ASX Announcement

23 June 2022

INVESTOR TECHNOLOGY DAY 2022

Appen Limited (ASX: APX) is holding an online Investor Technology Day event commencing at 10.30am AEST today. The presentation materials for the event are attached.

Authorised for release by the CEO.

For further information, please contact:

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About Appen

Appen is the global leader in data for the AI Lifecycle. With over 25 years of experience in data sourcing, data annotation, and model evaluation by humans, we enable organisations to launch the world's most innovative artificial intelligence systems.

Our expertise includes a global crowd of more than 1 million skilled contractors who speak over 235 languages, in over 70,000 locations and 170 countries, and the industry's most advanced AI-assisted data annotation platform. Our products and services give leaders in technology, automotive, financial services, retail, healthcare, and governments the confidence to launch world-class AI products.

Founded in 1996, Appen has customers and offices globally.

Powering the

AI life cycle

appen

Appen Limited

Investor technology day

23 June 2022

Agenda

- Appen's strategy
- Data for the AI lifecycle overview
- Technology demonstrations
- Closing
- Q&A

Introductions

Mark Brayan

MD and CEO

Wilson Pang

Chief Technology Officer

Sujatha Sagiraju

Chief Product Officer

Ryan Kolln

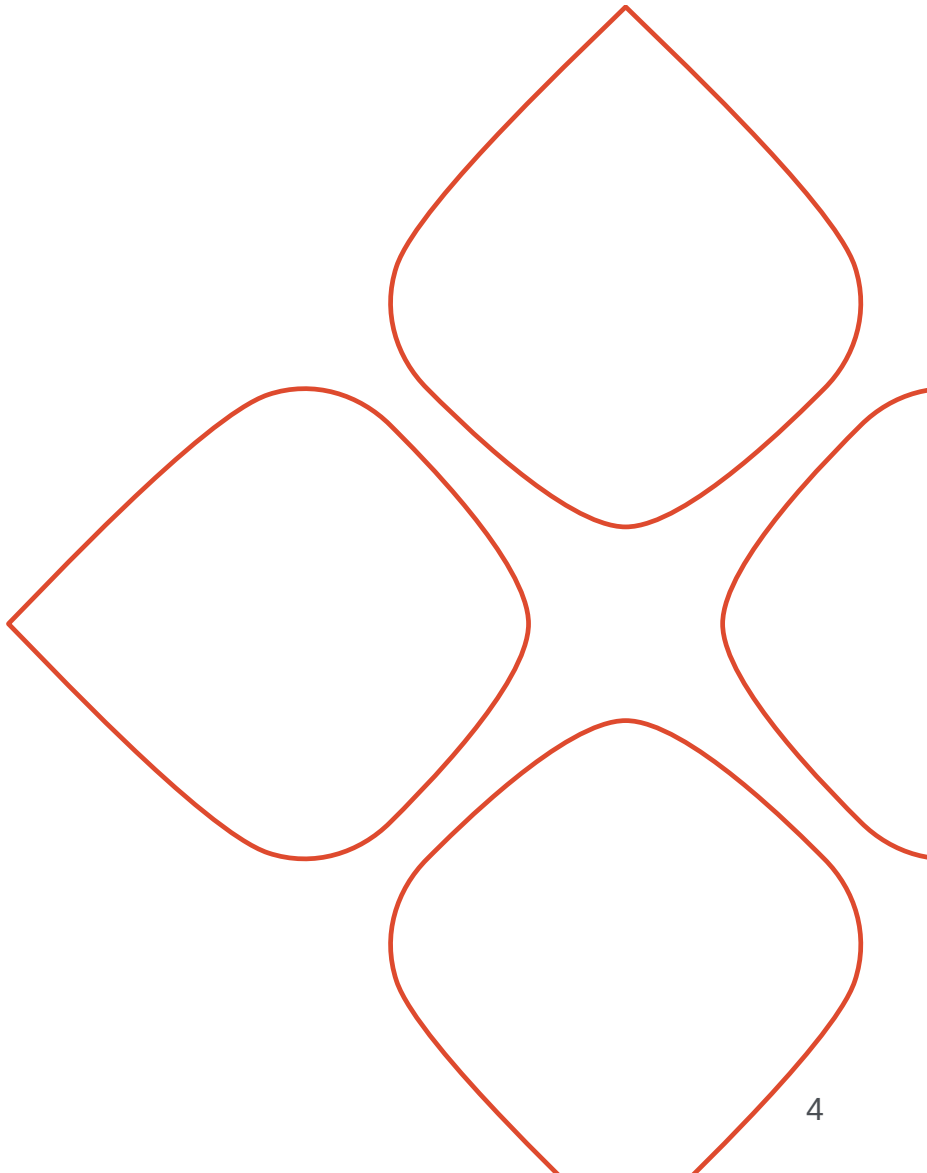
VP, Strategy and
Corporate Development

Mike Davie

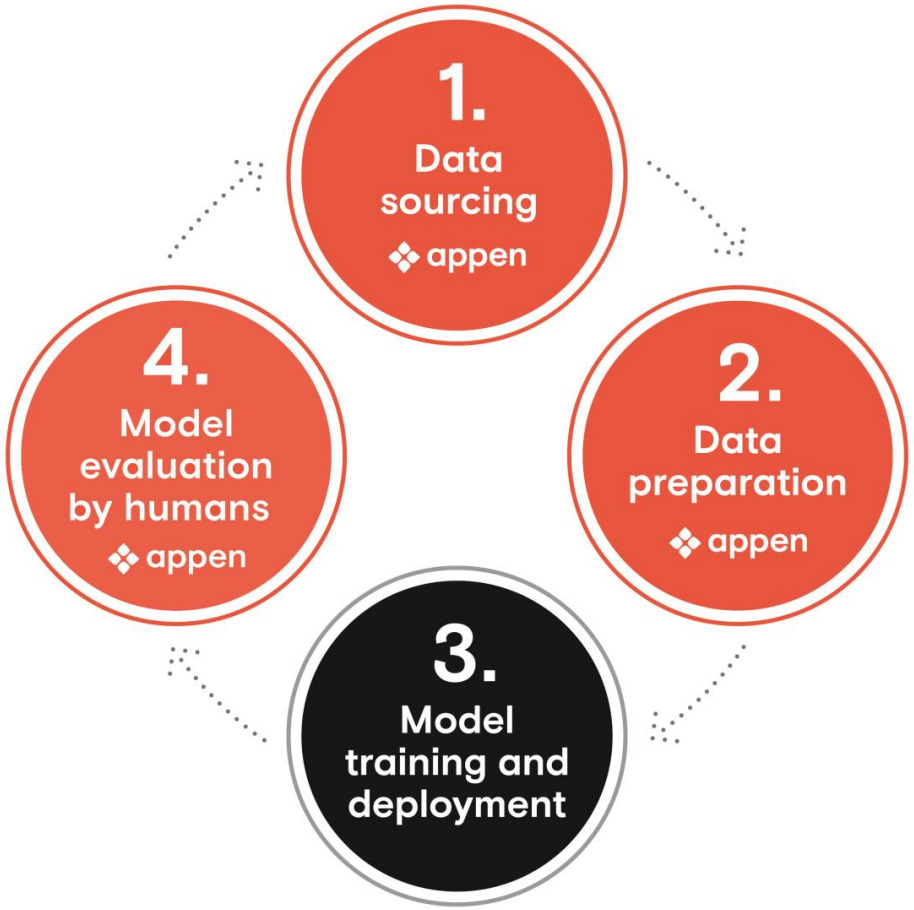
SVP and General
Manager, Quadrant

Appen's strategy

Ryan Kolln



Appen is the leading provider of data for the AI lifecycle



1. Data sourcing
2. Data preparation
3. Model training and deployment
4. Model evaluation by humans

Appen's tech underpins efficiency, quality, reliability and scalability

Appen Mobile	Appen Connect	Appen Data Annotation Platform	China platform	Geolancer	Hydra
Engages, enables and expands crowd	Match our global crowd workforce to annotation tasks	Collect and annotate training data	Crowd management and annotation for China markets	Point of interest data collection tools	Location data collection

Global Services

Global Product, Enterprise, Government | ***China*** | ***Quadrant***

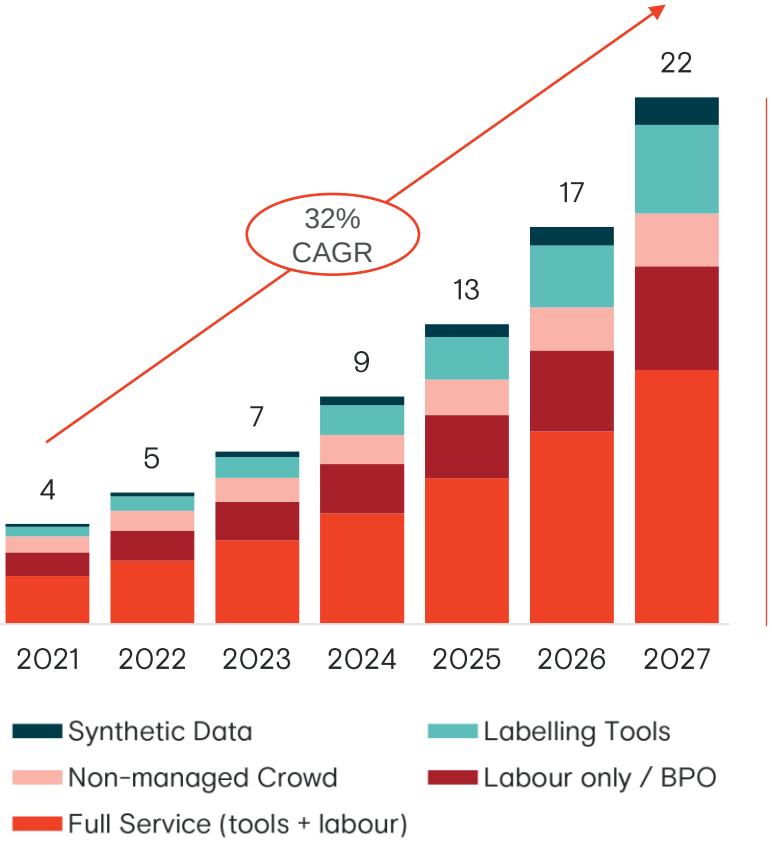
We are trusted by leading global tech companies

appen

The AI training data market is growing rapidly

Growing need for labelling

Data labelling market forecast (US$B) [1]



Appen supports all data labelling delivery models

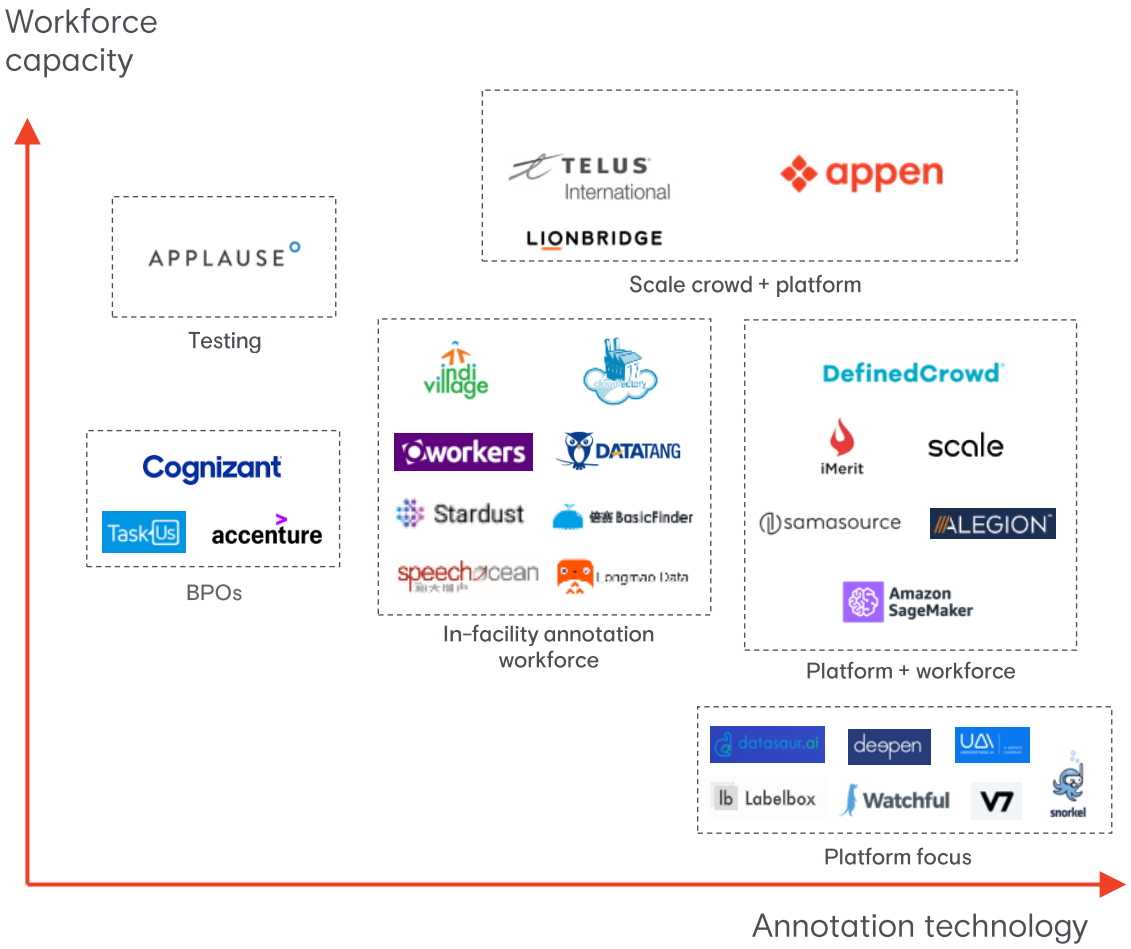
What customers are saying

- Vast, high-quality data sets are required for AI models to work perfectly
- Humans will continue to play a significant role in the creation of unbiased AI training data
- Technology is essential for delivering large-volumes of high-quality labelling and sourcing tasks and integrating with model development pipelines
- Data trust and privacy are paramount
- AI is experimental, requires high agility and expertise to support new product development. Customers less likely to commit spend
- Synthetic data is early but will play a role

1. Cognilytica Research Snapshot: Data Labelling Markets (December 2021)

Appen is strongly positioned against competitors

Competitive landscape

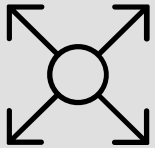


Our differentiators

- Unique combination of **leading annotation technology** and **global crowd**
- **Trusted by global AI leaders** to support both in-deployment and emerging AI enabled products
- 25 years expertise working delivering **high quality AI training data**
- Appen's crowd supports **large-scale data requirements with high quality**
- **Full market coverage** with dedicated business units focusing on Global (big-tech), China, Government and Enterprise

Technology is critical to deliver our strategy and long-term goals

appen

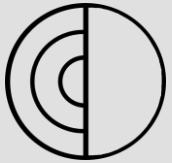


Grow
revenue and diversify

Delivery solutions that support revenue growth in specific segments

Automate
crowd and labelling processes

Crowd automation underpinned by AI/ML models that deliver improve gross margins



Expand
our product offering

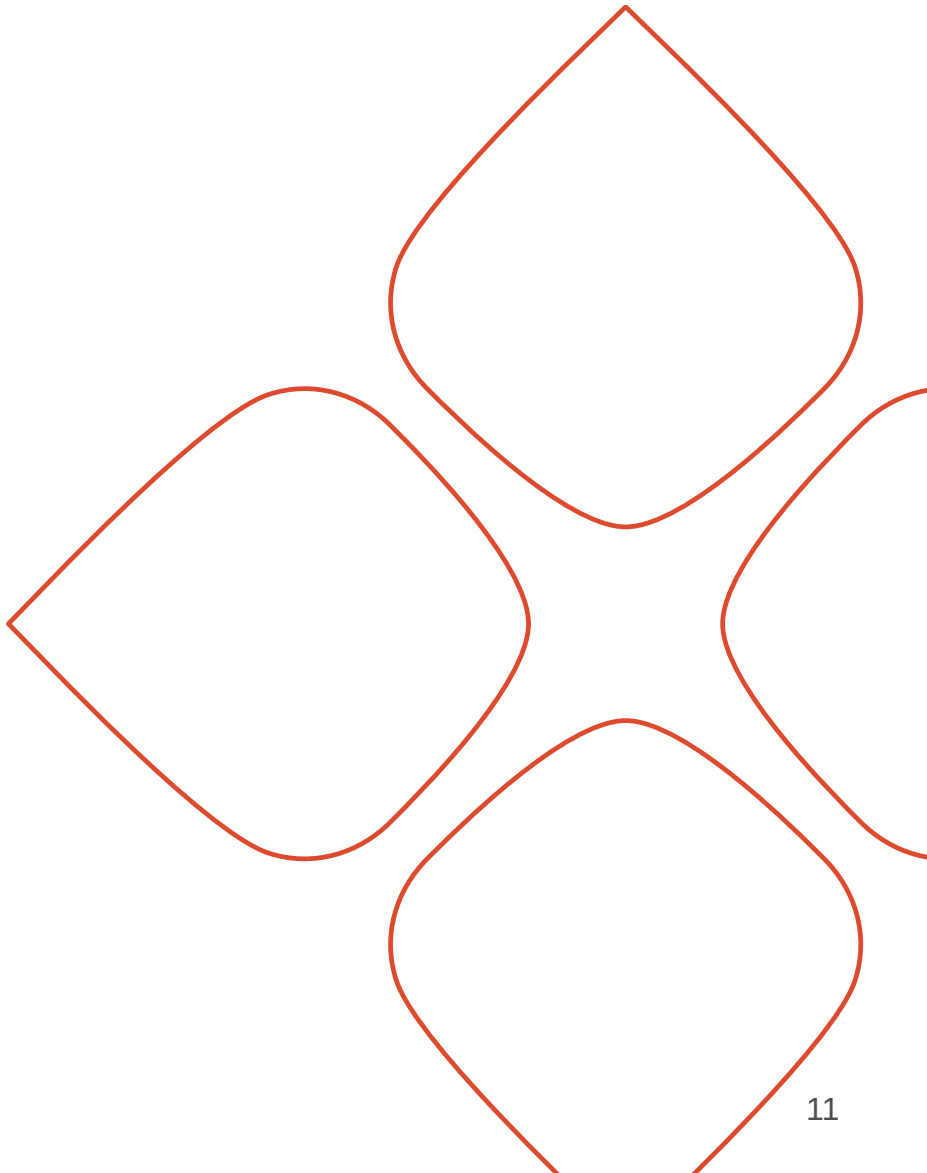
New tech-enabled products increase customer spend and improve retention rates

Evolve
how we do business

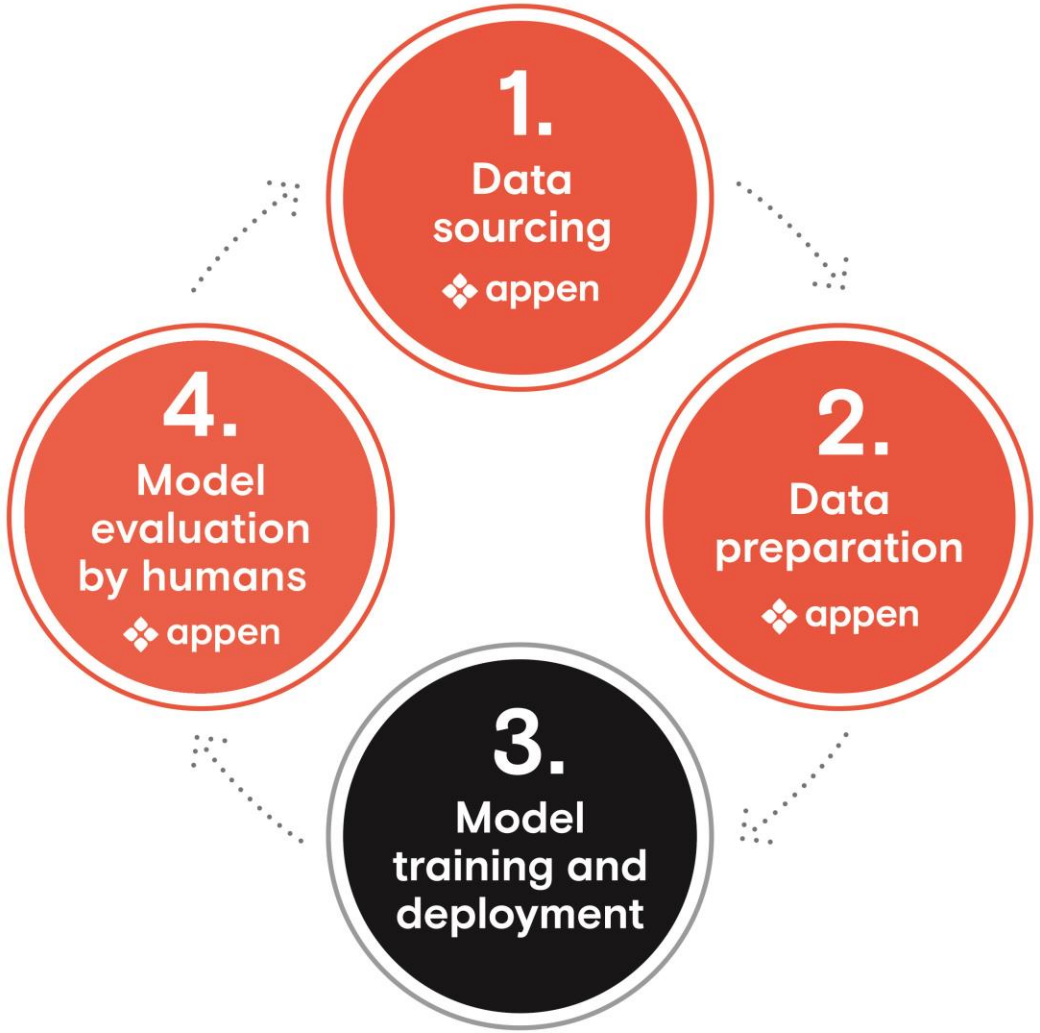
Utilising technology within our internal operations to improve margins

Data for the AI lifecycle

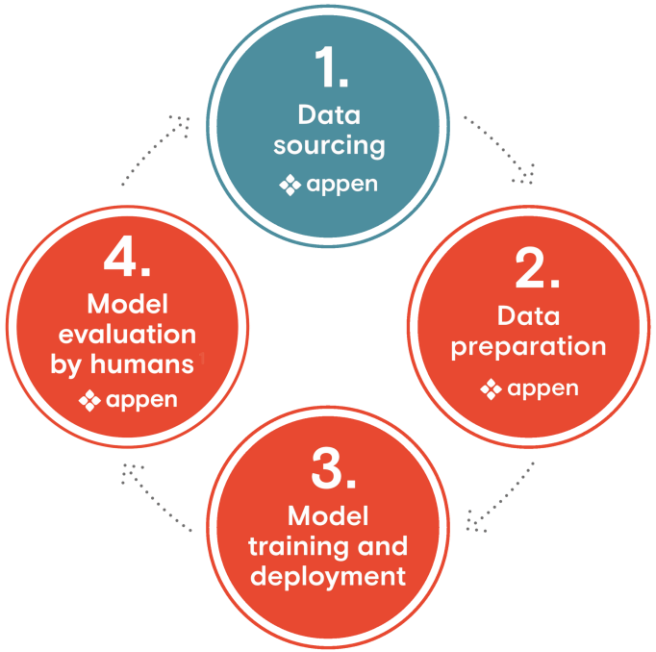
Sujatha Sagiraju

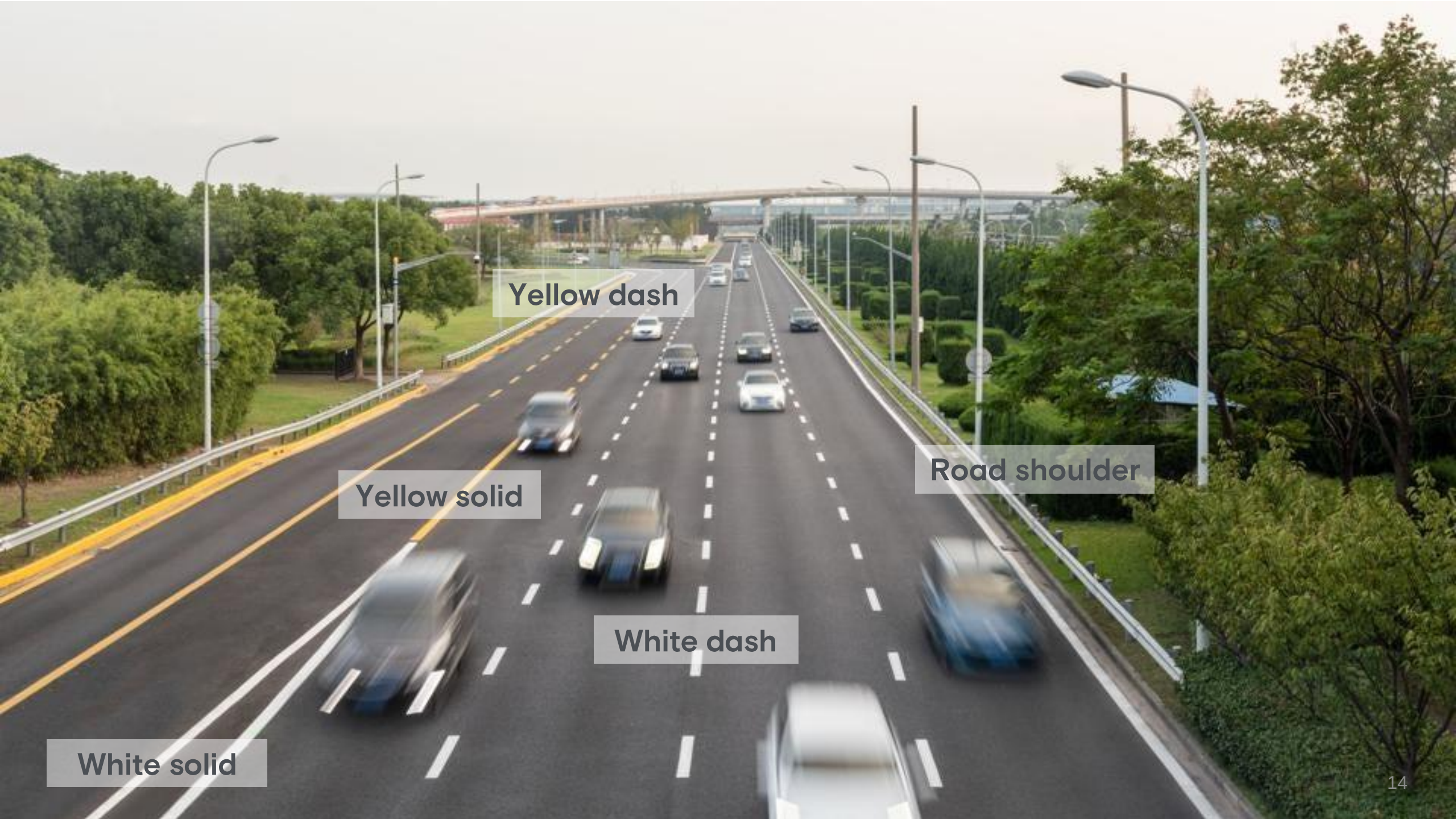


Enabling our customers to build AI applications

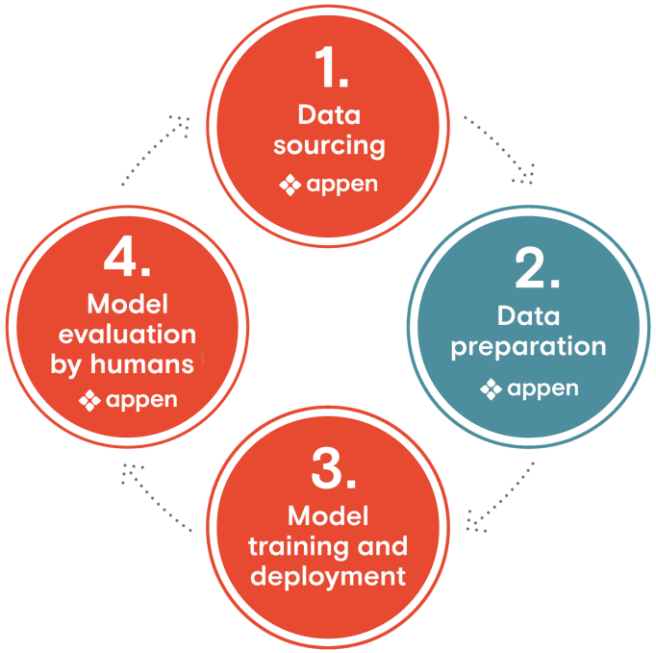


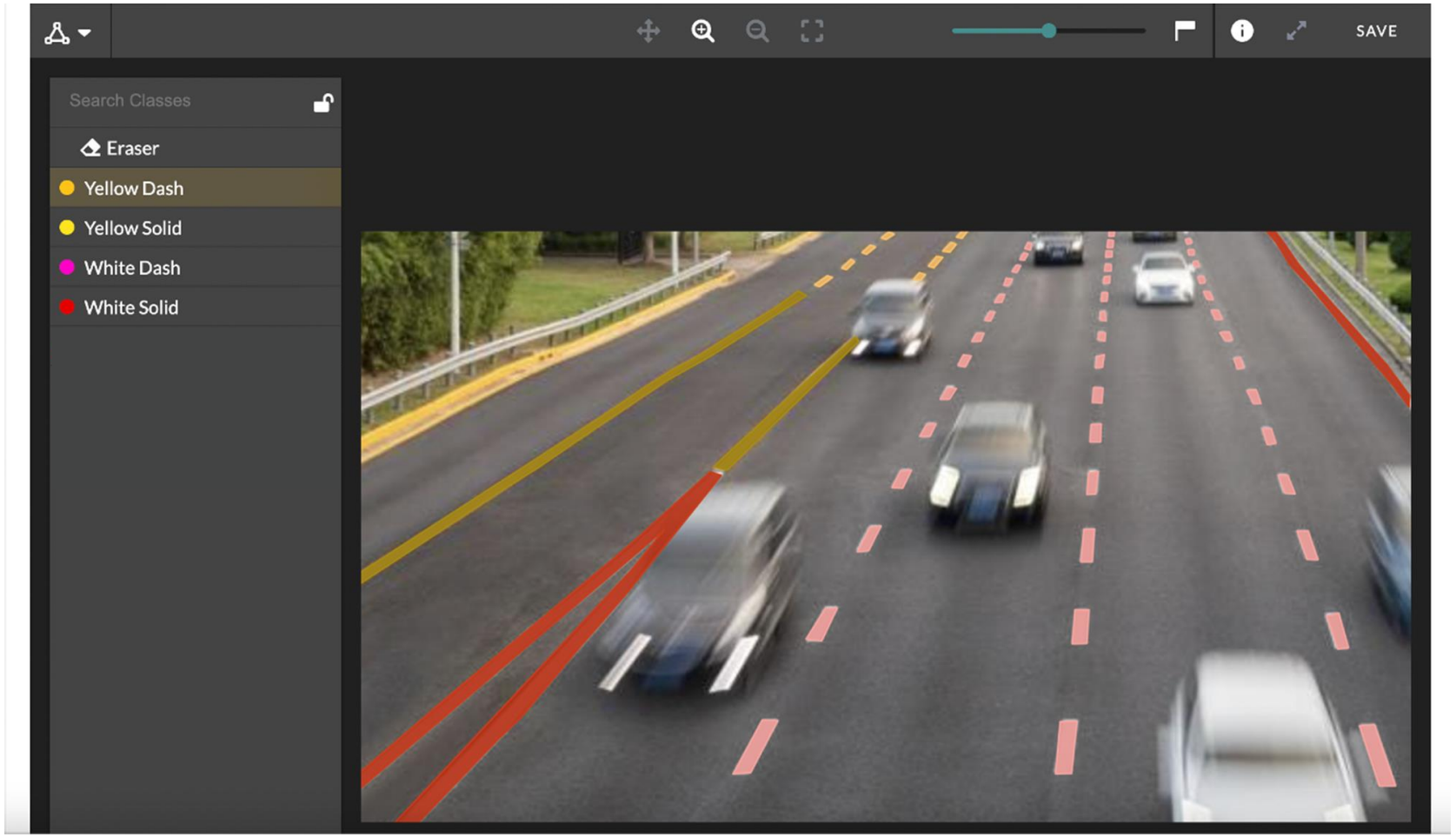
1. Data sourcing: distracted driver detection



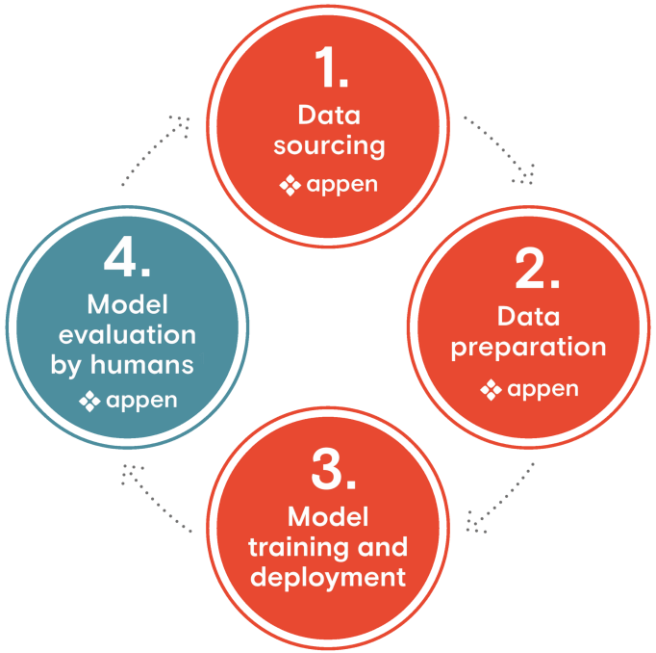

Yellow dash
Yellow solid
Road shoulder
White dash
White solid

2. Data preparation: lane line data labelling





4. Model Evaluation: voice activated function powered by Appen



https://view.appen.io/channels/cf_intyernal/jobs/432432/editor_preview?token=4532432

Did My Virtual Assistant Get It Right?

Instructions

What the user said to their virtual assistant:

"go to the nearest gas station"

The virtual assistant thought the user was asking about finding or navigating to an amenity or service

AMENITY - Anything to do with local amentities like looking up or finding gas stations, parks, etc.

Did the AI correctly classify the intent of the speaker as looking for information or directions to a local amenity? (required)

- (●) Yes
- ( ) No

What the user said to their virtual assistant:

"how much does gas cost at the nearest gas station"

The virtual assistant thought the user was asking about finding or navigating to an amenity or service

AMENITY - Anything to do with local amentities like looking up or finding gas stations, parks, etc.

Did the AI correctly classify the intent of the speaker as looking for information or directions to a local amenity? (required)

- ( ) Yes
- (●) No

Key points and benefits to the business

Appen supports the entire Data for the AI lifecycle for all data modalities

Our product strategy is key to delivering long term vision

Machine learning powered capabilities improve quality and delivery time

Benefit to the business

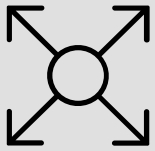
- Competitive advantage – one stop shop for AI data
- Expands our total addressable market, opens the market
- Technology enables scale and repeatability
- Improved gross margin

Our products enable our growth strategy

Grow revenue and diversify	Automate crowd and labelling processes	Expand our product offering	Evolve how we do business
China platform	Computer vision labelling automation	Point of Interest data	Crowd management
Knowledge graphs	Audio labelling automation	Synthetic data	Labelling quality flow

Our products enable our growth strategy

appen



Grow
revenue and diversify

Automate
crowd and labelling processes

Expand
our product offering

Evolve
how we do business

China platform	Computer vision labelling automation	Point of Interest data	Crowd management
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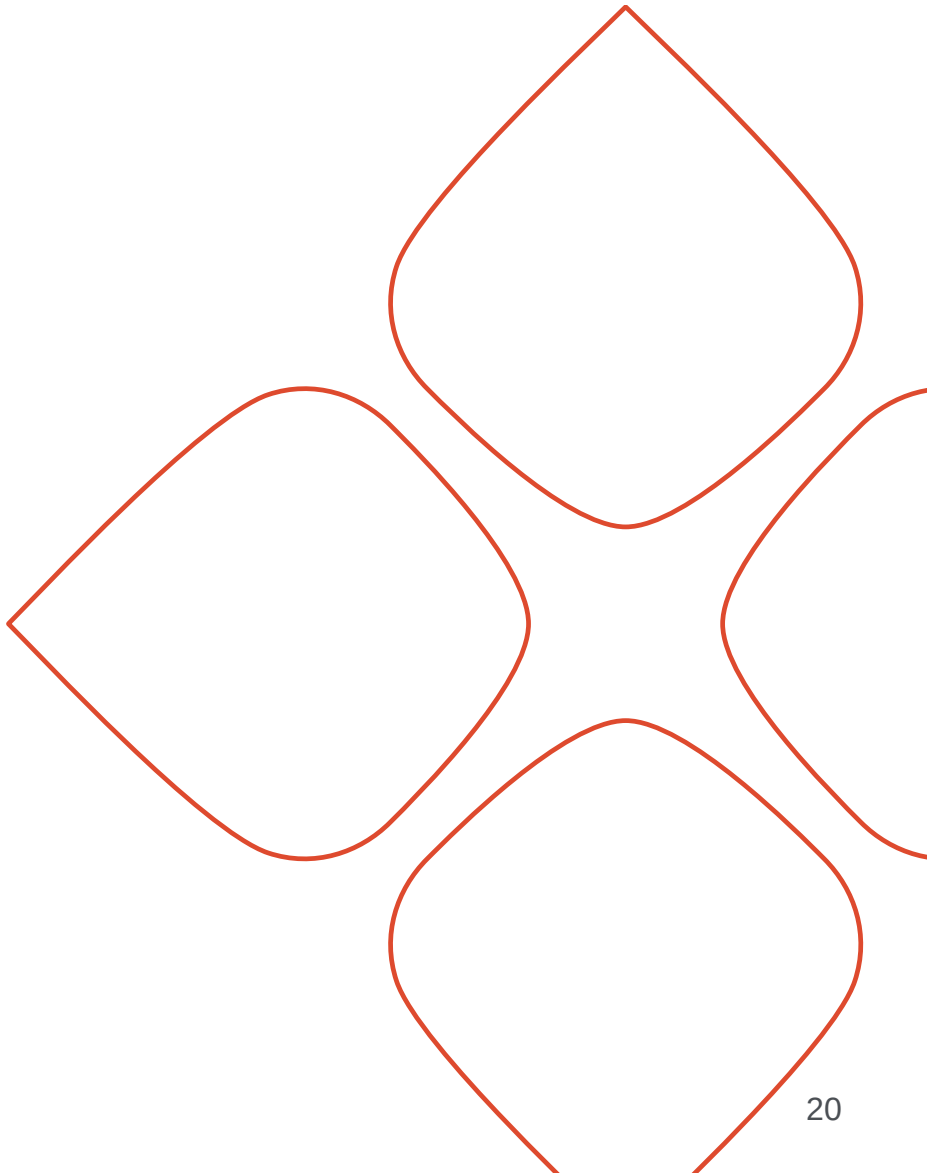
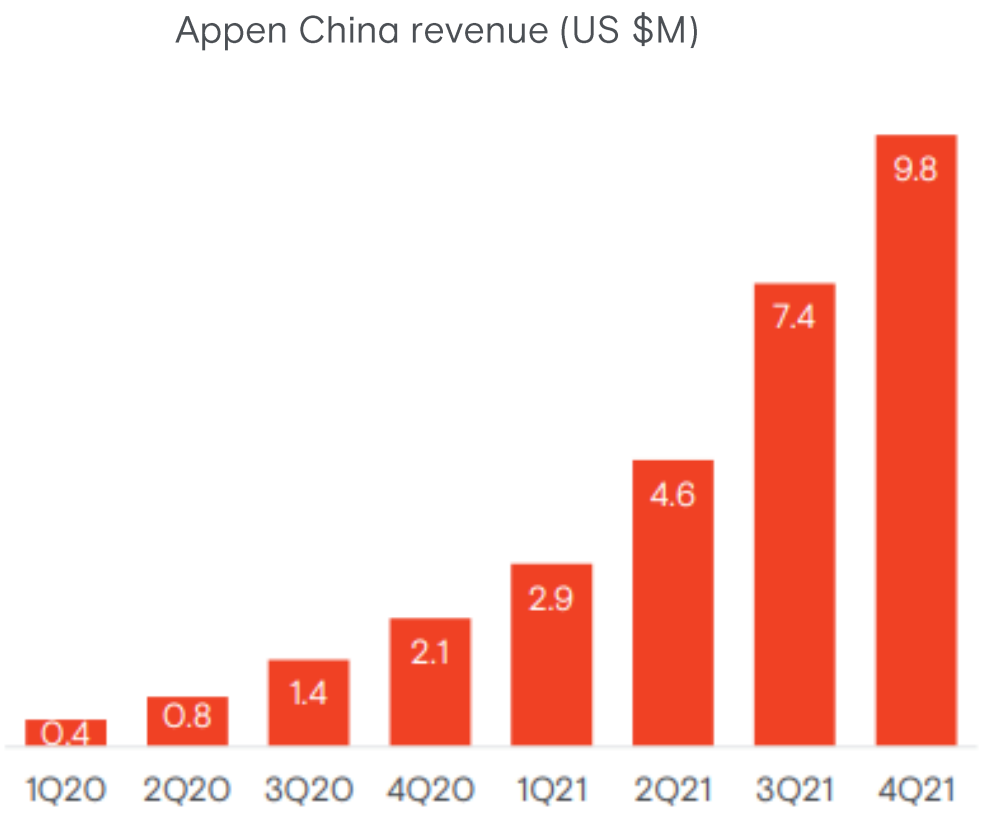
China annotation platform

Wilson Pang



Our market-specific platform is the key to our China growth

Appen has phenomenal growth in China



China platform underpins our growth

Built for local requirements

- Product features are design to suit China-specific customer requirements

Fast response time

- Dedicated engineering team enables rapid customer response

Data protection

- China data remains in market

IP protection

- Air-gapped platform provides IP protection for our non-China customers

Appen China platform has a full suite of annotation capabilities

Project management

- Project configuration
- Workflow configuration
- Data management
- Quality control
- Result analytics

Annotation Toolset

Image	Video	LiDAR
Audio	Transcription	Landmark
Translation	NER	Content relevance

AI pre-labelling

Classification	Object detection	Tracking	Transcription	ASR
OCR	Semantic segmentation	Key-points	Translation	NER

Workflow engine

Collection	Annotation	Quality check	Audit	Report

Resource Management

- Task distribution
- Internal team
- BPO management

Appen China has the benefit of accessing our global crowd

A crowd opt-in process enables Appen China to access our global crowd where crowd members give permission

China platform

Crowd management and annotation for China markets

Firewall

Appen Mobile

Engages, enables and expands crowd

Appen Connect

Match our global crowd workforce to annotation tasks

Appen Data Annotation Platform

Collect and annotate training data

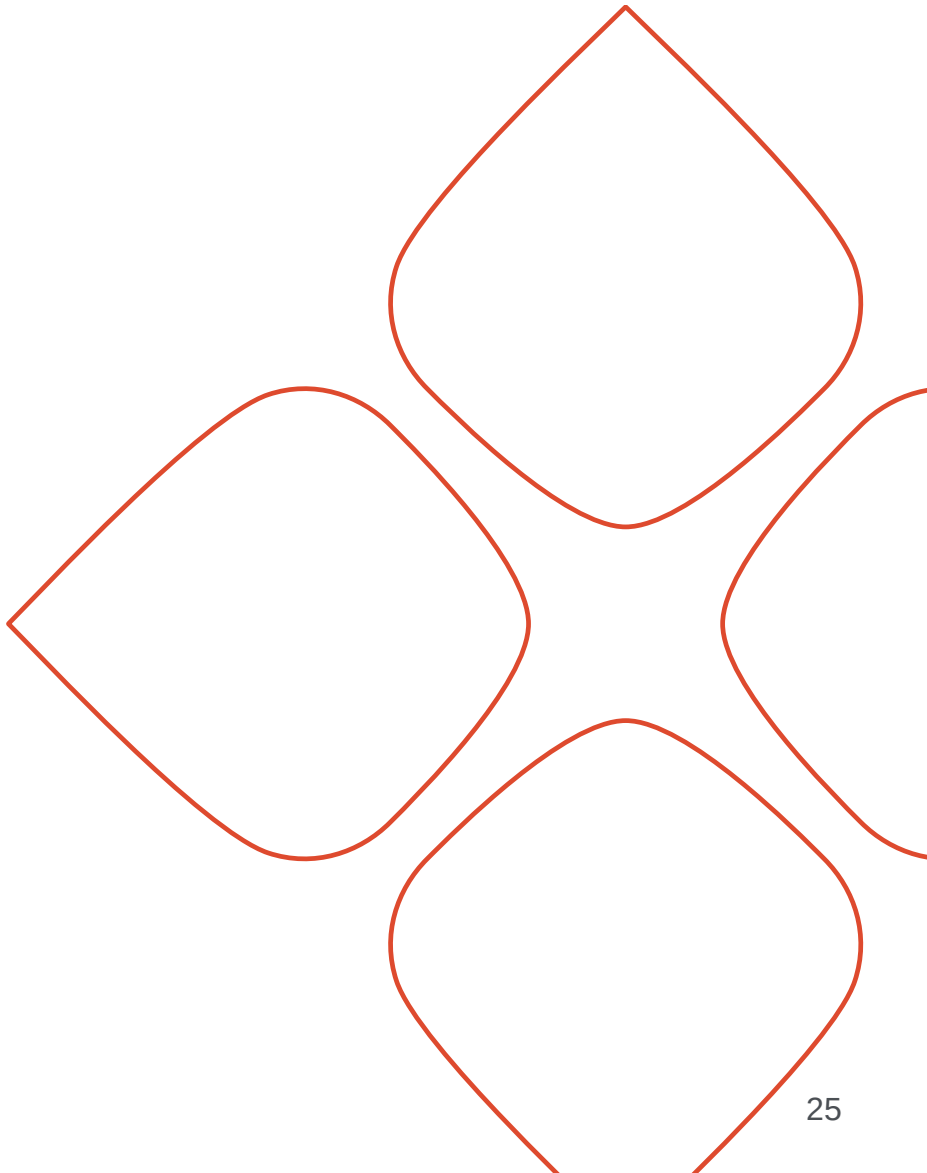
China platform fire-walled from core product suite to protect core IP and Chinese customer data

Key points and benefits to the business

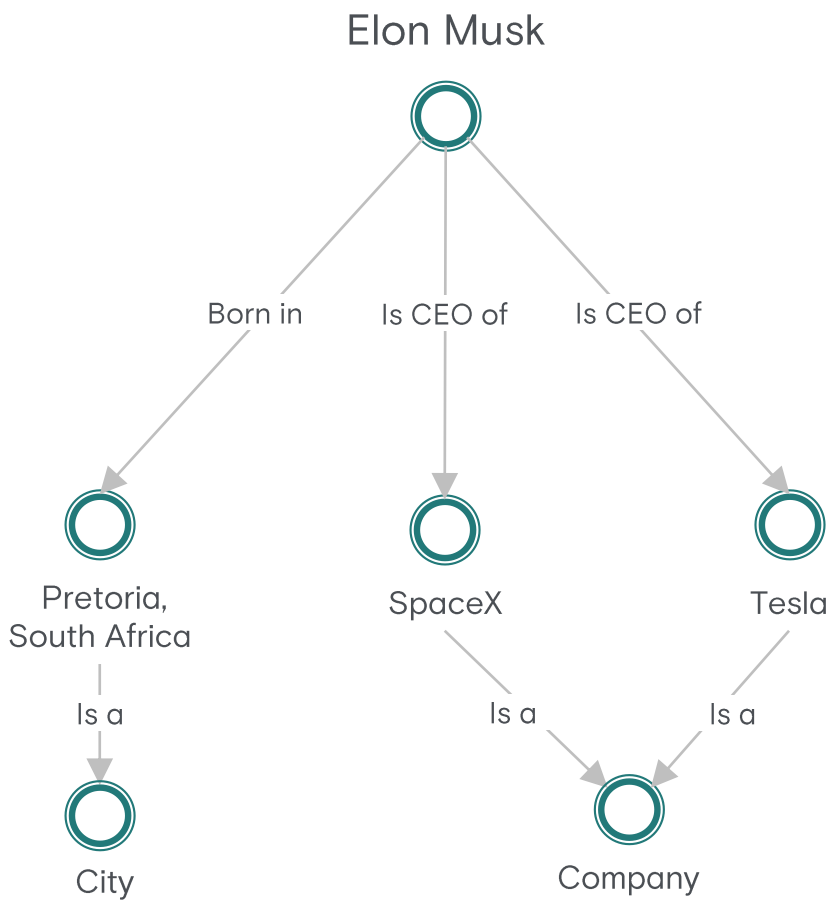
Tech underpins our success in China	We've invested our platform tailored to market specific conditions	IP and data protections create sufficient separation across our business units
Benefit to the business		
• Ongoing revenue growth in a high value market	• Expanded data modalities and platform features increase addressable market	• Customers value our approach to tech separation

Knowledge graphs

Ryan Kolln



Knowledge graphs use relationship structure to arrange data

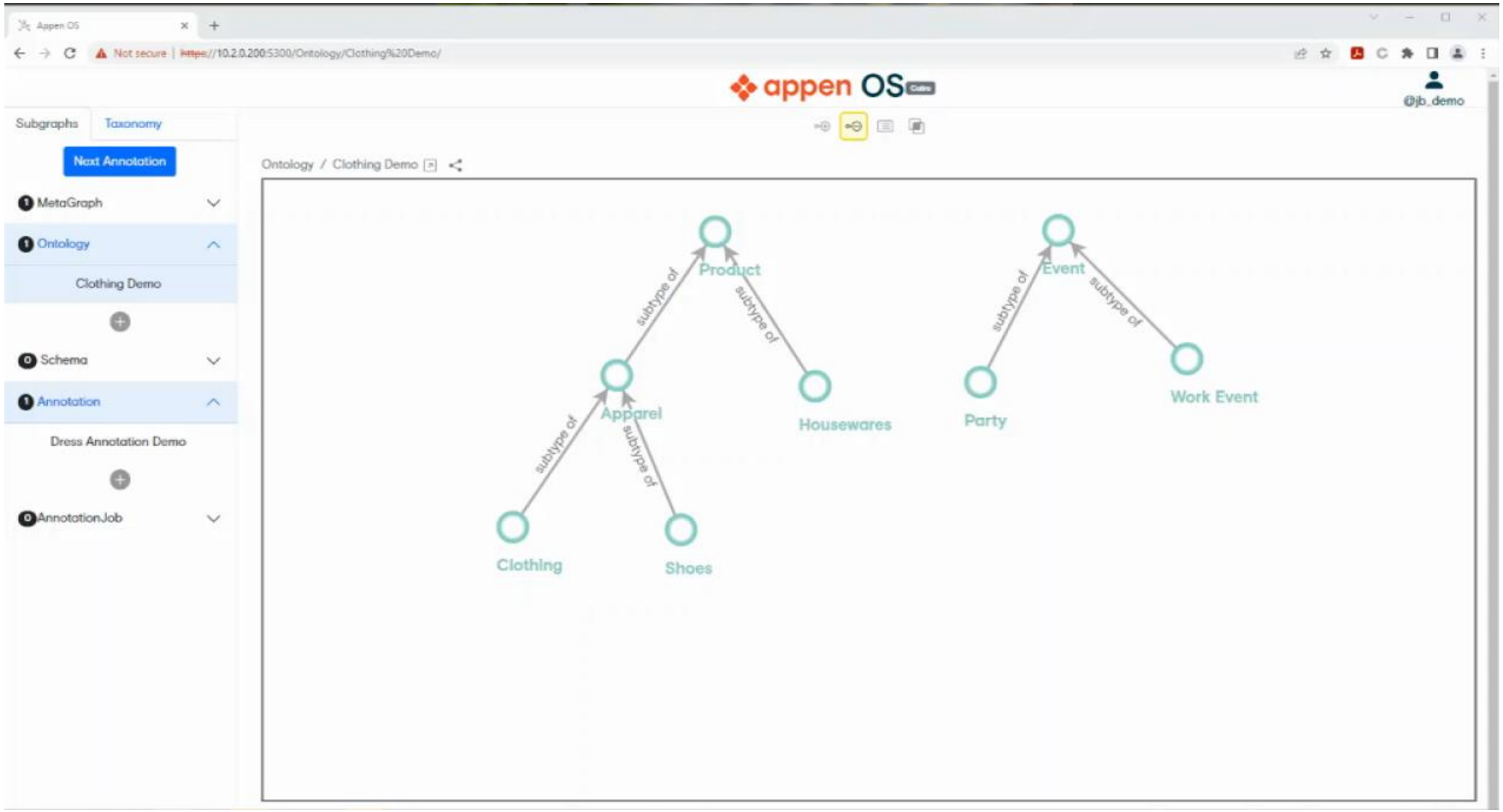


Knowledge graphs (KG) map relationships between data and underpin AI used by major technology companies

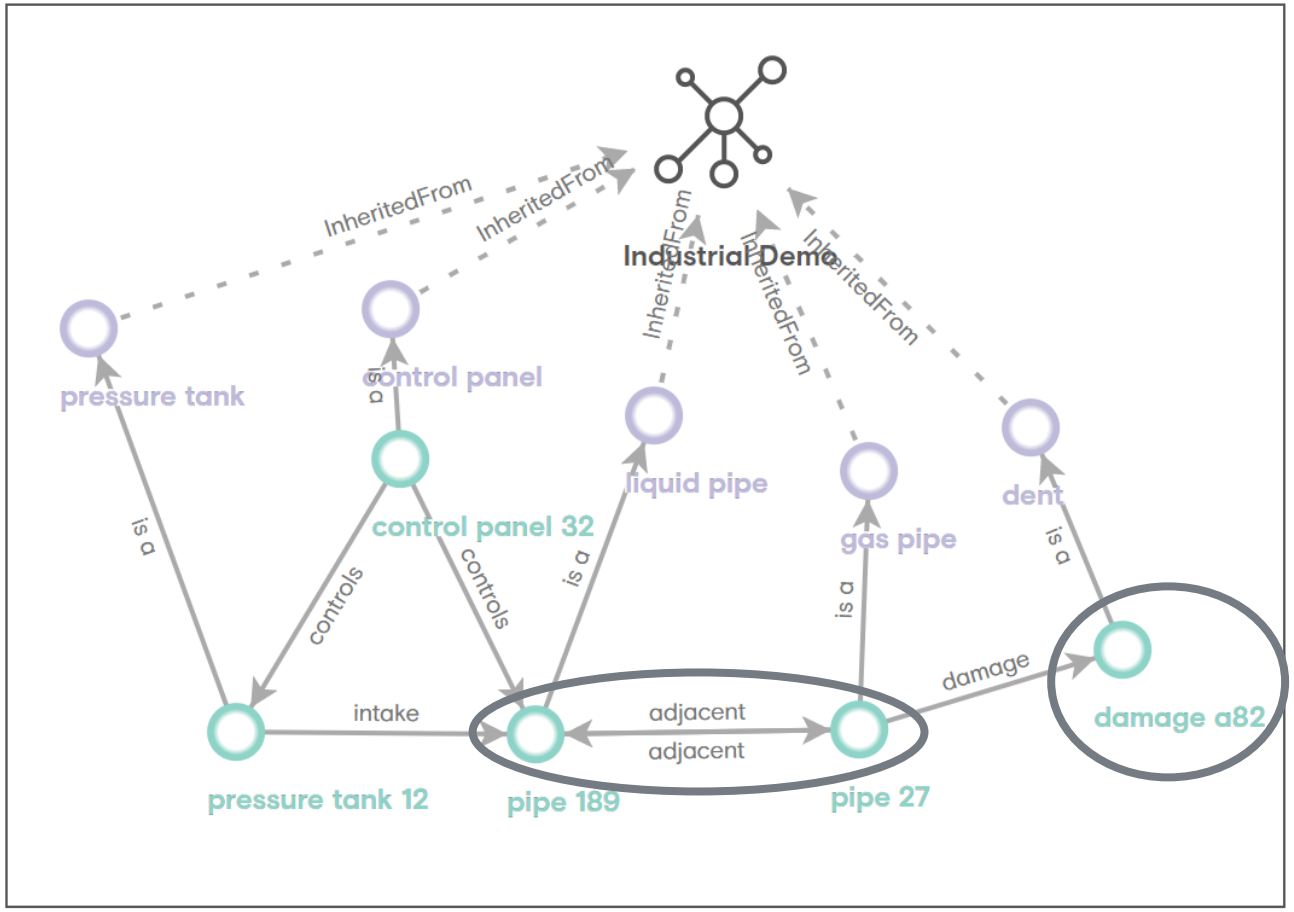
Appen has a long-history in providing linguistic services to structure data

Appen Ontology Studio (OS) combines our deep linguistic expertise with a no-code interface for customers to design knowledge graphs

Video demonstration of Appen Ontology Studio



Knowledge graphs are relevant to physical relationships



Key points and benefits to the business

Appen OS productises core components of our linguistic expertise	Democratises technology typically only available to leading tech companies	Appen OS interface simplifies data labelling process
Benefit to the business		
• Increases stickiness with our customers • Scales our expertise, improving our productivity	• Grows our addressable market in the Enterprise sector	• Improved productivity of the crowd for KG annotation projects

Our products enable our growth strategy

appen

Grow
revenue and diversify

Automate
crowd and labelling processes

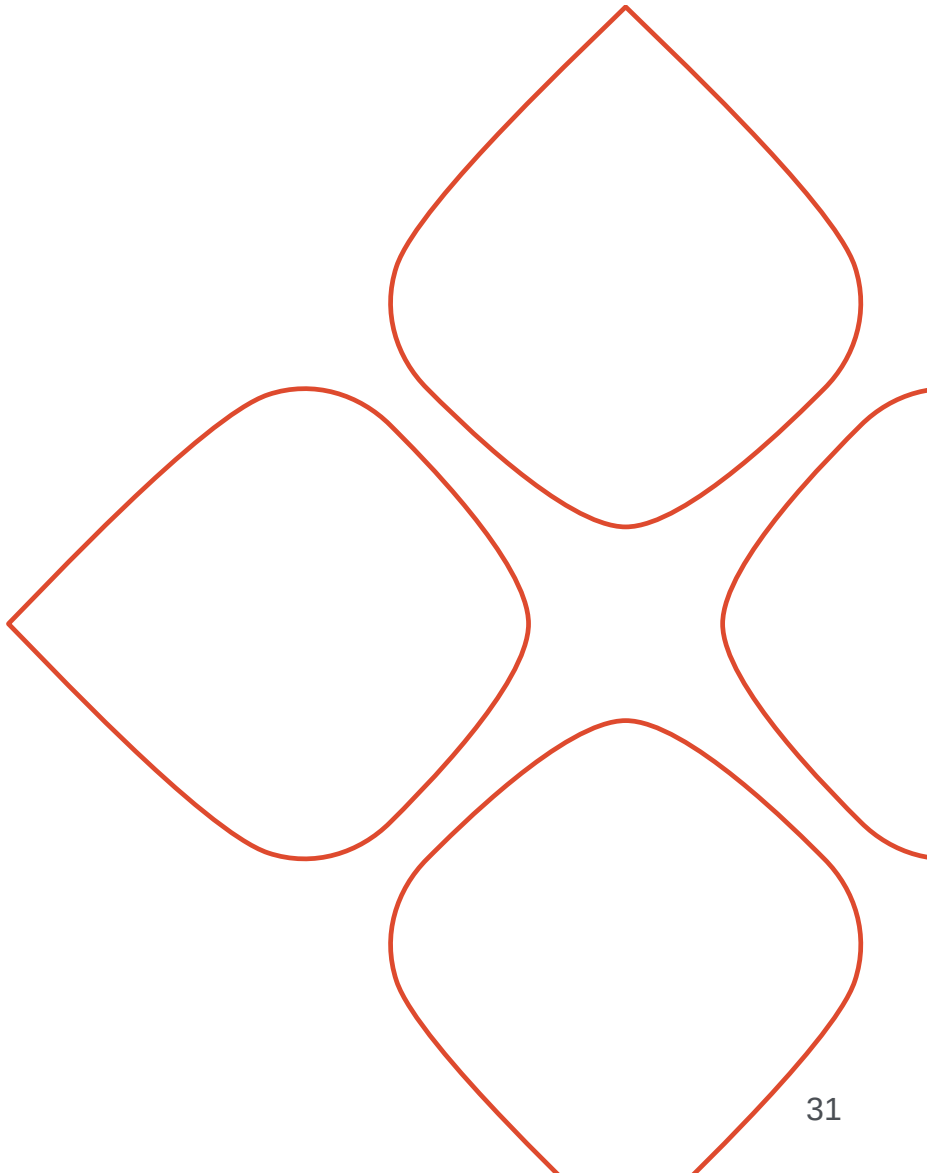
Expand
our product offering

Evolve
how we do business

China platform	Computer vision labelling automation	Point of Interest data	Crowd management
Knowledge graphs	Audio labelling automation	Synthetic data	Labelling quality flow

Computer vision labelling automation

Sujatha Sagiraju



Automation critical to the labelling process

Speed labelling

AI models that assist contributors by automating slow tasks

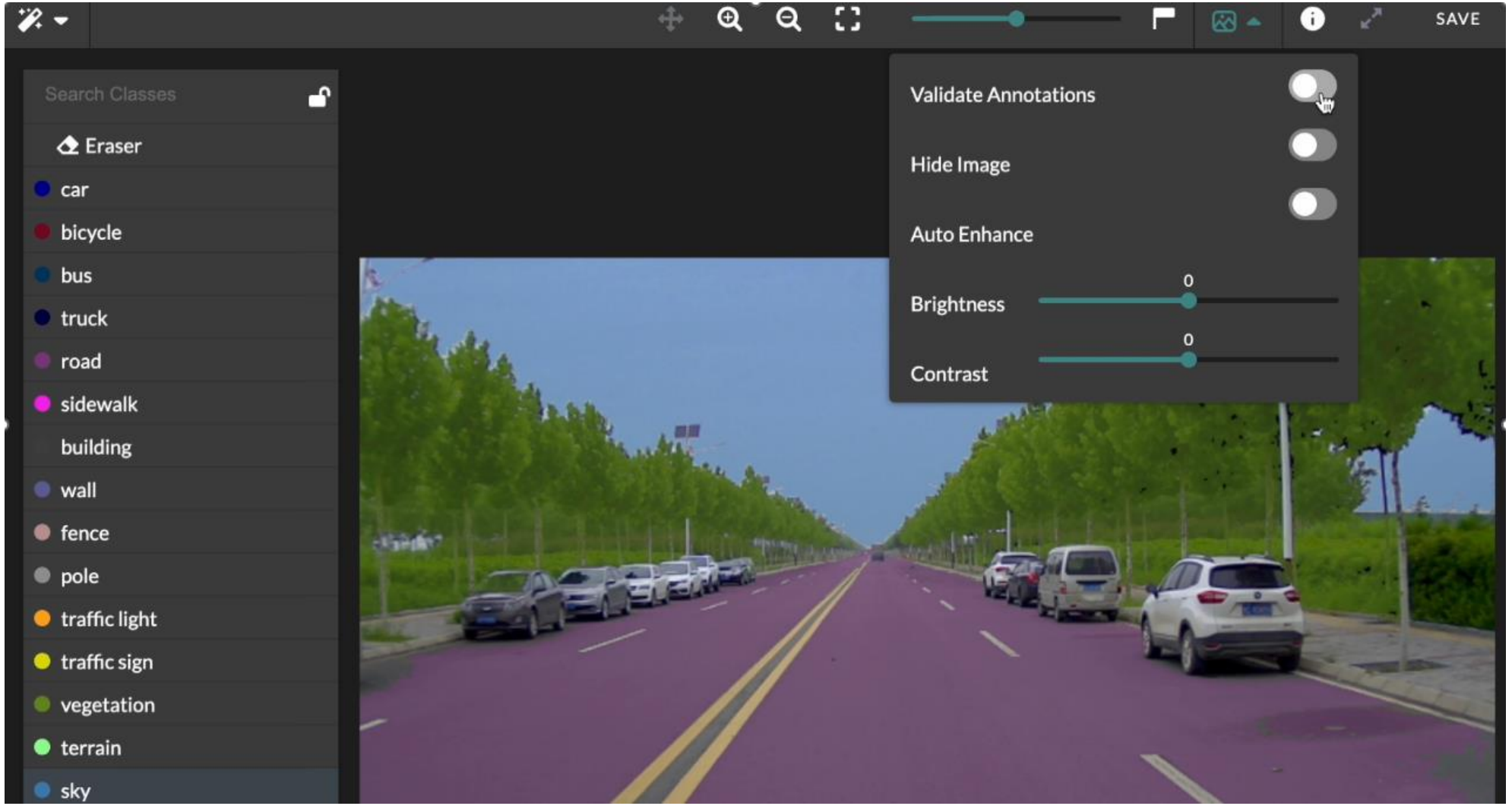
Pre-labelling

AI performs an initial ‘best guess’ of the annotation

Smart validators

AI models that verify contributor output before they are submitted

Video demonstration of labelling automation



Key points and benefits to the business

Automation improves the productivity our crowd

Automation improves the speed of our delivery

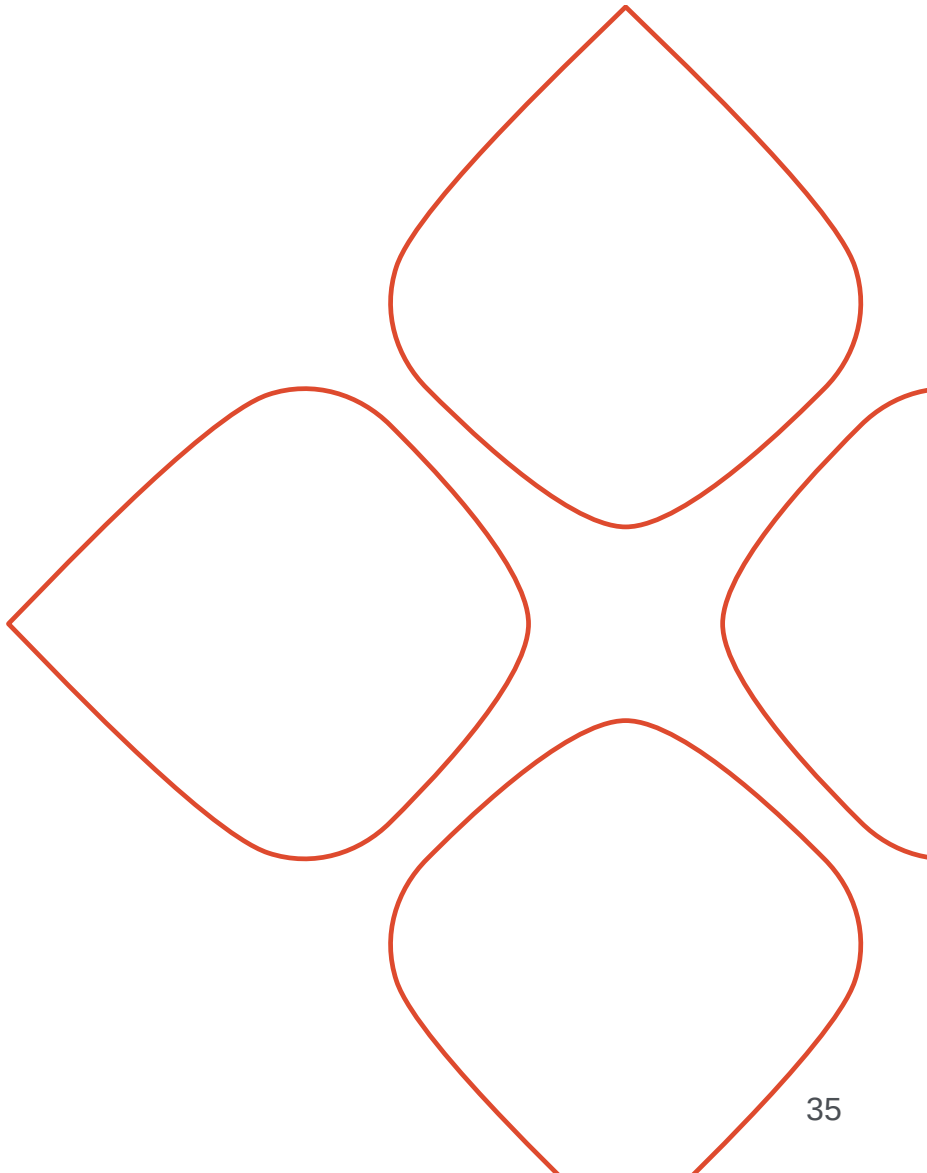
Automation improves the training data quality

Benefit to the business

- Improved gross margin
- Faster speed to output results in more revenue
- Better quality output results in more revenue

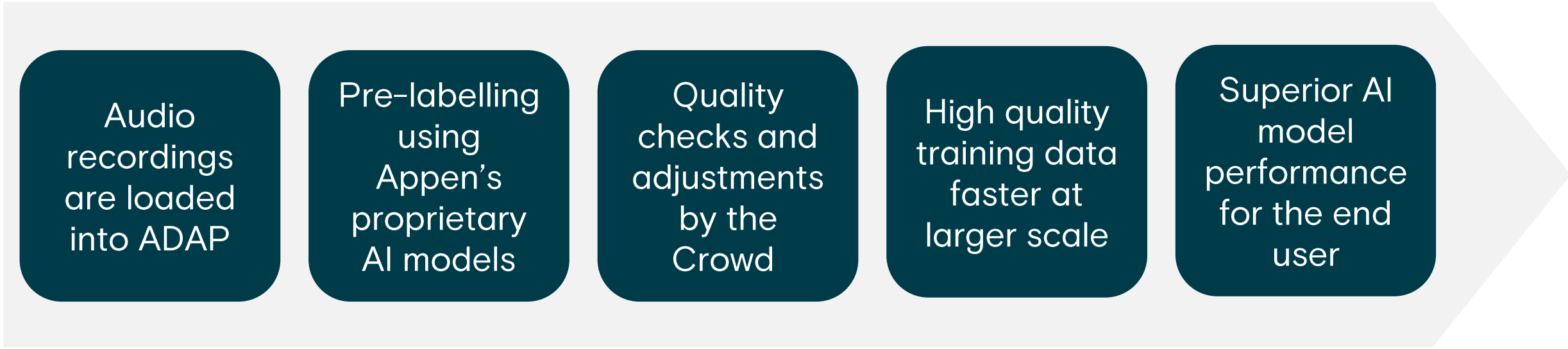
Audio labelling automation

Wilson Pang



Growth in AI for customer service, however challenges in real-world

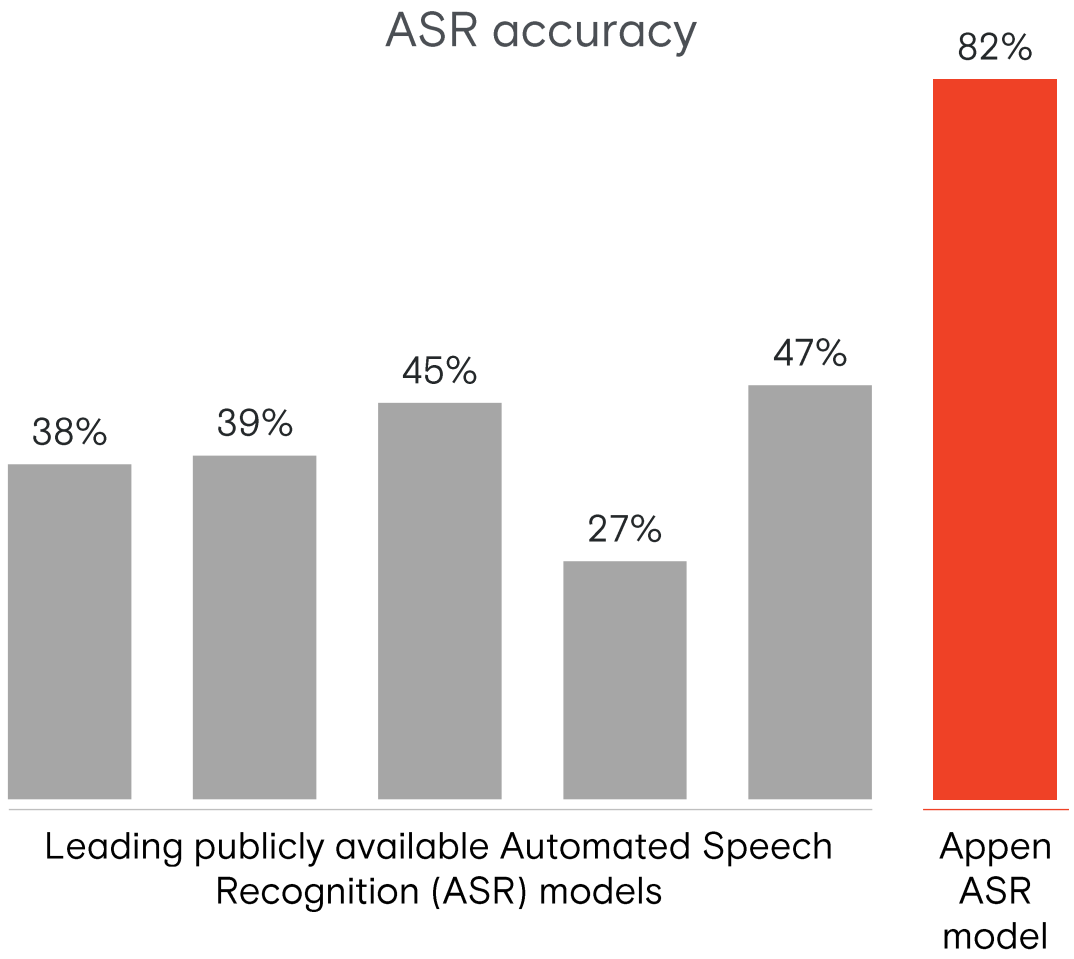
Appen uses proprietary models to automate labelling



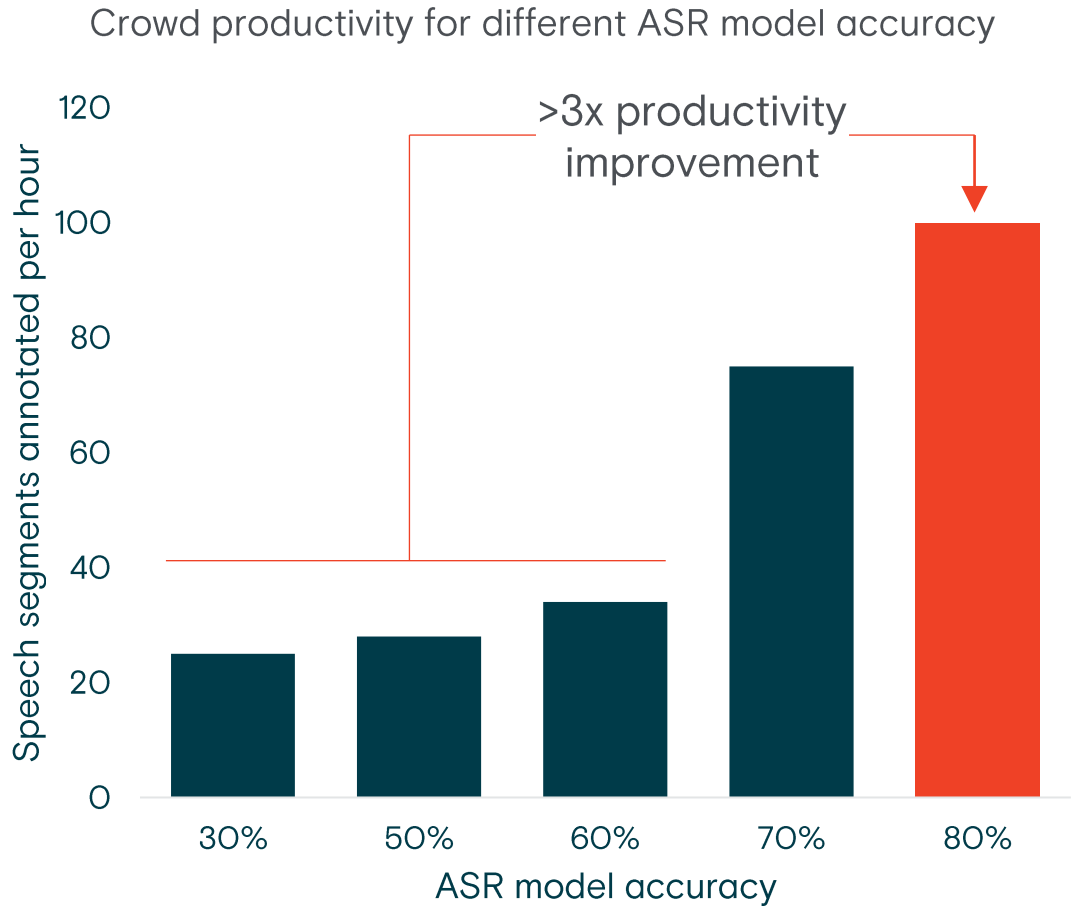
Use of pre-labelling changes the crowd task from 100% labelling to more quality assurance – crowd remains a critical function

Appen's ASR automation enables >3x crowd productivity

Appen's ASR model outperforms leading public models



Resulting in a >3x crowd productivity uplift



Key points and benefits to the business

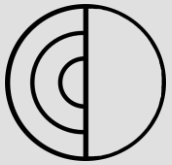
Pre-labelling significantly improves crowd productivity	Appen proprietary models a key differentiator	Automated labelling enriches ADAP features suite
Benefit to the business		
• Improves gross margin • Greater output per crowd worker	• Creates a competitive advantage in sectors where we have high-performing models	• Increase stickiness of existing customers, leading to greater revenue

Our products enable our growth strategy

appen

Grow
revenue and diversify

Automate
crowd and labelling processes



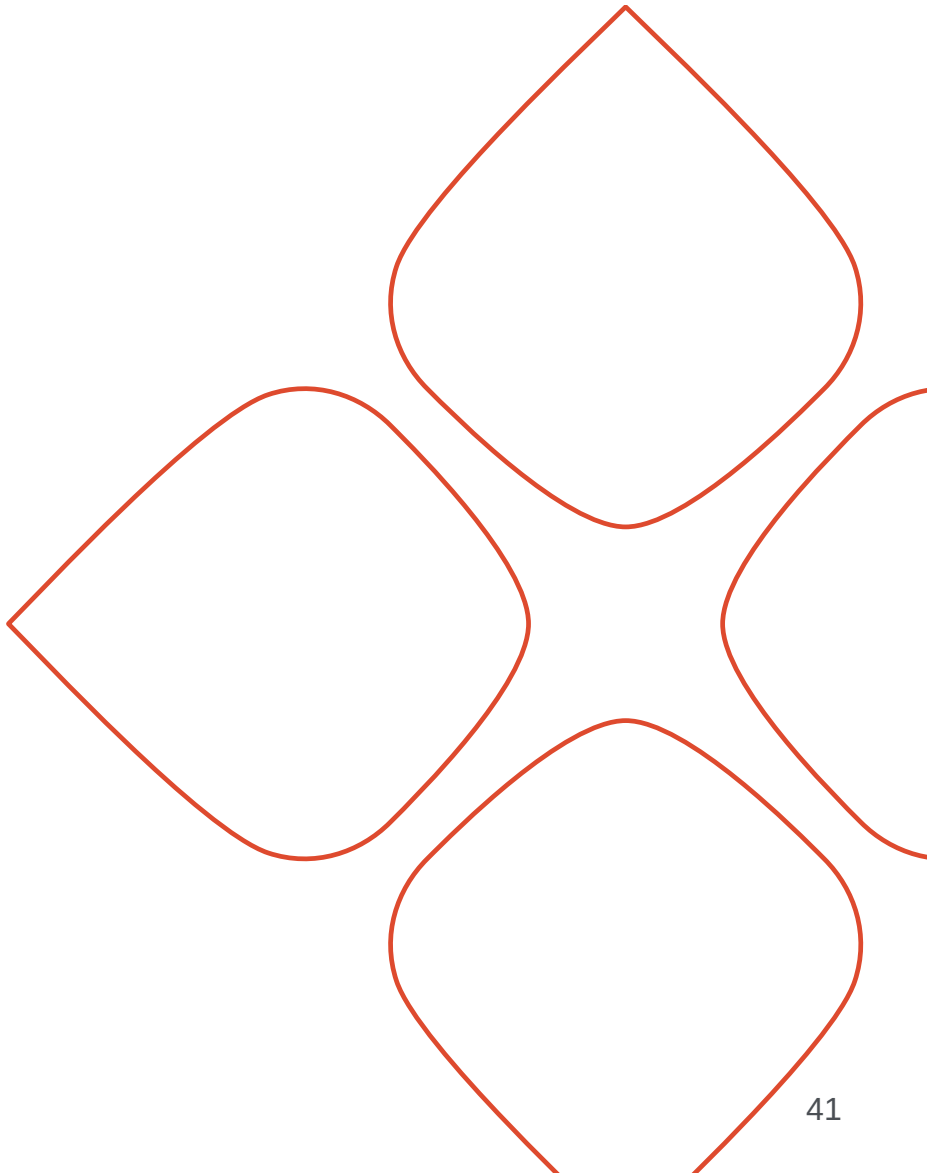
Expand
our product offering

Evolve
how we do business

China platform	Computer vision labelling automation	Point of Interest data	Crowd management
Knowledge graphs	Audio labelling automation	Synthetic data	Labelling quality flow

Point of Interest data

Mike Davie

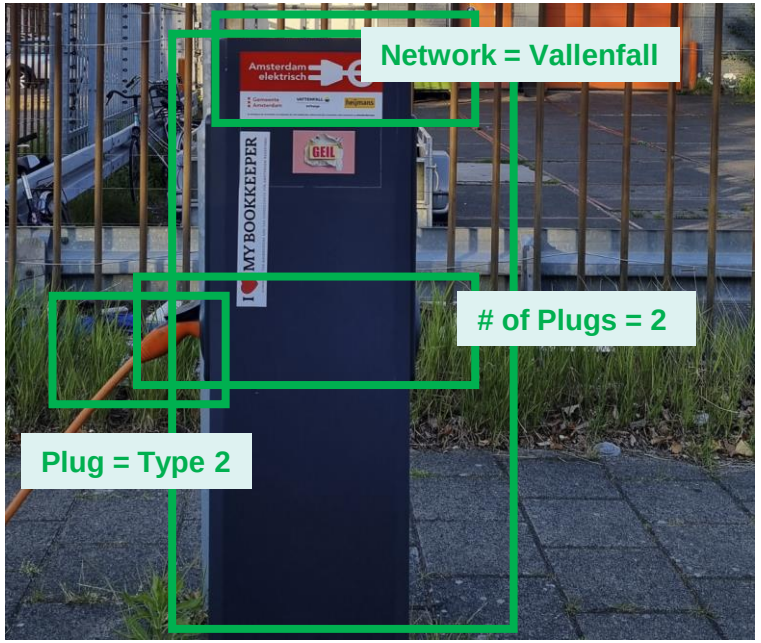


Changes in the real-world

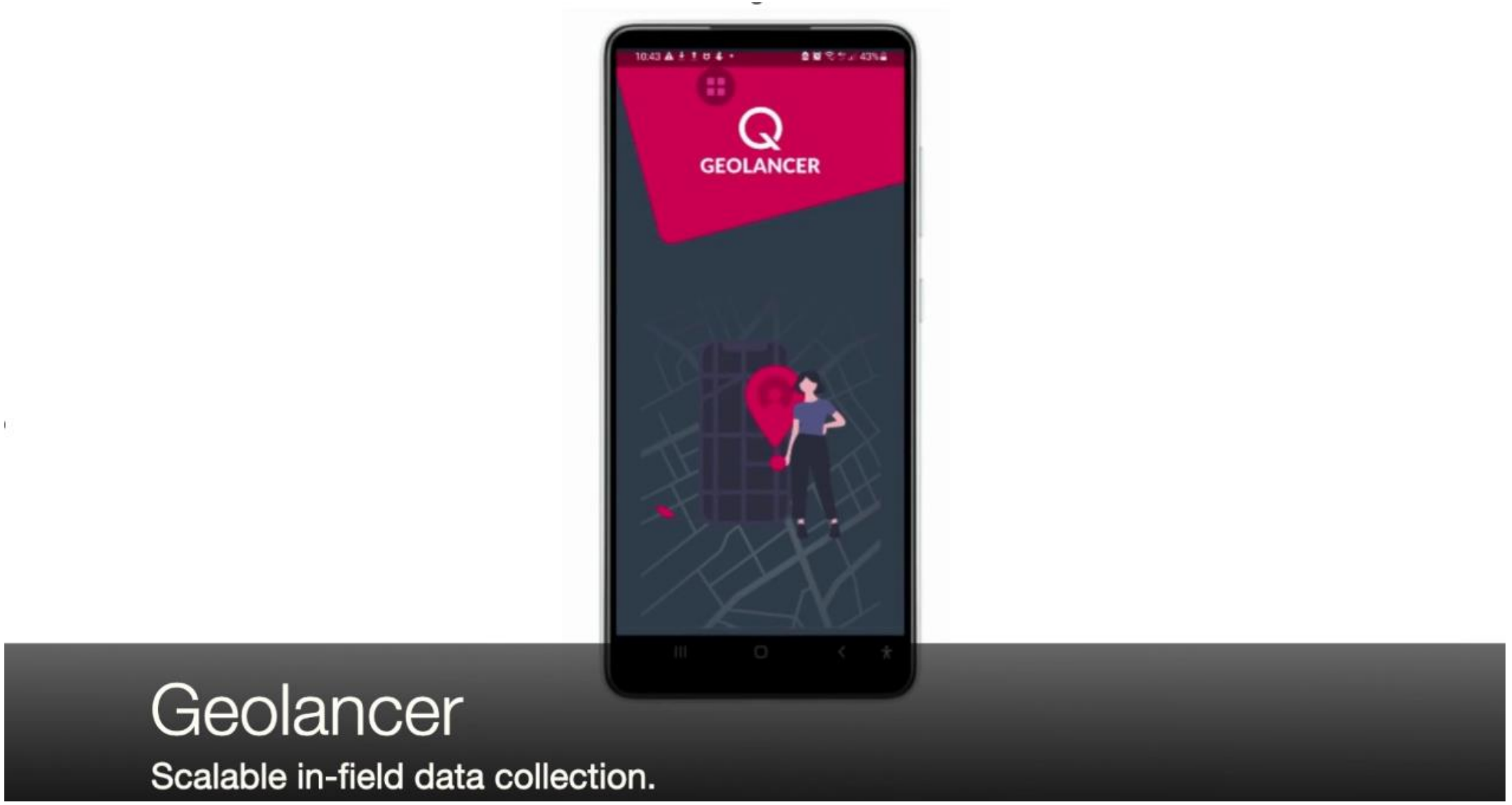
Constant change

New interfaces

Evolving expectations



Video demonstration of Geolancer



Key points and benefits to the business

Digital mapping and data collection is a $4.6B opportunity growing 14% YoY

Ongoing demand for location data requires recurring data feeds

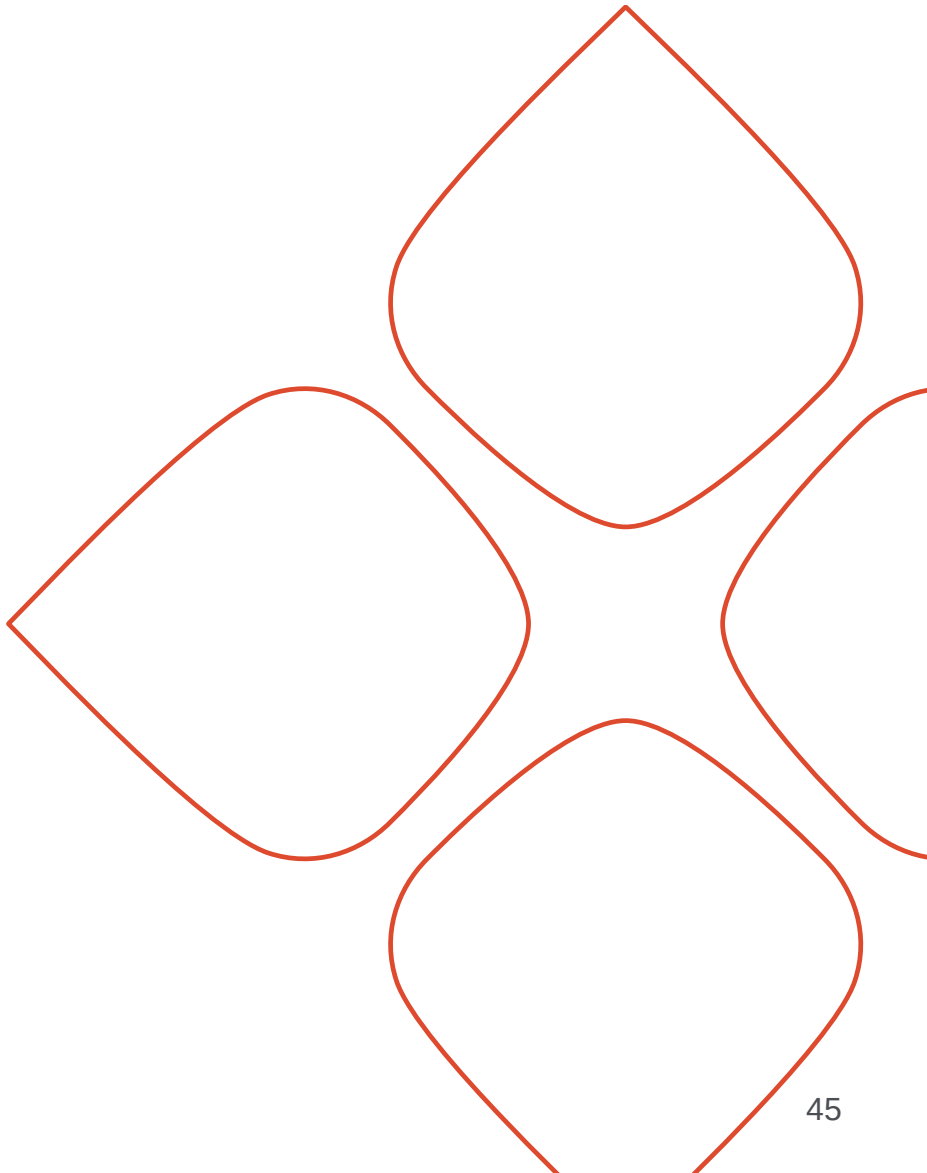
Quadrant's Geolancer application with Appen's crowd is a highly scalable product

Benefit to the business

- Geolocation data adds a large TAM to our business
- Geolocation projects have a similar profile to Search and Ad relevance projects
- Persistent demand expected
- Product-first approach to data collection to deliver higher gross margins

Synthetic data

Ryan Kolln



Challenges with real-world AI data collection

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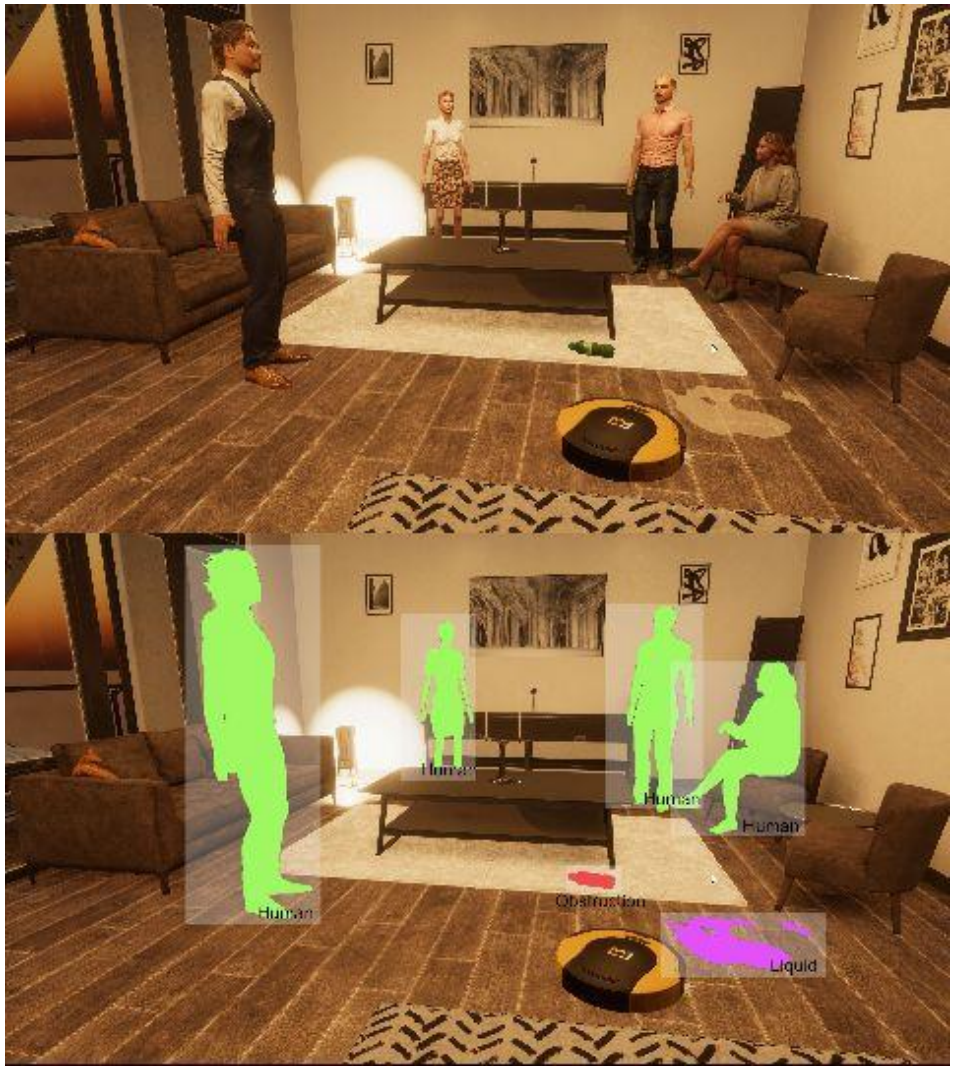
Edge cases	Data privacy	Data Bias	External conditions	New products
Car driving down the wrong side of the road	AI training that requires images of faces	Training set may have insufficient skin-tone representation	Outdoor AI that needs to perform under different weather conditions	AI models to support high-secret products

Synthetic data simulates real-world training data

Computer-generated, photo-realistic, 3D environments

Compliments real-world data

Appen and Mindtech have created an industry leading partnership



Video demonstration of Mindtech

Key points and benefits to the business

Limitations to real-world data can limit AI performance	AI models can benefit from combination of synthetic and real-world data	Appen and Mindtech have an industry leading partnership
Benefit to the business		
• Synthetic data has the potential to improve model performance and increase market growth	• Human annotated data is an ongoing need	• Combination of synthetic and real-world data is a competitive advantage • Cross-sell opportunities lead to greater revenue

Our products enable our growth strategy

appen

Grow	Automate	Expand	Evolve
revenue and diversify	crowd and labelling processes	our product offering	how we do business
China platform	Computer vision labelling automation	Point of Interest data	Crowd management
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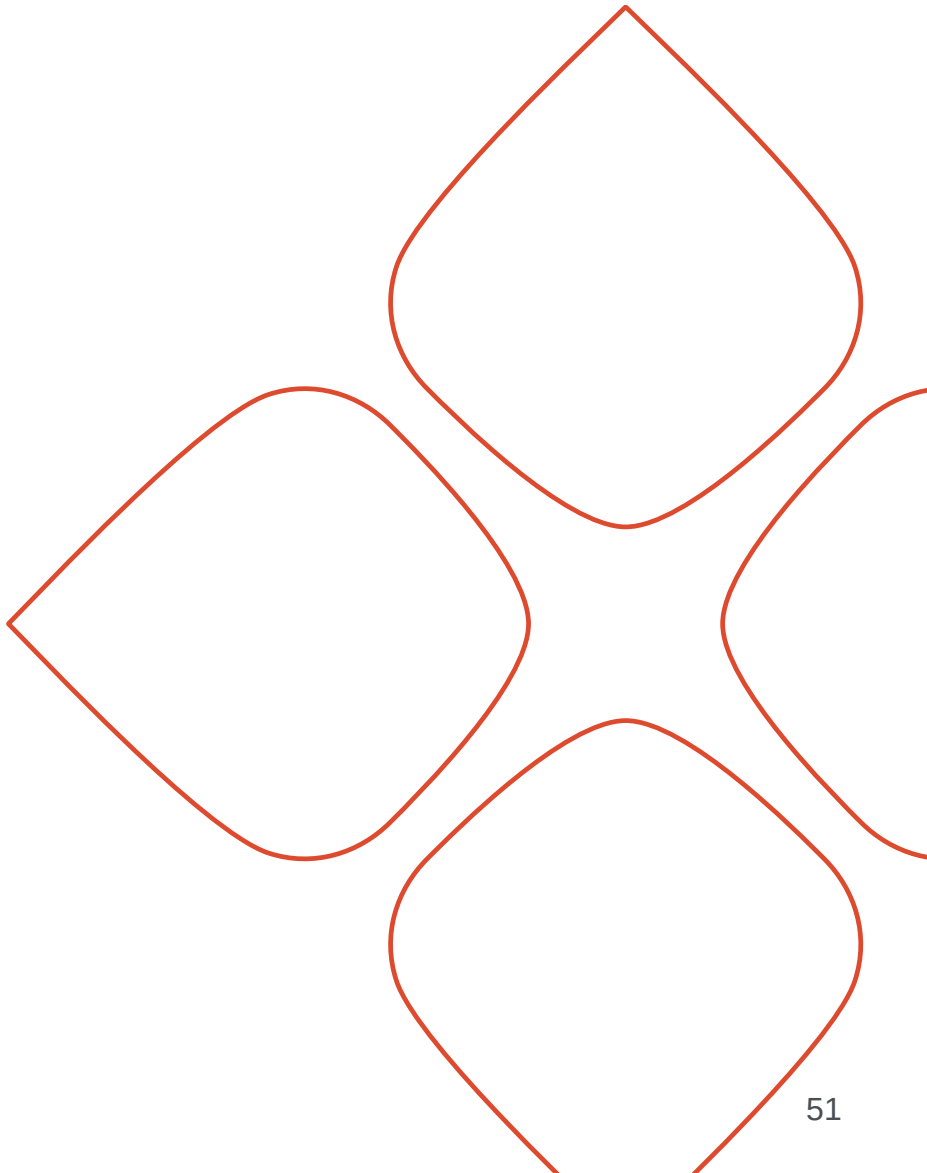
Crowd management

Wilson Pang



Our diversified crowd with 1M+ contributors is the foundation

Over a million crowd workers

Thousands of projects

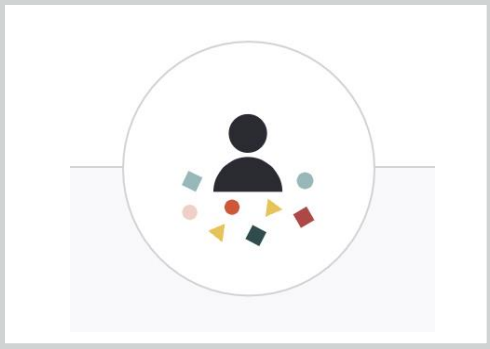
50-100k workers paid each month

Matching the right contributors to the right project is a highly complex task that we do at large scale every day

Wide variety of data and signals used to match workers to projects

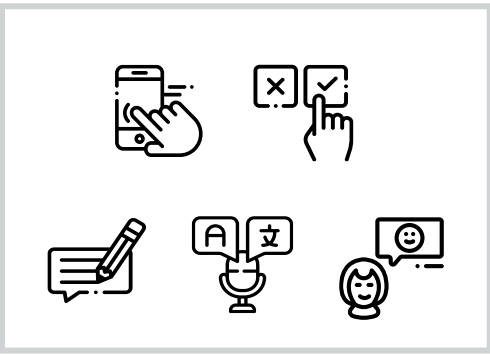
appen

Profile information



- Location
- Language
- Demographics
- …

Contributor activity

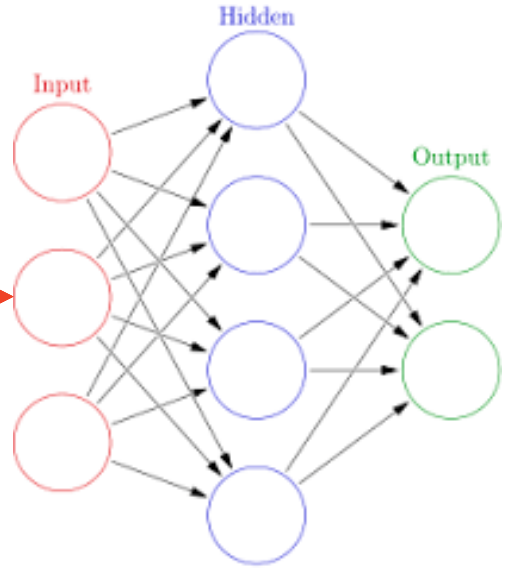


- Logins
- Browsing history
- Tickets
- …

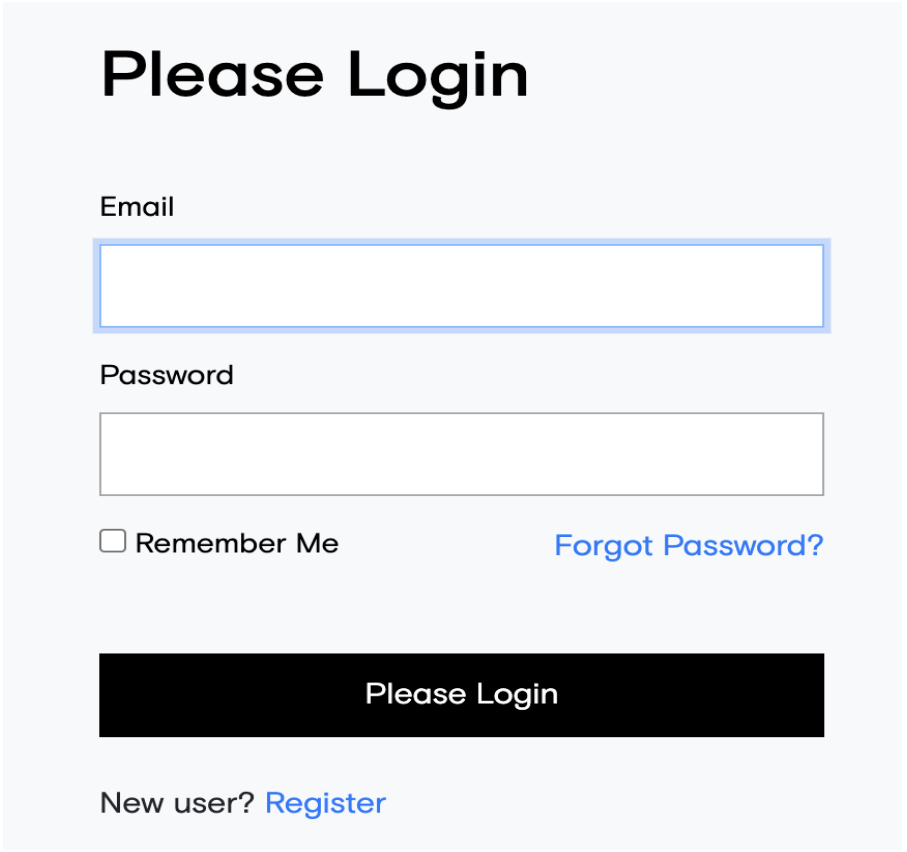
Project history

- Volume of project completed
- Quality by project type
- Productivity
- …

Appen's project matching AI



Signal extraction – contributor activity example

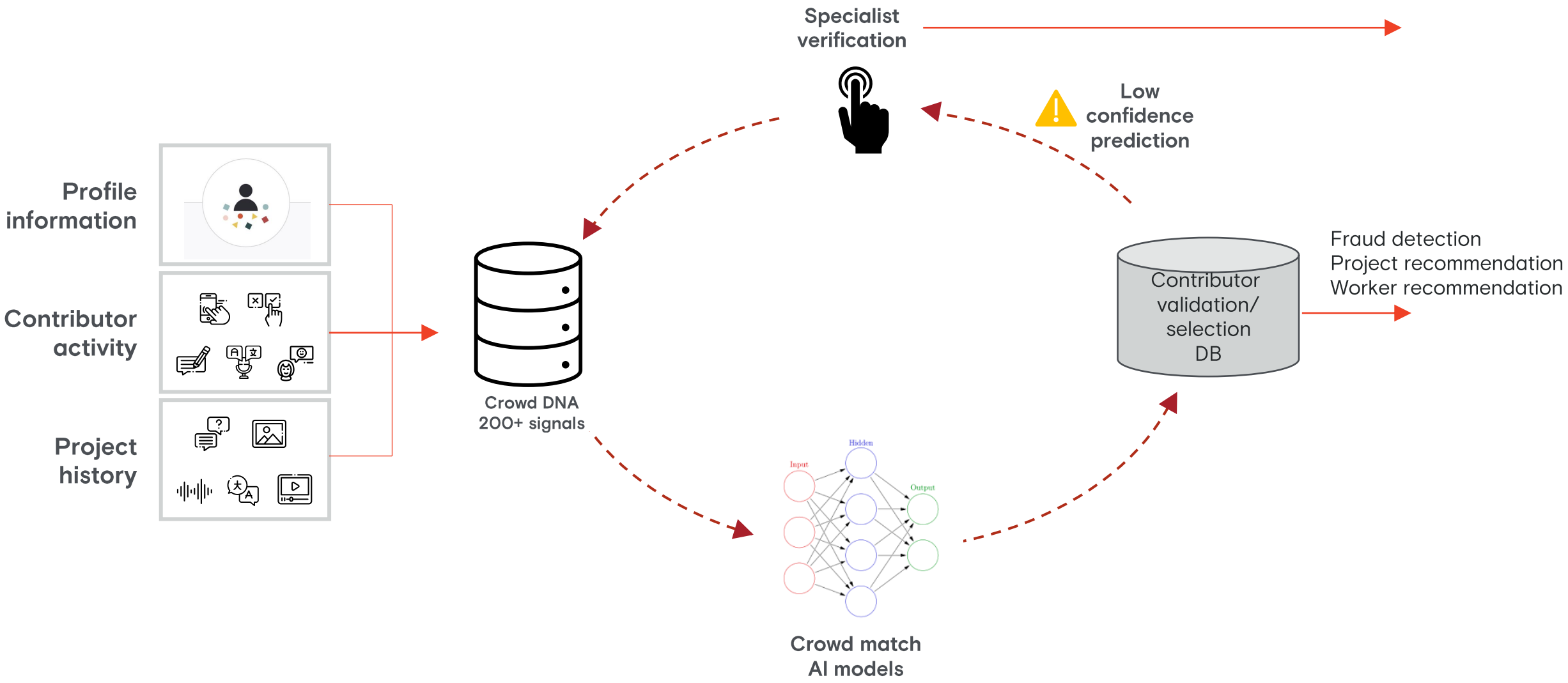


	Crowd worker #A	Crowd worker #B
Country	Brazil	US
IP	10.21.368.xx	10.21.368.xx ⚠
Login time	8am-6pm	3am-5am ⚠
# of logins	2	300 ⚠

Signal extraction – project history example

	Crowd worker #A	Crowd worker #B
Project type	Autonomous vehicles	Retail
Working hours	20	40
Quality score	92	85
Delivery speed	50 images/hour	200 images/hour

Constant AI model improvements with human in the loop

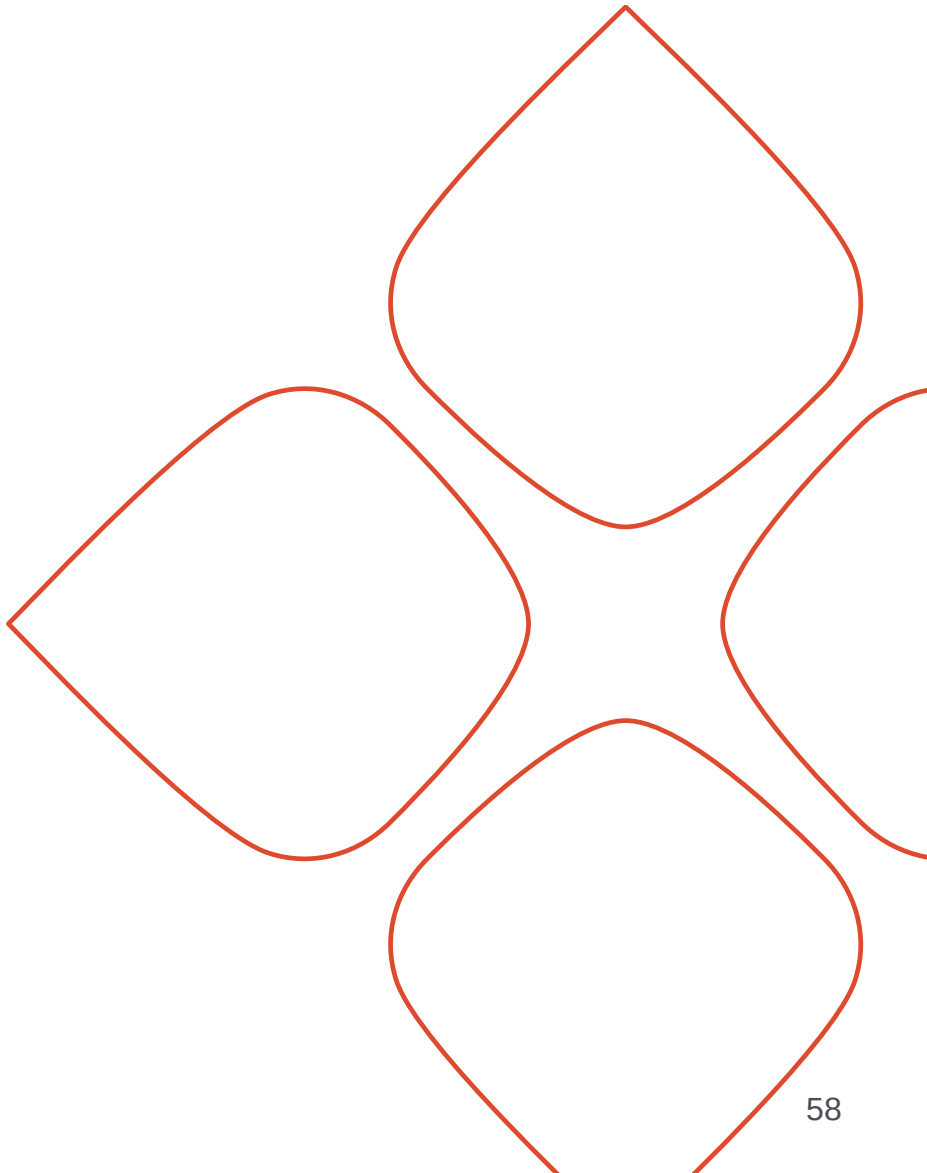


Key points and benefits to the business

Faster at staffing crowd workers	Improved productivity of our internal crowd management teams	Improved crowd experience
Benefit to the business		
• Improved delivery speed for our customers, leading to greater revenue	• Crowd automation enables our teams to support a larger volume of projects, improving productivity	• Happier crowd workers have higher retention and are more productive

Data quality

Sujatha Sagiraju



appen

“If 80% of our work is data preparation, then ensuring data quality is the important work of a machine learning team”

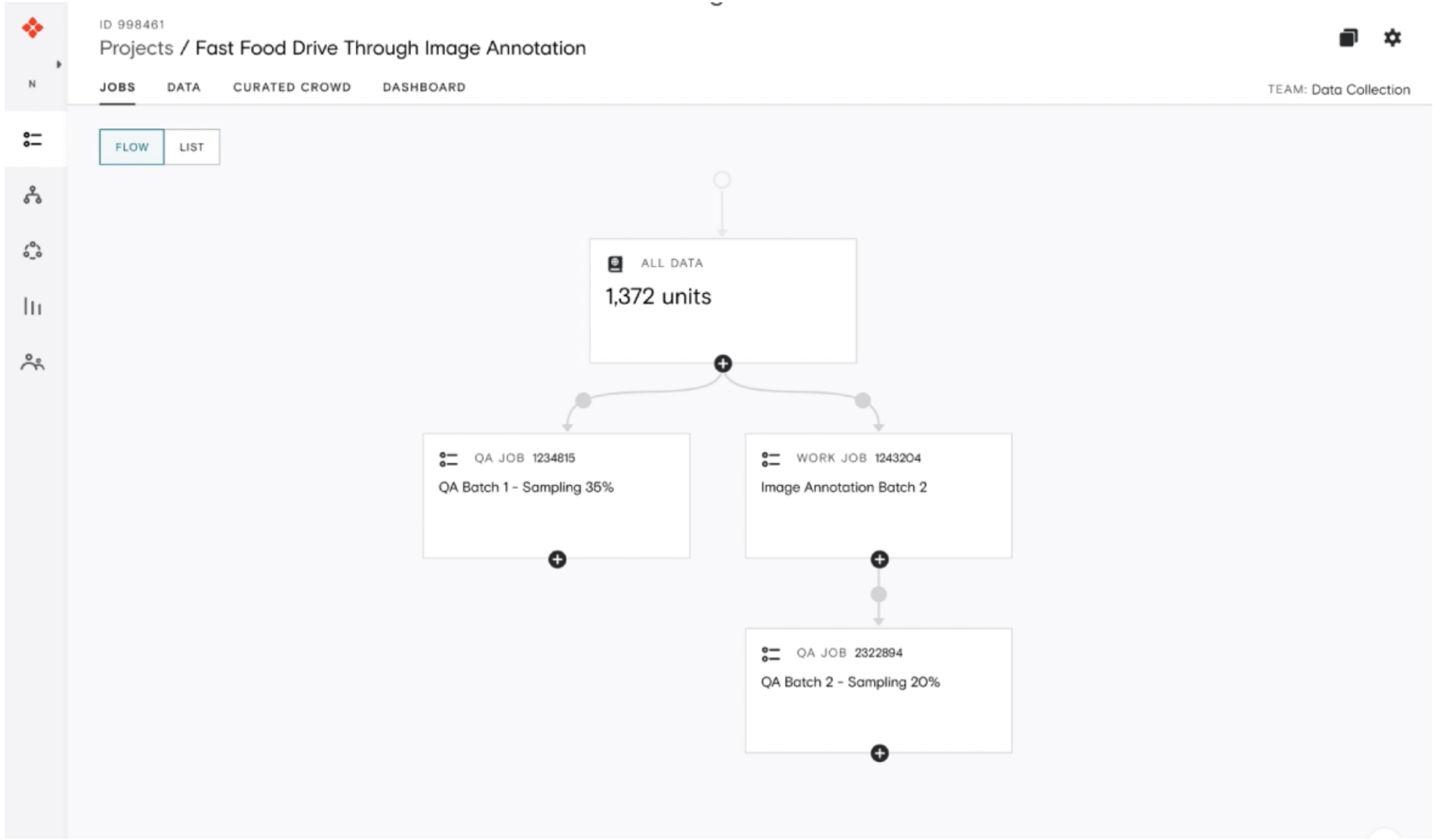
– Andrew Ng

Data quality challenges – a ‘search relevance’ example

Search Mixer

Contributor 1	✓	✓	✓	✓	✓
Contributor 2	✓	✓		✓	✓
Contributor 3	✓		✓	✓	
Contributor 4	✓	✓	✓		

Video demonstration of data quality features



Key points and benefits to the business

Quality remains critical to delivery of high quality training data

Appen has built industry leading data quality capabilities into our platform

No-code interface simplifies quality management

Benefit to the business

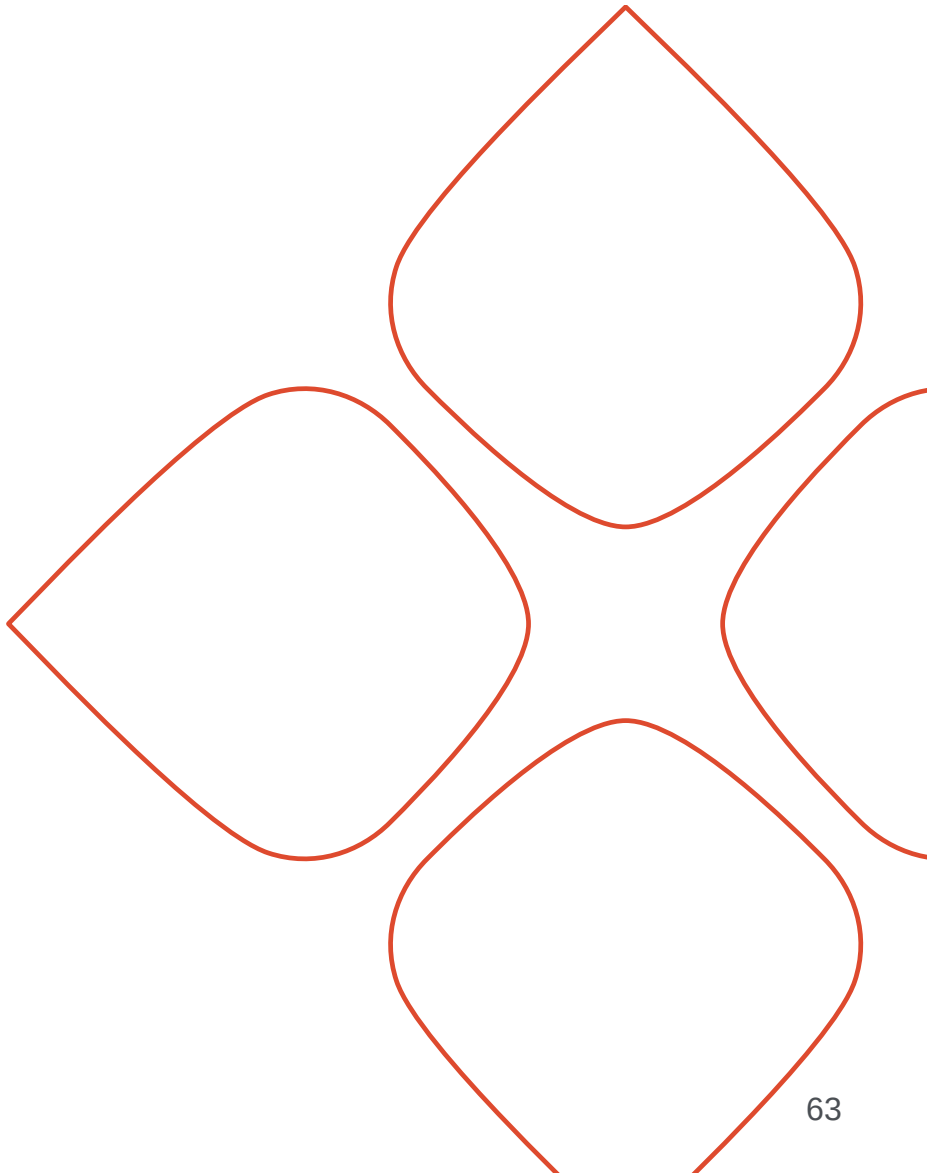
- Appen's 25 years of experience in delivering high quality training data is a competitive advantage

- Creates a competitive advantage, leading to increased revenue
- Improves the model performance for our customers

- Easier for customers to obtain high quality data
- Creates better value for our customers, improving retention

Closing

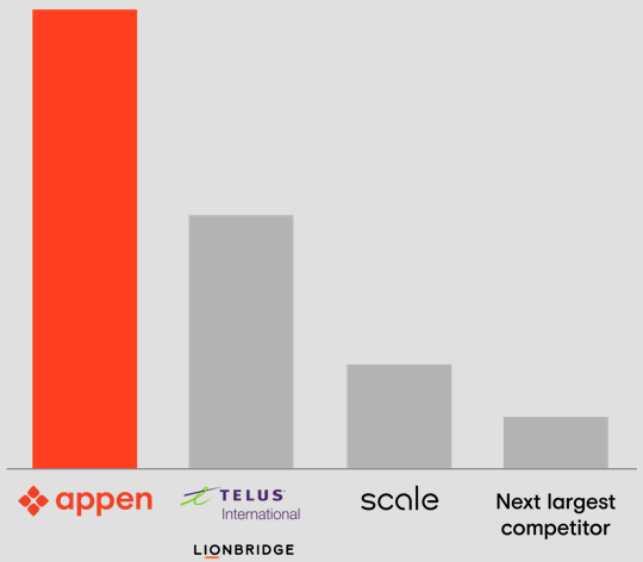
Mark Brayan



Growth strategy and long-term goals

Appen is the market leader

AI data revenue by competitor[1]



We are transforming our business

Grow
revenue and diversify customers

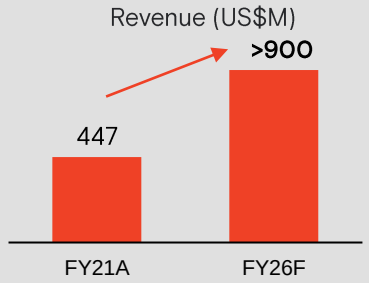
Automate
crowd and labelling processes

Expand
our product offering

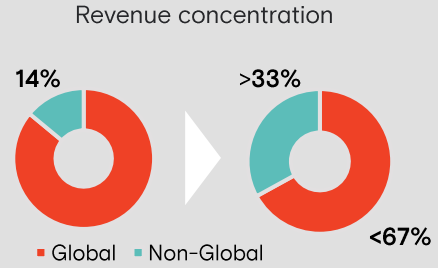
Evolve
how we do business

Long term goals

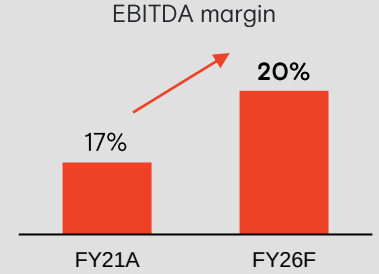
At least double FY21 revenue by FY26



Greater customer diversification



Stronger operating leverage



1. Lionbridge revenue source from Telus International IPO and other statements, Scale AI revenue estimated from public announcements related to funding rounds

Questions

Thank you for your attendance

appen.com/investors