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MONETIZING INNOVATION

Monetizzare l'innovazione: dal design-to-value alla servitizzazione

Convegno Industry 4.0 – La voce di chi produce

HOW SMART
COMPANIES DESIGN THE PRODUCT
AROUND
THE PRICE

SIMON • KUCHER & PARTNERS

Strategy & Marketing Consultants

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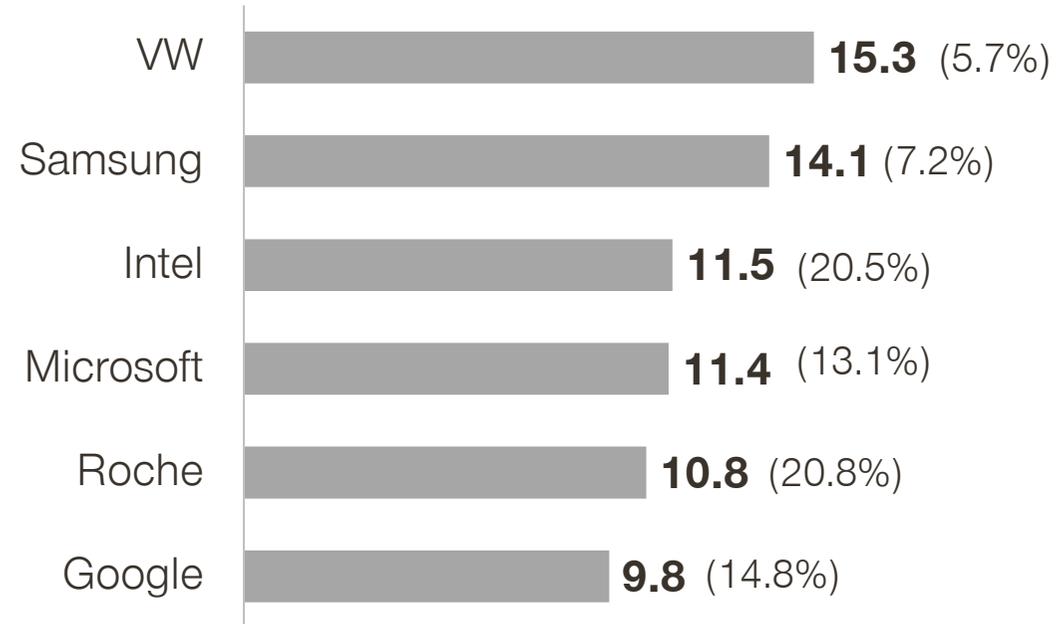
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R&D investments higher than ever



1 Source: Battelle, *R&D Magazine* 2016

Companies with highest innovation expenditure



R&D investments 2015 in bn¹ (share of turnover)

Despite high investments poor innovation performance

72% of all new products do not achieve profit target

In **25%** of companies all products fail to meet profit target



Source: Global Pricing Study 2014; n=1.615

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New products: "flop rate"



Monetizing innovation

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72% What goes wrong here? A typical example



VS.



72% – What goes wrong here? A typical example



VS.



- Became most important Porsche car
- 73,000 Cayenne sold in 2015

- Second biggest new product flop in 2012 after the Apple iPhone map
- Disastrous sales performance
- Future uncertain

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Failure categories



Feature Shock



Minivation



Hidden Gem



Undead

FirePhone:

- From the iPhone hunter to a cheap phone
- From \$199¹⁾ to \$0.99 in 4 months
- \$170 million in inventory write-downs

ParcAssist:

- Cost plus pricing towards VW and other OEMs: approx. €100
- OEMs understand full customer value
- VW's customer price: €670

Digital technology:

- **1974:** Kodak's Steven Sasson invented the digital camera technology
- **1995:** Kodak introduced its first digital camera; only in 2001 they got serious on it
- **2012:** Kodak declared bankruptcy

Segway:

- Launched at €7,524²⁾
- Sales target acc. to bus. plan:
 - 50,000 in the first year
- Actual sales:
 - 30,000 in 6 years³⁾



Source: Simon-Kucher & Partners; 1) incl. contract; 2) MSRP Segway X2 S; 3) Wikipedia

Monetizing innovations



The sad truth: Record R&D investments; 72% flop rate; future growth is at stake

Just four flop categories:

- Feature Shock
- Minivation
- Undead
- Hidden Gem

But: these flops can be avoided

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The answer to knowing vs. hoping to monetize: The 9 steps framework for monetizing innovations

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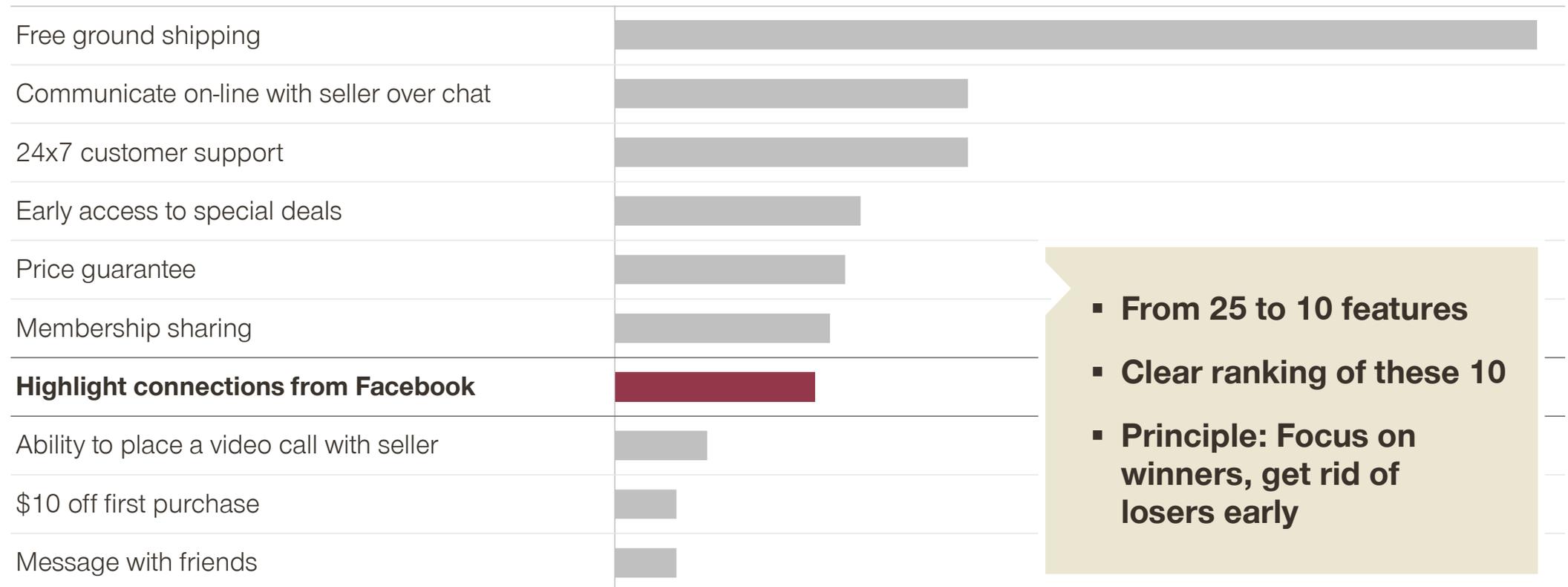


1 Without the WTP talk you cannot prioritize & focus!

Early WTP talks at a 2 sided marketplace.

Features

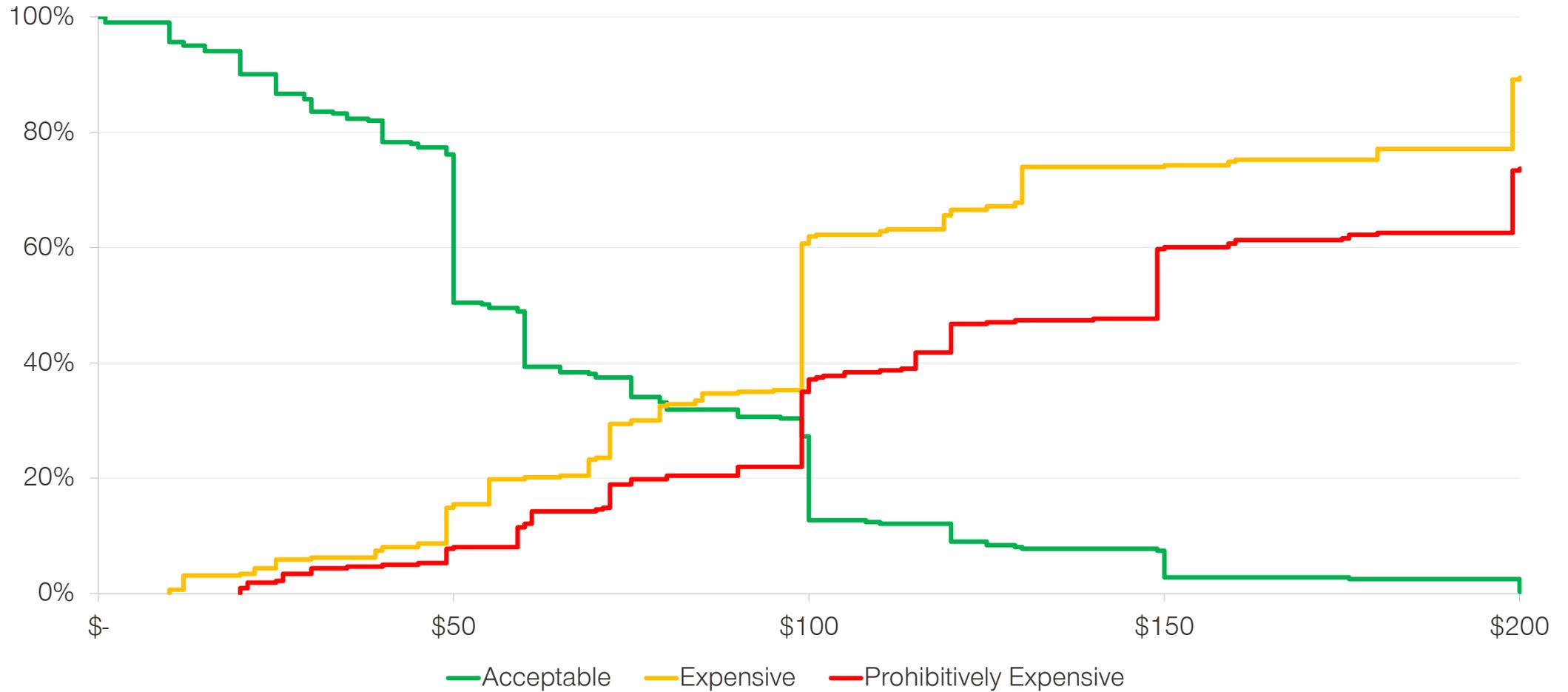
WTP in \$



- **From 25 to 10 features**
- **Clear ranking of these 10**
- **Principle: Focus on winners, get rid of losers early**

1

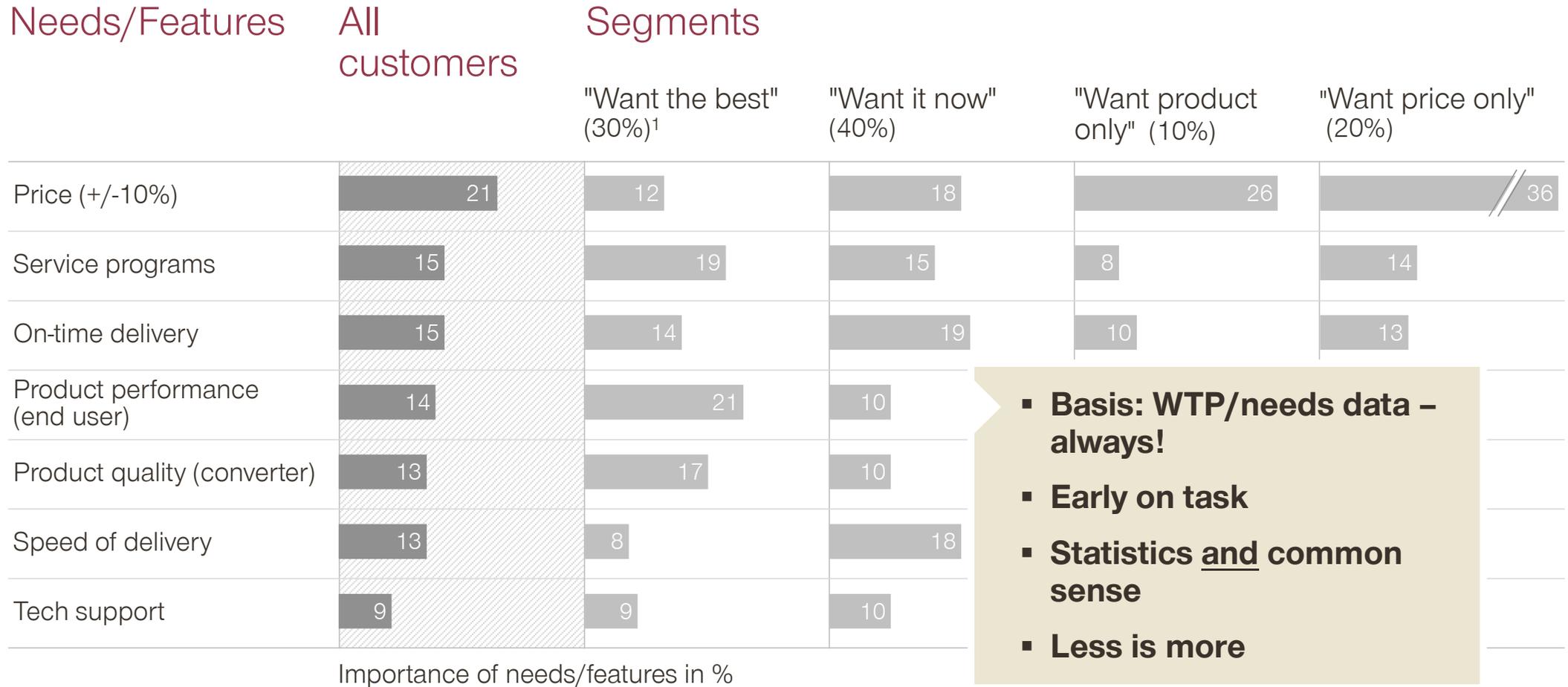
How? Example: Van Westendorp



Source: Simon-Kucher & Partners

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2 Segmentation in action



* Segment size (value)

4 How you charge trumps what you charge

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Predictive maintenance



- So far: maintenance/repair service done by technicians
- Revenue model: price/h; plus travel, emergency surcharge
- With IoT: no/less repair; preventive replacement of parts etc.
- Future revenue model:
 - include maintenance in machine price
 - offer long-term maintenance contract

4 Powerful monetization models



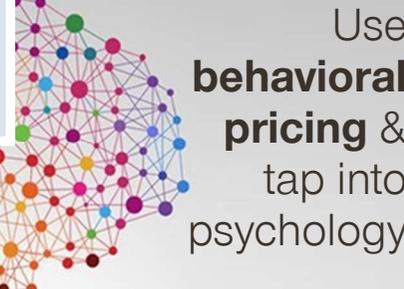
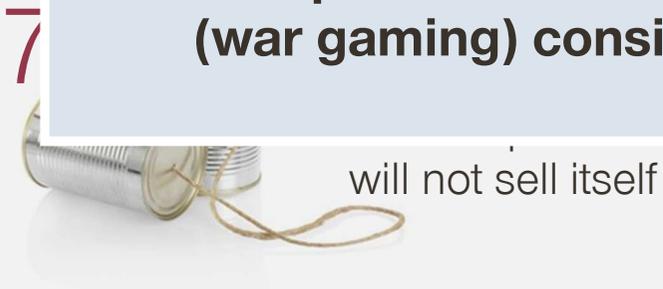
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6 Outside-in business case: from hoping to knowing

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- 4
- **Price and value elasticities included?**
 - **Cannibalization quantified?**
 - **Competitive reactions (war gaming) considered?**



How does this apply to servitization?

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Servitization: understand value as first step



Fleet management

Description/use cases

Tools are equipped with **GPS module (site overview, theft control)**

Agricultural machines are equipped with **GPS** and **wireless communication (tracking and optimized travel times)**



Usage analyses

Sensors are inserted in waste containers and communicate when the **container is full** (route optimization)

Consumption meters automatically transfer readings to a **cloud** and can be viewed there (**no taking manual readings, transparency for users**)



Production optimization

Machines are equipped with **cameras** that monitor the production process (**central server** adjusts production process)

Customers **customize food packaging** online, directly transferred to **packaging machines** (no manual intervention needed)



Maintenance management

Elevators are equipped with **GSM modules** (data on # journeys, duration of the journeys and calculation of **maintenance dates**)

Industrial printers send information on consumable **fill levels** to a central server (automatically plans **maintenance**)

Monetization examples

- ▶ **Monthly usage fee** for GPS module
- ▶ **Two-part tariff:**
Purchase price for machine + annual/monthly payment for using fleet management software

- ▶ **License fees** for data assessment software
- ▶ **Selling usage analyses** (instead of selling hardware)

- ▶ **Monthly usage fee** for data analysis on the central server
- ▶ **License fees** for software

- ▶ **Tariff options** (GSM module included/not included)
- ▶ **Two-part tariff:** Buy remote maintenance module + annual fee for live diagnostics

Caterpillar is monetizing cost savings to customers with its IoT-enabled marine predictive maintenance solution

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BUSINESS OVERVIEW

Industry: Industrials

Company profile:

- Industrial equipment and solution provider with annual revenue of USD38bn
- Digital vision of transforming data and information into actionable insights for customers to save them time, money, and resources

Situation:

- Advances in IoT technology and a partnership with Pentaho, a big data analysis platform, enabled Caterpillar to develop new predictive maintenance solutions

DIGITAL TRANSFORMATION

Digital business model:

- IoT-enabled shipboard sensors monitor everything from generators to engines, GPS, air conditioning systems, and air meters to collect trillions of data points
- Big data platform enables customers to easily perform complex statistical and predictive analysis to identify key insights and potential cost savings
- All-inclusive "Predictive-Maintenance-as-a-Solution" model that includes IoT devices and an analysis platform differentiates Caterpillar from competitors

Impact:

- One customer identified the optimal generator utilization for its fleet through multivariate predictive analysis, leading to savings of more than USD650k annually
- Another optimized its hull cleaning frequency by analyzing the correlation between spend and performance improvement, saving more than USD5m annually

Source: <https://www.forbes.com/sites/bernardmarr/2017/02/07/iot-and-big-data-at-caterpillar-how-predictive-maintenance-saves-millions-of-dollars/#58ee264b7240>

Significant part of the customer value resides now on digital and service aspects

Illustrative

Offer the customer a complete solution with digital added values...



- **Directly selling a complete IoT solution**
- Digital added value to customers **without** involving a software company
- Value added lies entirely with the **manufacturer, close customer loyalty**

...instead of letting yourself be pushed out and losing customer contact!



- **Selling the sole product**
- **Loss of customer contact** with digital value-added services
- Less customer contact and thereby a **lower level of customer loyalty**

A single chance to seize different opportunities



MARKET PERSPECTIVE

- ✓ Overall **offer enlargement** through the integration of the IoT solution
- ✓ **Improved competitive positioning** from the unique set of new market data
- ✓ Possibility to exploit a **first-mover advantage** on a developing IoT eco-system
- ✓ **Revenue increase** from both the core business and new potential business scopes

CUSTOMER PERSPECTIVE

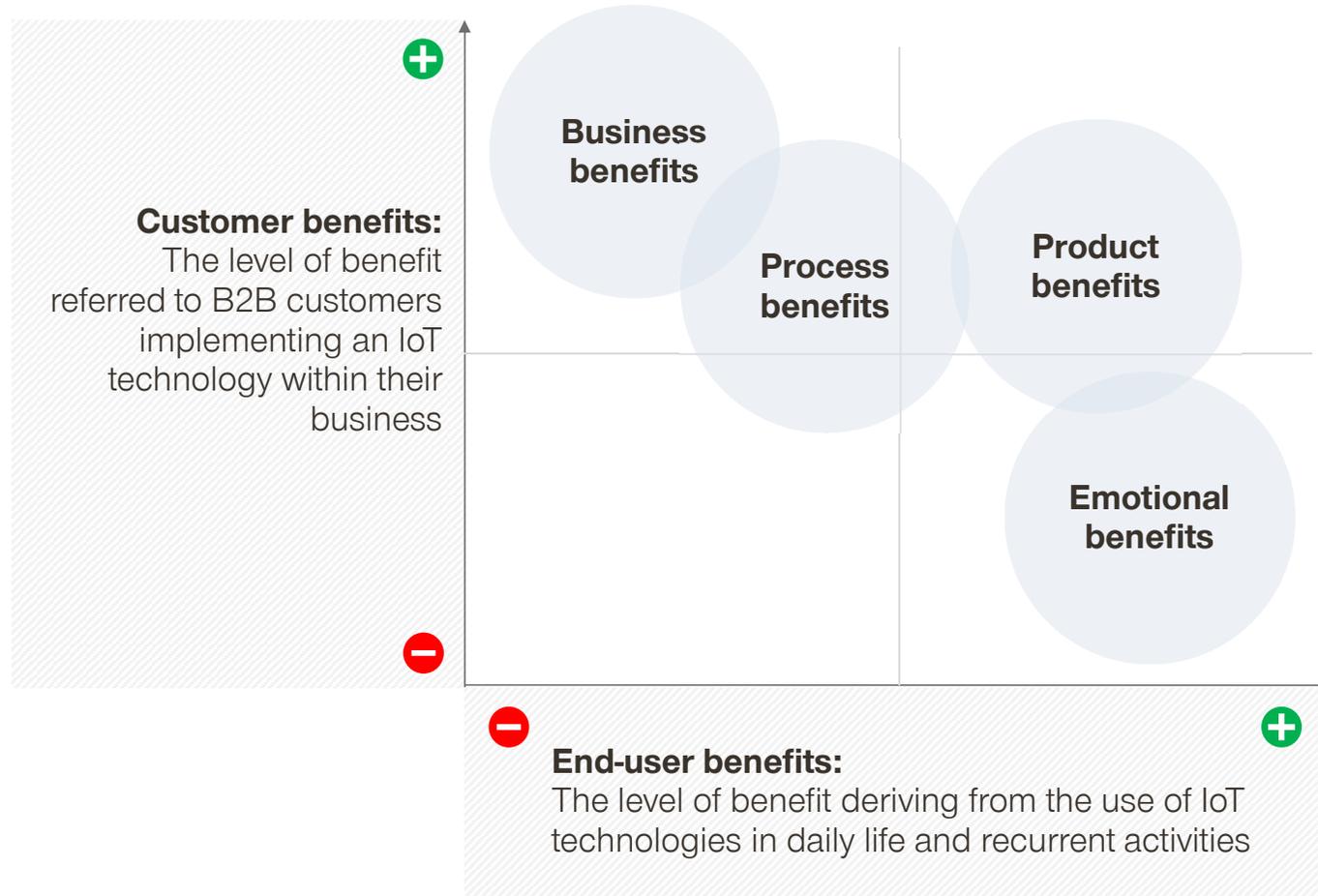
- ✓ Increased **customer satisfaction** through improved solution usability and functionalities
- ✓ Availability of an **extended set of customer data**
- ✓ Targeted and **optimized offer** through accurate analysis of collected data
- ✓ Higher **customer retention** from a stronger competitive positioning

FINANCIAL PERSPECTIVE

- ✓ Increased **marginality** following to reduced operative costs
- ✓ New and differentiated revenue streams from **alternative pricing models**
- ✓ Additional revenues from a **business scope enlargement**

Customer and end-user benefits

Benefit categories affecting the rest of the value chain



Product/Machine:

Benefits refer to monitoring, remote control, costs optimization and improved service & maintenance

Process:

Refer to precise strategic information, documentation management and automated processes

Business:

Include higher customer satisfaction, potential new markets, value-added services and new business models

Emotional:

Refer to safety, personal esteem and social prestige

Servitization often refers to software/applications: how to monetize it

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1 Price strategy		Define objectives per market and align pricing strategy with corporate strategy, market situation, customer needs, channel and product priorities.
2 Offering structure & bundles		Review products to identify core applications and add-on modules that incentivize upsell potential
3 Price structure & metrics		Apply the optimal price metrics and model to improve fit with market needs and to maximize revenues. There are alternatives to "price per product"!
4 Price level		Define prices in line with the true value of the product or service. Evaluate price elasticity for different customer segments to optimize prices.
5 "Freemium"		Design free product version with basic features to win customers and provide also one or more payable premium product versions to achieve upsell
6 New product pricing		Define launch pricing for new products/product innovation
7 Discount steering		Monitor discounts and adjust escalation guidelines. Link incentive system to price quality.
8 Customer migration		Develop customer-specific migration to new price model. Make sure you communicate good arguments for price (model) changes.

Focus today

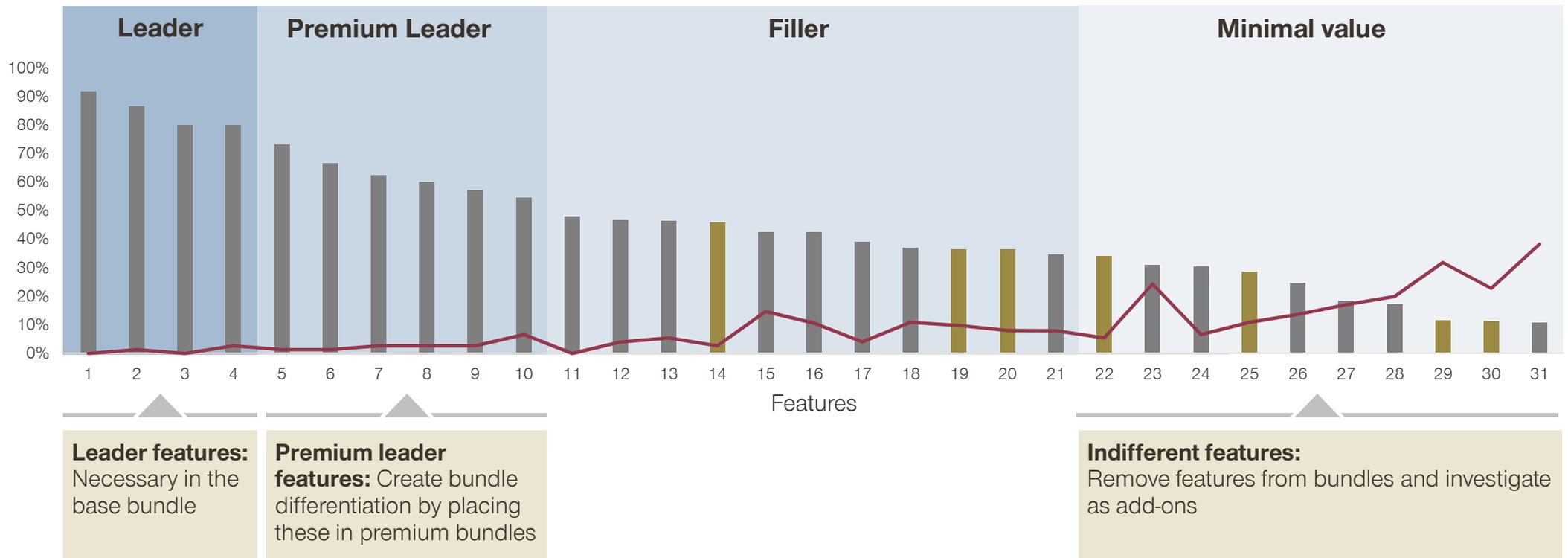
We determine value of features to different segments

Project example

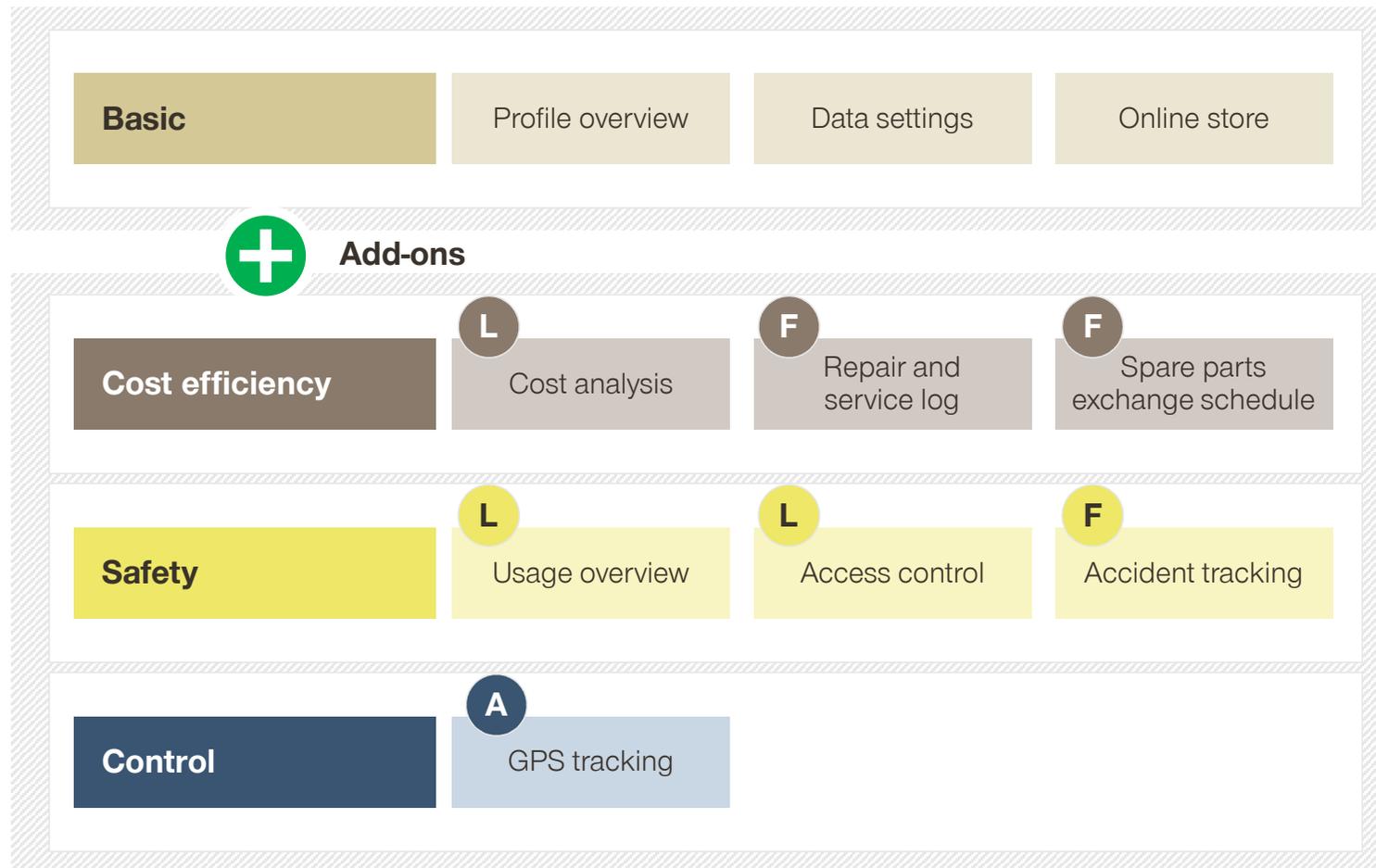
Feature value for PRODUCT

% of respondents

■ Must Have ■ Must Have (new/roadmap) — No value



Example: Basics + Add-on



Project example

Bundle strategy needs to be **fully aligned** with **customer needs** and **buying behavior**

Source: Simon-Kucher project database, anonymized for confidentiality reasons

L Leader **F** Filler **A** Add-on

Decide on the price structure

Linear Pricing

Dynamic Pricing

Dynamic price models

Non-Linear Pricing

Usage-oriented pricing

Minimum Price with "Price per usage"

Usage

Progressive/degressive "Price per usage"

Usage

"Price per usage" with maximum price

Usage

Usage-oriented price drivers

Usage behavior

Customer preferences

Demand

Do you use the right price structure & metrics to monetize your digital products?

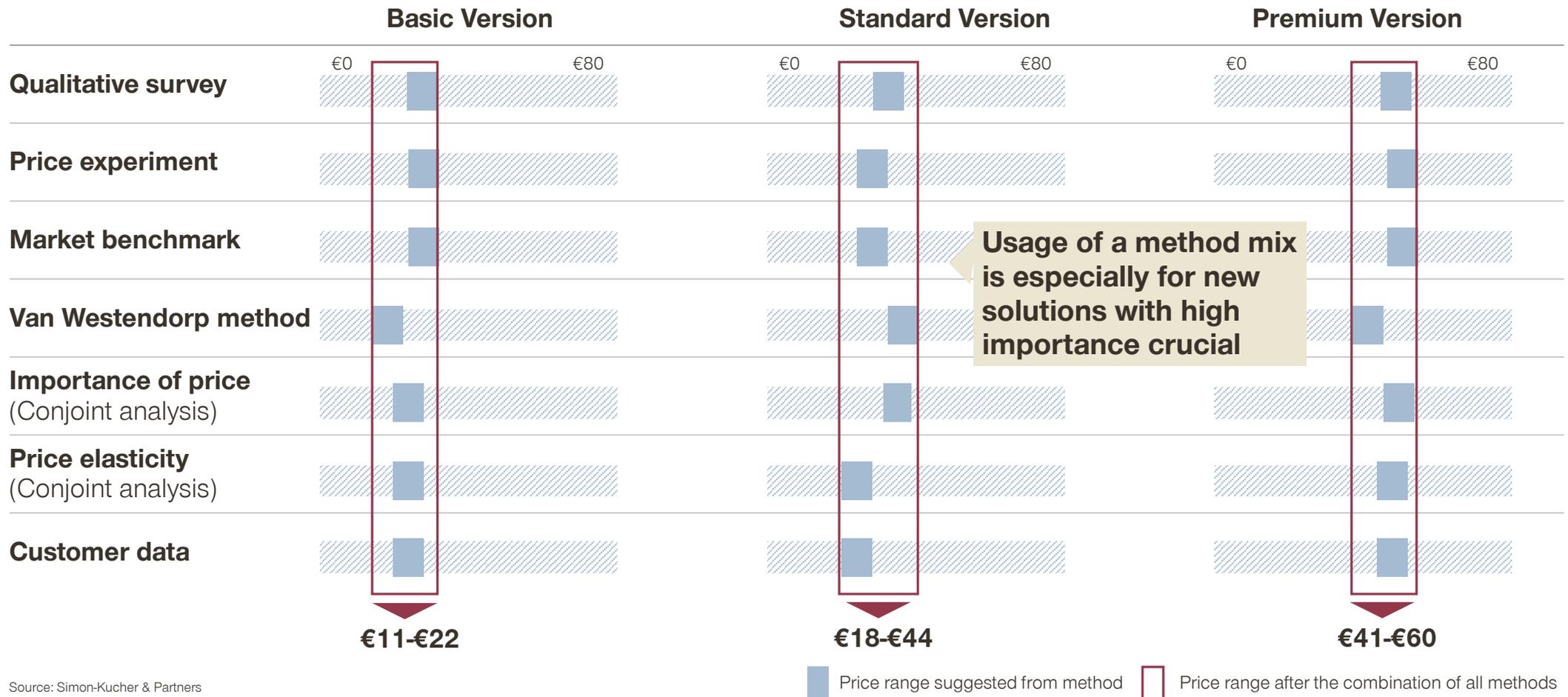
We have developed price models in several thousand projects. This extensive project experience helps us to assess strengths, weaknesses and feasibility of price models.

Source: Simon-Kucher & Partners
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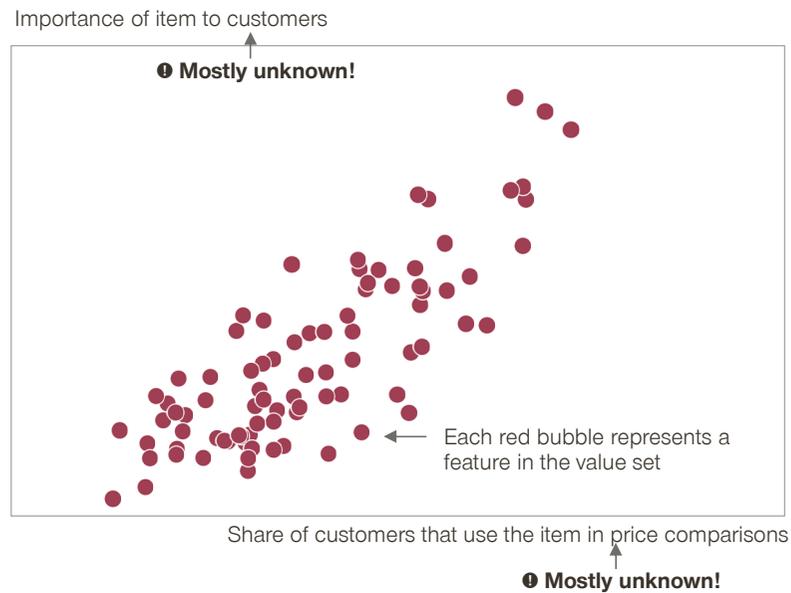
Example result: Willingness to pay is determined by various methods and sources

Project example



Move from engineer driven to customer driven feature design and utilize customer insights

Traditional approach: engineer-driven



- All potential features used to value-adjust prices vs. competition, regardless of customer comparison practice
- Engineers drive pricing methodology and output

Best-in-class approach: customer-driven



- Only features which are relevant for customers and which are usually compared by them appear in the value set
- Typically, 10-15 items mirroring customer behaviors, differentiated by country and model

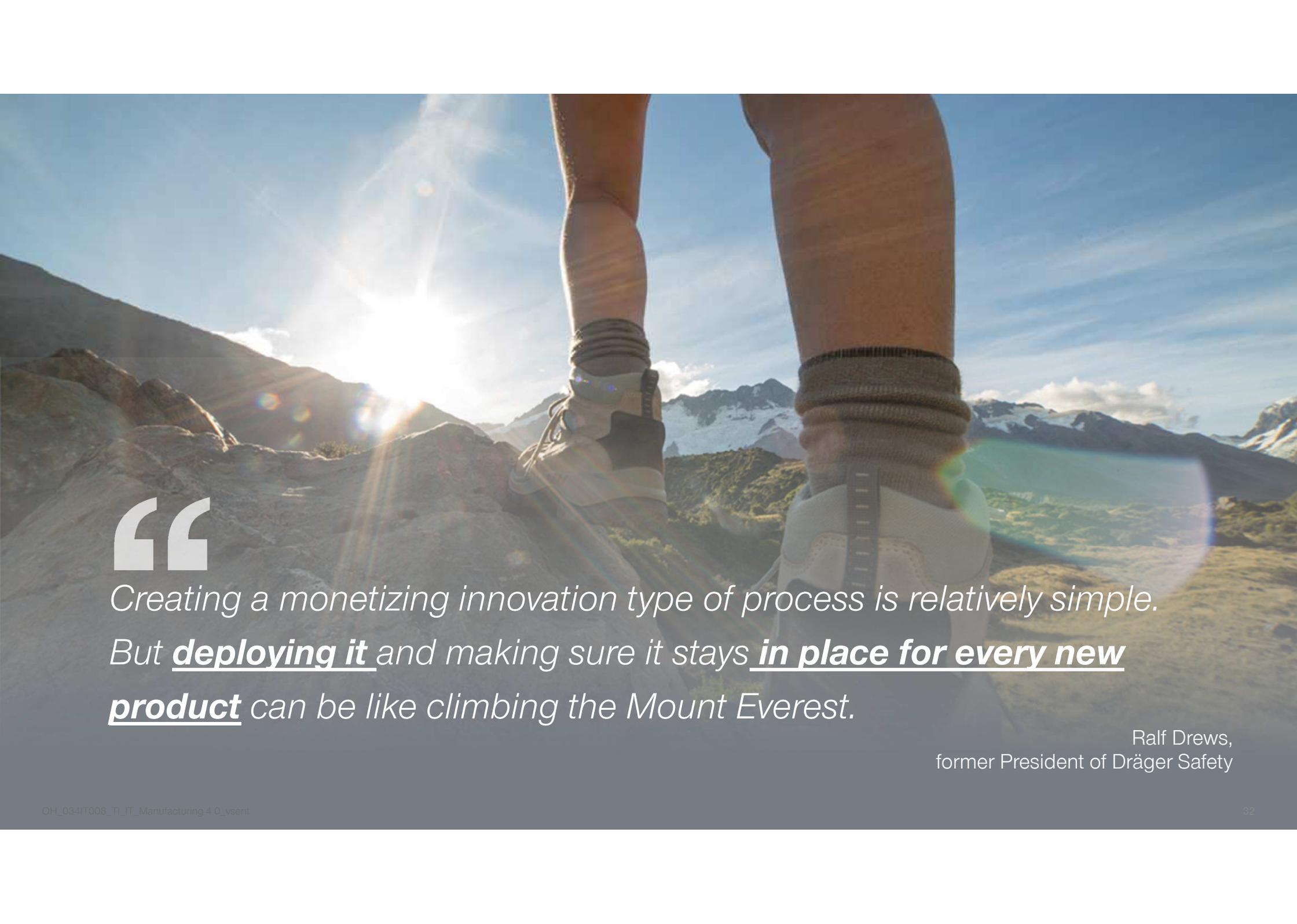
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A low-angle, first-person perspective shot of a hiker's legs in grey and black hiking boots, standing on a rocky mountain peak. The sun is low on the horizon, creating a bright lens flare and illuminating the scene. The background shows a vast mountain range under a clear blue sky with some light clouds.

“

*Creating a monetizing innovation type of process is relatively simple.
But **deploying it** and making sure it stays **in place for every new product** can be like climbing the Mount Everest.*

Ralf Drews,
former President of Dräger Safety