An aerial, top-down view of a dense urban environment, likely a city center. The image shows a grid of tall, modern skyscrapers with various architectural styles, including glass facades and solid-colored exteriors. A central street runs vertically through the middle of the frame, with yellow taxis and other vehicles visible. The buildings are packed closely together, creating a complex pattern of vertical lines and shadows. The overall scene is a high-angle, wide-angle shot of a bustling city.

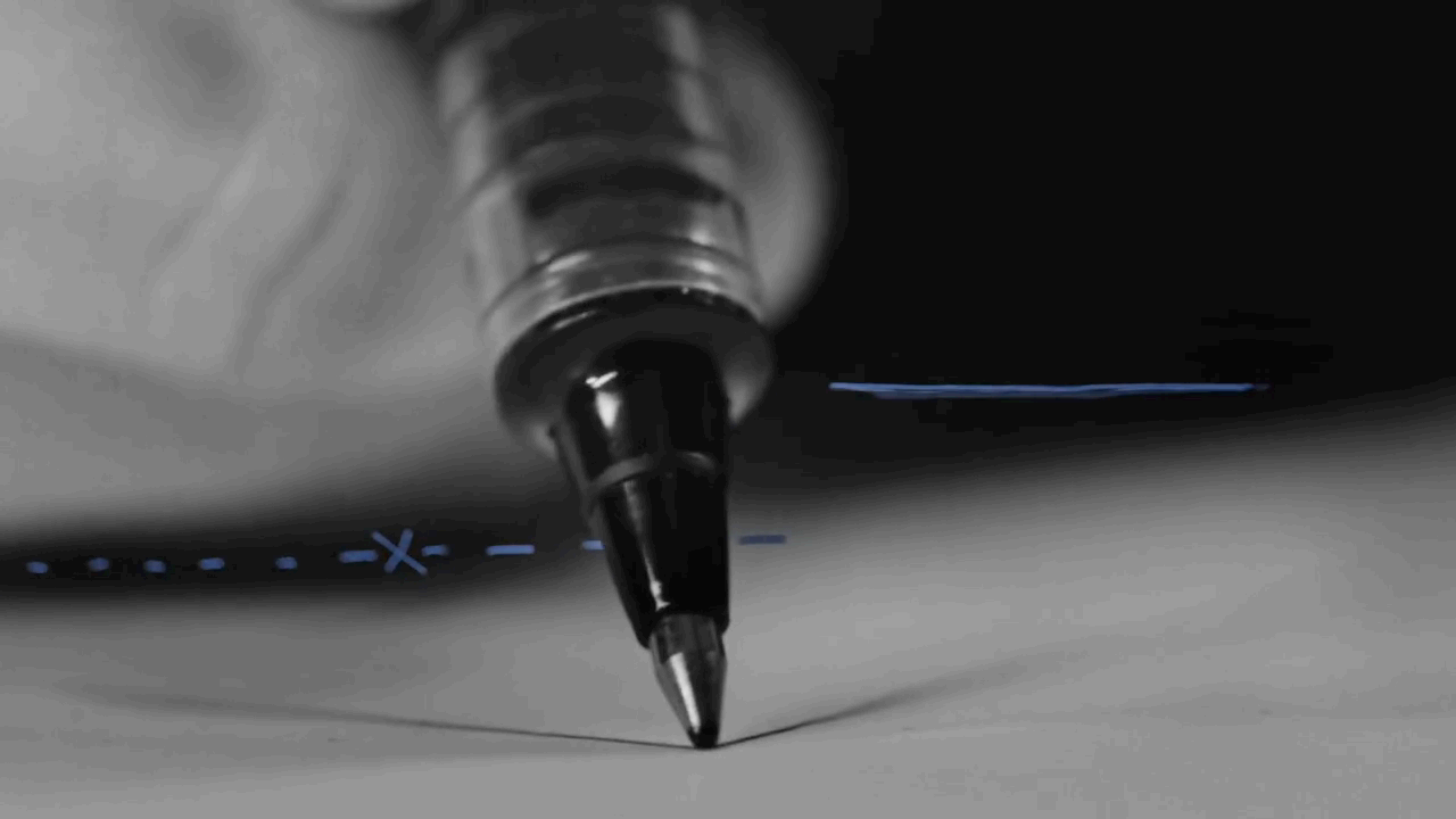
Design Strategy & Entrepreneurship
CoID DS&E, MUO–E3032, Period III (3). 07.01—15.02. 2018
10 cr (270 h)

Design Strategy & Entrepreneurship

CoID DS&E, MUO–E3032, Period III (3). 07.01—15.02. 2018

Learning Objectives & Anticipated Outcomes
10 cr (270 h)

identify, validate and persuasively
communicate (through team-based exploration)
the unique and complimentary **role and value
of design** in enhancing **innovation** processes
and entrepreneurial **practices in startups &
large corporations or organizations.**



Design In Tech Report 2017



John Maeda



Design Needs Designers

“

Capital is being superseded by creativity and the ability to innovate – and therefore by human talents – as the most important factors of production. If talent is becoming the decisive competitive factor, we can be confident that capitalism is being replaced by ‘talentism’...

-KLAUS SCHWAB

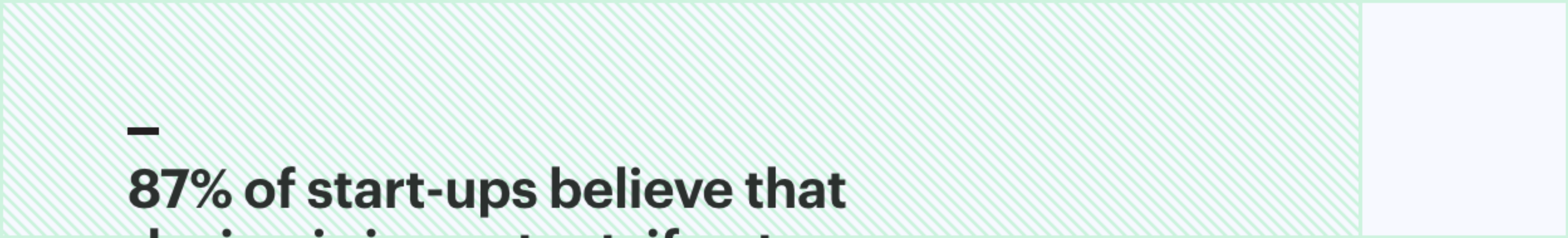
Founder of the World Economic Forum [↗](#)

The Future of Design in Start-Ups

2016

SURVEY RESULTS

Everyone agrees that design matters



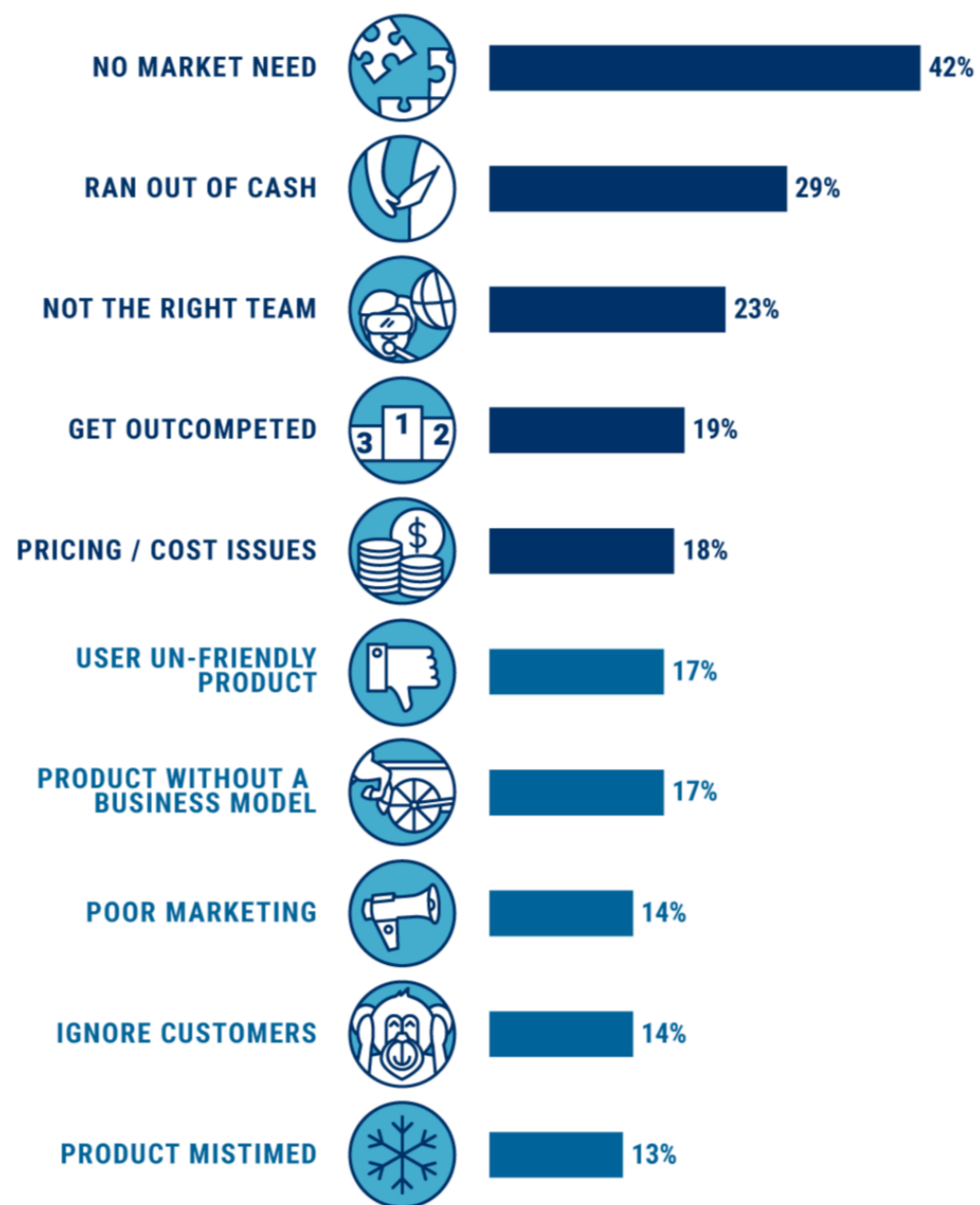
– **87% of start-ups believe that design is important, if not very important**



– **85% of start-ups have founders or C-level executives weigh in on design decisions.**

Top 20 Reasons Why Startups Fail

From lack of product-market fit to disharmony on the team, we break down the top 20 reasons for startup failure by analyzing 101 startup failure post-mortems



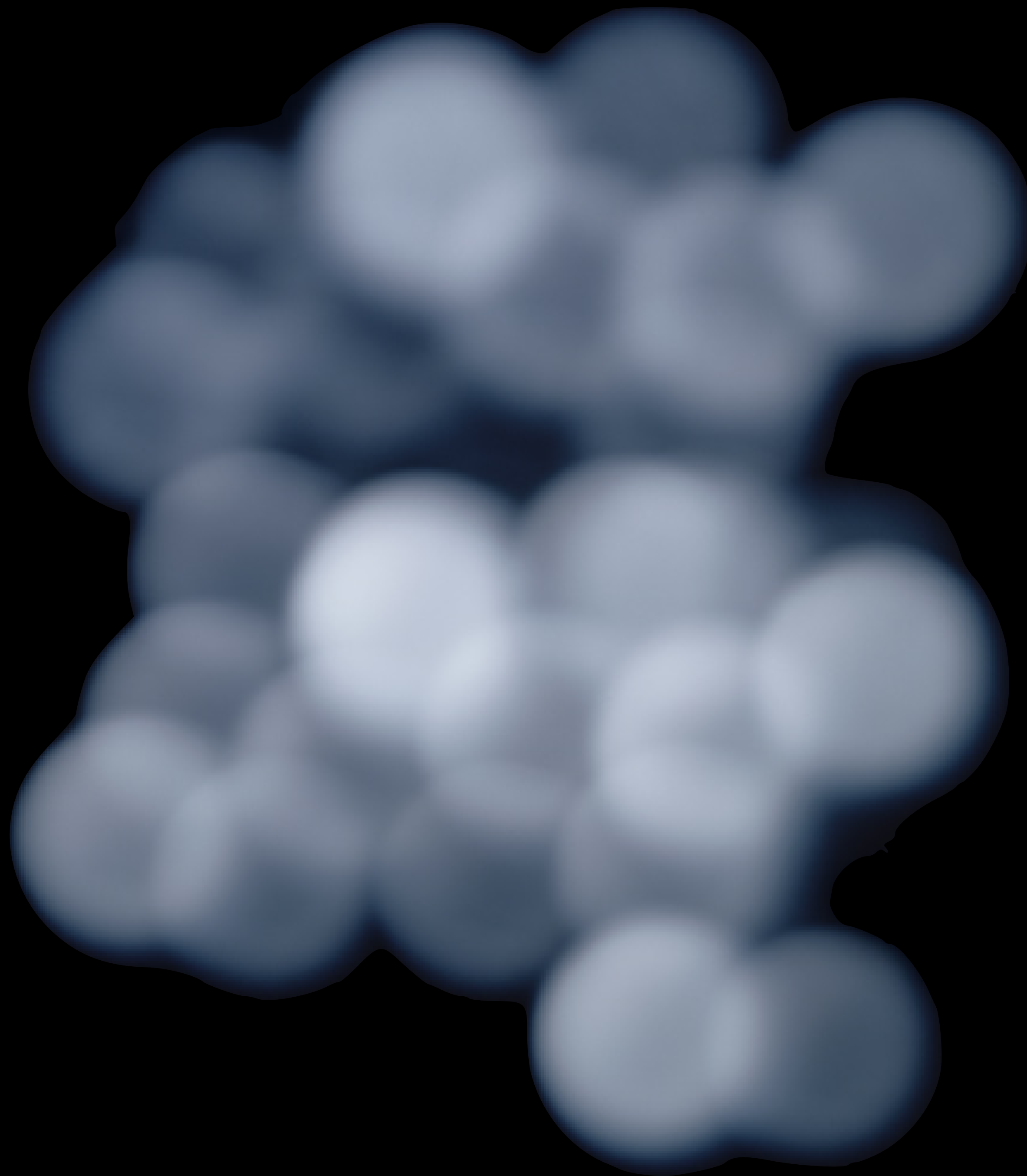
Design Strategy & Entrepreneurship

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the **project-based** component of the course will focus primarily on **exploring transformative opportunities** within the **sharing economy**, with particular emphasis on the **synergies** to be gained through the **strategic integration** of **products** (hw+sw), **services** (se) & **systems** (sy).



SYNERGY 4.0 _ **SHARING ECONOMY**



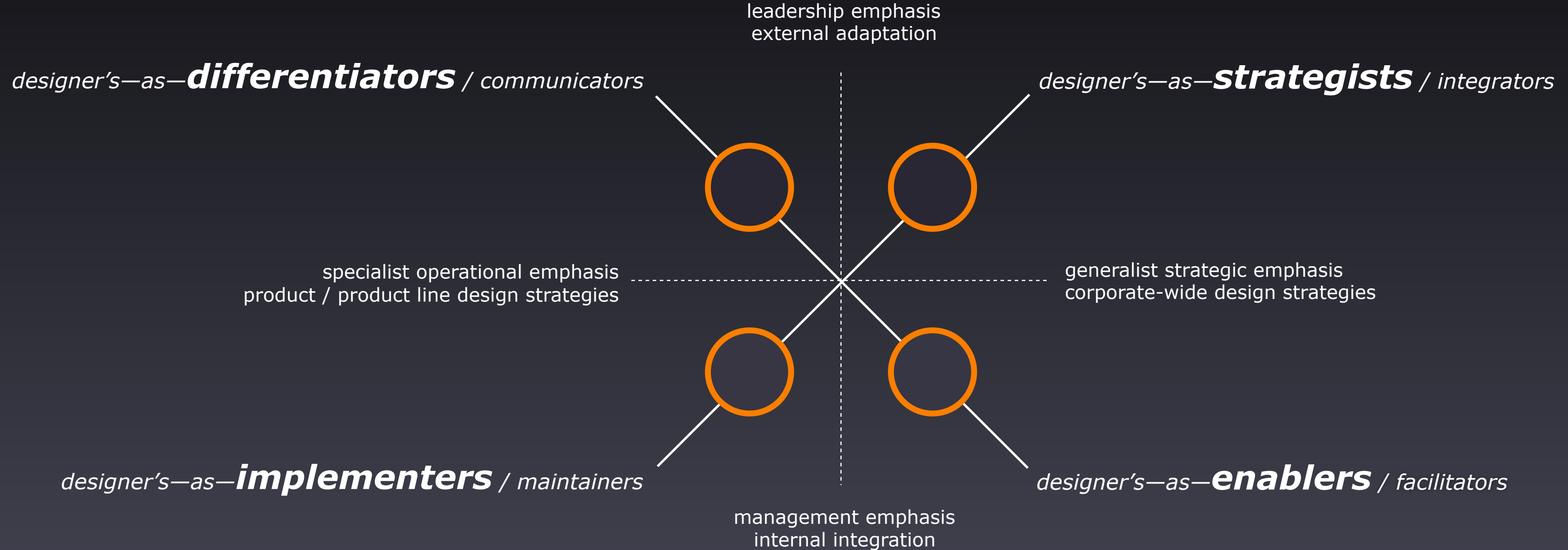
SYSTEMIC
INNOVATION
& DESIGN

SYNERGY 4.0

Peter McGrory
Director
IDBM Programme
@ Aalto ARTS

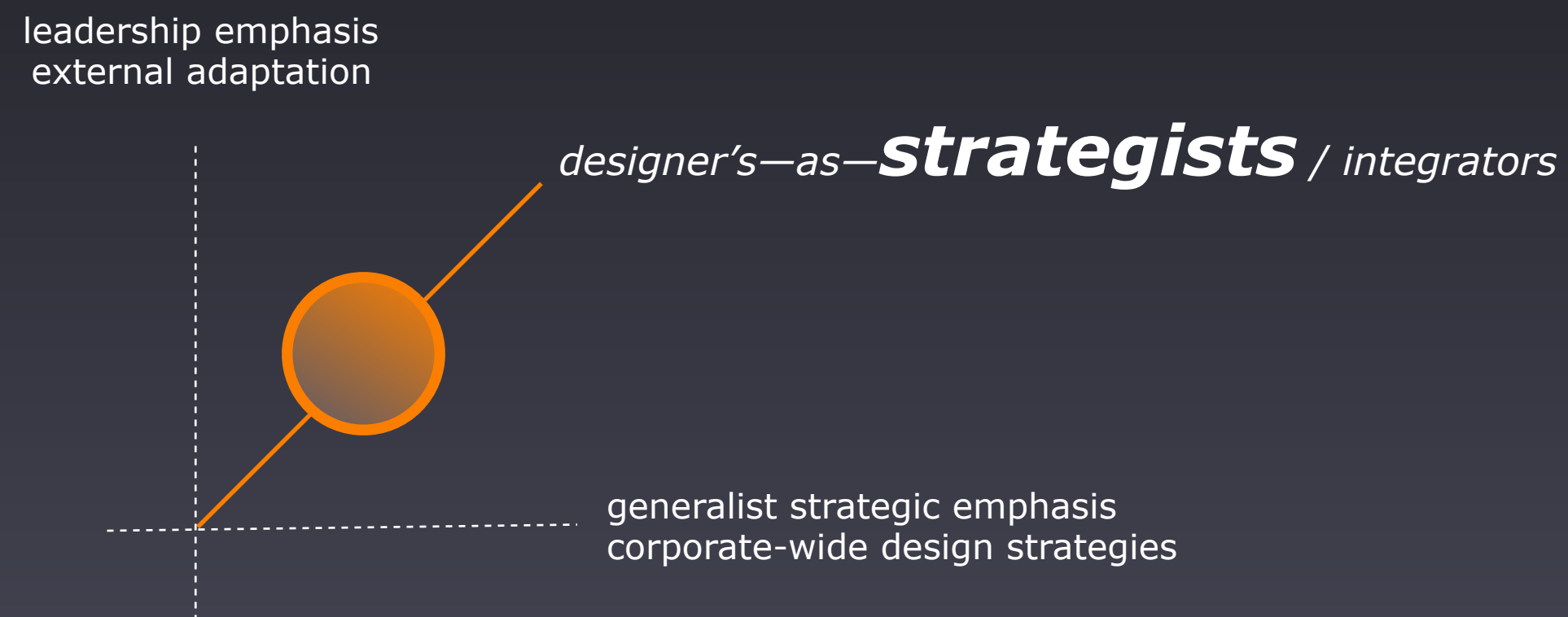
what is the role & value of design in enhancing innovation processes & entrepreneurial practices?

corporate functions of design ...



Heskett (1999); McGrory (2000)

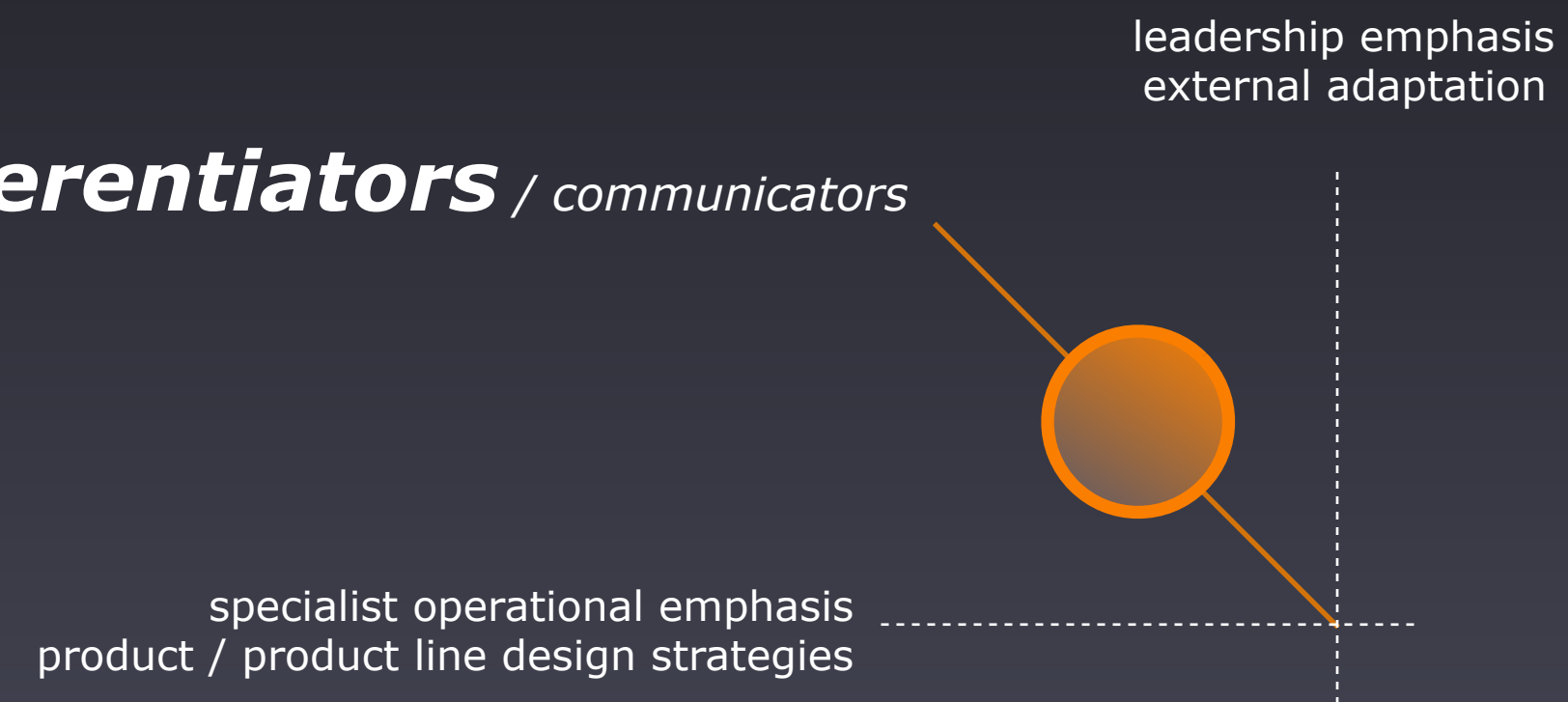
- *strategic partners*
- *plan the company's future*
- *cultural propagator*
- *fundamental or breakthrough innovation*
- *systemic platforms*
- *design integrated across corporate functions*



Heskett (1999); McGrory (2000)

- *form differentiation (unique forms)*
- *cultural provocation / stimulators*
- *designers as stars / celebrities*
- *many design awards*
- *often independent (external) consultants*

*designer's—as—**differentiators** / communicators*



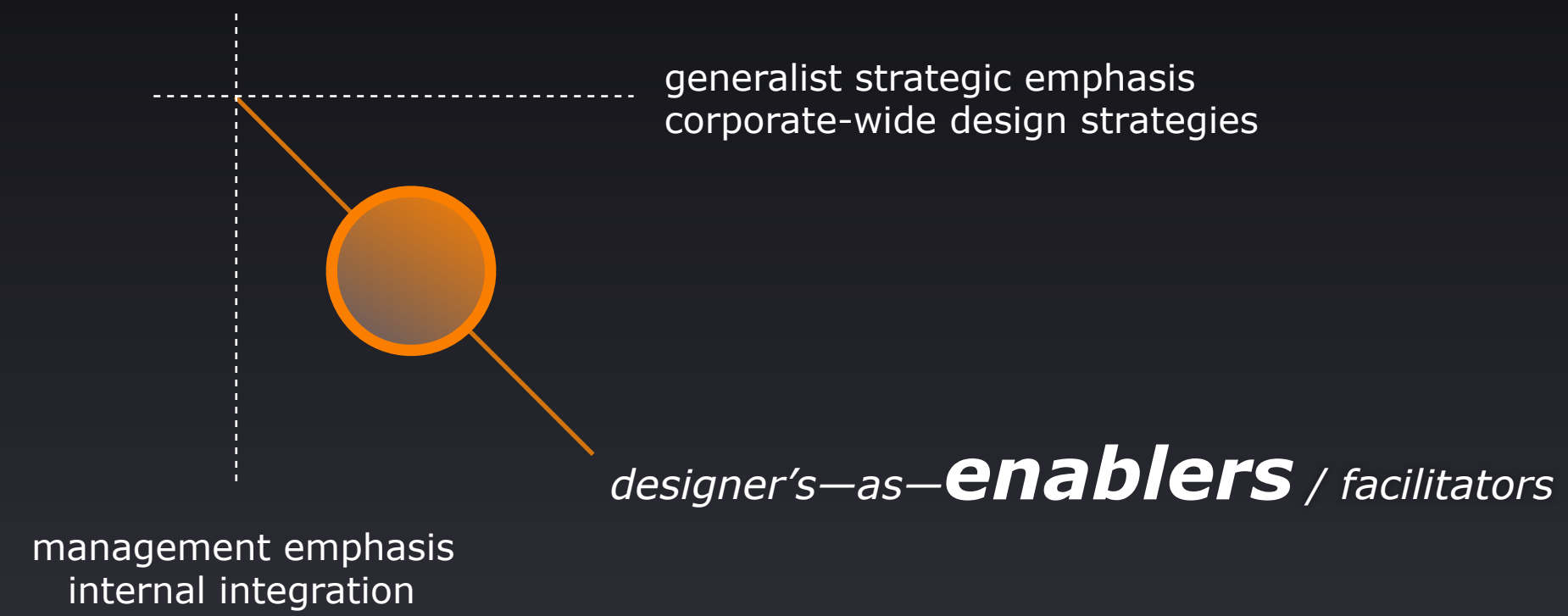
Heskett (1999); McGrory (2000)

specialist operational emphasis
product / product line design strategies

designer's—as—**implementers** / maintainers

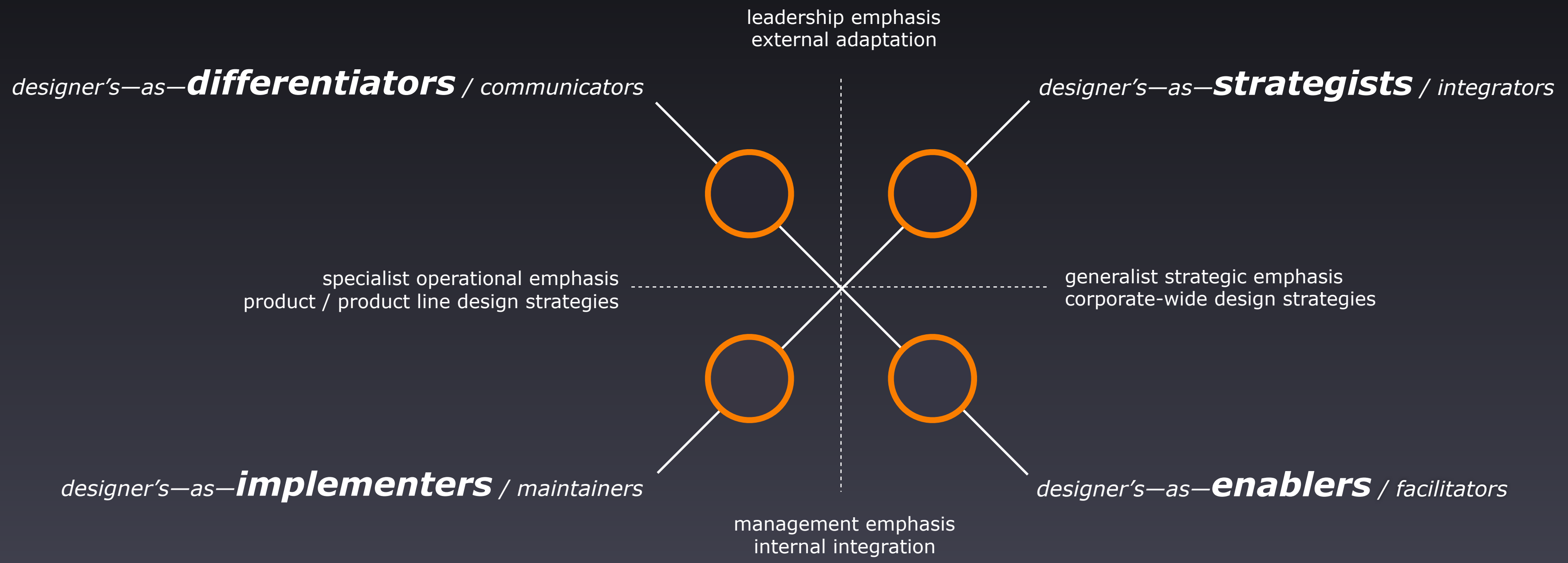
management emphasis
internal integration

- involved late in development •
- embellish the known (focus on derivative products) •
- carry out orders / instructions •
- superficial form differentiation •
- short product life •
- leverage existing or known platforms •



- *range of design skills*
 - *emphasis of systematic development*
 - *integrated into development teams*
 - *user-centred enabling approach*
 - *products / standard platforms*

corporate functions of design ...



Heskett (1999); McGrory (2000)

Design Strategy & Entrepreneurship

course sequence

1. Synergy 4.0
2. Sources & Streams of Insights & Ideas
3. Different Strategic Approaches
4. Systemic Innovation & Integrated Platform Strategies

A?

vision is the art of
seeing what is invisible
to others

Jonathan Swift (1667-1745)

vision is the art of
seeing what others don't

Gary Klein

vision is the art of
seeing what others see
and thinking what
others don't

Albert Einstein

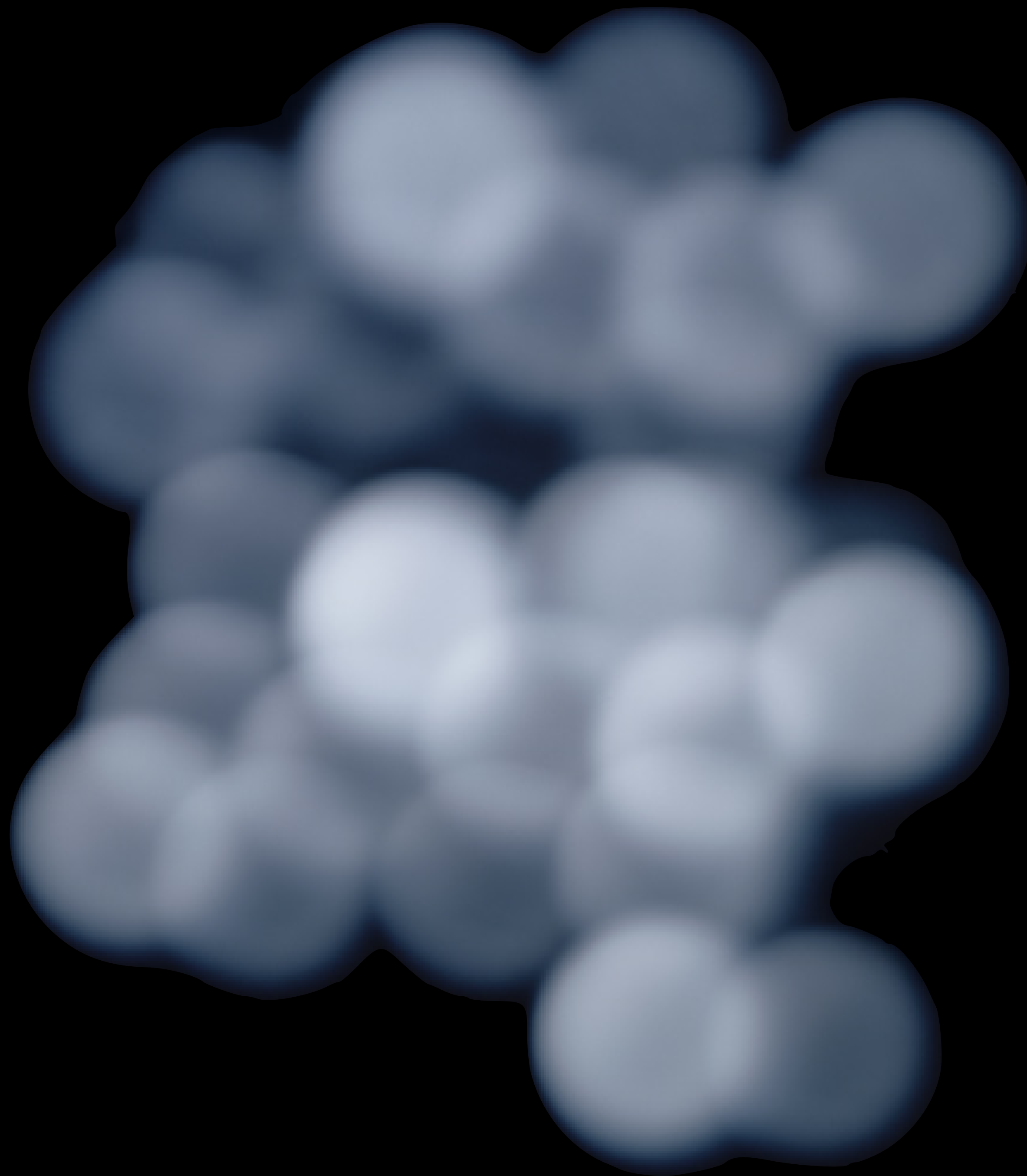


to act as society's
visionaries
and change agents

Aalto University _ Founding Mission

a world class university
in the fields of
technology, business
and design by 2020

Aalto University _ Founding Vision



SYSTEMIC
INNOVATION
& DESIGN

SYNERGY 4.0

Peter McGrory
Director
IDBM Programme
@ Aalto ARTS

innovation

is essentially about the
successful implementation and adoption
of creative and imaginative (i.e., new, novel, better)

insights and ideas
that have (reciprocal)
value.

synergy

the whole being greater than the sum
of its individual constituent parts

1+1= greater than 2.

significance

hi

success

hi



survival

synergy

2.0

3.0

4.0

SYNERGY 4.0 _ **CONTEXT**

INDUSTRY 1.0

1785 the first industrial revolution brought mechanical innovations like the **steam engine, cotton spinning and railroads**

INDUSTRY 2.0

1874 the second industrial revolution brought **mass production** through **assembly lines** and **electrification**.

INDUSTRY 3.0

1971 the third industrial revolution brought **mainframe computing, personal computing** and **the internet**.

INDUSTRY 4.0

2016 today, **radical system-wide innovation** can happen in only a few years. the interplay between fields like **nano technology, brain research, mobile networks and computing** will create realities that were previously unthinkable.



DAVOS 2016: **TECHNOLOGY** TAKES CENTRE STAGE

“everyone agreed that **technology**
would continue to **shape everything**,
although exactly how
seemed to divide the room”

Alex Katsomitros, The European Magazine,
World Economic Forum 2016

“there is a **win–win**
for **business** and **society** if we look beyond
immediate commercial gain in favour of
long-term **value creation**”

Mark Spelman, co-head, Future of the Internet Initiative,
World Economic Forum 2016

“what we need is more **empathy**
we need it wired into our **systems**,
programmed into our brains”

Anand Mahindra, Chairman and Managing Director,
Mahindra & Mahindra,
World Economic Forum 2016.



DAVOS 2017

WORLD
ECONOMIC
FORUM

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SCHWAB

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ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

BRIN

WORLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD





DAVOS 2018

“we need to break the **cultural silos**.
too often people put **science** and the **humanities**,
or **science** and the **arts**, in **different silos**.
they are the **highest expression** of the **curiosity**
and **creativity of humanity**”

Fabiola Gianotti, Particle Physicist and the Director General of CERN
World Economic Forum 2018

“if we do not
change the way we teach,
30 years from now,
we’re going to be in **trouble**”

“**children**
should be taught **soft skills** like
independent thinking, values
and **teamwork.**”

Jack Ma, Founder of the Alibaba Group (China’s e-commerce giant).
World Economic Forum 2018

“we need to understand the importance of soft skills, creative skills, research skills, the ability to find information, synthesise it, and make something of it.”

Minouche Sharif, Director of the London School of Economics.
World Economic Forum 2018



DAVOS 2020: **SYNERGY 4.0** TAKES CENTRE STAGE

SYNERGY 4.0

SYNERGY 1.0

disciplinary and intra-disciplinary perspective

dominant emphasis: co-ordination / knowledge intensification

to know

SYNERGY 2.0

multi-disciplinary perspective

dominant emphasis: co-operation / knowledge amplification

SYNERGY 3.0

inter-disciplinary perspective

dominant emphasis: collaboration / knowledge integration

to imagine

SYNERGY 4.0

trans-disciplinary perspective

dominant emphasis: deep and transformative collaboration

and systemic integration of knowledge / collective imagination

SYNERGY 4.0

imagination is more important than
knowledge

*for knowledge is limited to all we know and understand,
while imagination embraces the entire world, and
all there will be to know and understand.*

Albert Einstein

SYNERGY 4.0
GENERATIVE LEARNING

a style of learning that encourages
experimentation, risk-taking, openness,
and **system-wide thinking.**

SYNERGY 4.0
TRANS-DISCIPLINARY

focus is on the mobilisation of knowledge around **complex heterogeneous domains** (i.e., sectors, systems and cultures) rather than the **disciplines** and **subjects** into which knowledge is commonly organised.

THE PRINCIPLES

**Resilience
over strength**

**Pull
over push**

**Risk
over safety**

**Systems
over objects**

**Compasses
over maps**

**Practice
over theory**

**Disobedience
over compliance**

**Emergence
over authority**

**Learning
over education**