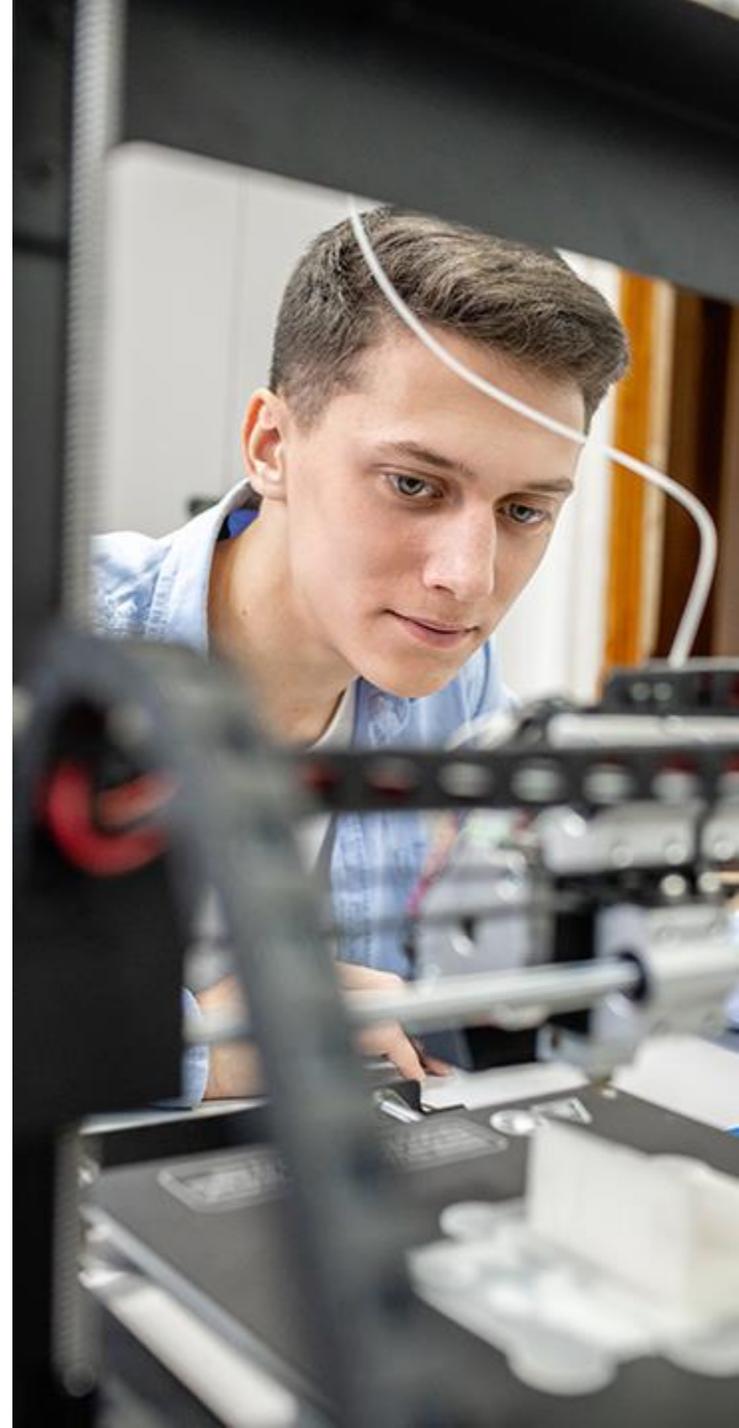
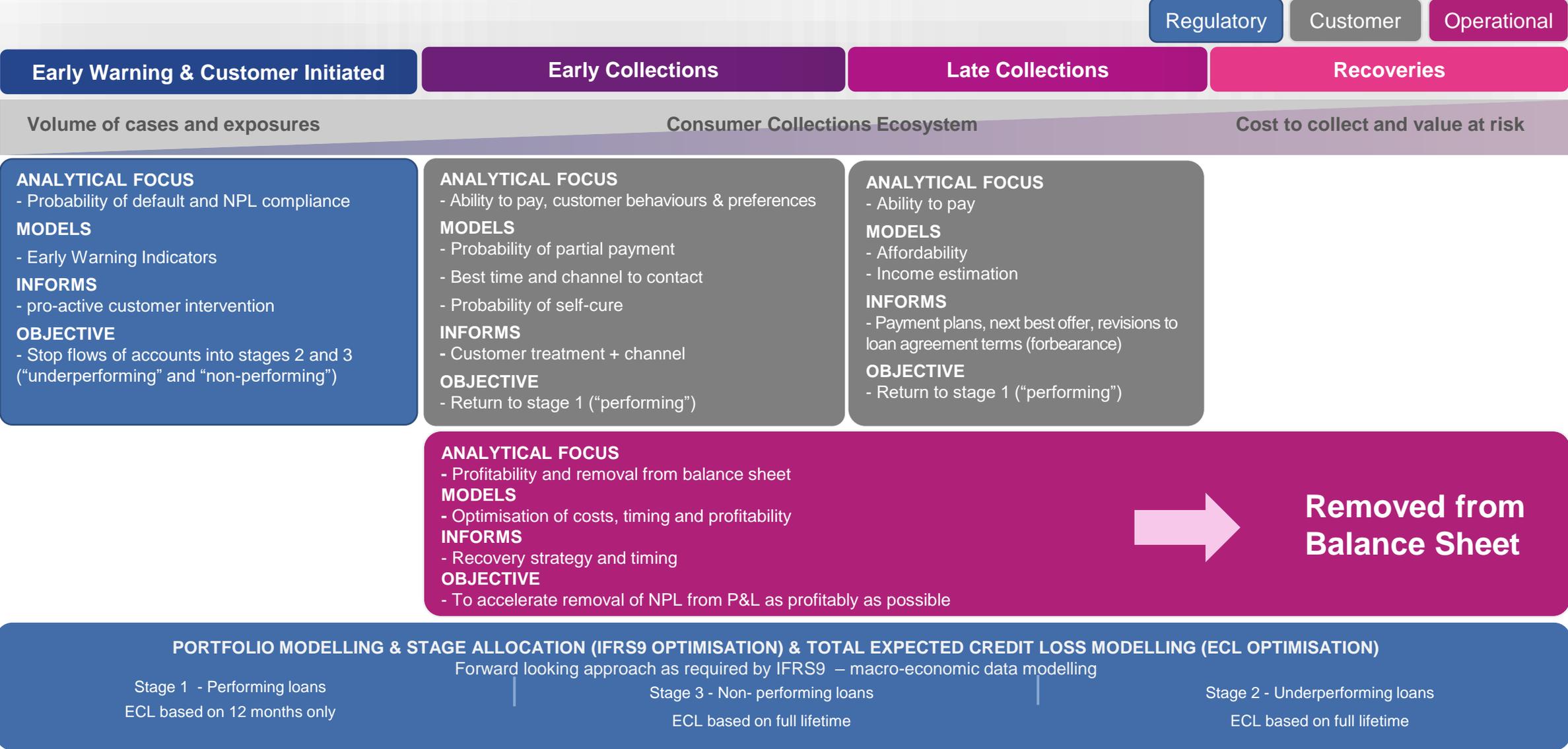# Customer behaviors and preferences has significantly changed

- Treat me as an individual

- Let me self service

- Allow me to interact the way that suits me

- Give me options that best suit my situation

- Treat me fairly and transparently

Collections departments are still facing similar challenges today as in 2008
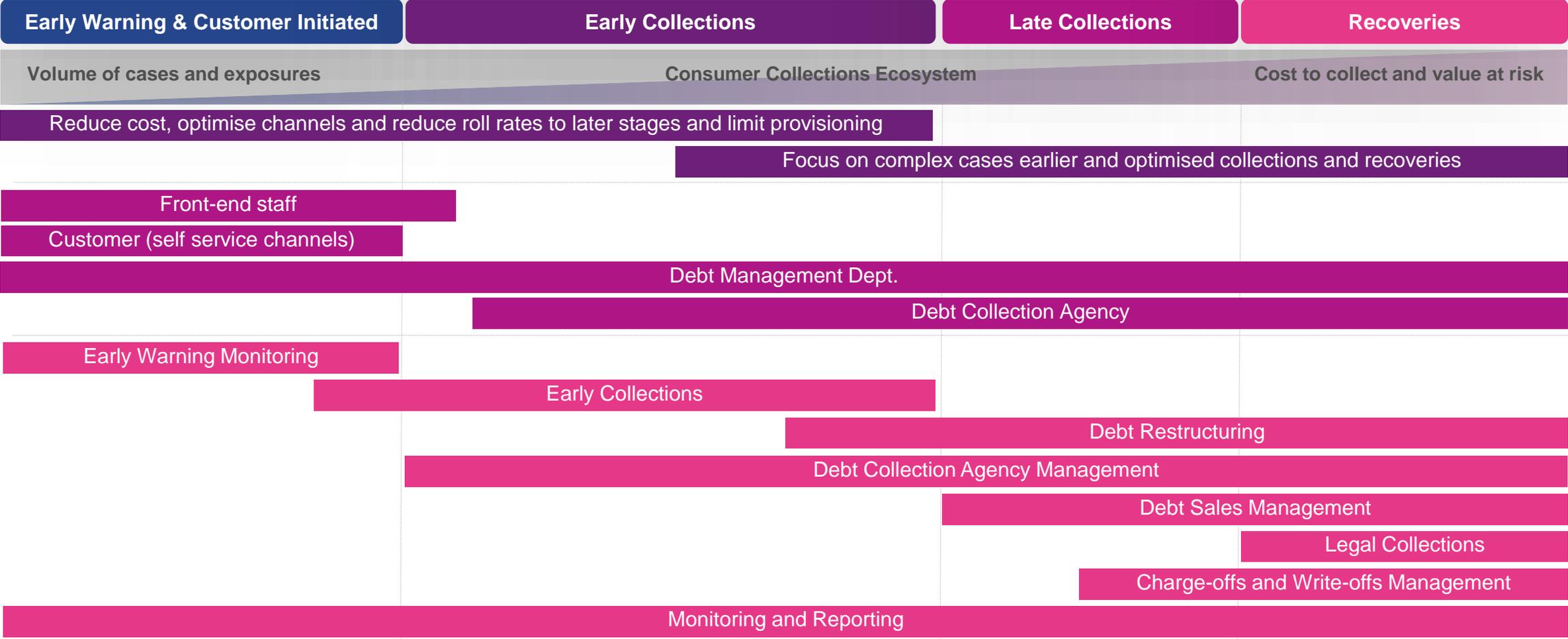
- Poor data quality and lack of contact information

- Lack of customer insight and only limited focus on early warnings

- Manual processes which reduced collector efficiency

- Painful integration, hard to overcome legacy constraints

- Organisational silos with limited co-ordinations and alignment

- Lack of digital capabilities for customer self-service and limited ability for individual treatments

Organizations are becoming more and more data and analytical driven with a primary focus on capital allocation…

| Regulatory | Customer | Operational |

| Early Warning & Customer Initiated | Early Collections | Late Collections | Recoveries |

Volume of cases and exposures · Consumer Collections Ecosystem · Cost to collect and value at risk

ANALYTICAL FOCUS
- Probability of default and NPL compliance

MODELS
- Early Warning Indicators

INFORMS
- pro-active customer intervention

OBJECTIVE
- Stop flows of accounts into stages 2 and 3 ("underperforming" and "non-performing")

ANALYTICAL FOCUS
- Ability to pay, customer behaviours & preferences

MODELS
- Probability of partial payment
- Best time and channel to contact
- Probability of self-cure

INFORMS
- Customer treatment + channel

OBJECTIVE
- Return to stage 1 ("performing")

ANALYTICAL FOCUS
- Ability to pay

MODELS
- Affordability
- Income estimation

INFORMS
- Payment plans, next best offer, revisions to loan agreement terms (forbearance)

OBJECTIVE
- Return to stage 1 ("performing")

ANALYTICAL FOCUS
- Profitability and removal from balance sheet

MODELS
- Optimisation of costs, timing and profitability

INFORMS
- Recovery strategy and timing

OBJECTIVE
- To accelerate removal of NPL from P&L as profitably as possible

Removed from Balance Sheet

PORTFOLIO MODELLING & STAGE ALLOCATION (IFRS9 OPTIMISATION) & TOTAL EXPECTED CREDIT LOSS MODELLING (ECL OPTIMISATION)

Forward looking approach as required by IFRS9 – macro-economic data modelling

Stage 1 - Performing loans
ECL based on 12 months only

Stage 3 - Non- performing loans
ECL based on full lifetime

Stage 2 - Underperforming loans
ECL based on full lifetime

However, only limited focus has been given to improving the collections operating model and digitization of collections
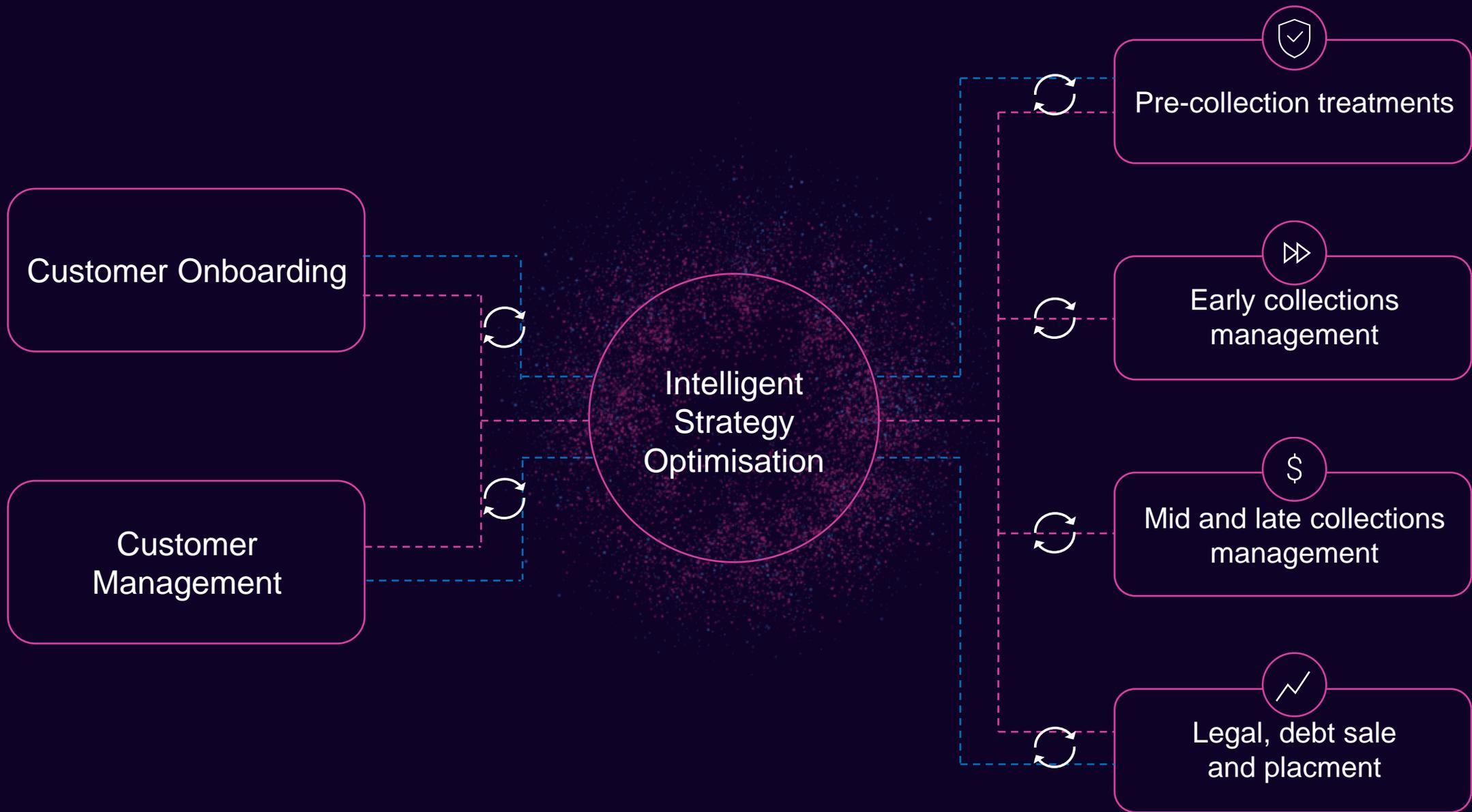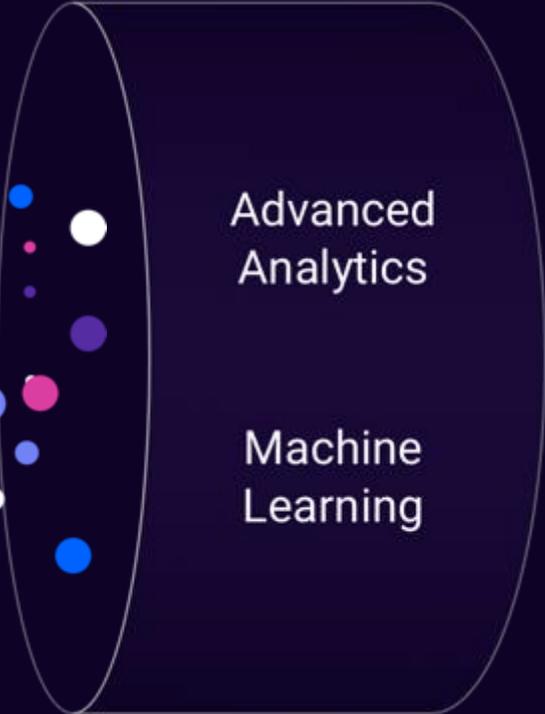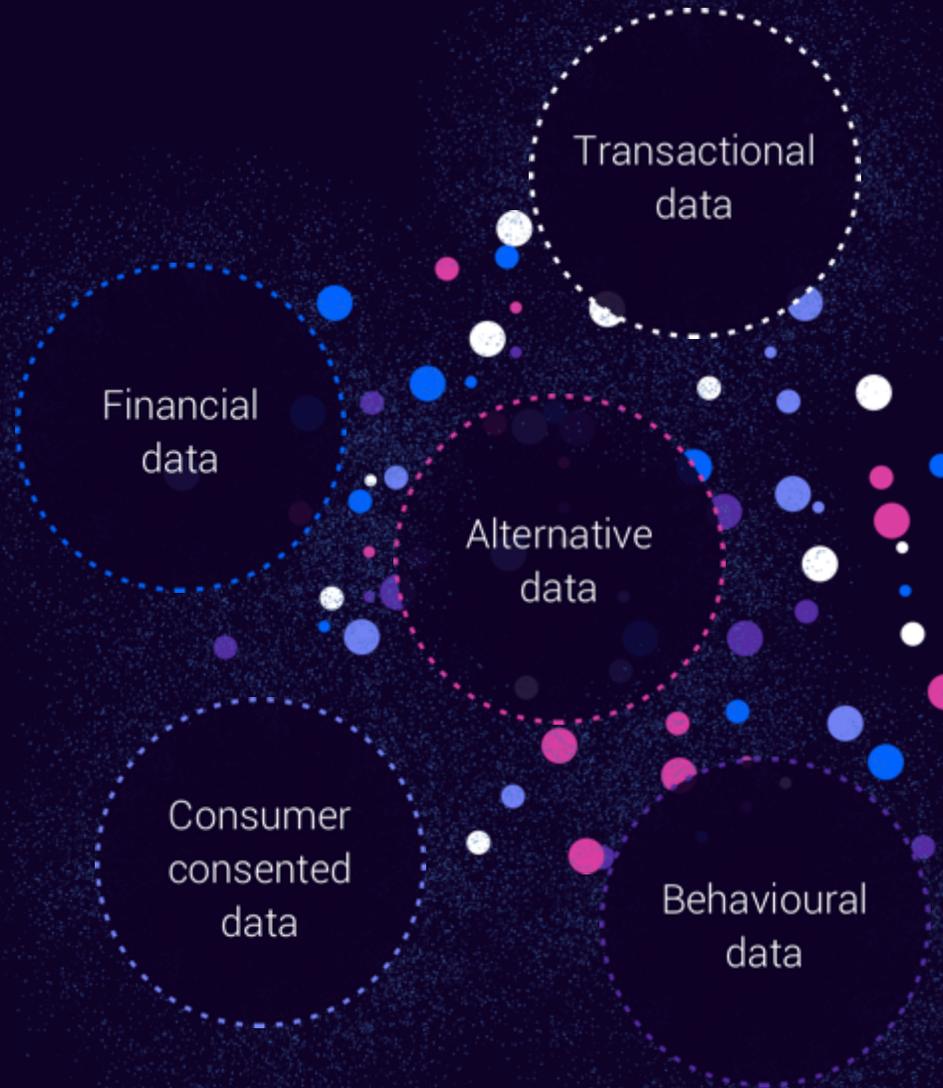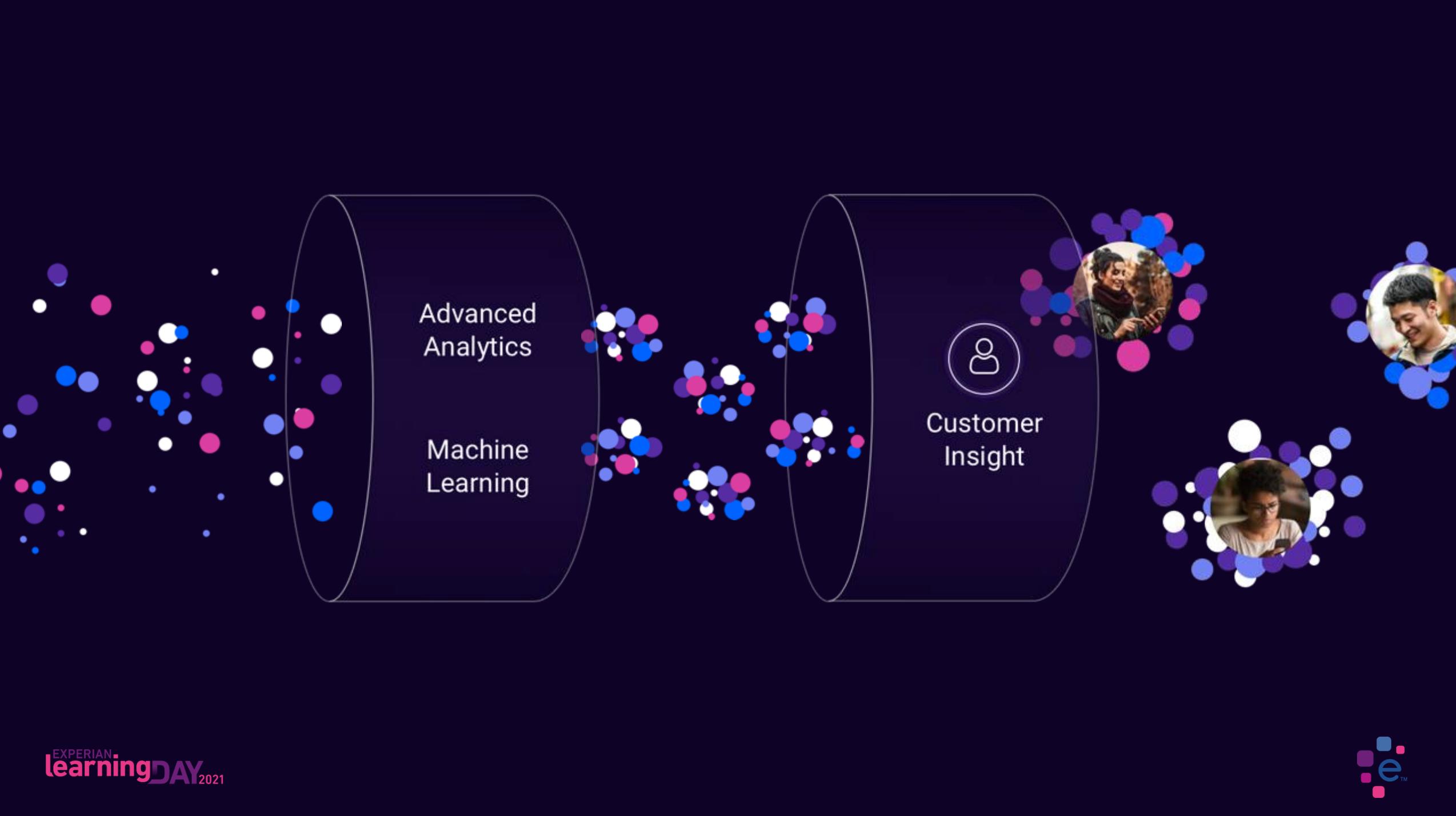
Early Warning & Customer Initiated	Early Collections	Late Collections	Recoveries

Volume of cases and exposures — Consumer Collections Ecosystem — **Cost to collect and value at risk**

Reduce cost, optimise channels and reduce roll rates to later stages and limit provisioning

Focus on complex cases earlier and optimised collections and recoveries

Front-end staff

Customer (self service channels)

Debt Management Dept.

Debt Collection Agency

Early Warning Monitoring

Early Collections

Debt Restructuring

Debt Collection Agency Management

Debt Sales Management

Legal Collections

Charge-offs and Write-offs Management

Monitoring and Reporting

Why? **Who?** **What?**

High risk, high value. Move to Debt Recovery Agent.

Customer Insight

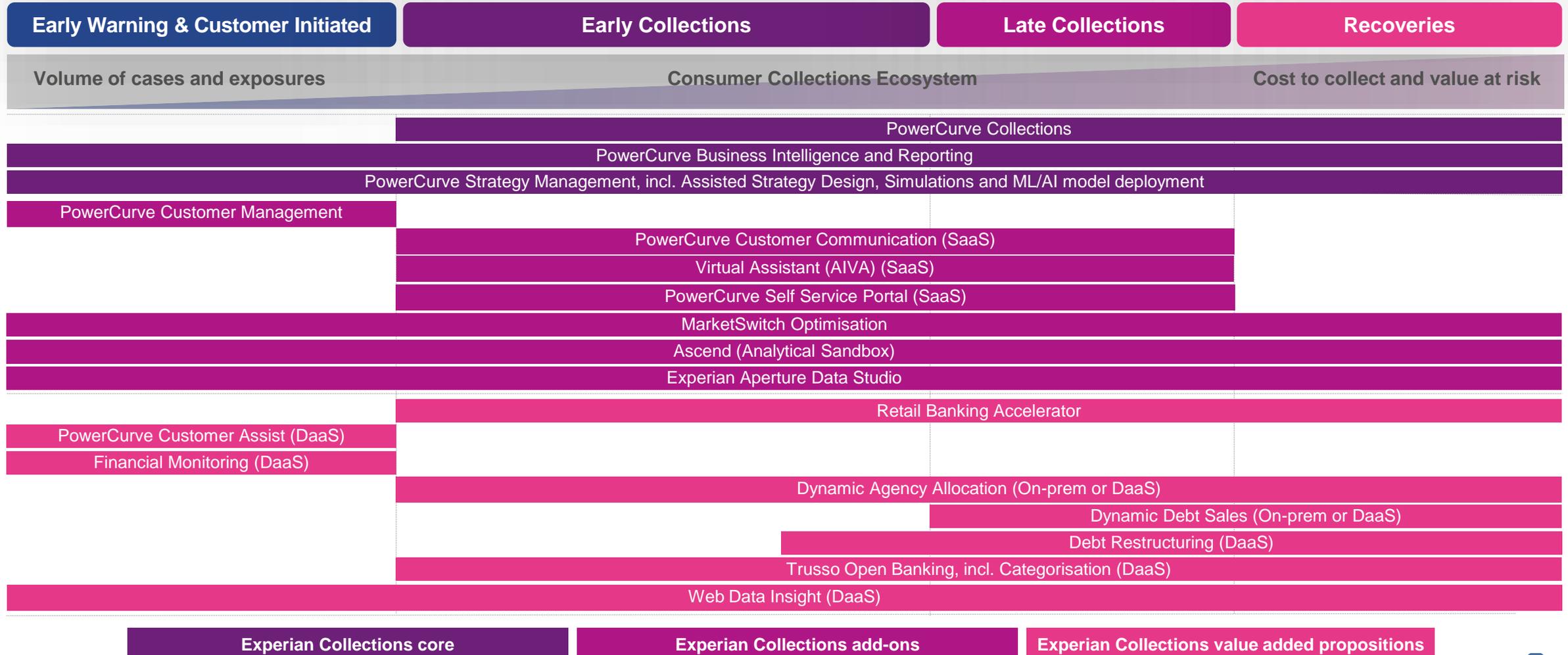High loan value, reduced income flag. Early Contact Strategy.

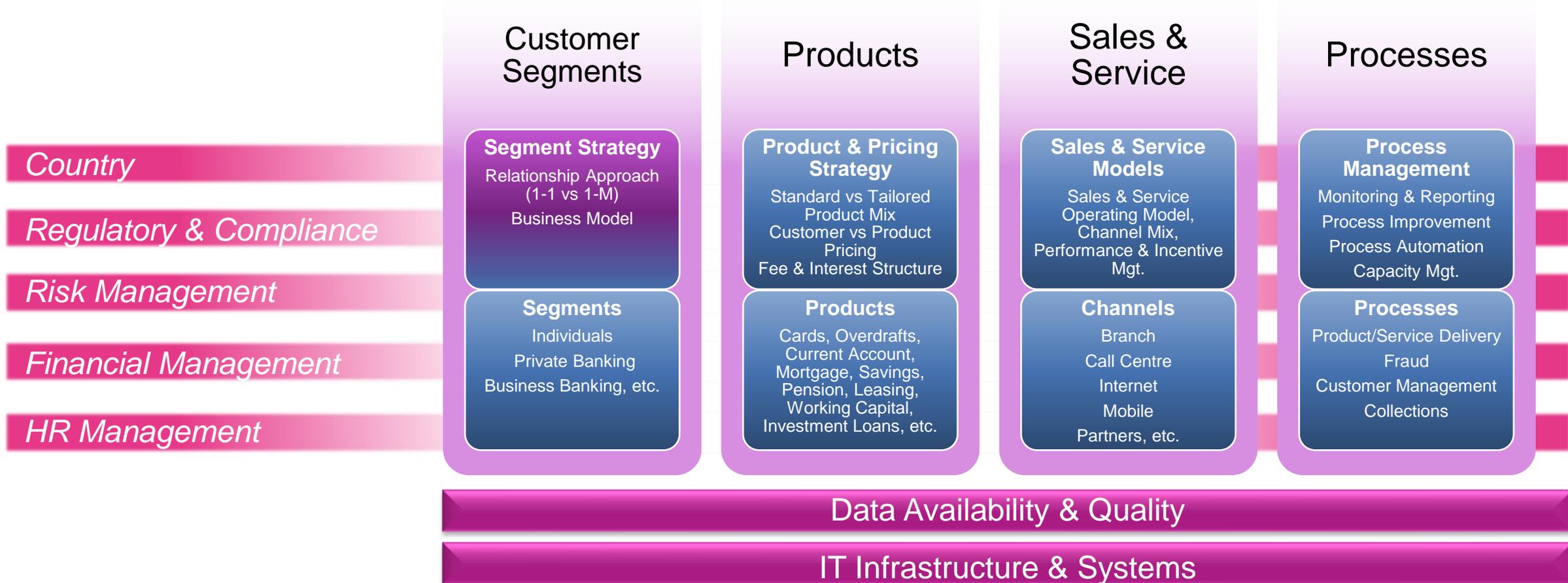Low risk, high propensity to pay. Email & self-service.

Our automation software helps deliver a **superior collections journey**

The technologies are already here, and Experian helps various bank in their digital collections journey….

Early Warning & Customer Initiated	Early Collections	Late Collections	Recoveries

Volume of cases and exposures   **Consumer Collections Ecosystem**   **Cost to collect and value at risk**

PowerCurve Collections

PowerCurve Business Intelligence and Reporting

PowerCurve Strategy Management, incl. Assisted Strategy Design, Simulations and ML/AI model deployment

PowerCurve Customer Management

PowerCurve Customer Communication (SaaS)

Virtual Assistant (AIVA) (SaaS)

PowerCurve Self Service Portal (SaaS)

MarketSwitch Optimisation

Ascend (Analytical Sandbox)

Experian Aperture Data Studio

Retail Banking Accelerator

PowerCurve Customer Assist (DaaS)

Financial Monitoring (DaaS)

Dynamic Agency Allocation (On-prem or DaaS)

Dynamic Debt Sales (On-prem or DaaS)

Debt Restructuring (DaaS)

Trusso Open Banking, incl. Categorisation (DaaS)

Web Data Insight (DaaS)

Experian Collections core	Experian Collections add-ons	Experian Collections value added propositions

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A good digitization journey, starts with a good understanding of collections and its dependencies...

Country

Regulatory & Compliance

Risk Management

Financial Management

HR Management

Customer Segments

Segment Strategy
Relationship Approach (1-1 vs 1-M)
Business Model

Segments
Individuals
Private Banking
Business Banking, etc.

Products

Product & Pricing Strategy
Standard vs Tailored
Product Mix
Customer vs Product Pricing
Fee & Interest Structure

Products
Cards, Overdrafts, Current Account, Mortgage, Savings, Pension, Leasing, Working Capital, Investment Loans, etc.

Sales & Service

Sales & Service Models
Sales & Service Operating Model, Channel Mix, Performance & Incentive Mgt.

Channels
Branch
Call Centre
Internet
Mobile
Partners, etc.

Processes

Process Management
Monitoring & Reporting
Process Improvement
Process Automation
Capacity Mgt.

Processes
Product/Service Delivery
Fraud
Customer Management
Collections

Data Availability & Quality

IT Infrastructure & Systems

The consequences of Covid-19:
The worst is still to come for some sectors, while the new normal is already the normal for others

This presentation is around the status of the market and provides our perspective on the banking environment in the near future

What is the economic situation in Nordics as of today?

What have we learned from the last one year during the lock-downs?

Credit activity   Asset quality   Changing spending behaviors

What will happen next?

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The lockdown has had a massive economic impact on many industries. GDPs of the Nordic economies has decreased, and unemployment rates increased in 2020

Different than 2008-09 financial crisis

In 2009;

In Norway:
Unemployment 3,2%, GDP growth -1,7

In Denmark:
Unemployment 6%, GDP growth -4,9

Better performed than UK & many

European countries' economies BUT

High export volumes with UK & Germany

Economic Statistics	Denmark	Norway	Sweden	Finland
Annual GDP growth (%) in 2019	2.8	0.9	1.4	1.3
Expected annual GDP growth (%) in 2020 pre-Covid-19	1,5	1,9	1,1	0,9
Annual GDP growth (%) in 2020	-3.3	-0.8	-3.0	-2.9
Expected annual GDP growth (%) in 2021 as of Dec 2020	2,9	3,7	3	2,2
Unemployment rate (%) as of Dec 2019	3,7	3,9	6	6
Unemployment rate (%) as of Dec 2020	4,4	5	8,2	7,8

* GDP growth levels: National Statistical Offices
Registered unemployment rate: https://tradingeconomics.com/

Credit activity* in Denmark - New normal or just normal?

Credit enquiry volumes have a sharp fall in December due to an expected fall due to the Christmas holiday. From the beginning of 2021, credit enquiries have been at the same levels with pre-Covid-19 time

2021

2020

Total Searches 2020 (Weekly Moving Average)

Total Searches 2021 (Weekly Moving Average)
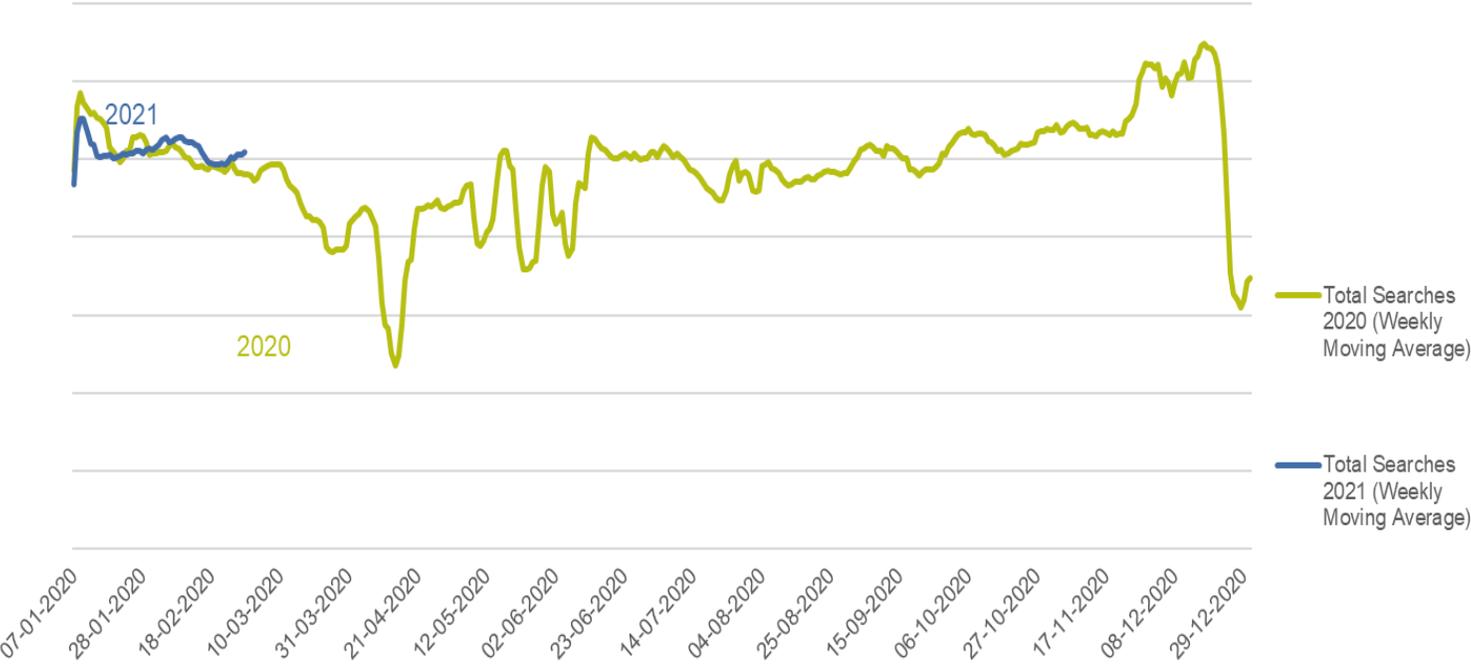
*Credit activity = RKI searches

Covid-19 impact on credit activity in Denmark

- High impact after mid-March after the lockdown

- After May 2020, with gradual openings, recovery started

- Not shocking impact of 2nd lockdown on credit activity

Denmark Consumer Confidence Index

Denmark Business Confidence Index

*Danmarks Statistik

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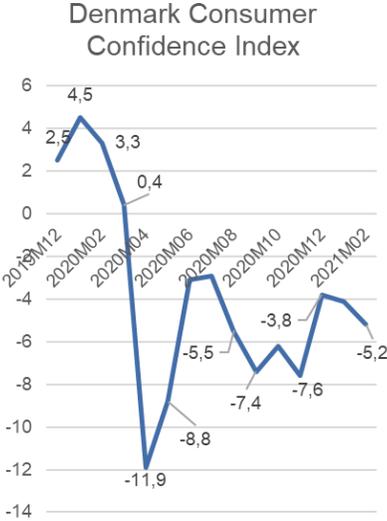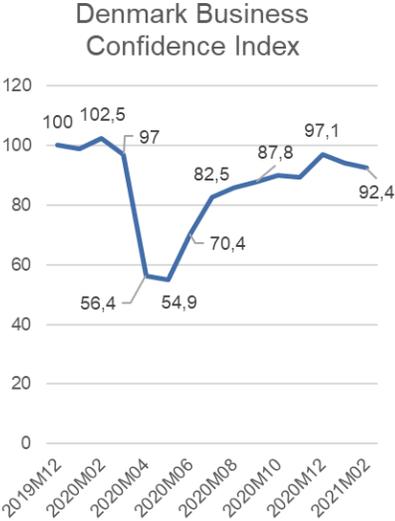
Credit activity* in Norway - New normal or - even better?

Recovery in the credit activity is mostly supported by fast adaption of the stores to online shopping and mobile payment with the help of payment providers

2021

2020

Total searches (Weekly Moving Average) 2020

Total searches (Weekly Moving Average) 2021
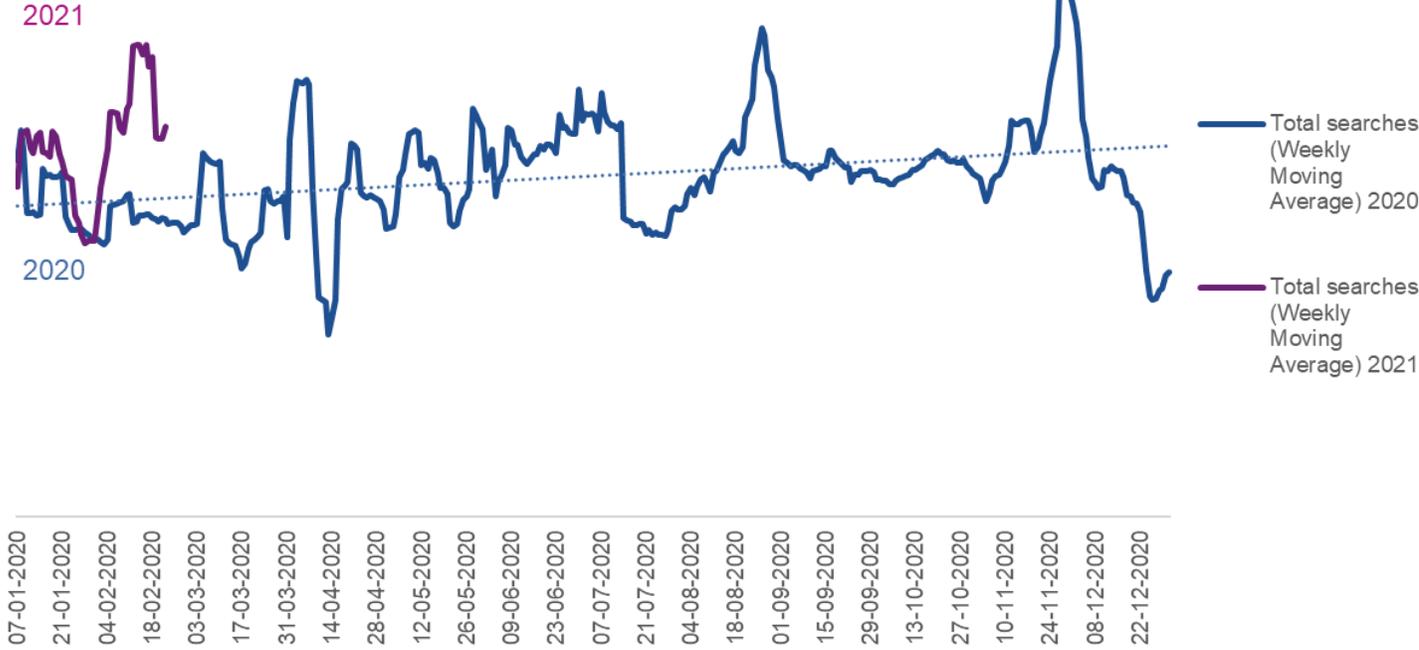
*Credit activity = RKI searches

Covid-19 impact on credit activity in Norway

- Sharpest decline following the lockdown measures enacted 13th March

- E-commerce effect

- Stricter restrictions in October & November and then December

Norway Consumer Confidence Index

Norway Business Confidence Index
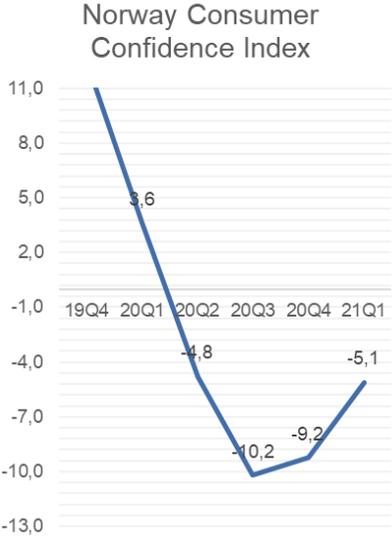
*Business Confidence Index: ssb.no
Consumer Confidence Index: finansnorge.no
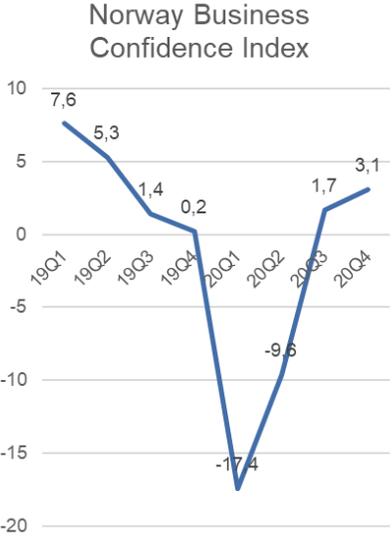
For Denmark, expected storm did not arrive but still some more expected bankruptcies will come

The total number of bankruptcies in February 2021 looks 1,5 times higher than the same month of the last year, **BUT**

IVS effect

- Nearly half of the bankruptcies were IVS

- High number of bankruptcies in January & February due to a shift in compulsory dissolutions in October last year - failure to submit accounts

- Mostly the companies with no employees and only limited revenue

- 212 declared bankruptcies in February among active companies - 7.2 % fewer than in January

TOTAL

Feb '20
471

Feb '21
1,196

+154%

ACCOMMODATION & FOOD SERVICE

Feb '20
29

Feb '21
76

+162%

WHOLESALE & RETAIL TRADE

Feb '20
89

Feb '21
196

+120%
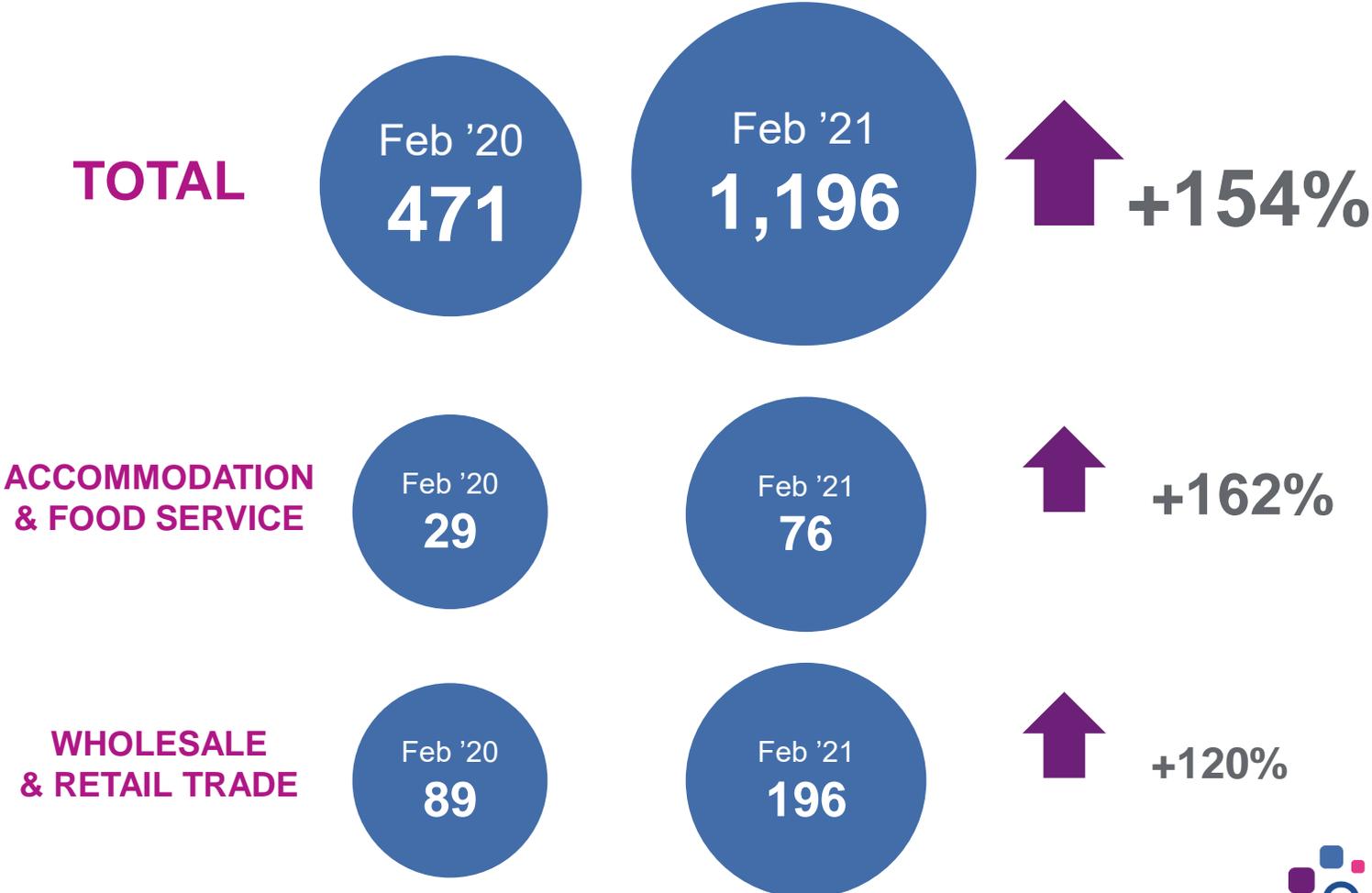
For Norway, decreasing trend in bankruptcies continues. Is it at its "to-be" levels or is the impact postponed?

1 Deferred payments for tax and fees & delayed bankruptcy registrations

- Partly due to fewer bankruptcy petitions from the tax authorities due to deferred payment of taxes and fees

- If it is the case the there should have been a spike in the bankruptcies by 50% compared to 2020
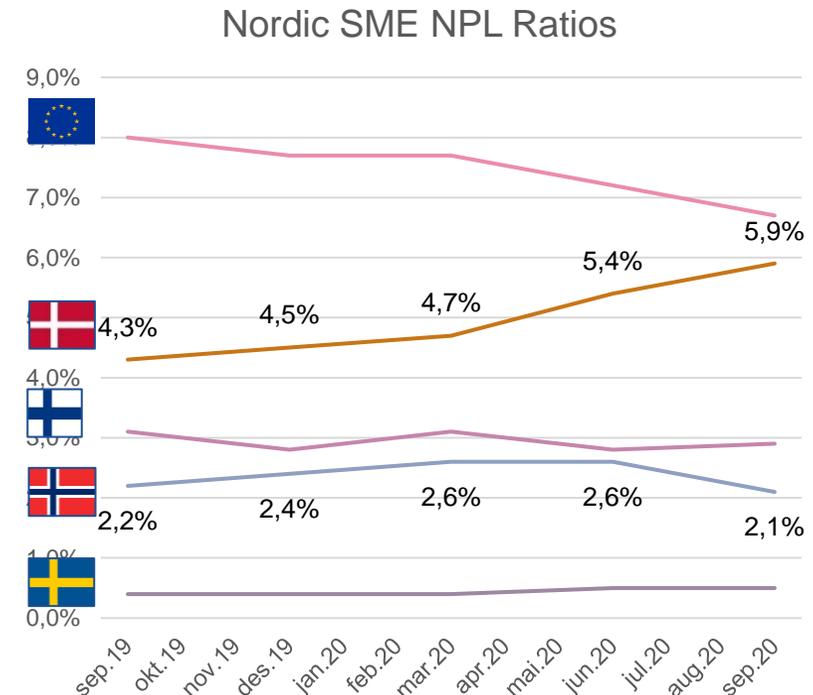
2 Or just government aid package impact?

- A more moderate scenario is that to reach 2019 levels relatively quickly, and that bankruptcies will increase moderately through 2021. Which means an increase of approx. 25% compared to 2021

TOTAL

Feb '20
340

Feb '21
251

-26%

ACCOMMODATION & FOOD SERVICE

Feb '20
31

Feb '21
27

-13%

WHOLESALE & RETAIL TRADE

Feb '20
78

Feb '21
47

-40%

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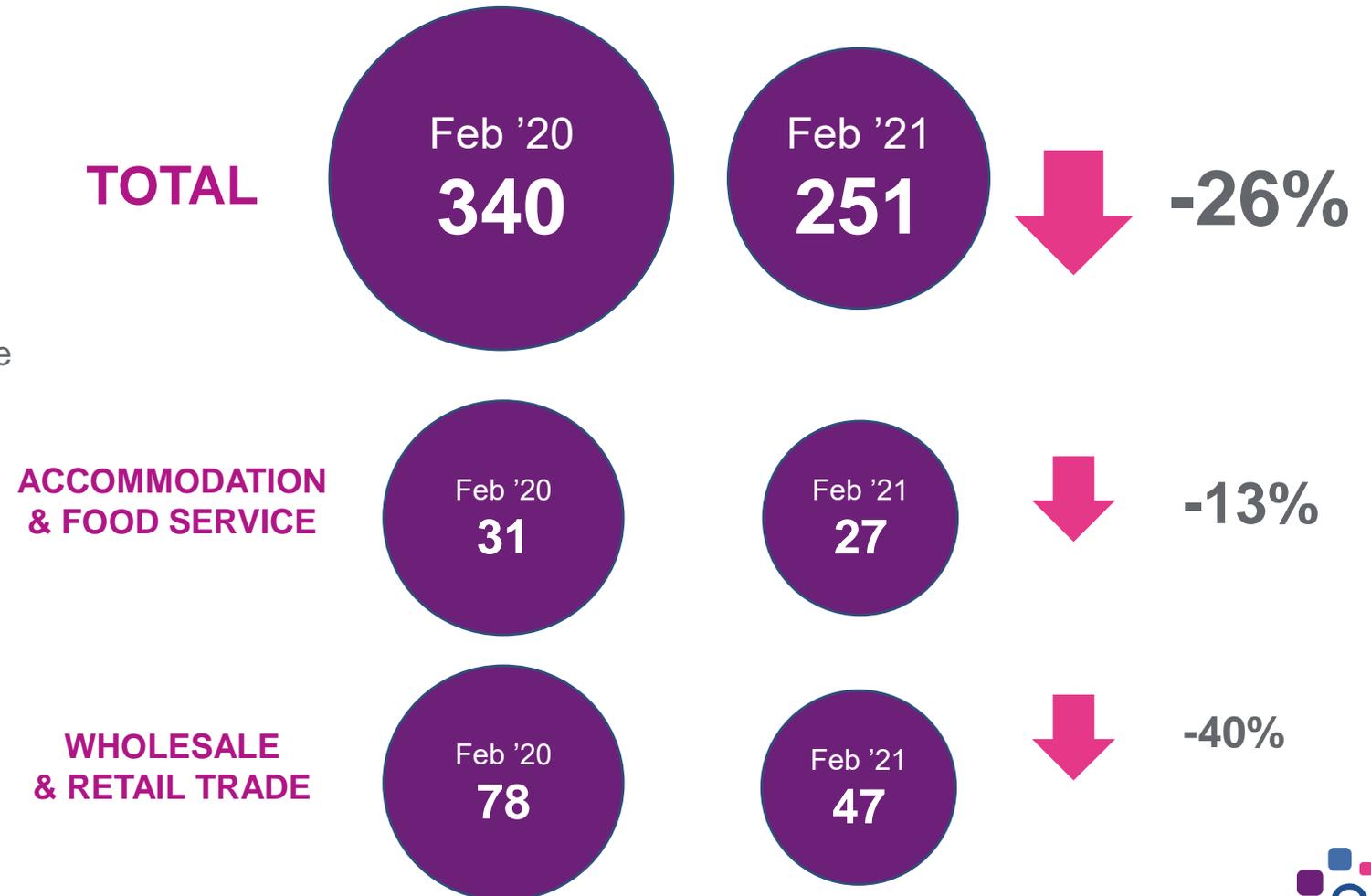
The full impact of Covid-19 will expectedly put more pressure on the bankruptcies because non-performing loan (NPL) stock in SME portfolios in Denmark has an increasing trend

Denmark has the highest NPL levels among Nordic countries and still increasing

- 31% increase in NPL share in Danish SME portfolios – from 4,5% in Dec 2019 to 5,9 in Sep 2020

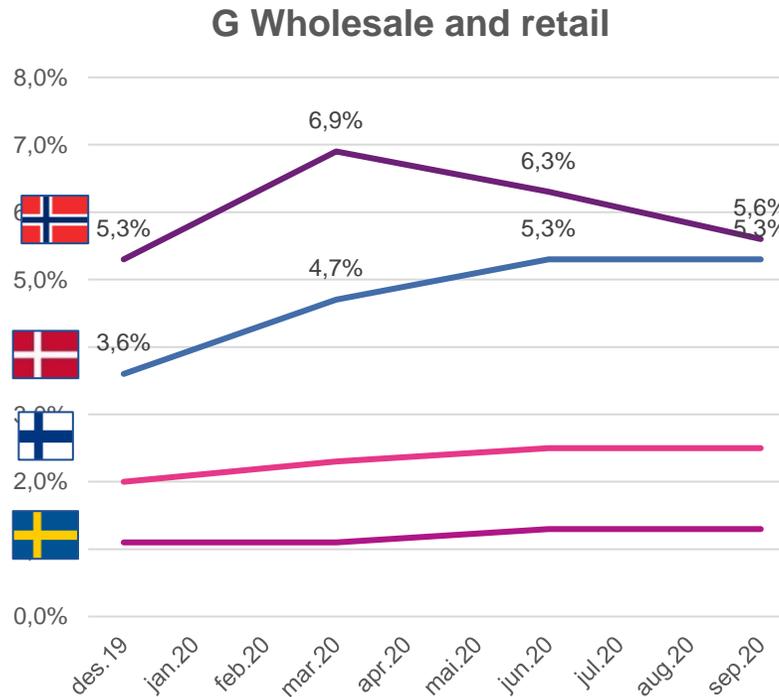- In Norway the increase in SME NPL share in SME portfolios continued until 1st half of 2020 then it dropped to 2,1% in Sep 2020.

Nordic SME NPL Ratios

4,3%   4,5%   4,7%   5,4%   5,9%

2,2%   2,4%   2,6%   2,6%   2,1%

9,0%
7,0%
6,0%
4,0%
0,0%

sep.19 okt.19 nov.19 des.19 jan.20 feb.20 mar.20 apr.20 mai.20 jun.20 jul.20 aug.20 sep.20

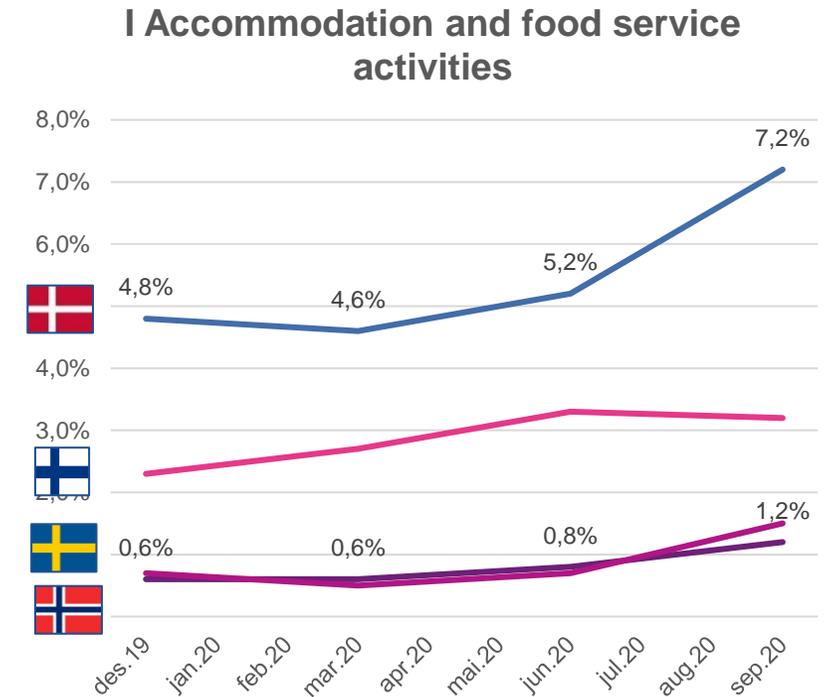*EBA Risk Dashboard Q3 2020

Sector matters

The performance of the loans differs among sectors and among countries

Hotels and restaurants are clearly struggling in Denmark

- In Norway, NPL levels of wholesale and retail sectors' loans started to get improved after March 2020

- In Denmark the increase in NPLs has flattened after June 2020

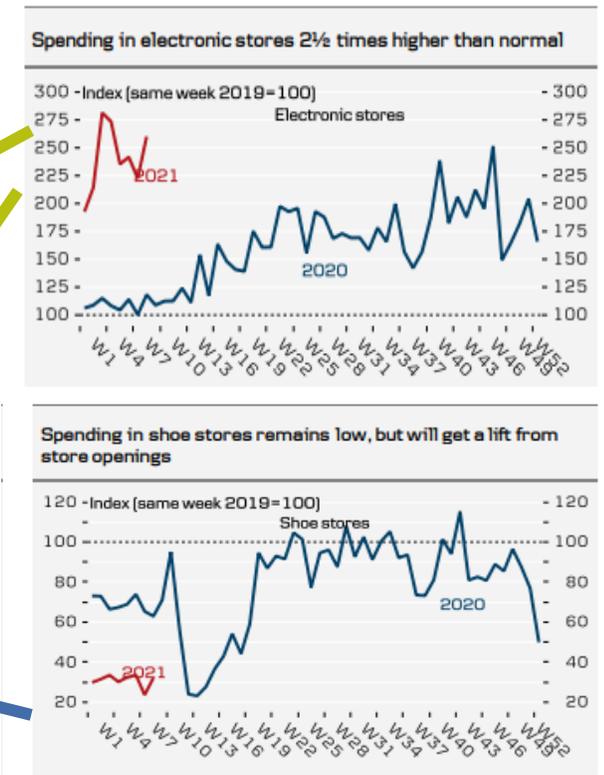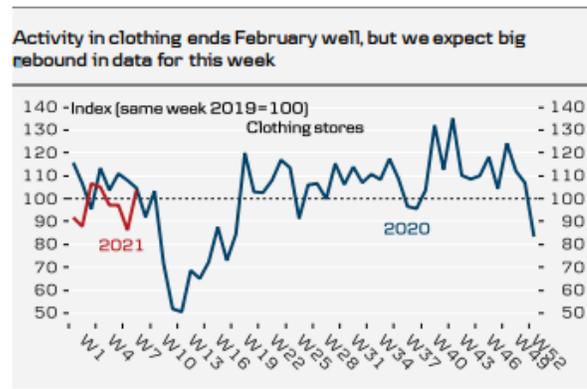- Government measures have an impact on sector specific performance.

G Wholesale and retail

5,3% 6,9% 4,7% 6,3% 5,3% 5,6% 5,3% 3,6%

*EBA Risk Dashboard Q3 2020

I Accommodation and food service activities

4,8% 4,6% 5,2% 7,2% 0,6% 0,6% 0,8% 1,2%

*EBA Risk Dashboard Q3 2020

We need new clothes and larger screens for Zoom meetings, but we don't need shoes for home office

According to Danske Bank Spending Monitor reports, spending patterns have been also shaped by Covid-19 outbreak

Activity in clothing ends February well, but we expect big rebound in data for this week

Spending in electronic stores 2½ times higher than normal

Spending in shoe stores remains low, but will get a lift from store openings

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What will happen next?

For example, in Denmark, governmental actions on tax schedules, liqudity injections with holiday money disbursements, uncertainty with positive expectations of completion of the vaccination, limited re-openings for certain sectors and regulatory measures define the agendas of many companies as well as banking and financial institiutions

March 1st, 2021:
Postponement of VAT payments

April/May 2021:
Holiday money disbursements

Summer 2021:
Vaccination completed?

On-going regulations in the credit market to protect consumers

March 1st, 2021:
Gradual re-openings started after 2nd lockdown

April 5th, 2021:
Gradual re-openings continue?

June 2021:
Government relief packages still applicable?

Impact on bankruptcies	Impact on loan performances	Impact on payment/spending patterns	Credit assessment

Impact on economic recovery period	Performance differentiation by sector	Income and affordability verification	Early warning triggers

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Agenda

1. **Ascend Incognito – your way to anonymized data**

2. **Optimize debt collection strategies with data and advanced analysis**

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Ascend Incognito – your way to anonymized data

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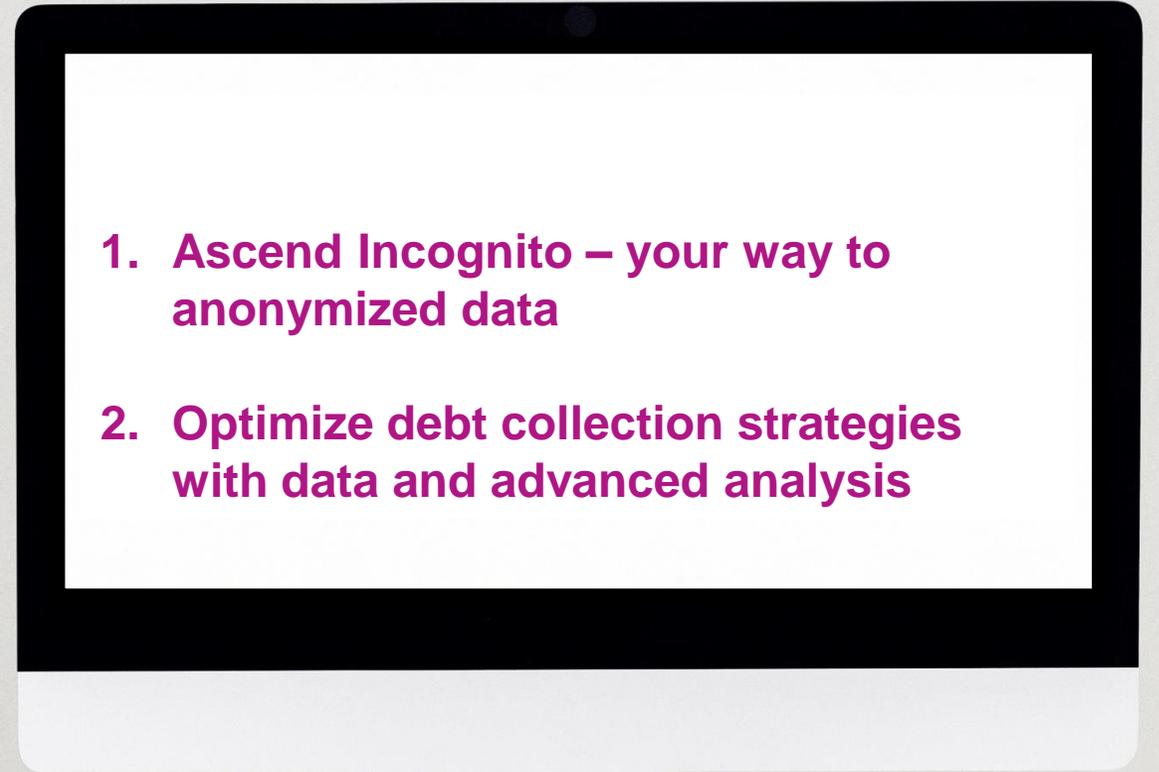
Restrictions on the use of sensitive data

Limitations around use of sensitive data

Protection of sensitive data has been in focus for a long time, but sensitive data has great societal benefits, and not just in a credit context.

Should society not benefit from technology and solutions that can bring value in a safe way?

Experian has not previously been able to cover all the areas in which customers need help!

We have therefore started a large project that can utilize anonymized data within several strategic decisions.

This could be a starting point for being able to offer more data that is secured via anonymization

Everything is about data and solutions

By using methods for anonymization, we open the possibility of using data that is normally limited in the first place.

The **Ascend Incognito** is the **gateway** for our clients **to utilize** otherwise **restricted data and deep insights from our credit bureau.**

By anonymizing our bureau data, we **comply with regulation** and **enable our clients to draw the benefits and insights** from it.

Accelerating time-to-decision for our clients through use of anonymized data and analytically plattforms that have the right funtions is more crucial than ever.

Some possibilities

Anonymised data for unique insight
- ✓ *There are many possibilities and below are some of them.*
- ✓ *There is no answer that is wrong as it is the customer's needs that cover the focus we need to have.*

Initial risk categorization	**Reduce cost**	**Trends**
Minimal Consumer information	**Customer behavior over time**	**Risk concentrations**
Minimize time for decision	**Monitoring and validation**	**Future needs**

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Customer feedback

We have already received some feedback and interest from several customers:

We are interested in using as much data as possible, including data that normally requires notification letters that can be submitted anonymously. Interested in how we can do this according to the law and wanted us to get in touch when the solution was ready.

We believe that synthetically generated bureau data can help us identify the underlying trends in the market.

We see opportunities to use aggregated bureau data to identify appropriate actions in the early stages of the debt collection process.

What is the difference between Ascend and Ascend Incognito?

Analytisk verktøyboks
Cloudera DataScience Arbeidsbenk integrert som standard SAS & H2O plug-inn muligheter

Upload your own data

Client

Send your own data as a batch to Experian, for application of anonymized aggregated data before uploading in Ascend.

Ascend

Incognito
**Anonymization of relevant bureau data**

Experian uploads customer data with the desired aggregated data.
Experian can also upload Synthetic "stand-alone" database for model / score / report options.

SaaS-platform
Hosted in the Cloud on Experian's servers in Frankfurt (AWS)

Data visualisation Interactive mapping, charts and graph capabilities with Microstrategy

Ascend Incognito can also be delivered as a separate stand-alone solution
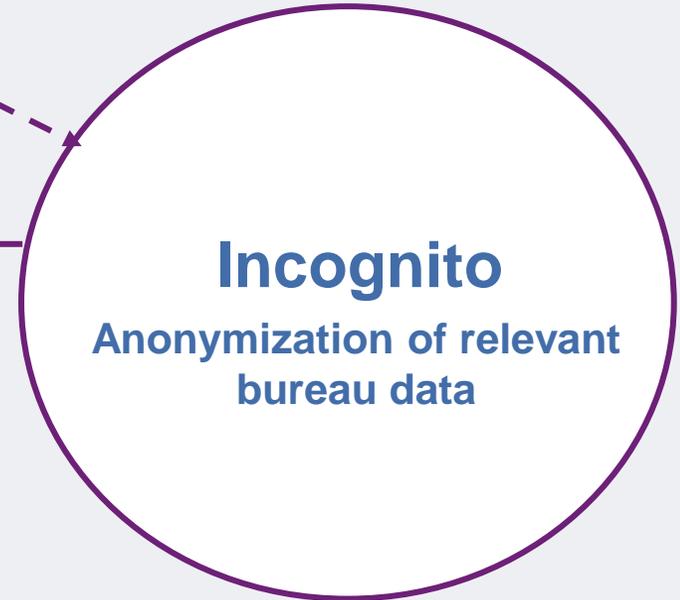
1 The customer sends their own data in batch to Experian to compare with anonymized aggregated **bureau** data
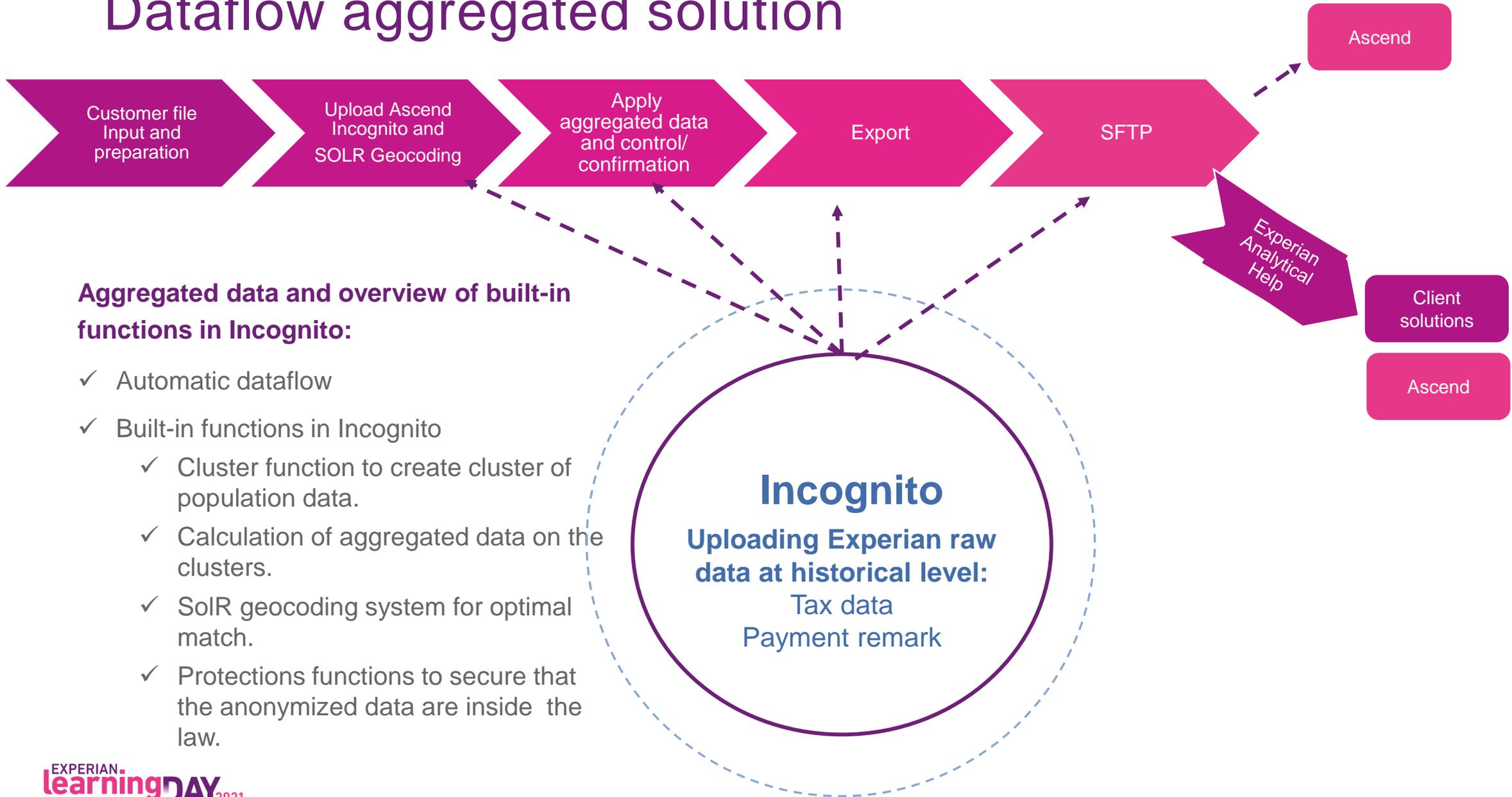
Client
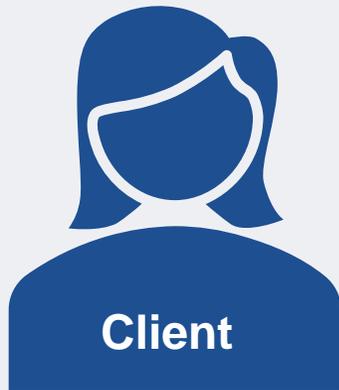
2 Experian returns analysis output, including desired variables.

Future goal is to include this type of data in other services. An alternative solution is today a flexible anonymization engine for applying data.

Incognito
Anonymization of relevant bureau data

Dataflow aggregated solution

Customer file Input and preparation → **Upload Ascend Incognito and SOLR Geocoding** → **Apply aggregated data and control/confirmation** → **Export** → **SFTP**

Ascend

Experian Analytical Help

Client solutions

Ascend

Incognito
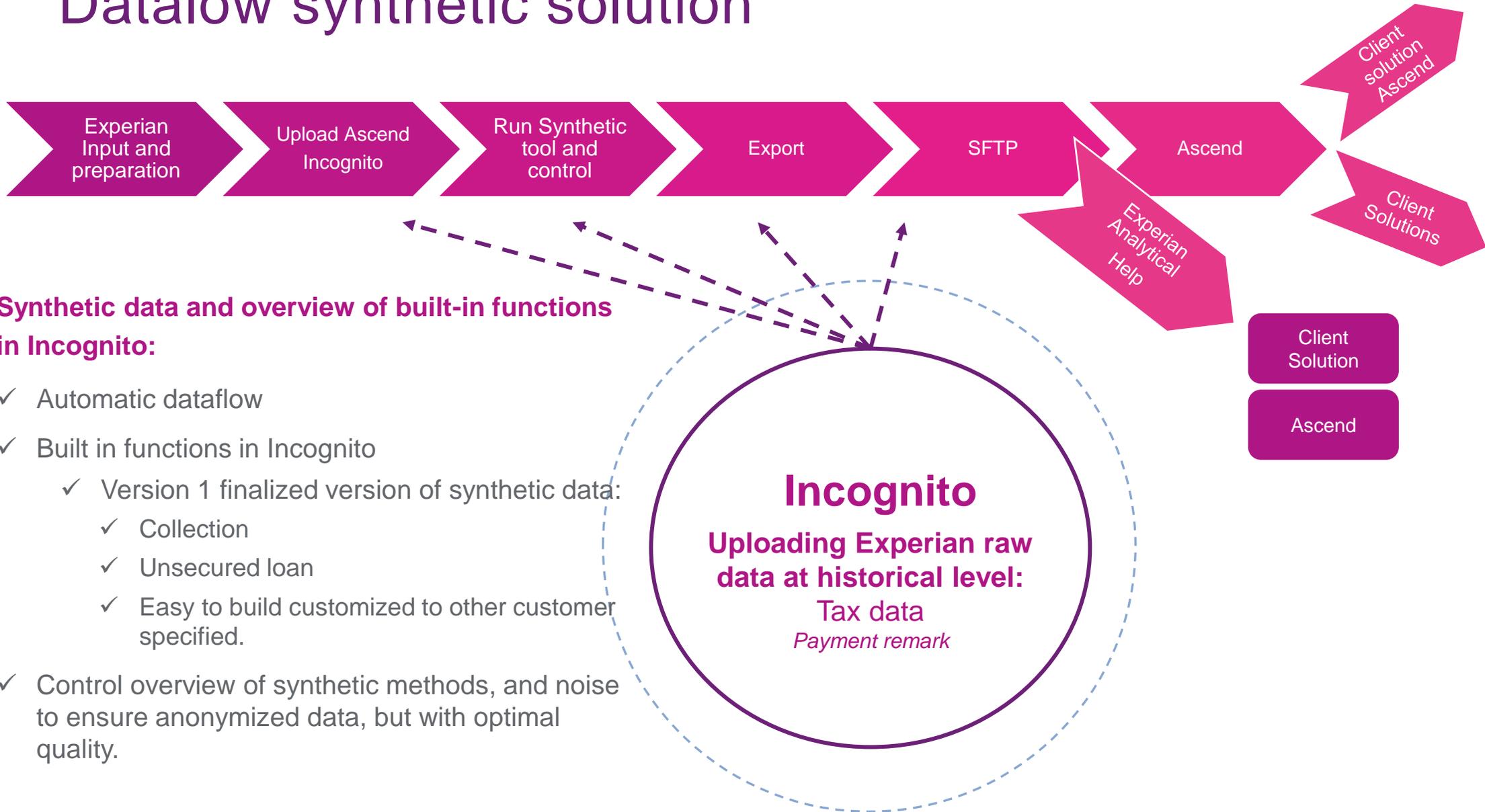**Uploading Experian raw data at historical level:**
Tax data
Payment remark

Aggregated data and overview of built-in functions in Incognito:

✓ Automatic dataflow

✓ Built-in functions in Incognito
 ✓ Cluster function to create cluster of population data.
 ✓ Calculation of aggregated data on the clusters.
 ✓ SolR geocoding system for optimal match.
 ✓ Protections functions to secure that the anonymized data are inside the law.

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Datalow synthetic solution

Experian Input and preparation → Upload Ascend Incognito → Run Synthetic tool and control → Export → SFTP → Ascend → Client solution Ascend

Experian Analytical Help

Client Solutions

Client Solution

Ascend

Synthetic data and overview of built-in functions in Incognito:

✓ Automatic dataflow

✓ Built in functions in Incognito

  ✓ Version 1 finalized version of synthetic data:

    ✓ Collection

    ✓ Unsecured loan

    ✓ Easy to build customized to other customer specified.

✓ Control overview of synthetic methods, and noise to ensure anonymized data, but with optimal quality.

Incognito

Uploading Experian raw data at historical level:
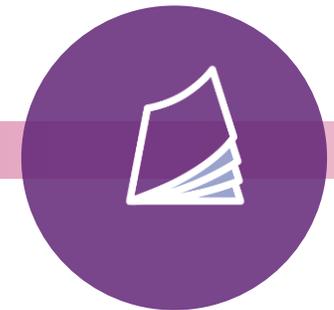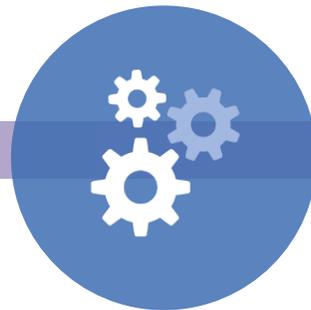Tax data
Payment remark

Data and decisioning

Client input

Experian as a datahub

Models and policy rules

Automized decision

Client sends SSN

Experian returns data

Prediction and policy rules

Recommended decision

Data sources

Input from Client

Return from Experian

- Non-sensitive data
- Do not require letter of notification

Tax assessment

Remarks data

Alternative data (ex. Economically property data)

Property data

Car data

Client data
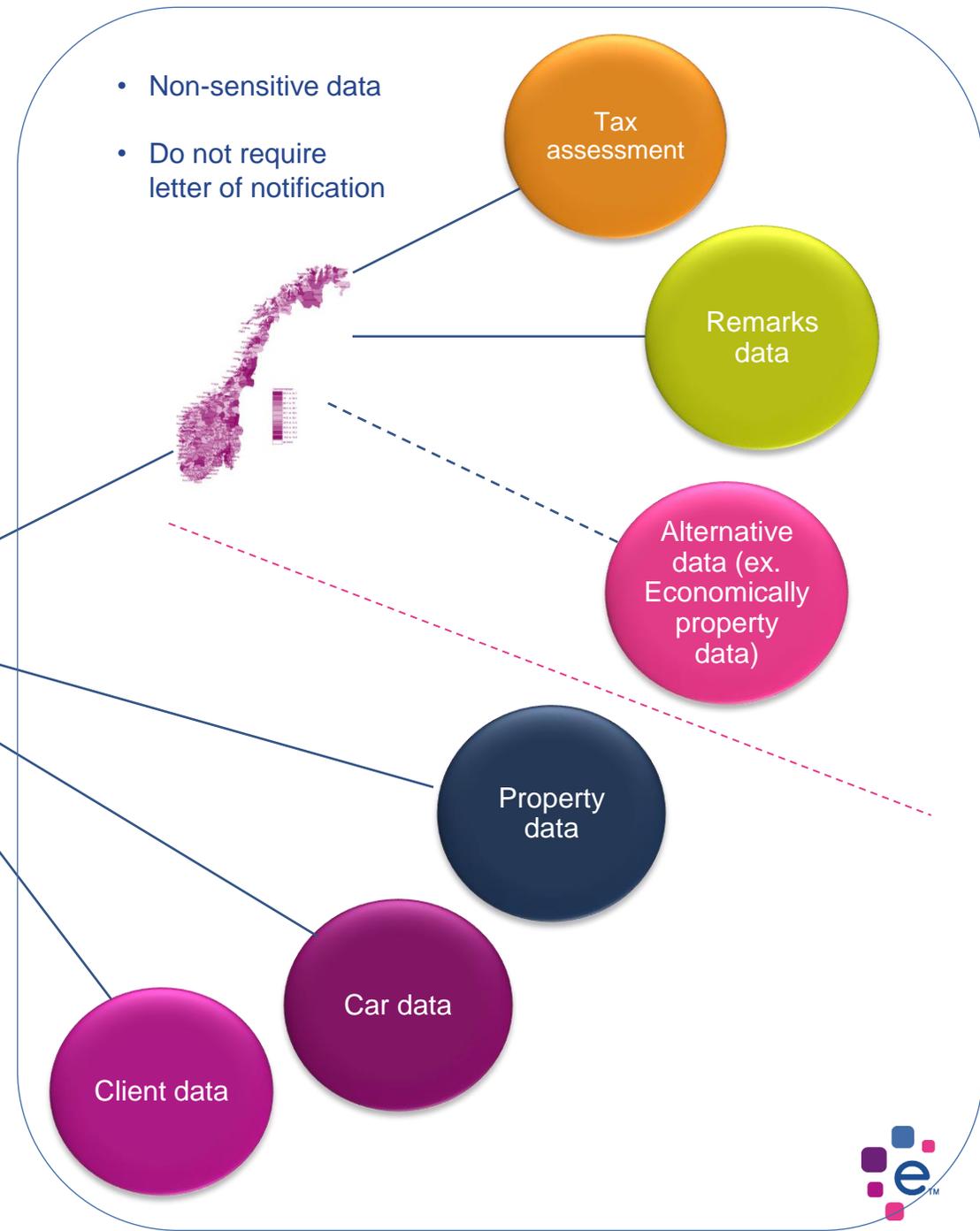
Utilization of aggregated data

- Main purpose of **aggregation** is to maintain insight that distinguish between high and low **risk** while ensuring **anonymity**

- **Aggregated bureau information** on cluster level (geography X age group X gender) can be joined with client data and non-sensitive 3.party data in a data set.

Input data						
Name	**Address**	**Postal code**	**Place**	**Age**	**Client Variable 1**	**Client Variable 2**
Bruce Lee	JKDtoppen71	0585	Oslo	28	1	Yes
Ola Nordmann	Norge 1	1412	Sofiemyr	54	2	No

		NET_INCOME				TOTAL_TAX				NET_WEALTH					
Cluster_ID	Age group	25th percentile	median	75th percentile	mean	25th percentile	median	75th percentile	mean	25th percentile	median	75th percentile	mean	Net_income growth median	% of pop with payment remark
1234	**18-38**	130,000	244,000	345,000	260,000	40,000	80,000	116,000	86,000	0	0	3,000	110,000	7,22%	5,01%
5678	**39-58**	206,000	314,000	442,000	380,000	69,000	105,000	160,000	135,000	0	0	30,000	345,000	2,33%	4,81%

Debt collection strategies

Simplified example of the process

More data combined with advanced analytics optimize decision making and internal resource allocation

Today's situation

| Case created | 1st assessment (internal data) | Decision | Cases still not solved | Extract bureau data | Letter of Notification | 2nd assessment | Legal action? |

Improved decision making by **utilization of aggregated data**

| Case created | Extract **aggregated bureau data** | 1st assessment | Decision | Cases still not solved | Extract bureau data | Letter of Notification | 2nd assessment | Legal action? |

Prediction models
Experian methodology

High prediction power and robustness over time

Transparency in the model development

Client dialogue in terms of model interpretation and decision making based on model output

Machine learning models

XGBoost with focus on explainability

Characteristics	Weight	Gain	Cover	Total Gain	Total Cover
Bureau_Score	36	223,75	3413,18	8054,96	122874,57
Time_with_Bank	28	60,00	2295,92	1679,98	64285,70
loan_to_income	26	35,43	2311,05	921,10	60087,18
Account_Type_Fixed Loan	17	79,90	3054,69	1358,24	51929,79
Number_of_Payments	21	42,72	2213,18	897,05	46476,79
Loan_Amount	19	28,59	2331,68	543,22	44301,94
Gross_Annual_Income	17	23,11	2008,14	392,91	34138,30

XGBoost is not a "black box"

- Automatic report of variable predictiveness

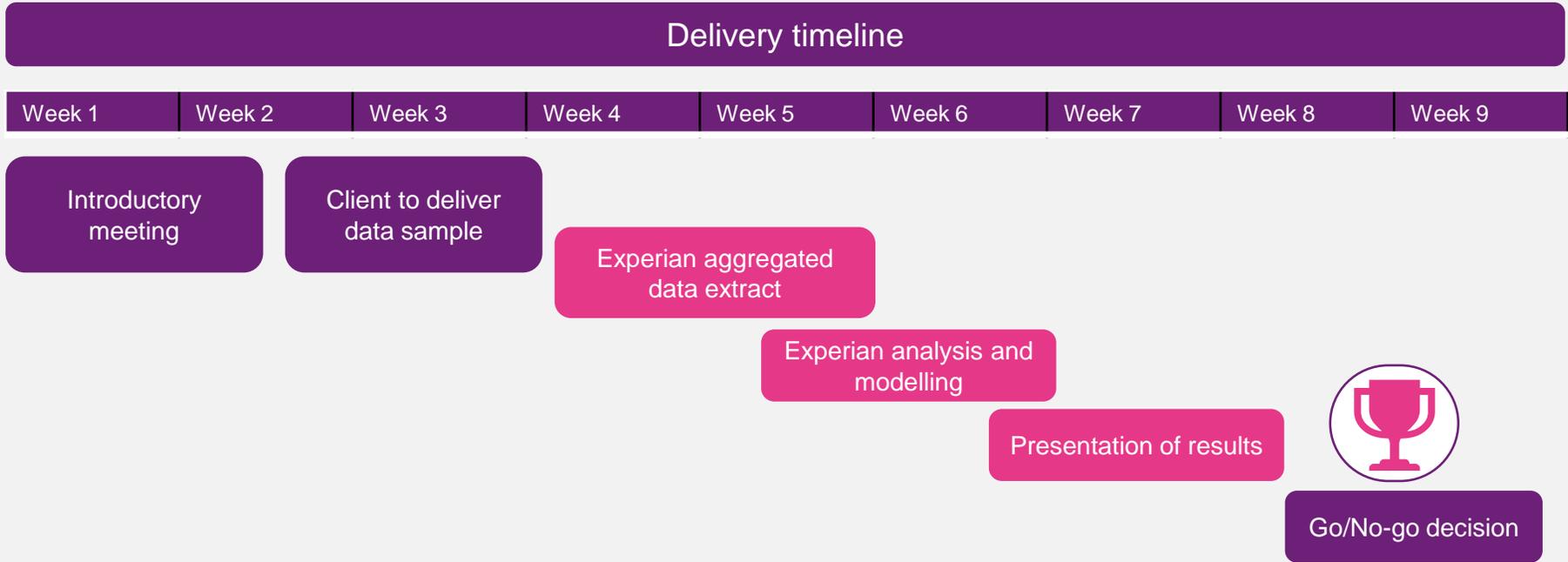- Graphical representation of the strength of variables
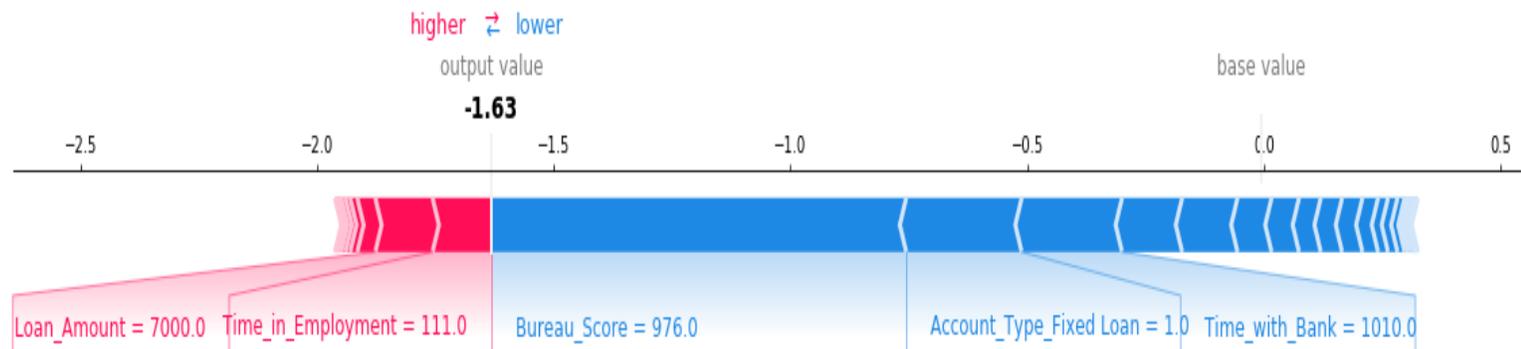
Explore the value of anonymized data in just 2 months

Client input

Experian

Delivery timeline

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9

Introductory meeting

Client to deliver data sample

Experian aggregated data extract

Experian analysis and modelling

Presentation of results

Go/No-go decision

Align on purpose and data format
How has clusters been created?

To append anonymized data, date of birth or address is necessary.
If utilizing age group then gender or address needed.
If gender is not allowed by client, clusters can still be created.

Analysis investigates the performance and value added from the aggregation on the client's portfolio.

Delivery method / decision:
1: SFTP delivery
2: Ascend

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