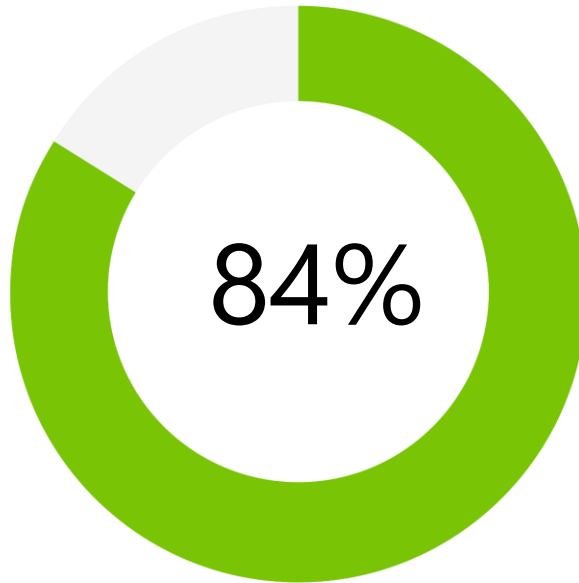# ABAKA

The Cognitive Financial Advice Platform
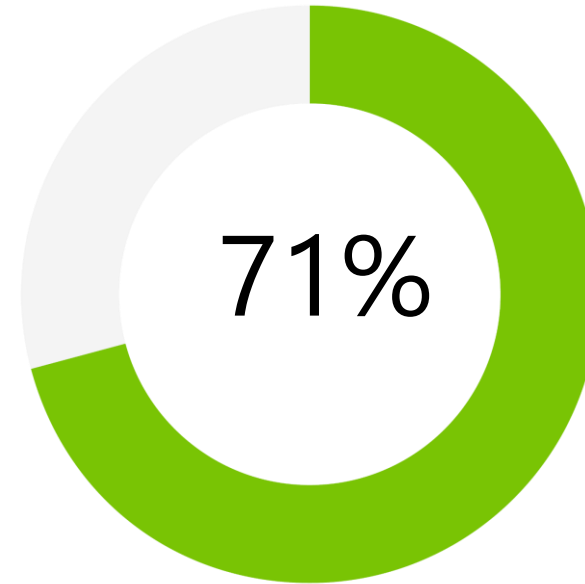
PROBLEM THE INDUSTRY IS FACING

SURGING DEMAND FOR FINANCIAL ADVICE AT SCALE

84%

of millennials seek financial advice services*

71%

increase in baby boomers seeking advice on accessing their pensions since 2016**

PROBLEM THE INDUSTRY IS FACING

10x : PRICE GAP BETWEEN SUPPLY AND DEMAND OF FINANCIAL ADVICE!*

How much customers want to pay

How much providers are charging

(Initial Advice fee)

Advice on DB pension transfer
(based on transfer value of £100,000)

£191

£1500

At-retirement advice
on a £300,000 pension

£314

£3500

At-retirement advice on a
£200,000 SIPP+DB income + £100,000 of
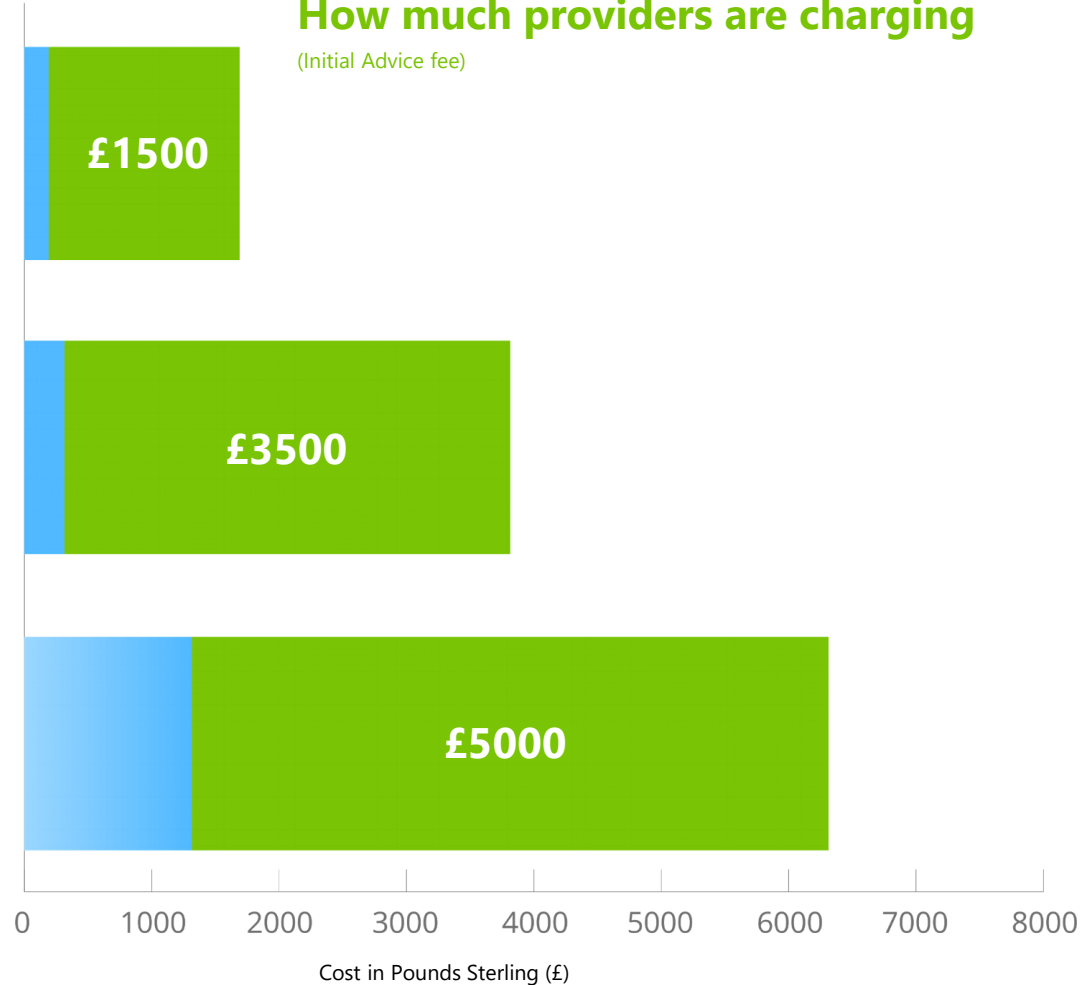investments + £250,000 investment property

£514

£5000

| 0 | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 |

Cost in Pounds Sterling (£)

3

PROBLEM THE INDUSTRY IS FACING

MARGIN COMPRESSION, INNOVATION CHALLENGE, SPEED & AGILITY

AuM & margin pressure

INCREASE YOUR CUSTOMER LTV

Grow AuM from existing customers:

Increase savings rate

Increase number of account openings

Increase asset consolidation

ATTRACT NEW CUSTOMERS

Reduce Customer Acquisition Cost:

Leverage new digital distribution channels

Increase savings product adoption

Augment advisor capabilities

Digital Innovation

DIGITAL DEMAND

3 billion mobile banking users*

85% of financial interactions on chatbot*

Focus on CX & personalisation**

COMPETE ON INNOVATION

New digital solutions taking market share:

Neo Banks, Fintech PFM, Robo-advisors

Incumbents: Vanguard Personal Advisor, Goldman's Marcus, Morgan Stanley Wealth

Speed & Agility

AGILITY OF SERVICE

"It's hard to innovate when wading through molasses. It take months and a lot of capital to build simple features given the legacy systems."

Mark Wilson, CEO of Aviva

COMPLIANCE REQUIREMENTS

Technology that scales with easy regulatory/compliance updates***

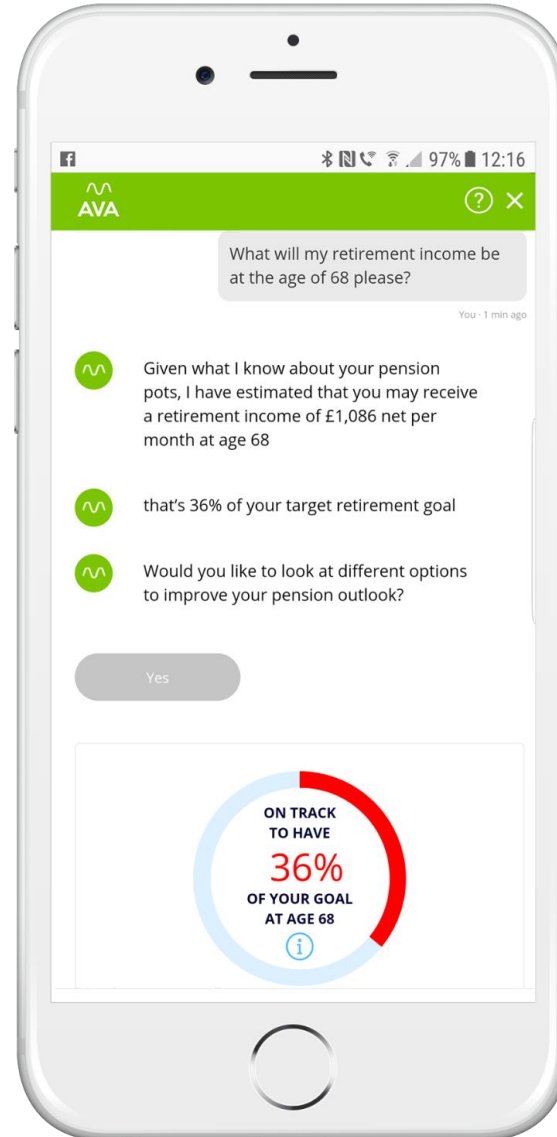Comply with new regulations of financial advice on pensions *(see appendix)*

1 MILLION PEOPLE ALREADY BENEFITING FROM ABAKA

AWARD WINNING PLATFORM

We provide financial institutions, of any size, anywhere in the world, the software to thrive in the
digital savings age.

We do this by powering **conversational AI** to deliver affordable and accessible financial advice.
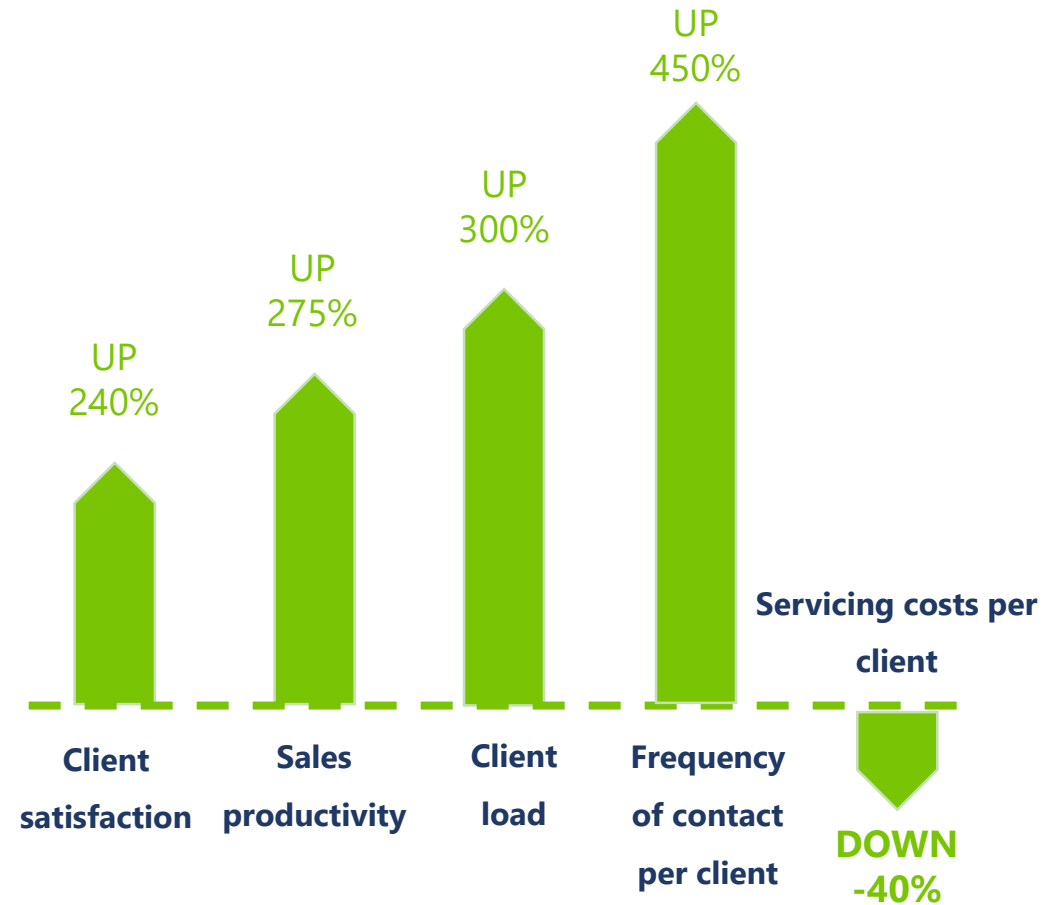
AVA

What will my retirement income be at the age of 68 please?

You · 1 min ago

Given what I know about your pension pots, I have estimated that you may receive a retirement income of £1,086 net per month at age 68

that's 36% of your target retirement goal

Would you like to look at different options to improve your pension outlook?

Yes

ON TRACK TO HAVE
36%
OF YOUR GOAL AT AGE 68

IMMEDIATE RETURN ON INVESTMENT

X 1.2
Increase AuM*

500%
Boost digital engagement**

90 days
Deploy in days, save millions

UP 240% — Client satisfaction

UP 275% — Sales productivity

UP 300% — Client load

UP 450% — Frequency of contact per client

Servicing costs per client — DOWN -40%

Increase advisors' reach and productivity

*Increase of AuM inflows from number of accounts transferred and new account openings with customers using ABAKA
**Measured against average level of employee engagement on pensions

REINVENTING THE ADVISORY MODEL

DELIVER CLIENT VALUE WHILE MAINTAINING COST EFFICIENCY

ABAKA powers 2 models of digital advice

to serve 2 market audiences

FULLY AUTOMATED
ADVISORY

HYBRID ADVISOR
MODEL

with digital holistic financial advice &
low touch portfolio management

for higher tier retail market or mass
affluent client base

Chatbot triage service to give more control
to the customer, reach more customers, and
free-up advisor productivity

for human touch relationships with mass
affluent to high net wealth clients

REINVENTING THE ADVISORY MODEL

DELIVER CLIENT VALUE WHILE MAINTAINING COST EFFICIENCY

ABAKA powers Financial Advice that is

DIGITAL	ACCESSIBLE	AFFORDABLE
Engage all customers where they are, digitise distribution channels.	Grow your reach and product adoption with existing and new customers.	Reduce customer acquisition costs and increase lifetime value of customers.
Provide simple, intuitive and personalised user experiences (conversational or hybrid).	Give instant access to financial education, guidance and advice anytime, anywhere.	Leverage cutting-edge AI technology to automate workflows and extend advisers' capability.

AVA, YOUR FINANCIAL ADVISOR, ANYTIME, ANYWHERE

CHATBOT AVA HAS BEEN DESIGNED AROUND A FINANCIAL ADVISOR'S BRAIN

ABAKA COGNITIVE PLATFORM 6 MODULES AVAILABLE

IMPLEMENTATION IN LESS THAN 90 DAYS
INCREASE AGILITY OF SERVICE AND PRODUCT OFFERING

ABAKA VIRTUAL ADVISOR (AVA)

Conversational User Interface to impersonate a financial advisor

Multi channel to reach customers where they are

ABAKA NATURAL LANGUAGE UNDERSTANDING

Enable human-like conversations, deeper customer insights, facilitate user actions

ABAKA DOMAIN-SPECIFIC LANGUAGE (DSL toolkit)

Customise and update AVA's conversations and advice workflows.

Fit with and control over firm's compliance requirements

ABAKA ANALYTICS

Intelligent actionable nudges
ML models for personas
Custom reports on usage & trends

ABAKA INTEGRATION PLATFORM (AIP)

Accounts aggregation platform
Extraction of value added data for each account type to provide 360° view of customers

ABAKA FINANCIAL ENGINE

Goal-based investing
Risk profile & Ready-made portfolios
Integration with Asset Manager and Custody platform

ABAKA on Microsoft Azure

ABAKA DSL SOFTWARE TOOLKIT

Canvass platform enabling institutions to create, edit, monitor in days any update on the chatbot. Fit with and maintain control over your own compliance and products requirements.
No hard coding involved...

ABAKA'S UNIQUE PROPOSITION

1 MILLION PEOPLE BENEFING FROM ABAKA
AWARD WINNING PLATFORM

AVA

Have a look at our software here!
(Click)

PROPRIETARY NATURAL LANGUAGE UNDERSTANDING (NLU)

The only conversational AI platform in the world powering advice on pensions, savings and investments. Human-like conversations, deeper customer insights, transactional chatbot. Full control of model.

AGILITY OF SERVICE AND PRODUCT OFFERING, CONTROL COMPLIANCE

Fully customisable DSL financial advice toolkit to fit with enterprise's business and compliance requirements. Control consistency and compliance of advice.

SPEED TO MARKET, LOW ENTRY COST

Deliver a ready to launch white labelled solution in less than 90 days.

INTELLIGENT ACTIONABLE NUDGES

Nudging machine learning models. Power personalised engagement. Nudge cross-selling / up-selling opportunities to grow reach and product adoption.

GOAL BASED INVESTING

Maximising outcomes for each savings goal.
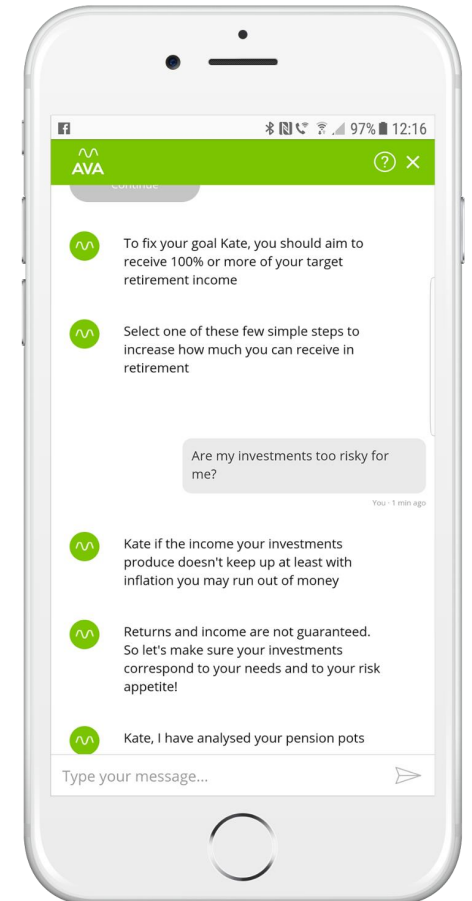
AGGREGATION ACCOUNTS PLATFORM

360° view of customers for pensions, savings, bank accounts.

MULTI CHANNEL, MULTI DEVICES

Mobile, Chat, Messenger, Alexa, web, or human augmentation. Reach your customers where they are.

SEAMLESS INTEGRATION

With custody platform, web or mobile applications, Single Sign On.

To fix your goal Kate, you should aim to receive 100% or more of your target retirement income

Select one of these few simple steps to increase how much you can receive in retirement

Are my investments too risky for me?
You · 1 min ago

Kate if the income your investments produce doesn't keep up at least with inflation you may run out of money

Returns and income are not guaranteed. So let's make sure your investments correspond to your needs and to your risk appetite!

Kate, I have analysed your pension pots

Type your message...

ROI for Financial Institutions using ABAKA (case study)

DEAL WITH MARGIN COMPRESSION, INNOVATION CHALLENGE, SPEED & AGILITY

21% of users opening new savings accounts

76% of users have set up retirement goal

33% response rate to personal nudges

15% of users requesting financial advice on retirement with Ava

35% of employees signed up to ABAKA at the workplace

19% of users transferring to consolidate retirement accounts

23.5% of users saving more into retirement

Ava identified and provided advice to switch funds to more suitable solutions:

37% of group age 20-40 had inappropriate risk levels across pots*:
- **2/3 taking on too much risk**
- **1/3 taking on too little risk, reducing members' ability to accumulate retirement wealth**

15% of group age 50-66 had risk levels close to 100% equity portfolio, putting them at serious risk to market shocks

Users who take advice with Ava see a 32% bump in retirement income forecast

* User risk assessment by Ava vs. identified current risk exposure across the multiple pension pots linked on ABAKA

ABAKA COGNITIVE PLATFORM: ALL IN ONE SOLUTION

Technology Services provider of the year at the Pensions & Investment Providers Award 2018

Winner Wayra-Telefonica UK's AI & Blockchain Accelerator Program 2018

Finalist European Fintech Awards / TechCity 2017

- **Tried and tested white-label solution: successful track record of implementation at scale with large financial institutions**

- **Speed to market: full solution deployable in just under 90 days for main existing features, edits and updates quickly deployable to iterate in days**

- **Cost effective implementation, easy integration: savings millions compare to in-house build, flexible pricing structure**

- **Flexible and fully customised: support both digital and hybrid model, integrate your compliance requirements and investment product offering**

- **Fully compliant: suitability report, ongoing holistic advice (financial capacity and affordability, financial knowledge, personal risk aversion and preferences, risk needed, etc.)**

PENSION AND INVESTMENT PROVIDER AWARDS 2018

Winner
TECHNOLOGY SERVICES
ABAKA

Fintech For All 2017 | From TECH CITY
The Finalists
Pockit   aire   ABAKA

USER TESTIMONIALS

Some key themes where ABAKA is adding value and empowering individuals: managing everyday money, financial advice and pensions tracking.

"I mainly downloaded ABAKA because it can categorise where I spend my money each month. I love that it can show me how this changes from month to month and therefore I can see where to cut back and save that money instead."
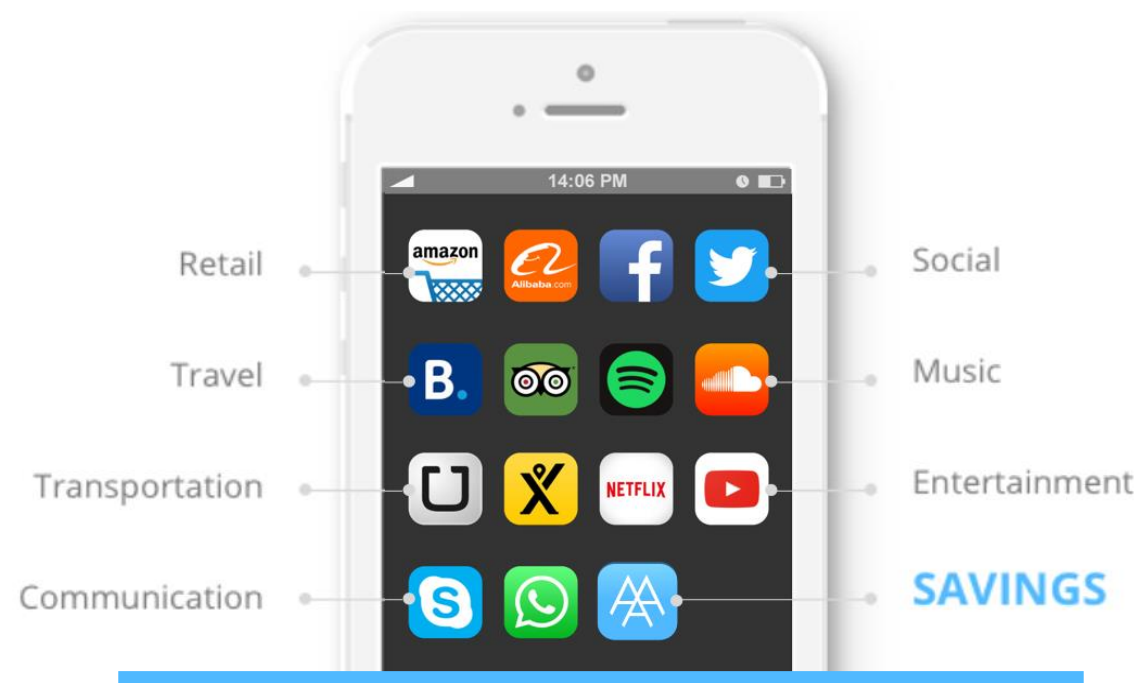
"I was really interested in the financial advice it could give on retirement"

"Having the app on my phone is a useful way to keep a close eye on activities, without having to do too much extra work, life admin takes over sometimes so this is just nice I can set a little reminder and just check. in a few clicks, and reduce the amount of paperwork and filing I need to go through."

"I signed up to ABAKA because I'm interested in making my savings go further. Since learning more about it the thing I'm most interested in is tracking the occupational pensions in one place especially as I'm concerned about how much I'll need to have saved to have a comfortable retirement, and ideally would like to not have to work until I am 69 years old."

"I like the idea of getting tips and advice, especially when I don't have time to keep a constant eye on my finances."

ABAKA

The Cognitive Financial Advice platform

Appendix

STRONG TEAM WITH B2B EXPERTISE

THE FOUNDERS

Fahd Rachidy, Founder & CEO. Fahd is a serial entrepreneur passionate about improving people's financial wellbeing, and re-inventing the way the financial industry works. Fahd was co-founder of Scientificbeta.com, his previous venture which is now the leading European pension platform for smart beta indices, with $40bn AuM. Ecole Centrale, Sorbonne University, Lycée Louis Le Grand Paris.

Benoit Launay, co-founder & CTO. Former head of machine learning and data insights on Microsoft Azure (France). Former Senior Product Developer and Solution Architect at Microsoft (Redmond, US). Expert in cloud-based platforms and data management, B2B solutions for Microsoft clients. Started at Bell Labs in voice recognition in 2001. Ecole Centrale, Technical University Munich.

OUR BOARD OF DIRECTORS

Divyata Ashiya. Divyata was with Goldman Sachs for 18 years in London and Singapore, and spent the past 10 years in the fiduciary space. She led the GSAM franchise in these regions including with financial institutions and pension funds.

Dan Smith. Dan is managing partner for Anthemis Exponential Ventures, a global investment firm focused on financial wellbeing in the Fintech, Insurtech and Healthtech sectors.

Oliver Payne. Oliver manages pensions and benefit plans covering 70,000 employees across 22 countries ($25bn pension plans) for Ford Motor. Oliver is an Actuary and was previously at Deloitte.

CORE TEAM

Gard Jenset. NLU expert. PHD linguistics. Applied computational linguistics for building and maintaining human-like computational dialogue systems. Chatbot expertise. Oxford University, Bergen University.

Victor Tejero. Nudge expert. PHD computational chemistry. Senior data scientist with expertise extracting insights from Big Data. Barcelona University.

Anil Rajgor. Senior software developer, 14y experience. Product owner for ABAKA enterprise software platform, white label. Master Engineering Imperial College London.

Seema Fatania. Senior Sales & Partnerships. Over 10y experience in B2B sales and delivery. Successfully supported the acquisition and retention of clients for software companies. Brunel University.

Dane Taylor. Customer Success & Employee engagement. Successfully achieved high user growth and user engagement at IMB Financial Services. Rhodes University.

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WHY WE'RE BETTER

Expert understanding of Domain Specific Language for regulate financial advice on pensions (DSL)

Proprietary machine learning models leveraging structured data on cloud platform

- **Data structure and ownership**
  - Transfer and structure your data from multiple channel (email campaigns, mobile or online usage) to extract insights on DSL
  - Full ownership of data. Control GDPR implications of sending data to third party models

- **Our Natural Language Understanding (NLU) models have higher performances on our DSL and context**
  - Accuracy > 92% (vs. 85% for commercial NLUs)
  - All commercially NLU APIs have limitations on number and intents and training data*
  - NLU can require a hierarchy of separate NLU models, whose type and number are limited (10) with main vendors
  - Not having control of these API features is a serious problem to improve and scale NLU on a DSL

- **Performance, Control & Compliance**
  - Standard NLU API services are black boxes: can't combine multiple models, can't optimize parameters for DSL, can't control logging process, can't explain how the model provide personal financial recommendation (this is a regulatory requirement)
  - By tuning and combining our NLU models, we achieve substantial improvement in accuracy (accuracy > 92%).
  - Our algorithms provide perfect audit trail and fully compliant advice, easy to adapt if regulations or jurisdictions change
  - Control of the logging process makes it easier to extract value from log data for a range of purposes: NLU improvements, personalised UX, nudges, business insights
  - Microsoft cybersecurity level: MFA, encryption at all time, threats detection, GDPR compliant

* Microsoft Luis: number of intents (max 500), amount of training data (max 15000), which algorithms, etc. IBM Watson: max 200 intents, 1000 responses max to those intents

PROVIDERS WAKE UP CALL

Default strategy need to become customer centric, focused on personalisation

Digital areas that are the top priorities in 2018*

- Targeting and personalisation — 37%
- Customer journey management — 37%
- Marketing automation — 21%
- Multichannel campaign management — 20%
- Conversion rate optimisation — 19%
- Content marketing — 17%

Over next 5y, top focus to differentiate from competitors*

- Customer experience - making it easy/fun/valuable
- Customer service - enhancing service across all touchpoints
- Product service / innovation
- Product / service quality

* 2018 Digital Trends in Financial Services, Adobe/Econsultancy, survey on 700 industry leaders in financial services

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PROVIDERS MUST ADAPT TO COPE WITH COMPLIANCE

Providers need ABAKA to comply with the new provisions of financial advice on pensions

1. **June 2018 FCA Retirement Outcomes Review**. Need to: before consumers access their pensions provide better communications, support and guidance ("wake up pack"). At the point of entering drawdown or buying an annuity to offer ready-made drawdown solutions ("guided pathways"). Post retirement still need information and support on an annual basis. Unlike a default in the accumulation phase, retirement pathways require the active consent of the customer

2. **October 2018 Master trusts must reach MAF accreditation**: comply with capital requirements, member engagement and suitability risks

3. **May 2018 FCA robo-advisors slammed on suitability**: "Many firms did not properly evaluate a client's knowledge and experience, investment objectives and capacity for loss in their suitability assessments. We were not satisfied with the strength of information gathering about clients' financial circumstances."

4. **March 2016 & Jan 2018 Financial Advice Market Review (FAMR) and Retail Distribution Review (RDR).** Next report in 2019. Stimulate the development of a market which delivers affordable and accessible financial advice and guidance to everyone, at all stages of their lives. Ban advisors retro commissions, increase level of advisors required qualification, enable employees to use their pension pots to pay for advice.

5. **MiFID II Jan 2018 (Europe):** new definition of advice based on personal recommendation, ban retro commissions

6. **DOL Fiduciary Rule (U.S.) 2017-2019:** fiduciary advice, obligation to put client interests first

7. **New Form 5500 (U.S.):** compulsory in Jan 2019. Obligation on plans to report detail investment categories held in individual plan, demonstrate sustainable retirement plan for self-directed brokerage accounts

8. **U.S. auto enrolment being implemented in some states** (employers forced to offer 401(k): Illinois, Washington, Oregon and California since Jan 2017, other States to follow

Disclaimer

www.abaka.me