Technology Innovation

Thoughts on a innovation discipline

AGENDA

- Audience
- Technology Innovation
- Discipline

AUDIENCE

Leaders interested in 3 fundamental technology innovation questions

1

Business Role

2

Strategy Alignment

3

Product Contribution

TECHNOLOGY INNOVATION

Research

Total Cost of Ownership

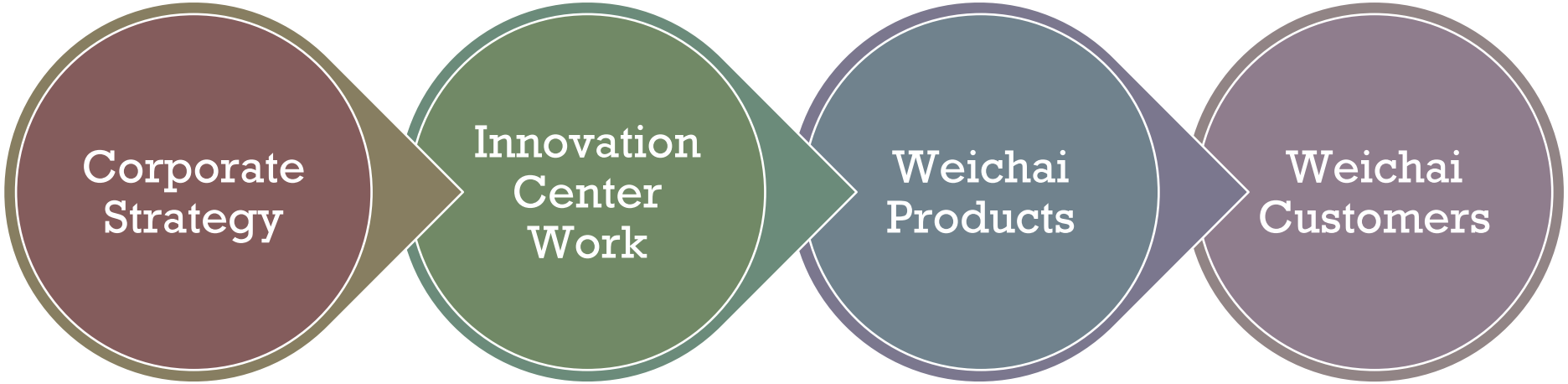
Market share

Revenue

WHAT ROLE CAN TECHNOLOGY RESEARCH AND INNOVATION PLAY ON REDUCING OUR PRODUCTS' TOC, WHILE **CONSISTENTLY** INCREASING OUR MARKET SHARE AND REVENUE?

Weichai Power is a diesel engine & truck manufacturer

Technology Innovation helps us be better at what we are good at



HOW CAN WE ENSURE THAT OUR INNOVATION CENTERS' WORK IS INFORMED BY OUR STRATEGY, IS INTEGRATED INTO OUR PRODUCTS, AND VALUED BY OUR CUSTOMERS?

Think Customer-in, not Weichai-out

Technology helps us solve our customers' problems

HOW CAN OUR ICS COLLABORATE TO LEVERAGE EACH OTHER'S STRENGTHS AND LESSONS LEARNED, WHILE AVOIDING DUPLICATION?

COLLABORATE

STRENGTHS

LESSONS

DUPLICATION

Discipline

The Weichai Technology Innovation Discipline

TECHNOLOGY INNOVATION

A rationale for investing on a technology innovation discipline across the organization.

WHY TECHNOLOGY INNOVATION

- Survival
- Differentiation
- Customization & Quality at a Low Cost

TECHNOLOGY INNOVATION

The application of **research results** that leads to **significant benefits** - a **product/service** that adds value to our customers - a **process improvement** - way to build our products faster, cheaper, and better.

Customer benefits

Process improvements

DISCIPLINE

A proposal for innovation center structure and integration into the Weichai Power operations.

WEICHAI TECHNOLOGY INNOVATION DISCIPLINE

Context: Weichai has a number of Innovation Centers

Problem: Lack of alignment and synergy with existing operations

Risk: Miss trends, market opportunities, lose competitiveness

Proposal: Weichai Technology Innovation Discipline

DESIRED CHARACTERISTICS

- Crisp Mission
- Effective Process
- Mature Governance
- Resources

Stay focused

Technology helps us stay narrow and go deep, to be the best in our markets

MISSION: THE 30%/3 YEARS RULE

Deliver sustainable competitive advantage thru a consistent introduction of technology innovation into our products, services & processes

Customer Value

Market Demand

S ustainable

C ompetitive

A dvantage

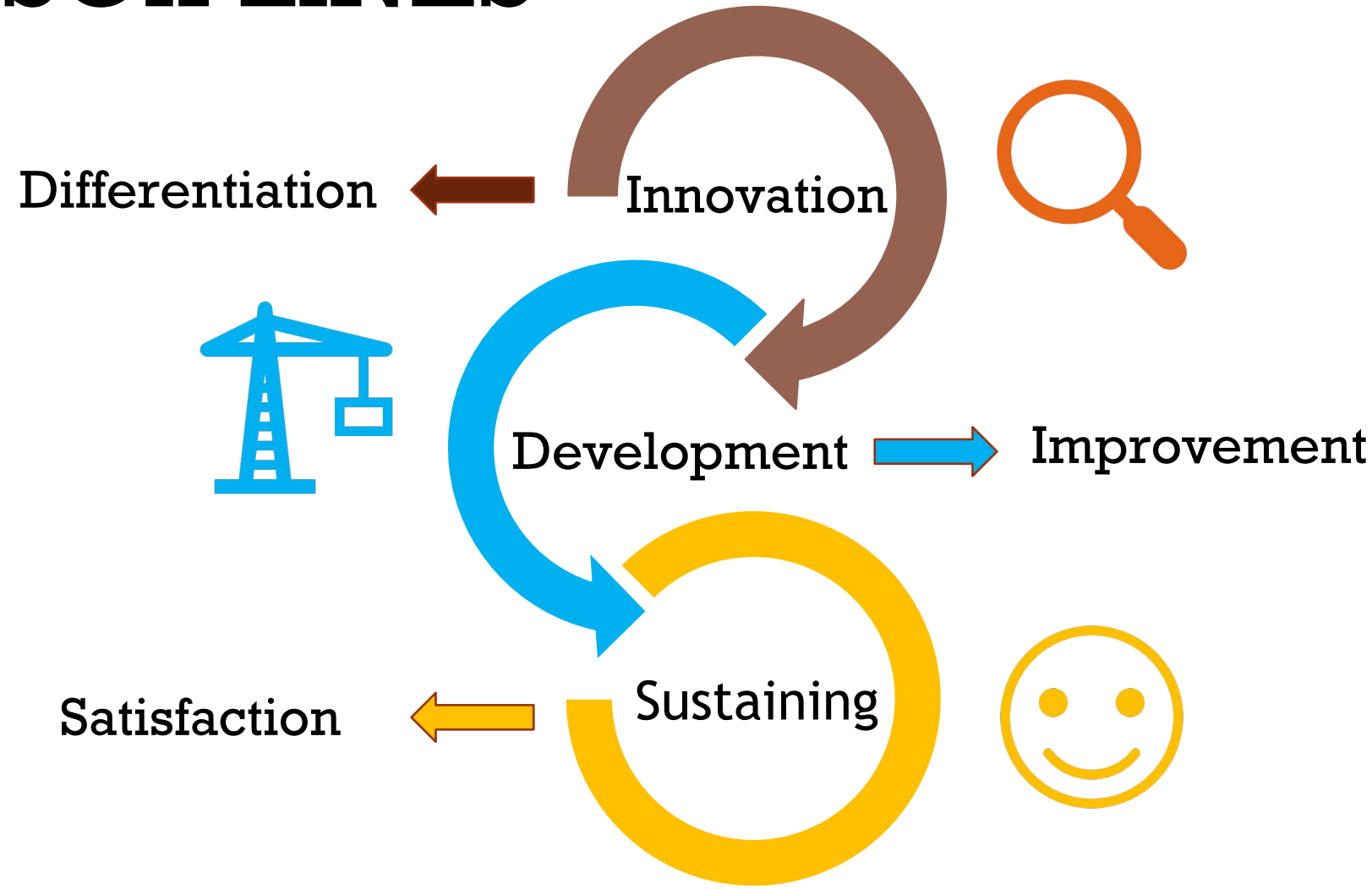
No Substitutes

Hard to Replicate

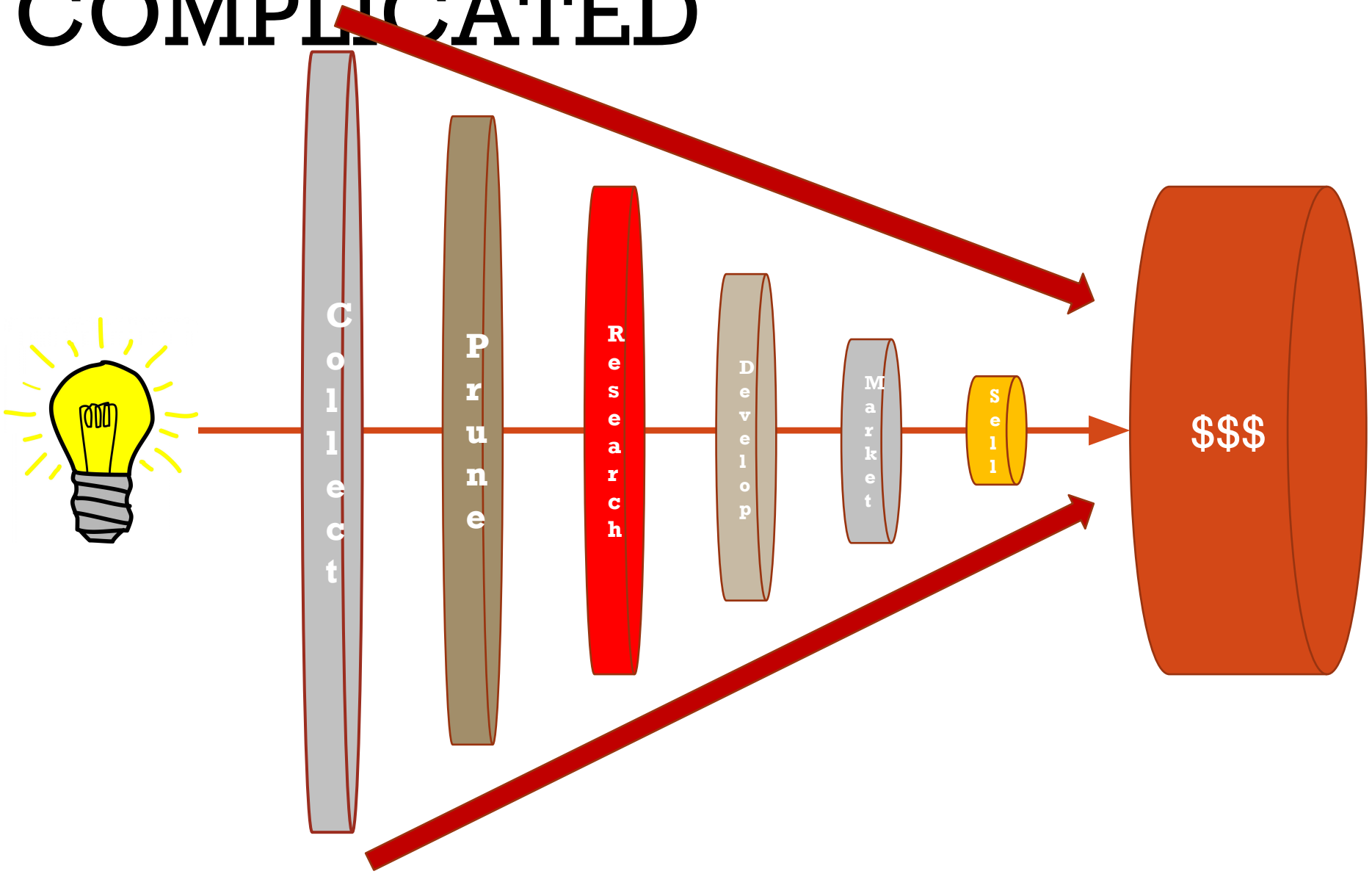
Nobody wants our technology
… until they want it

We will harness technology in our products, not products on our technology

PRODUCT DEVELOPMENT DISCIPLINES



IDEA TO MONEY … IT IS COMPLICATED



Think differently

We will understand technology before throwing it at our customers

TRENDS & IDEAS

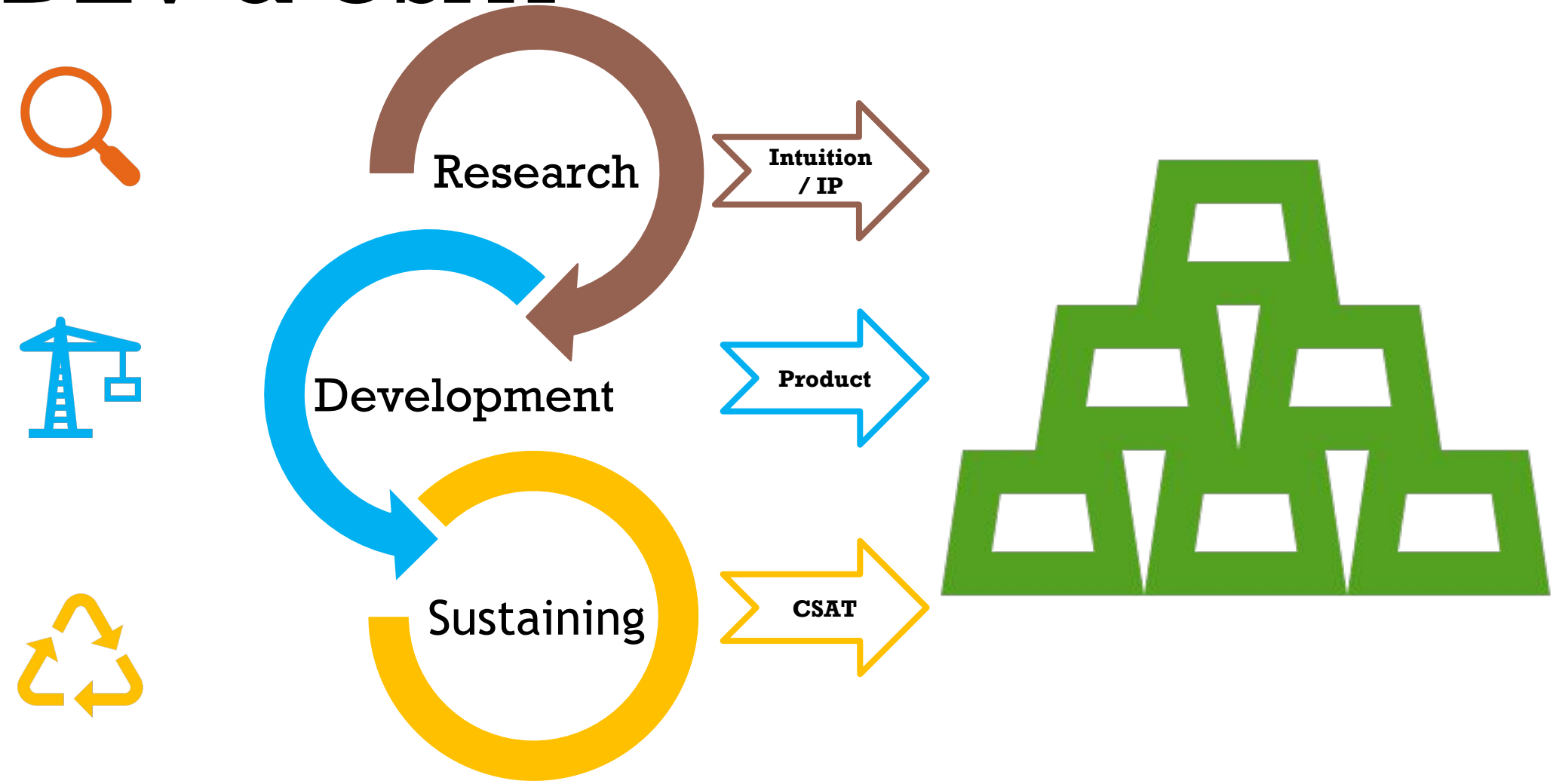
Trends: Discern, understand, and project the impact of political, social, technology, and market trends;

Ideas – Leverage **trends** to trigger ideas with a high potential to generate sustainable competitive advantage;

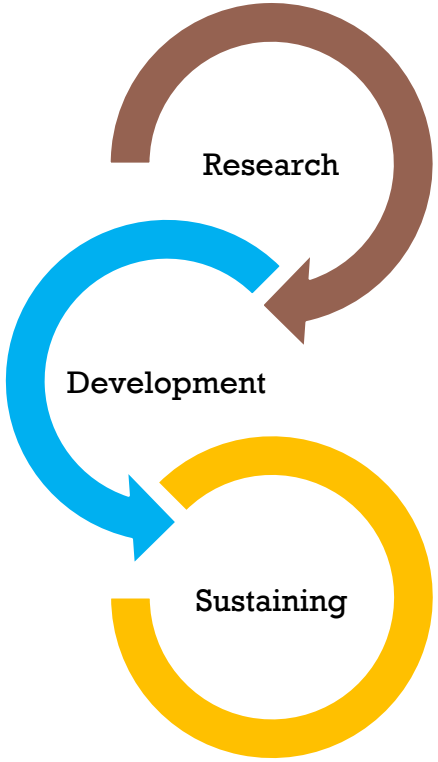
Backlog: Catalog these **ideas** into the Technology Innovation Backlog;

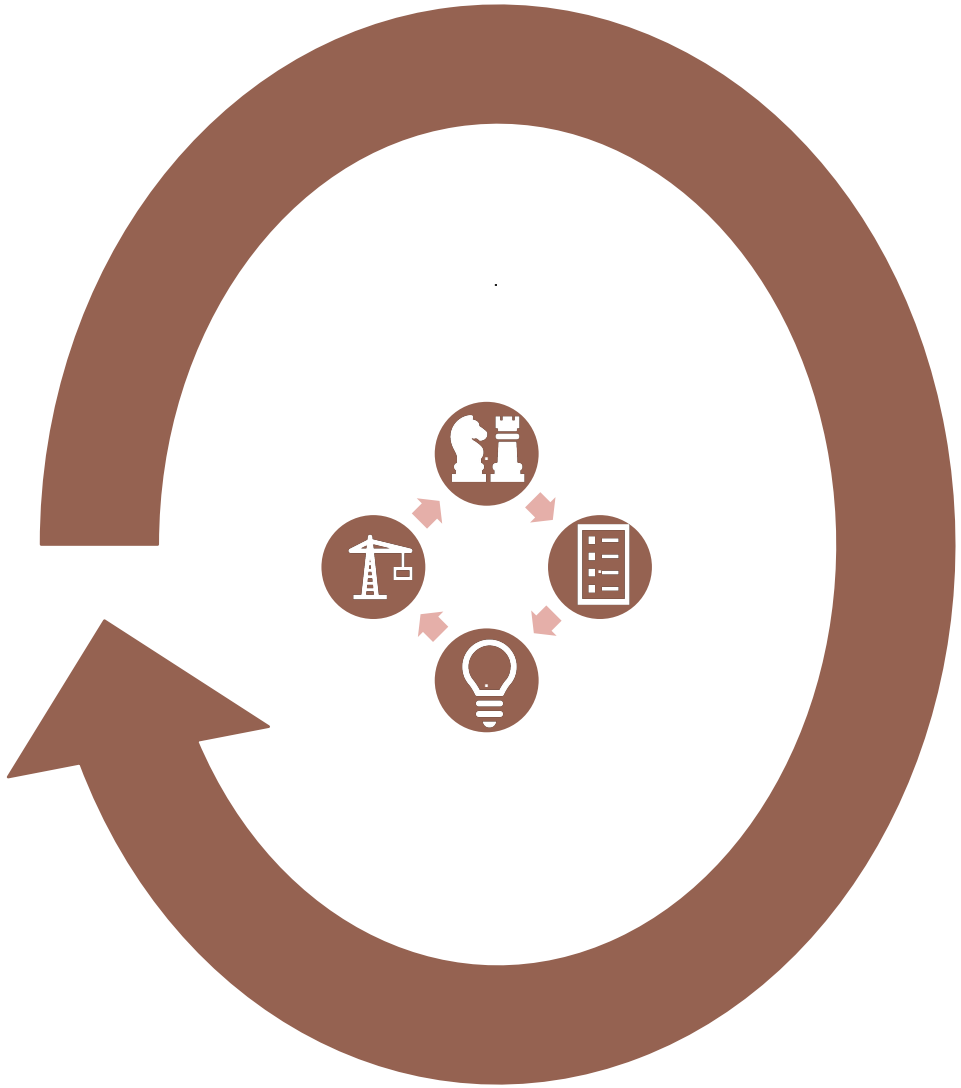
Initiatives - Periodically groom, and prioritize the Technology Innovation **Backlog,** and fund **Technology Innovation Initiatives** to explore the top ideas;

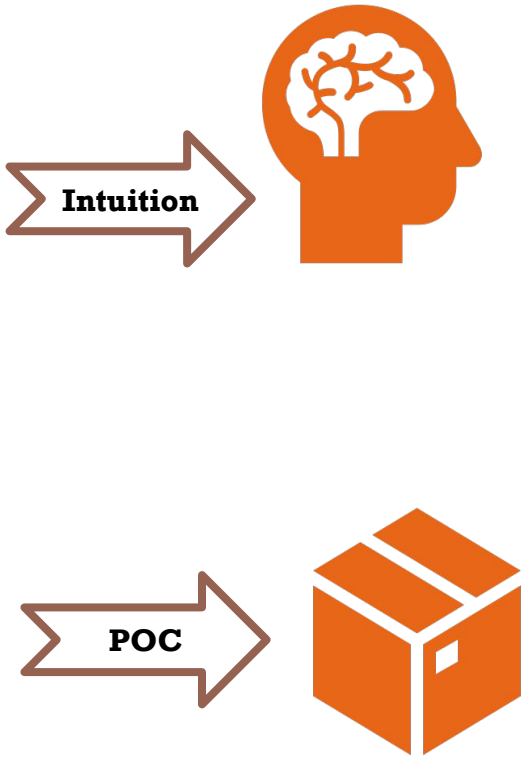
PROCESS: INTERACTION WITH DEV & CSAT



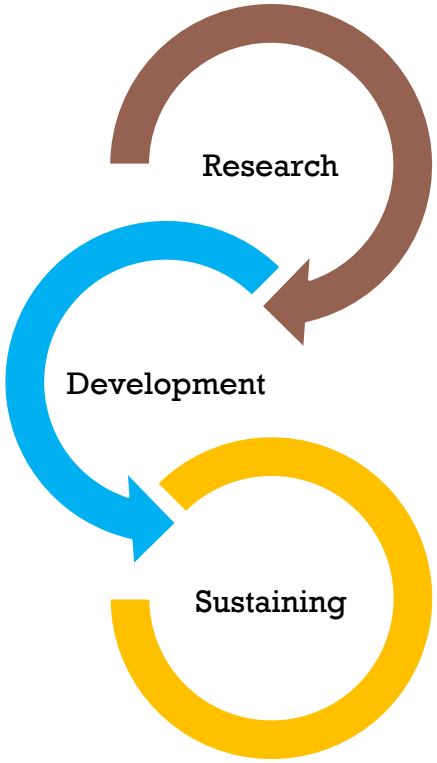
PROCESS: RESEARCH

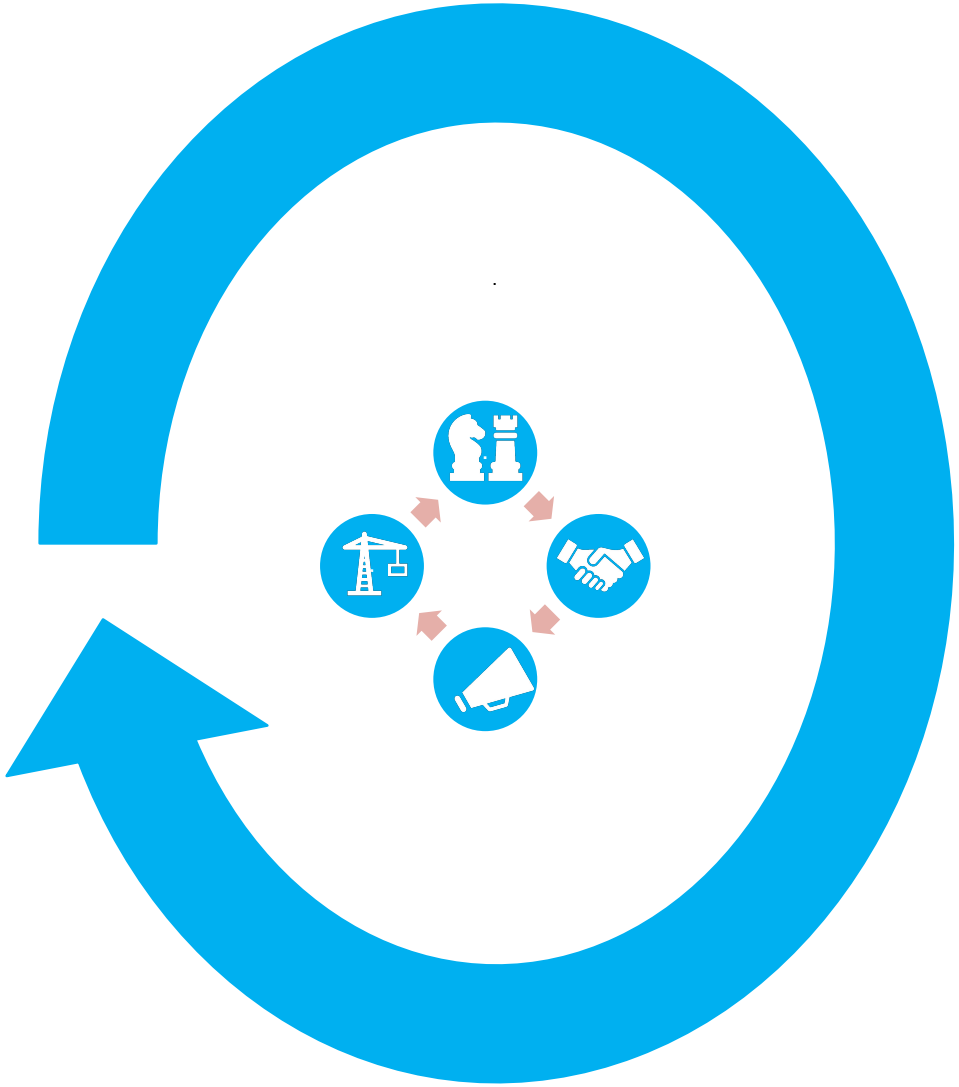


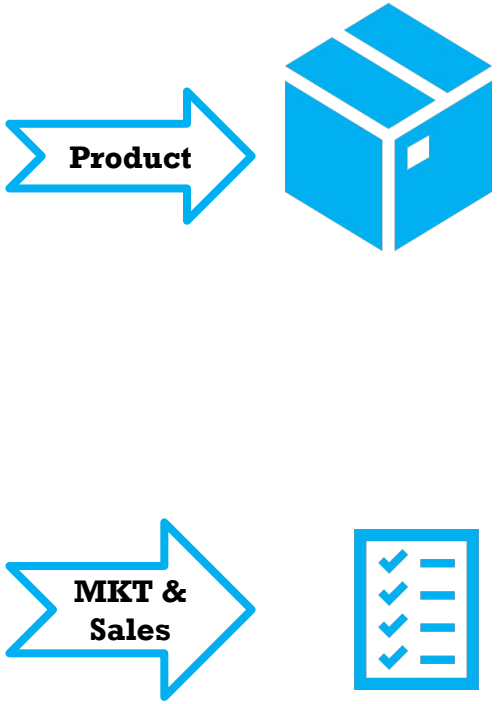




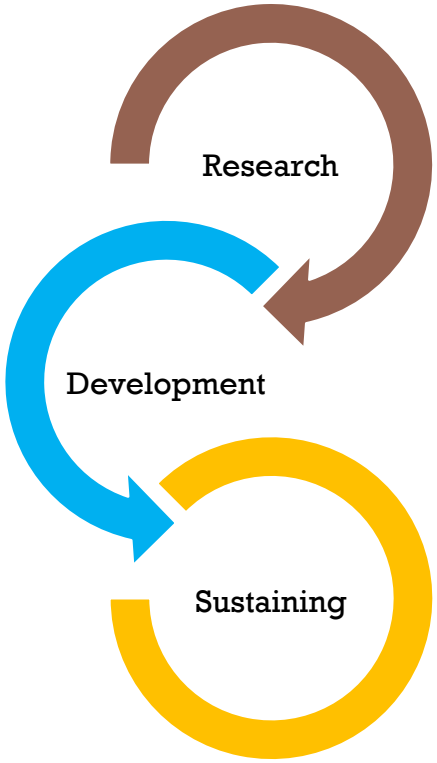
PROCESS: DEVELOPMENT

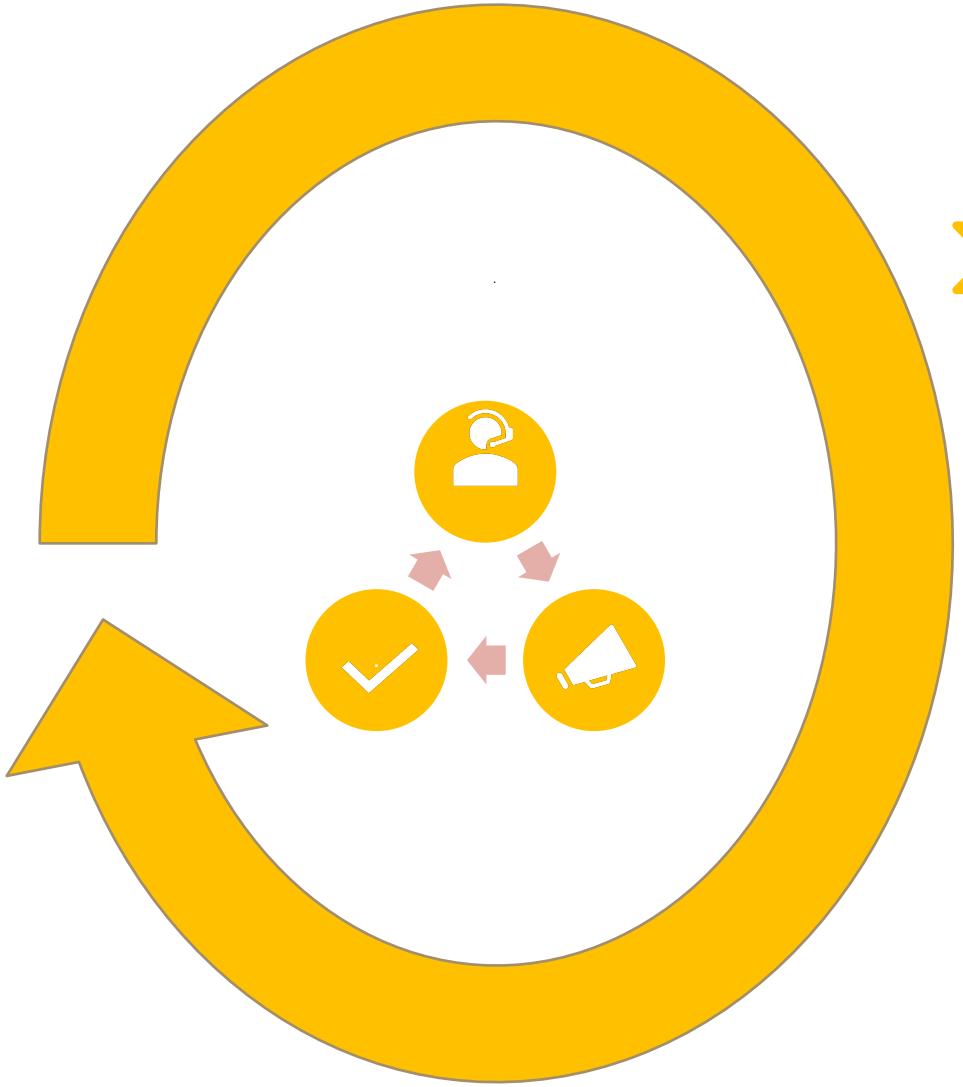






PROCESS: SUSTAINING





Governance Models

Corporate R&D

Venture Capital

DARPA ✤

DECISIONS

WHAT TO TRY

WHEN TO CUT

RESOURCES

Technology Roadmap

A framework to show how innovation initiatives map to product development and our strategy

PROCESS: COMMUNICATION

Technology Roadmap

Complements an existing Product Portfolio Management

Identifies the mix of technology innovation research, new product development, and the dynamics to coalesce them into products that derive sustaining competitive advantage to Weichai:

major trends likely to affect Weichai's market position;	the products Weichai is building to meet these trends;	the technologies required for the products Weichai is building to meet these trends;	dynamics to coalesce technology innovation research into products;

TECHNOLOGY INNOVATION STEERING COMMITTEE

- Reports to CTO
- Derives Trend Assessment & Idea Management
- Facilitate selecting initiatives to launch
- Promotes coordination among Innovation Centers
- Promotes coordination between Innovation Centers & Products Dev teams (PM, DEV, QA, MKT, SALES, etc.)
- Facilitate selecting initiatives to end
- Keep organization informed

RESOURCES

TBD

TOPICS DISCUSSED

- ☛ Why Technology Innovation
- ☛ Audience
- ☛ Discipline
  - ☛ Mission
  - ☛ Process
  - ☛ Communication
  - ☛ Governance
- Resources

THE END