



# Algorithmic Governance, Automation and Dynamic Business Ecosystems



**FOReSiGHT**

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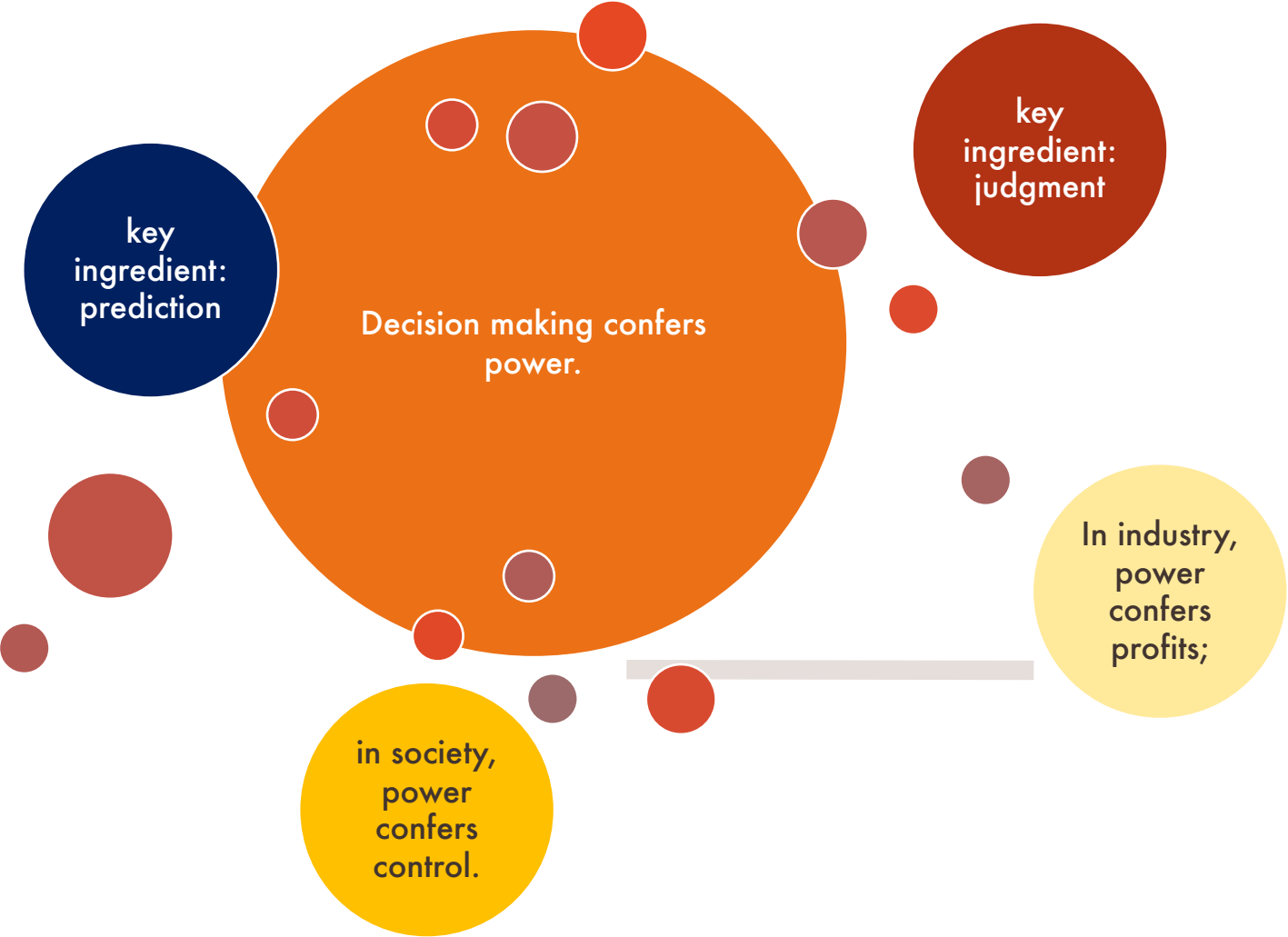
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Why?



Power and Prediction: The Disruptive Economics of Artificial Intelligence (2022)  
by Ajay Agrawal, Joshua Gans, Avi Goldfarb



# Governance?

- coordination between actors based on rules
- not necessarily intentional and goal-directed (Black, 2001)
- it also includes unintentional coordination

Governance BY algorithms

[Katzenbach, C. & Ulbricht, L. \(2019\).  
Algorithmic governance. Internet Policy  
Review, 8\(4\).  
<https://doi.org/10.14763/2019.4.1424>](https://doi.org/10.14763/2019.4.1424)



# Two diverging narratives

“Governance becomes more powerful, intrusive and pervasive”



“Governance becomes more inclusive, responsive, and allows for more social diversity”





“

The legitimate use of algorithms by government, depends on the capability to protect, promote and live up to public values.

As algorithms may make the work of government more effective and more efficient, it promotes values such as proper use of public funds.

Yet we are also and increasingly aware of threats to values stemming from bias, equality of treatment and privacy.

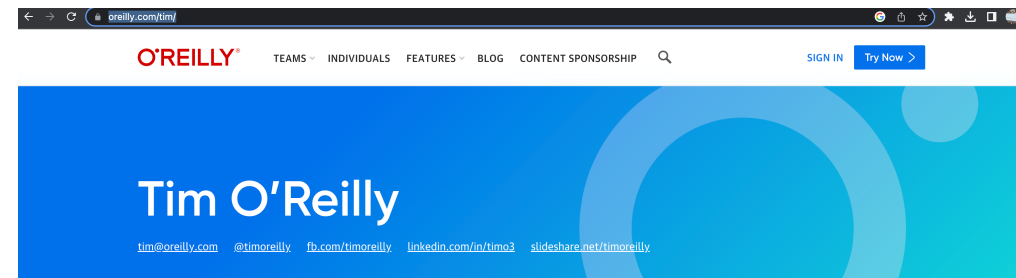
[The Hague Centre for Digital Governance](#)

# Not new – not necessarily about AI

- 2009 - Rouvroy and Berns - 'gouvernance algorithmique'
- 2013 - Müller-Birn, Dobusch and Herbsleb - 'algorithmic governance' = "a coordination mechanism opposed to 'social governance'."
- 2013 - Tim O'Reilly - 'algorithmic regulation' - automatically governed spaces are efficient
- 2014 – Morozov – If highly contested issues are delegate to technological solutions ==> – depoliticization

Regulation = “intentional attempts to manage risk or alter behavior in order to achieve some pre-specified goal”  
(Yeung, 2018)

<https://www.oreilly.com/tim/>



Credit: Peter Adams / Faces of Open Source

I have trouble keeping track of my various, scattered writings and interviews, so I decided to create a page where I can find my own words when I want to refer to them. I figured others might want to look at this archive as well. In addition, here is my [official bio](#) and my [short official bio](#).

#### Recent interviews, articles, and talks

[Web3—the latest Silicon Valley buzzword](#) (The Economist's Babbage podcast, February 8, 2022)

#### My book on technology and the future of the economy

In *WTF? What's the Future and Why It's Up to Us* (Harper Business, October 2017), I share some of the techniques we've used at O'Reilly Media to make sense of and predict innovation waves such as open source, web services and the internet as platform, and the maker movement. I apply those same techniques to provide a framework for thinking about how internet platforms and artificial intelligence are changing the nature of business, education, government, financial markets, and the economy as a whole.





**Let's talk business**



# Why about this and Automation?

Ecosystem - all the entities that can come together to deliver value to users: the various units, external partners/suppliers, and even the users/customers themselves.

Ecosystem ([EY](#)) - "A business ecosystem is a purposeful business arrangement between two or more entities (the members) **to create and share in collective value** for a common set of customers.

Every business ecosystem has participants, and at least one member acts as the orchestrator of the participants.

All members in a business ecosystem, whether orchestrators or participants, have their brands present in the value propositions."

# Why about this and Automation?

Ecosystem - all the entities that can come together, including the various units, external partners/suppliers, and users/customers themselves.




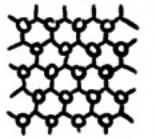


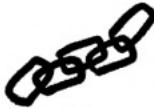



Ecosystem (EY) - "A business ecosystem is a purposeful arrangement between two or more entities (the members) that share in collective value for a common set of customer needs.

Every business ecosystem has participants, and the orchestrator acts as the orchestrator of the participants.

All members in a business ecosystem, whether orchestrator or participants, have their brands present in the value propositions.

“build,  
buy,  
partner”  
?

# Progressive organizational structures

Kyocera		AMOEBAS		HONEYCOMBS	AES
BSO/Origin - Buurtzkorg		CELLS		LATTICE	WL Gore (Gore-Tex)
Sociocratic – Endenburg - Holacracy		CIRCLES		MICRO-COMMUNITIES	Haier - Rendanheyi <i>More about this later...</i>
ner model - Irizar		CHAINS		MINI-FACTORIES	FAVI
Chaordic - VISA		FRACTALS		SQUADS	Spotify

# Why about this and Automation? (2)

- Increased Performance
- Learning
- Optimization
- Evolution

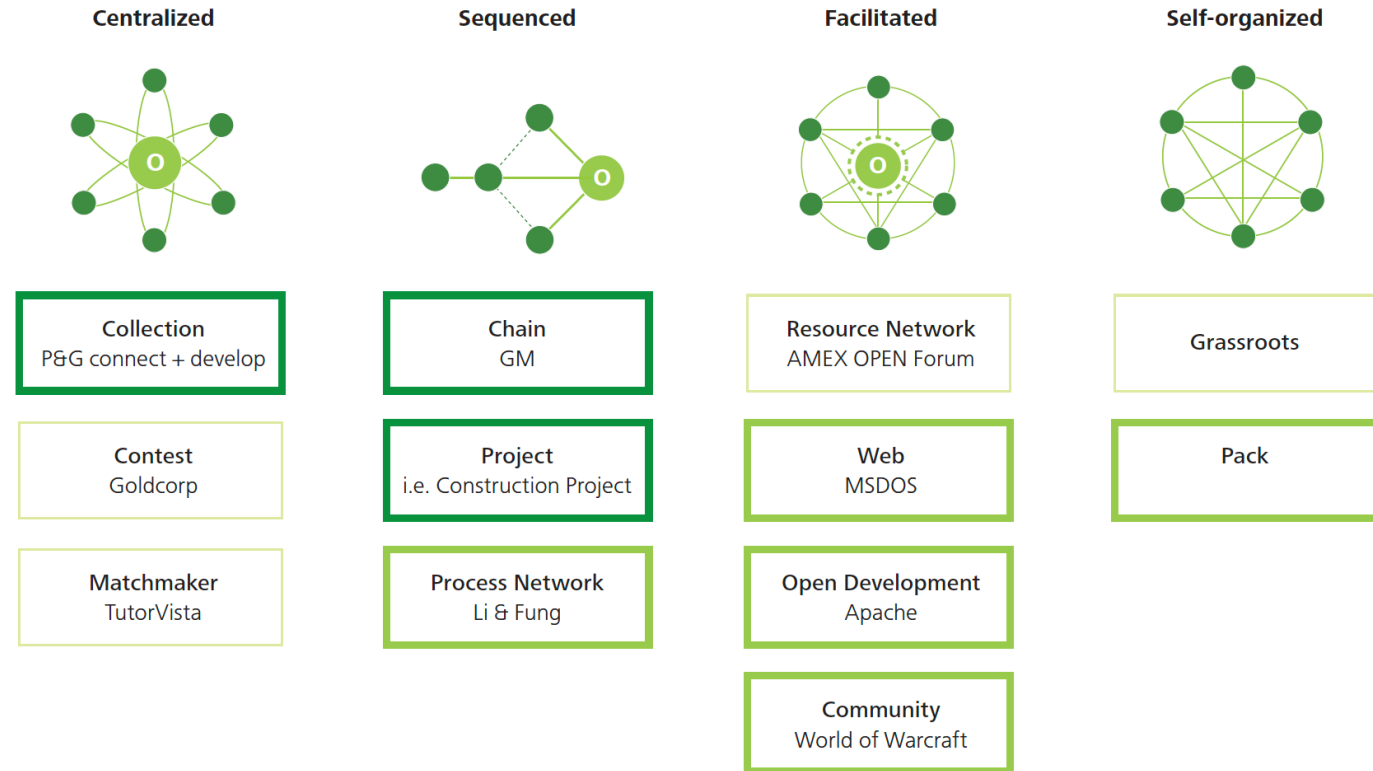
Aggregate and/or coordinate (suppliers, customers, ideas, raw materials, resources, etc.)		Accelerate participant performance improvement	
Do you have a specific issue to solve in a definite time period, for which you are willing to offer a financial incentive?	<b>Contest:</b> Goldcorp	Do you need to sequence activities or participants rapidly and flexibly on an ongoing basis?	<b>Process Network:</b> Li & Fung
Do you want to facilitate a large number of transactions connecting participants or providers and users?	<b>Matchmaker:</b> TutorVista	Do you need to scale distributed innovation around a core platform?	<b>Web:</b> MS DOS
Do you want to enable access to many diverse resources to a large group of users?	<b>Resource Network:</b> AMEX OPEN	Are you willing to relinquish IP and integrate participant contributions for rapid product improvement?	<b>Open Development:</b> Apache
		Do you need trust-based relationships to develop among a large number of participants?	<b>Community:</b> World of Warcraft



Dynamic ecosystems that can achieve accelerated participant performance improvement

- Source: [Deloitte, 2015](#)

# Performance ecosystems

## Ecosystem taxonomy



-  The majority of business ecosystems today
-  Dynamic ecosystems that can achieve accelerated performance improvement

• Source: [Deloitte, 2015](#)

# About Haier



# About HAIER

## Haier Smart Home – 405 in Fortune Global 500 in 2022

Headquarters	Qingdao, China
Industry	Home Equipment, Furnishings
CEO	Liang Haishan
Website	<a href="https://www.haier.net">https://www.haier.net</a>
Company Type	Public
Ticker	HSICY
Revenues (\$M)	\$34,641
Profits (\$M)	\$1,924
Market Value (\$M)	\$41,993
Employees	95,934

Figures are for the latest twelve months ended Sept. 30, 2021. Market value as of Jan. 21, 2022. Sources: Bloomberg; S&P Global.

### Key Financials (Last Fiscal Year)

As of 8/2/21

	(\$ Millions)	% change
Revenues (\$M)	\$30,395	4.6%
Profits (\$M)	\$1,286.5	8.3%
Assets (\$M)	\$31,181.5	-
Total Stockholder Equity (\$M)	\$10,240.1	-

### Profit Ratios

As of 8/2/21

Profit as % of Revenues	4.2%
Profits as % of Assets	4.1%
Profits as % of Stockholder Equity	12.6%

- Source: Fortune, 2022

# About HAIER

## Market Share

2022 - retail volume share

- number one brand of Refrigeration Appliances in the world with **Refrigerator 20% market share**
- number one brand of **Freezers** in the world - a market share of **25.1%**.
- number one brand in **Home Laundry** appliances. Creating global wash and care trends relying on global and localized full line product design and leading technologies in multiple industries.
- number one brand of **connected Air condition** (including smart air conditioner)
- number one brand of **self-cleaning air conditioner** in the world in 2019 (including smart air conditioner)
- Source: Euromonitor, 2022, Haier, 2022



# About HAIER

Zhang Ruimin – the mastermind

## Years

## Strategy

## Organization



1984 - 1991

Brand Building Stage

Traditional hierarchical pyramid

1991 - 1998

Diversification Stage – taking over “stunned fish” - firms with strong products but poor leadership

Matrix Organization with Strategic Business Units

1998 - 2005

Internationalization Stage (in 1999, Haier became China’s biggest fridge-maker + 2001 – China joins WTO)

Satellite Companies with project teams

2005 - 2012

Global Branding Stage - ‘on-demand manufacturing and delivery based on zero-inventory’ – acquisitions - Japanese Sanyo’s white goods business, New Zealand’s iconic home appliance brand, Fisher&Paykel, GE Appliances

Inverted pyramid with self-managed teams

2012 - 2019

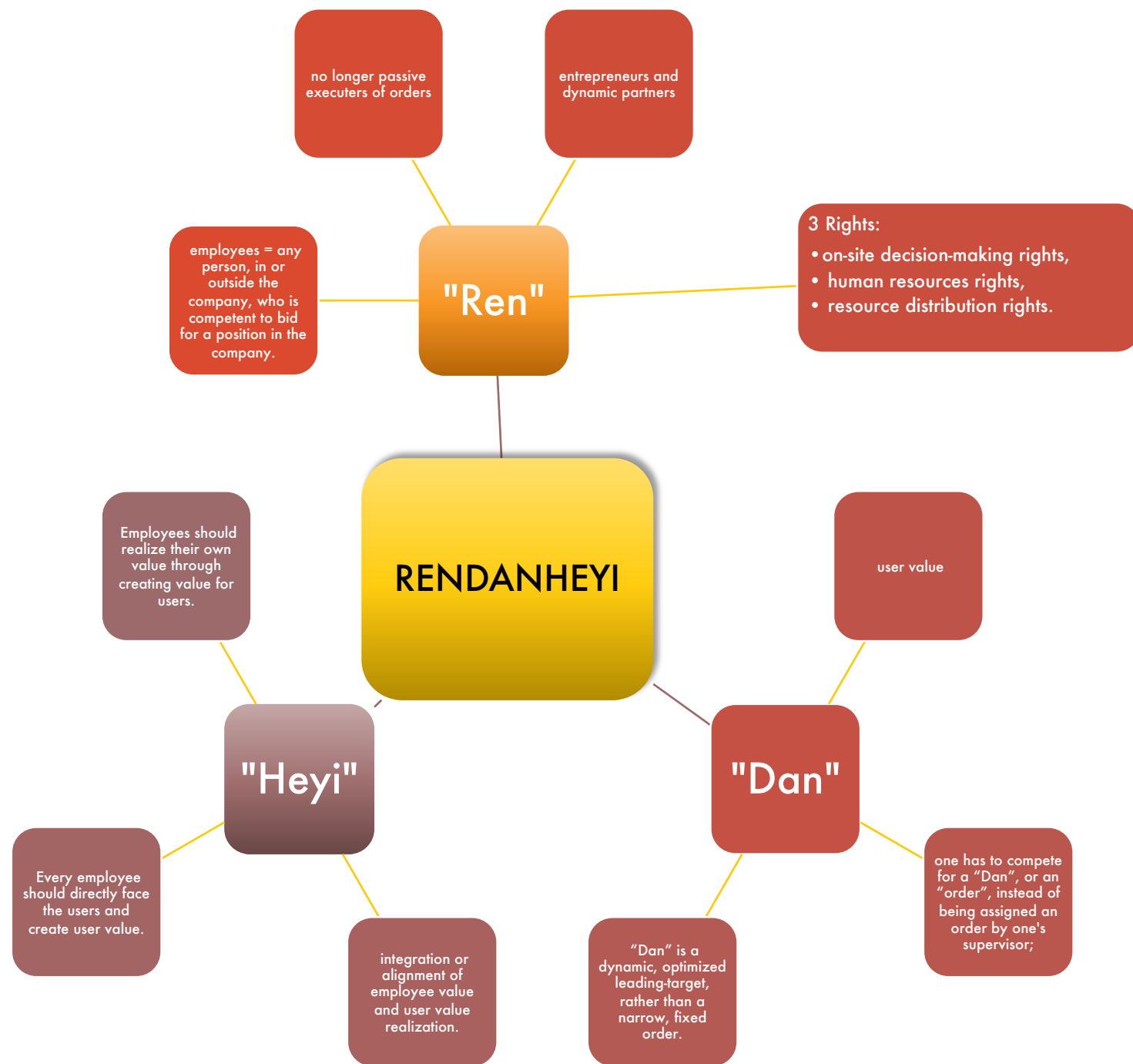
Networking Stage - ‘No Internet, No Future’

Entrepreneurial Microenterprises

2019 - ...

Ecosystem Strategy Stage

Ecosystemic EMCs



• Source: Haier, 2022

# About HAIER

## Corporate Culture

1st Generation:Haier, Made in China 1984.12.26—2005.12.26

**Haier Spirit:** Selfless Devotion, Nonstop Excellency

**Haier Style:** Fast Response, Quick Action



2nd Generation:Haier, Made in the World 2005.12.26-2016.12.26

**Haier Spirit:** Resource Creation, Global Reputation

**Haier Style:** Rendanheyi, Quick Resolution



3rd Generation:Haier, Made in Internet 2016.12.26-2019.12.26

**Haier Spirit:** A Trusted Ecosystem, A Shared Platform

**Haier Style:** Rendanheyi, Microenterprises for Exponential Growth



4th Generation:Haier Spirit & Haier Style 2019.12.26 -

**Haier Spirit:** A Trusted Ecosystem, A Win-win Evolution

**Haier Style:** Rendanheyi, EMC Contract



# About HAIER

## EMC – Ecosystem Micro Community

An open and dynamic unit that is formed by many smaller businesses.

Ecosystem Micro Community (EMC) solves the problems of collaboration among Haier businesses (MEs) and between MEs and external partners and builds an open and win-win ecosystem.

EMC is formed through spontaneous linking.

It's no longer subject to a superior-subordinate relationship in the traditional sense, but to a contractual relationship.

[Self-adaptive non-linear network](#)

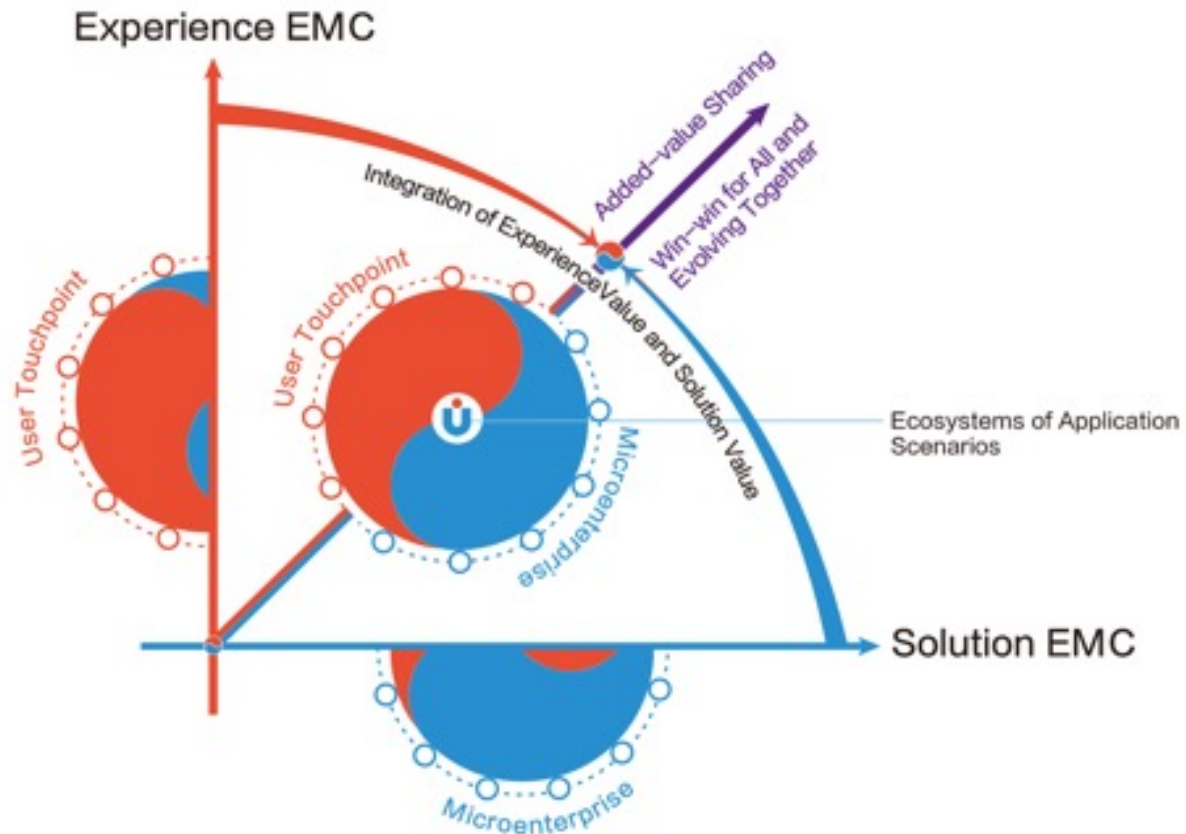
- Source: [Corporate Rebels, 2018](#)

EMC contract is designed to achieve effective incentives, constraints and coordination of businesses within one EMC,

and to enable EMC units to supervise each other and collaborate under the common goal and to quickly meet user needs and realize user experience iteration.

Internet based  
Multi-party  
Value-adjusted

# Ecosystem Micro-community (EMC) Contract Chart ( V2.1)



• Source: Haier, 2022

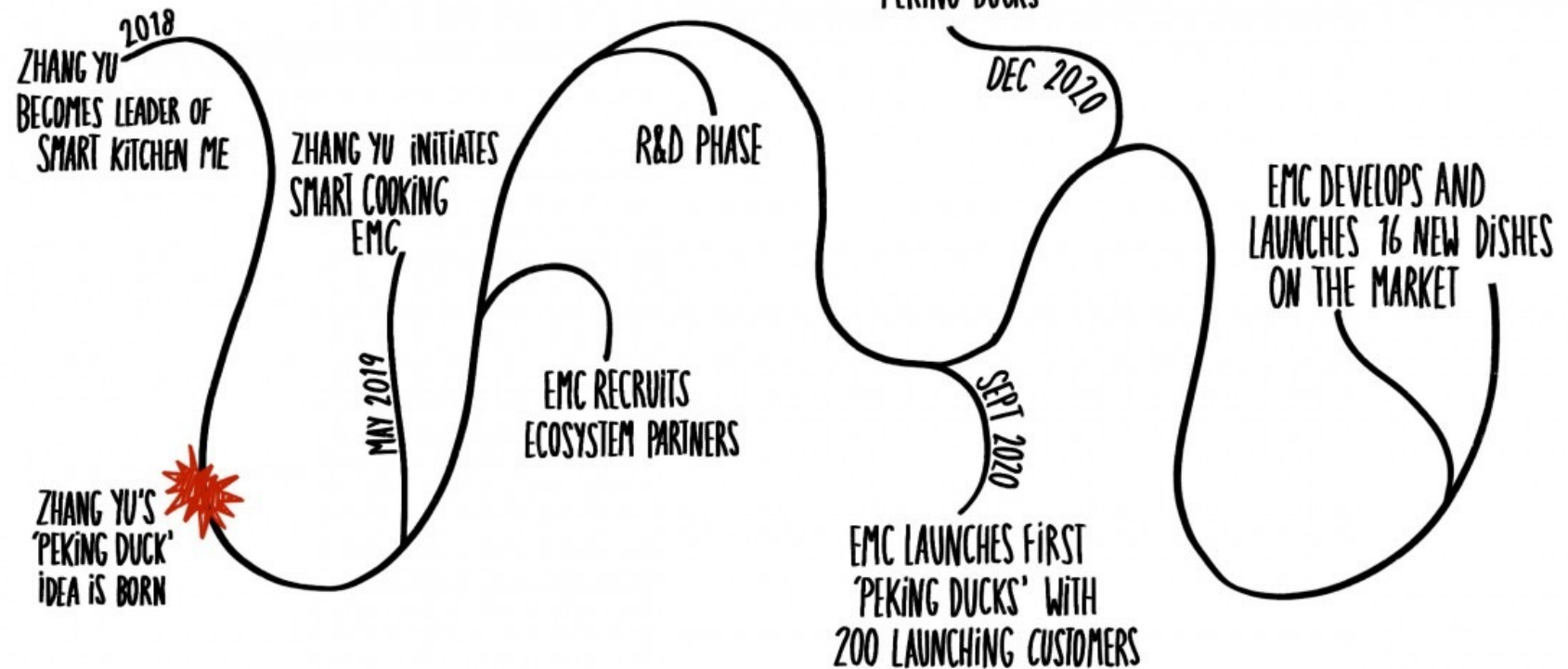


**Haier's EMC of  
Smart Cooking**

# Some examples

## Haier's EMC of Smart Cooking

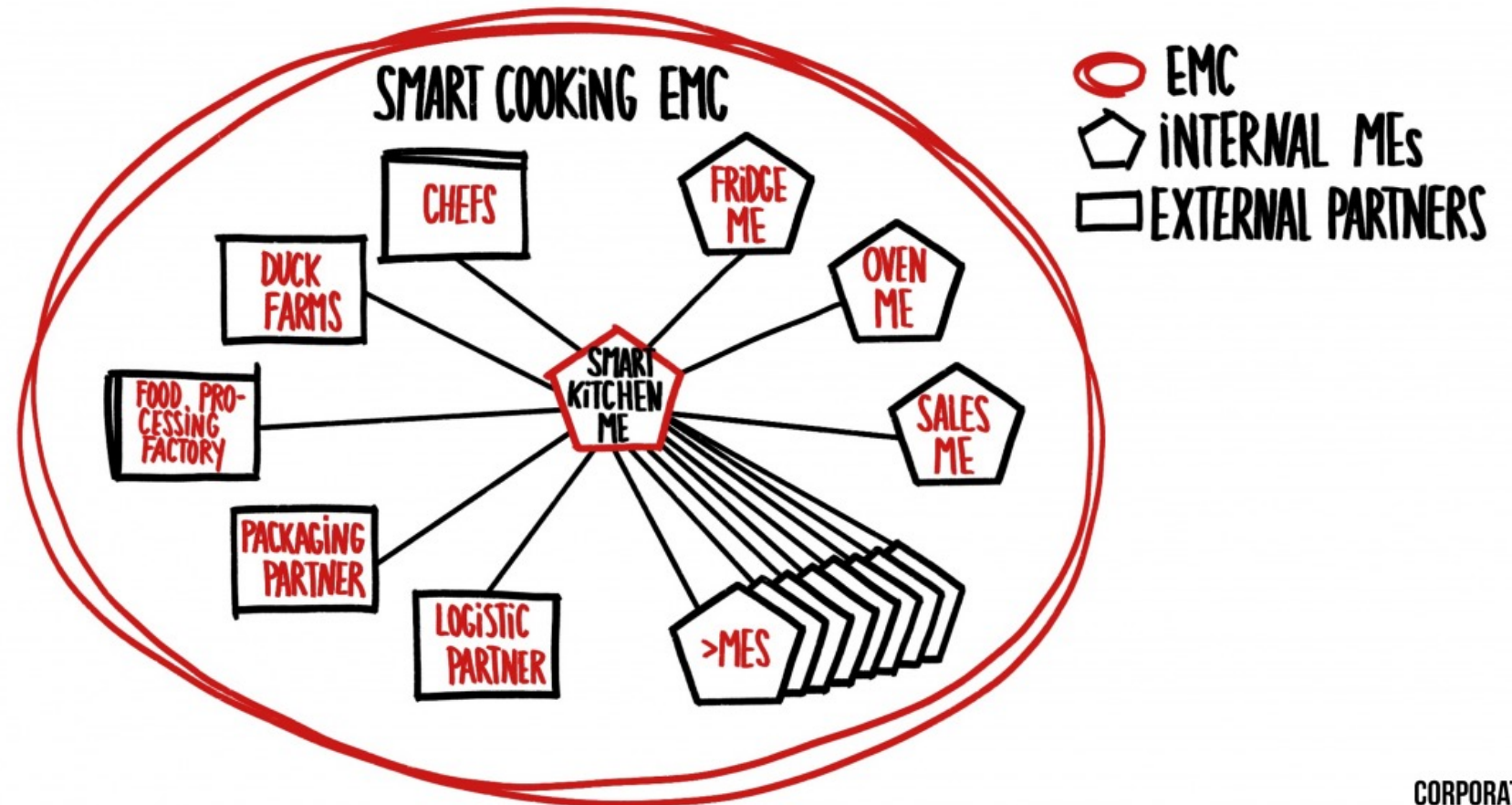
### HAIER'S SMART COOKING EMC



### CORPORATE REBELS

# Some examples

## Haier's EMC of Smart Cooking (2)



• Source: Corporate Rebels, 2022

CORPORATE  
REBELS



Any governance system that tries to define, once and for all, a set of fixed rules is bound to fail.

The key to governance is the choice of desired outcome, measurement of whether or not that outcome is being achieved and a constantly updated set of mechanisms for achieving it.



2. The macro-governance of the choice of outcome for which algorithms and models are optimized

1. The micro-governance of constant updates in response to new information, expressed by building better algorithms and models