Successful Enterprise AI Implementations

Reflecting on the Journeys

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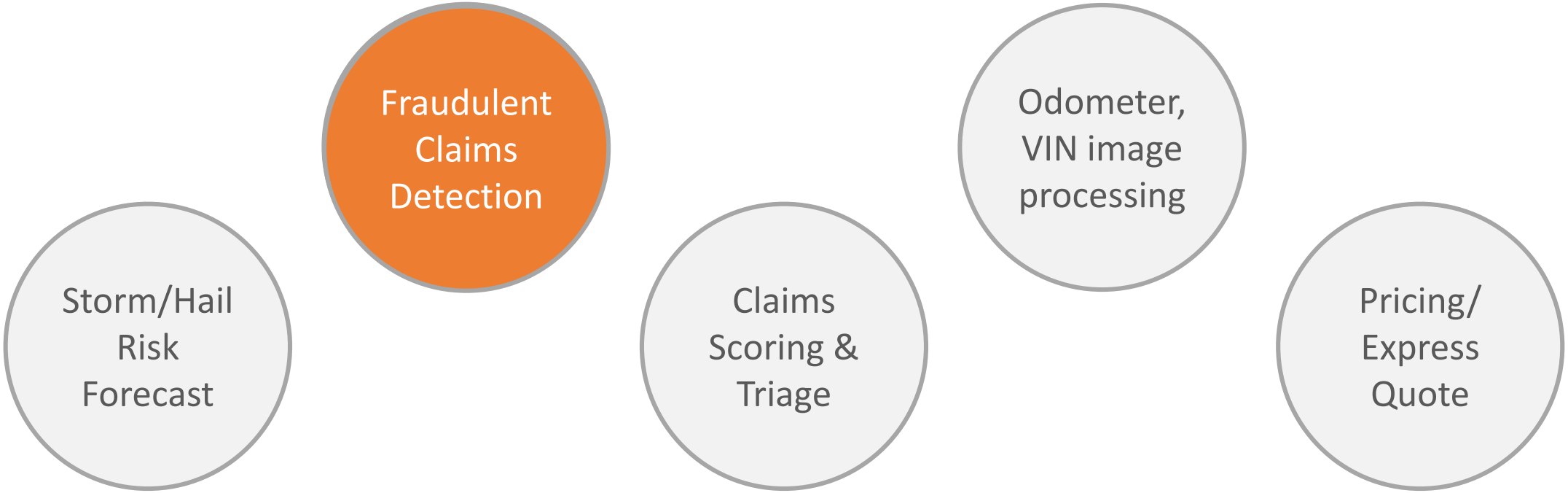
AI Use Cases



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Insurer Profile

Multiline Property & Casualty Insurer

Fortune 500 Insurer with multi-billion dollars in written premiums

- Personal Auto
- Commercial Auto
- Personal Property
- Worker's Compensation
- Business Owner Policy
- Tailored Package
- Umbrella
- Bond

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High reliance on personal expertise

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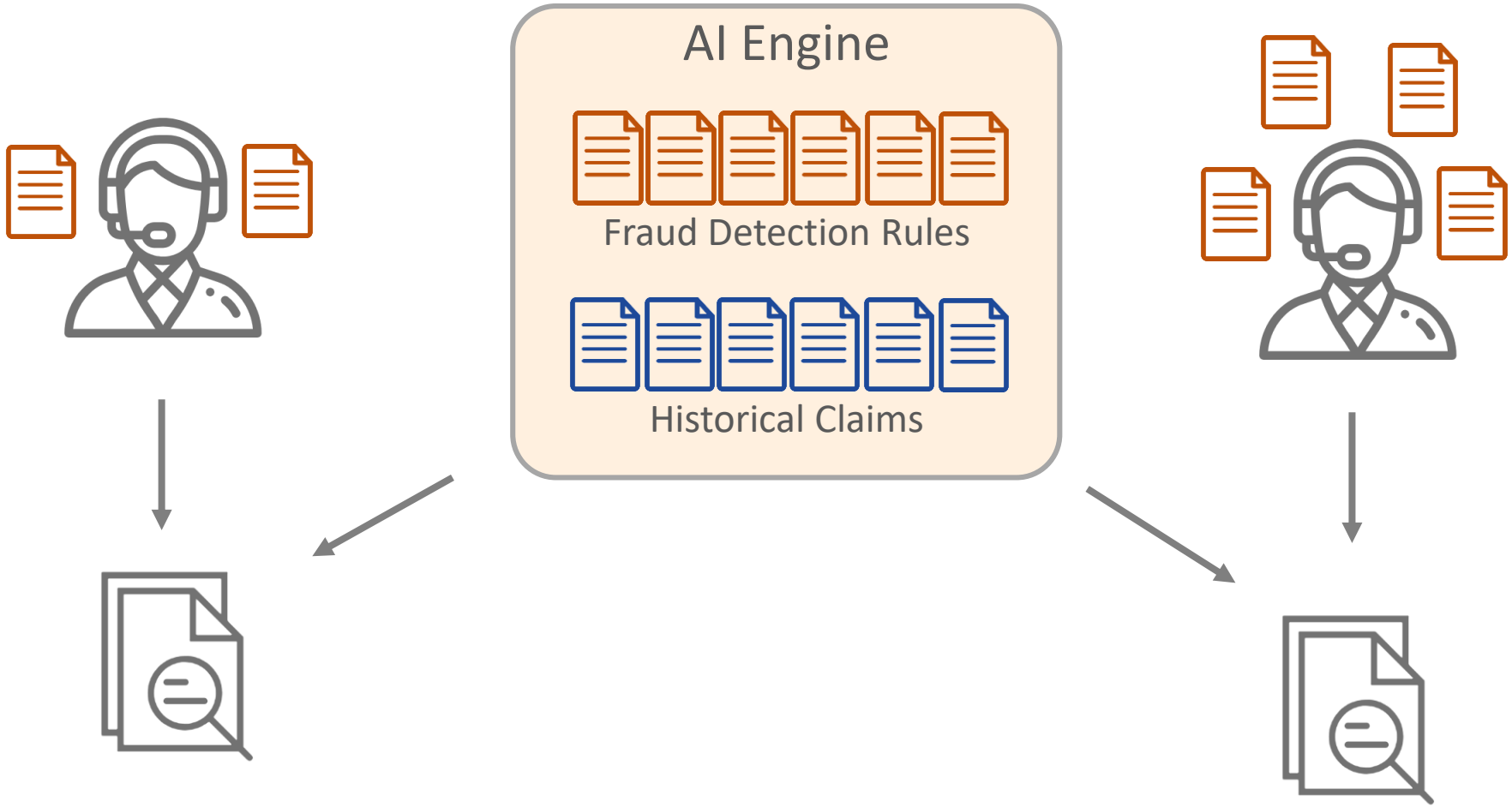
Combining the strengths



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The Pillars

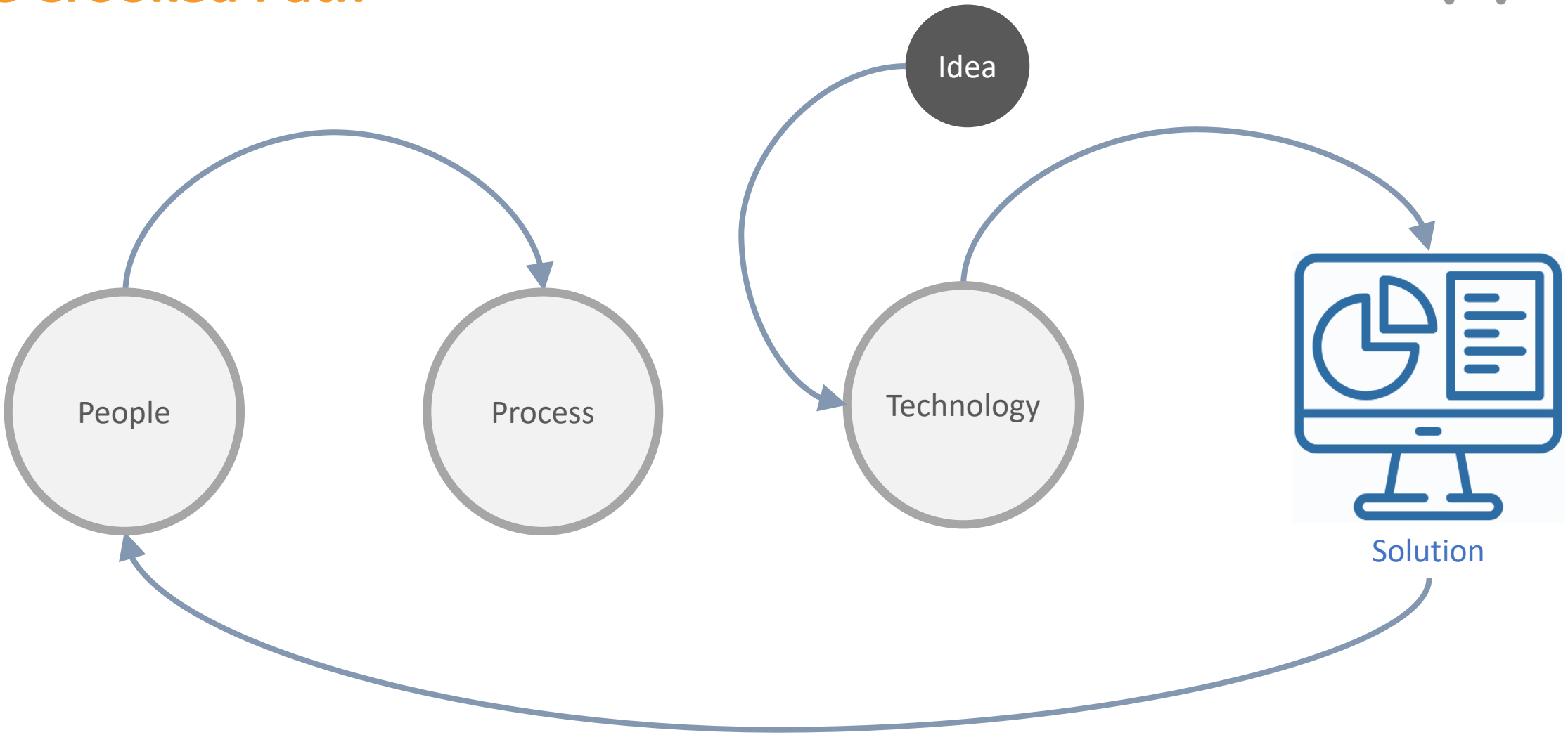
People

Process

Technology

Solution

The Crooked Path



Late involvement of users can be fatal

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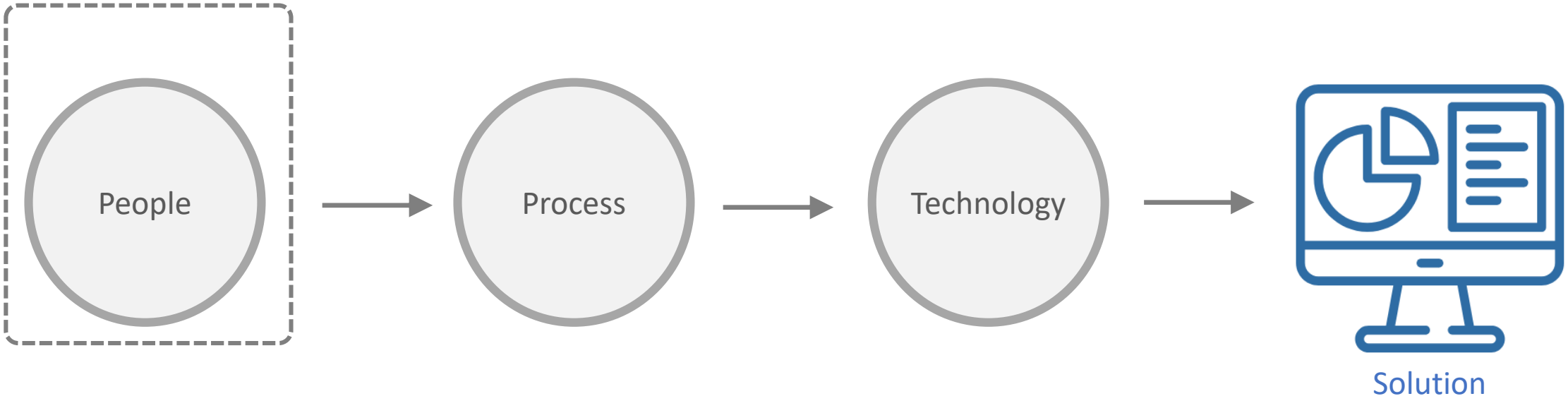
Idea



Stick to fundamental best practices

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The Fourth Pillar

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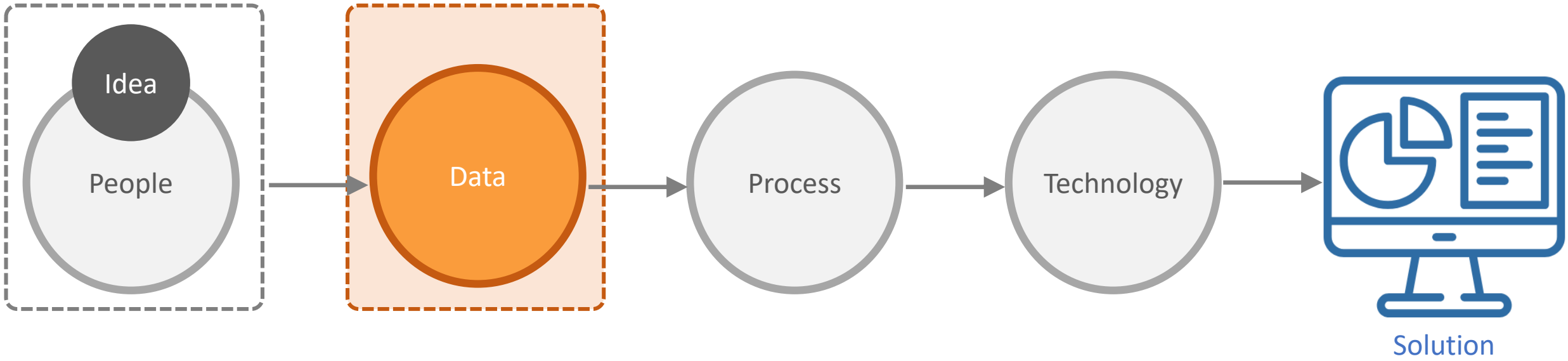

Evaluate data readiness early

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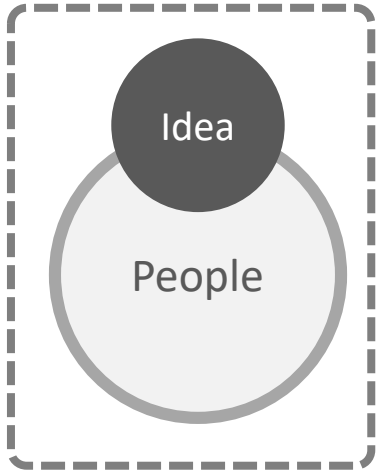
Idea & Proof of Concept



Claims approached Advanced Analytics to replace old rules based vendor solution

Implemented existing and few new rules but provided flexibility and agility, gained trust

Architected a flexible solution that will incorporate ML using historical claims

Started with claims business ownership and progressed in bite size chunks

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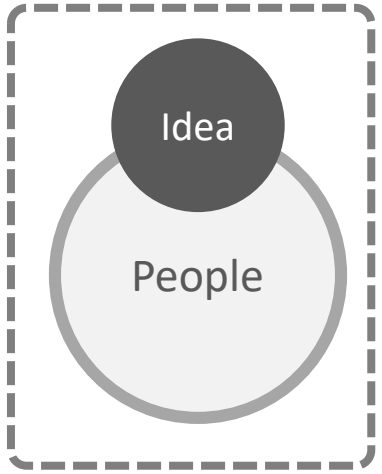
Business Partners



Partnered with the Special Investigations Unit (SIU), they knew their data

Tracked effectiveness and exceptions

Shared how AI components of predictive modeling increased effectiveness

SIU team understood they are central to development and enhancement of this enterprise capability

Made SIU group core to the solution development

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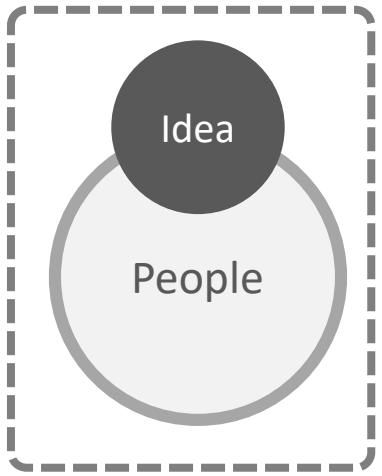
Talent



Initiated data scientists who also took on a role of programmer

Expanded the team to implement predictive model machine learning. Not all were data scientists, some with physics background

All team member were hybrid, data sciences & programming skills

Willingness to learn domain was key

Needed multidisciplinary talent data science, programming & domain

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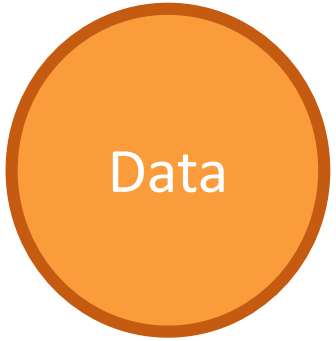
Data



Biggest challenges were with data

- Data spread in two systems
- No good existing acquisition process
- Sparse data input by users

Pushed for Enterprise Data Warehouse development

Brought changes in applications for better data capture

Fraud detection is effective but overall footprint on all claims is small

Influenced change in enterprise data pipeline

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IT Partnership

Started with an internal data acquisition group

Delivered initial solution with rudimentary technology using Excel & SharePoint as front end

IT is building a EDW and Analytics is planning to pipe data from there

Converted AI solution to a service, IT now builds and maintains front end and integrations

Took some IT tasks initially, later gave them back. Open to partnership.

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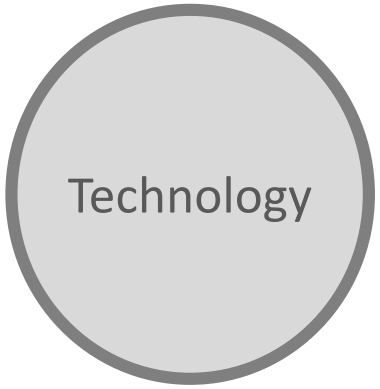
AI Technology



Statistical Computing	R & Adaboost for Adaptive Boosting
Data Storage & Analysis	Python Pickle
Machine Learning	Python & SciKitLearn Libraries
Modeling	Python Panda
Object Serialization & Mapping	Python SQLAlchemy SQL Toolkit
Integrated Dev Environment	Python Jupyter

Opensource technologies provided all needed functionality

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Delivery

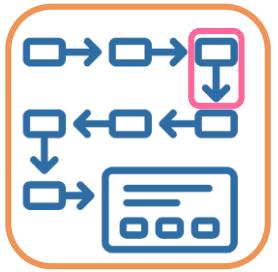
Solution

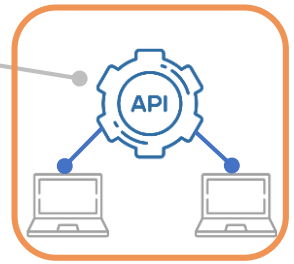
Analytics

Application

Workflow

API/Service





To convert AI solution into an enterprise solution, partner with IT Architects

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Take Aways

IDEA
What's in it for user?
Start small
Get wins
Build trust

Business Partner
Data Savvy, Open to Change
Understand their job
AI/ML is scary, job security
Give them solution ownership

Talent
Learning domain is critical
Soft skills are very important
Multidisciplinary teams
Make every effort to retain

Data
Evaluate data early
Assess materiality
Modify data capture processes
Bring application changes

IT Partnership
Resolve data wrangling early
Dedicate staff to data acquisition
IT SDLC and AI/ML process have differences

Technology
Do not start with Technology
Opensource is a viable option
Technique over Technology
Replaceability over Reusability

Production Operations
Don't forget Deployments
Data ingestions
Prod Operations
Change Management
Training

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