Smart Living in the Smart Territory

Sustainability through Citizens' Empowerment

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SMART 2019

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Citizen Participation in the Smart City

From a **techno** centric…

…to a **citizen** centric

approach of the smart city through **citizens' empowerment,**
in order to ensure the **Smart City model's sustainability**

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Citizen Participation in the Smart City

From a **techno** centric…

Why ?
When ?
Who ?
How ?
Impacts ?

…to a **citizen** centric

approach of the smart city through **citizens' empowerment,**
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Where does this come from?

1. FEDER Wal-E-Cities Research Project
   2016-2020 - *Smart Living & Participation*

2. Wallonia E-Health Living Lab
   since 2015 - www.well-livinglab.be

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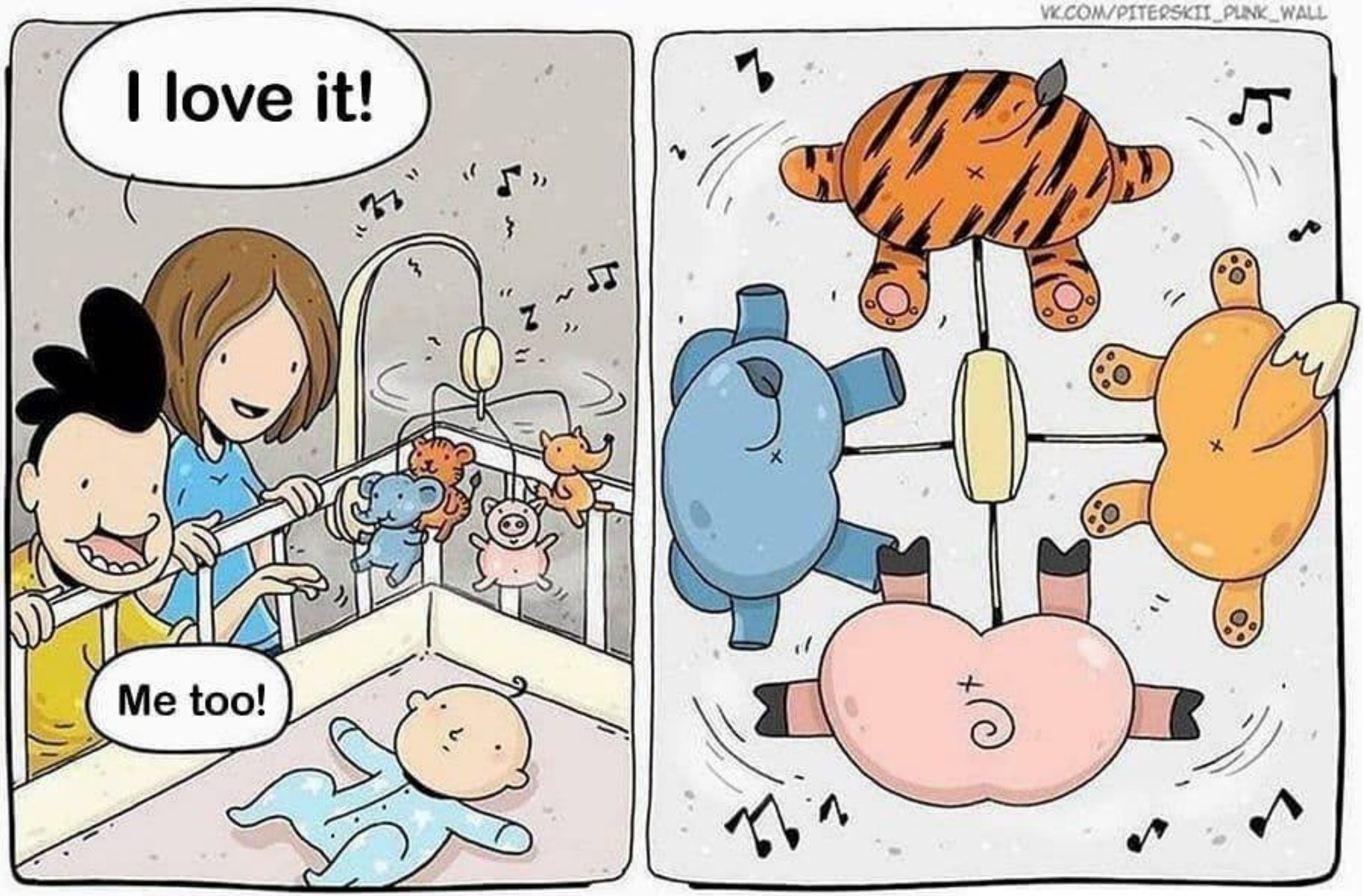
WHY ? WHEN ?

Clients

Users



Why should we « empower » citizens?

1. End-users « **own the factual problem** », i.e. are **experts** of their own personal experiences and issues associated with their personal situations [Reymen, Dorst & Smulders, 2009; Siva & London, 2011; Biau, Fenker & Macaire, 2012]

2. End-users are **part of the team** and no longer willing to undergo the whole process simply as external observers or design recipients [Cole-Colander, 2003; Luck & McDonnell, 2005; Sanders, 2005; Glock, 2009]

3. While focusing too much on post (-occupancy; -process) assessment, we tend to **neglect satisfaction** towards the **process** and how it unfolds [Ahmed & Kangari, 1995]

Why should we « empower » citizens?

Designers heavily **impact** the **quality** of the **living environment**

while

End-users **give sense** to the living environment
(make designed artifacts **meaningful** or **meaningless**)

[Lawson, 2005; le Maire, 2005; Estevez & Léglise, 2015; Sarkar & Gero, 2017]

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IMPLEMENTATION

INSPIRATION

gain empathy

define

create

iterate through « protocepts"

get feed-back

Desirability

Feasability

Sustain -ability

IDEATION

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WHO ?

Various profiles of « Smart Citizens »… but never « once and for all »

1. The passive end-user

2. The reactive end-user

3. The creative end-user

[Hill, 2003]

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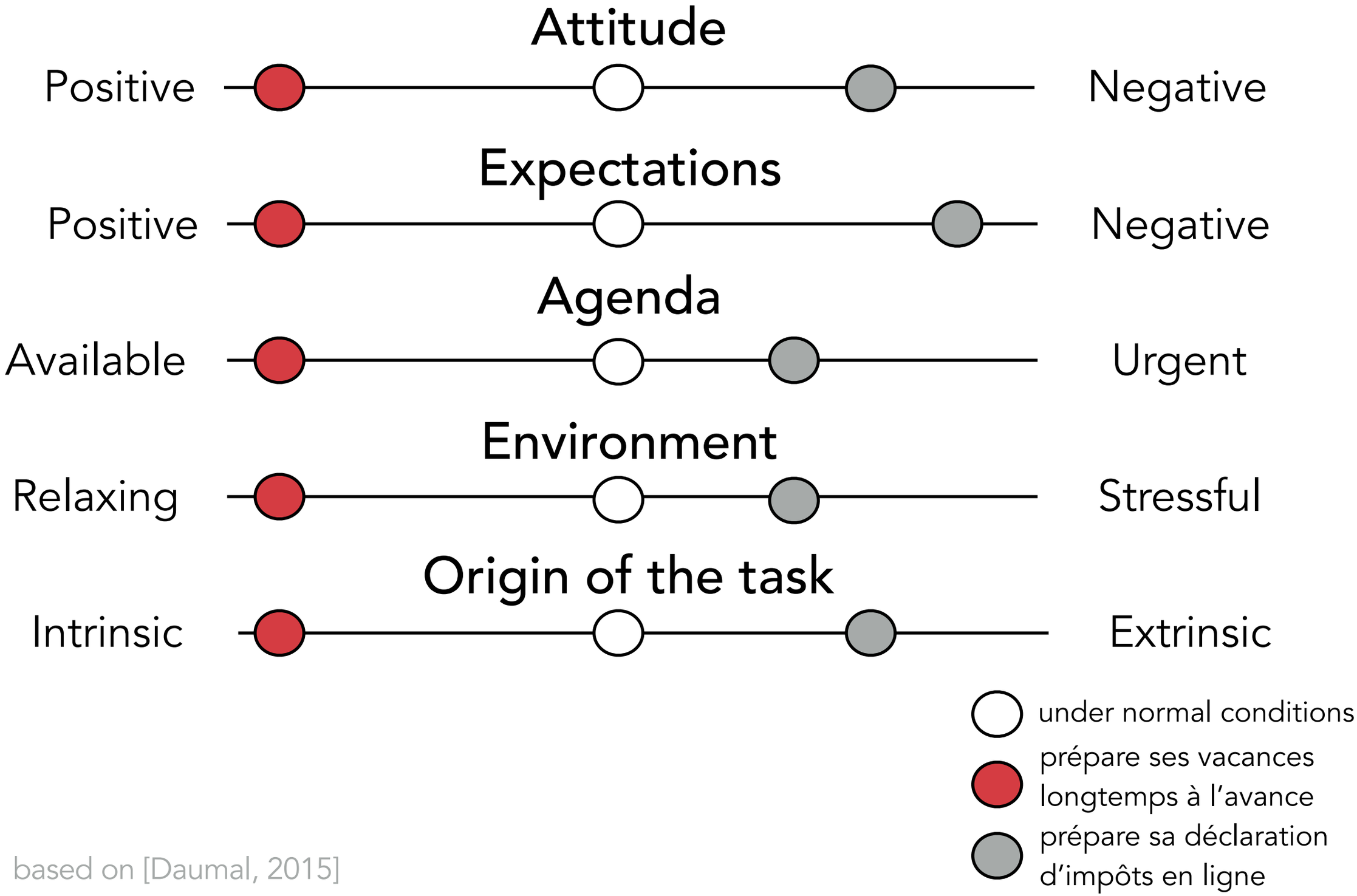
Various profiles of « Smart Citizens »… but never « once and for all »



based on [Daumal, 2015]

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Various profiles of « Smart Citizens »

1. the « experts » vs. the « lay people »
2. the « extreme » vs. the « regular »
3. the user with « chronic dissatisfaction » vs. the « lead user », the « intra-preneur »
4. the « laggard » vs. the « early adopter »
5. the « primary » vs. the « secondary » user

Each profile has something to offer

	Domain Knowledge	Experience of Use	Level of Dissatisfaction	New Needs and Motivation
The Expert	++	+/-	+/-	+/-
The « Extreme » User	+/-	++	+	+/-
The User with Chronic Dissatisfaction	+/-	+/-	++	+/-
The Lead User	+	+	+	++
The Intra-preneur	++	+/-	+	++
The Laggard	-	-	+/-	-
The Early Adopter	+/-	+/-	+/-	++
The Primary Users	+/-	+	+/-	+/-
The Secondary Users	+	+	+/-	+/-

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HOW ?

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What they say is not enough

IDEO™ «observing users»

What they say is not enough

Gap between...

the **behavior** and the **implementation**

> What we see
> Explicit

> What is done
> Explicit AND Implicit

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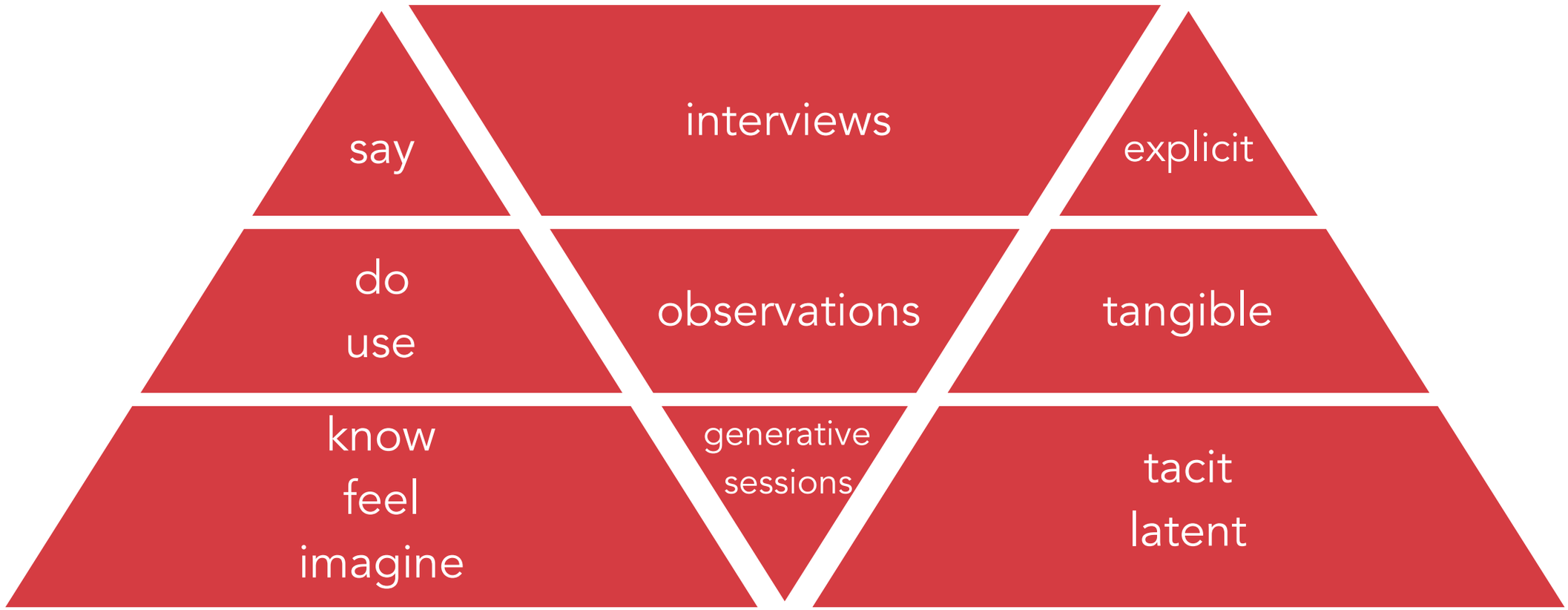
What they say is not enough



what the end-users…

… type of collected data

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A continuum of approaches, methods and tools

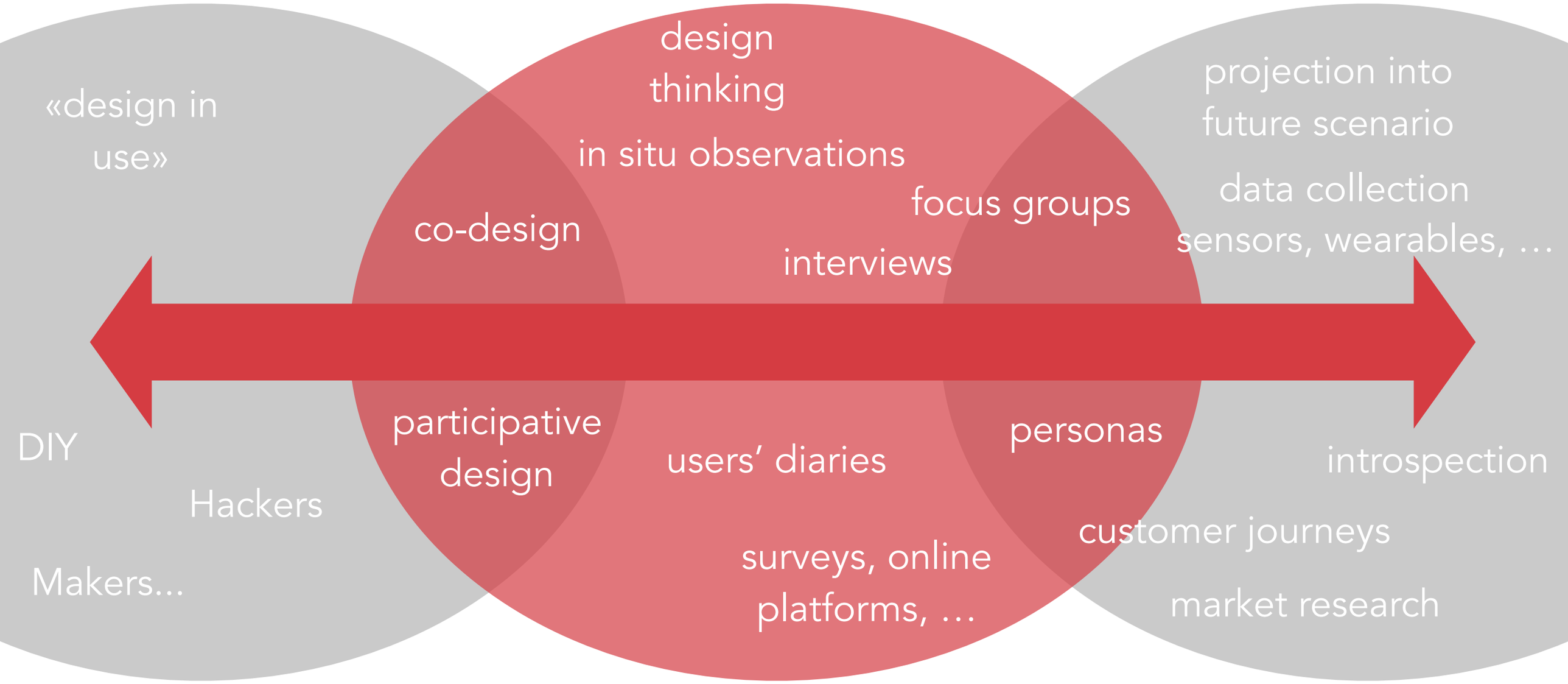
end-users seen as partners

« users-driven » approaches

end-users seen as ressources

« users-centric » approaches

end-users seen as distant subjects



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SOME EXAMPLES

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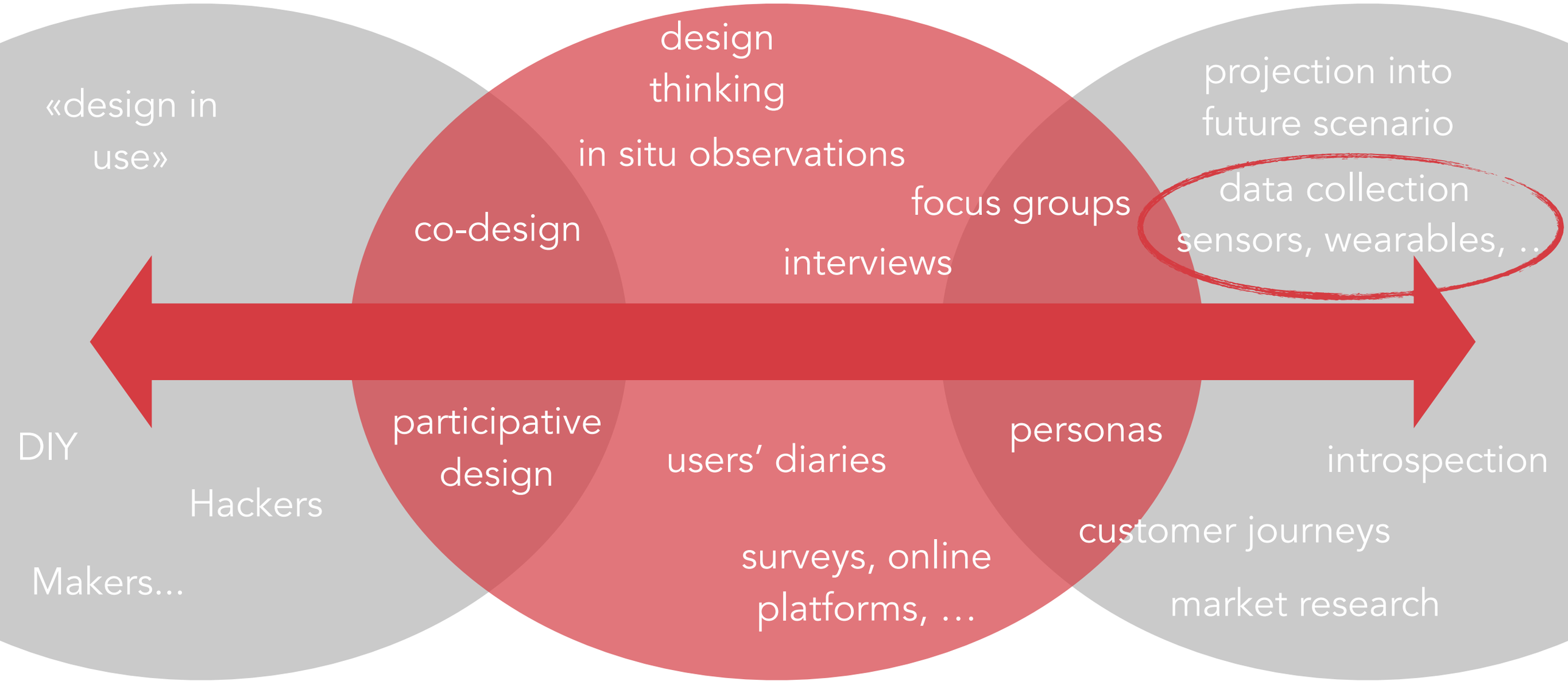

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Tidy Street Project, Open University, Goldsmiths, Sussex University, Nottingham University

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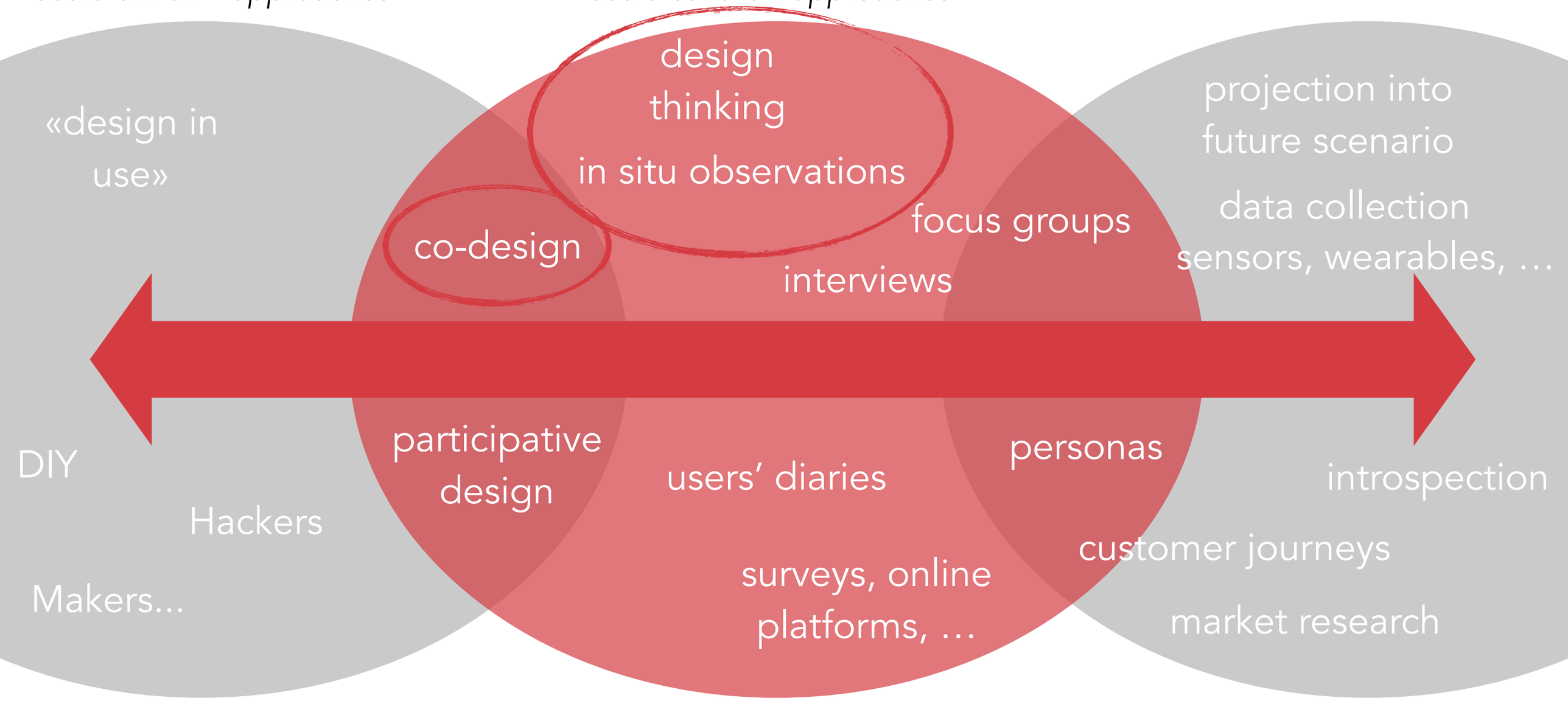

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Co-design Workshop, Designing a health-care center, University of Liège

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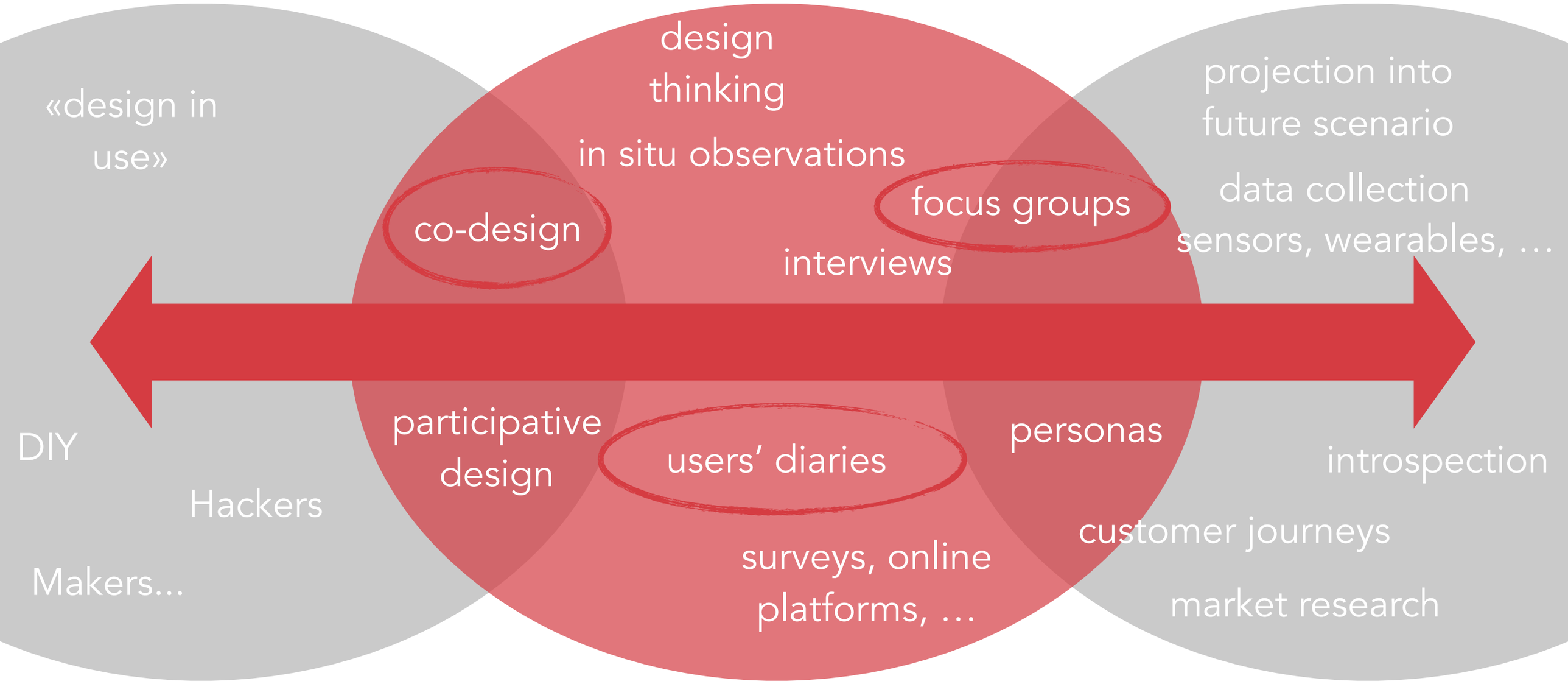

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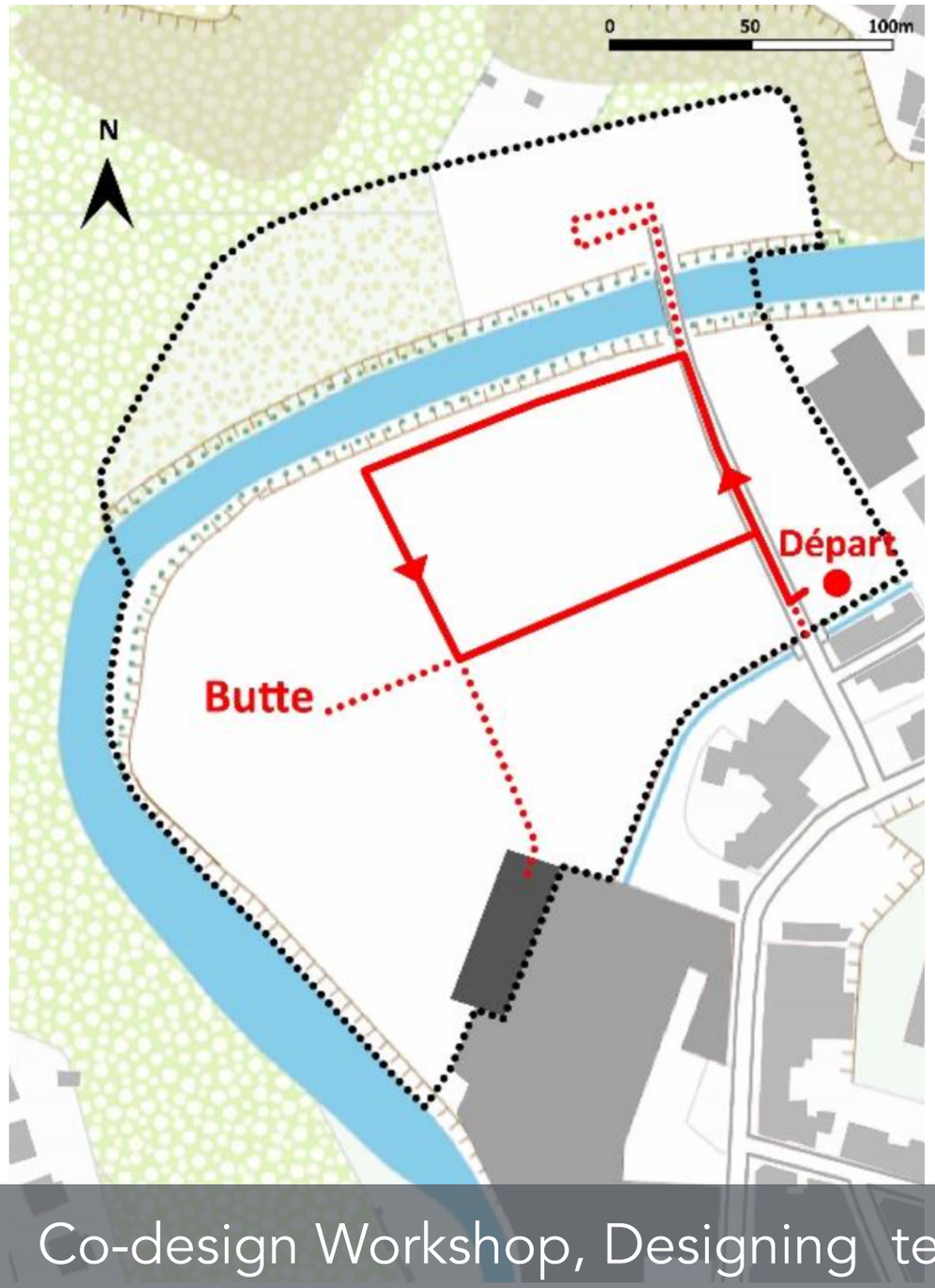

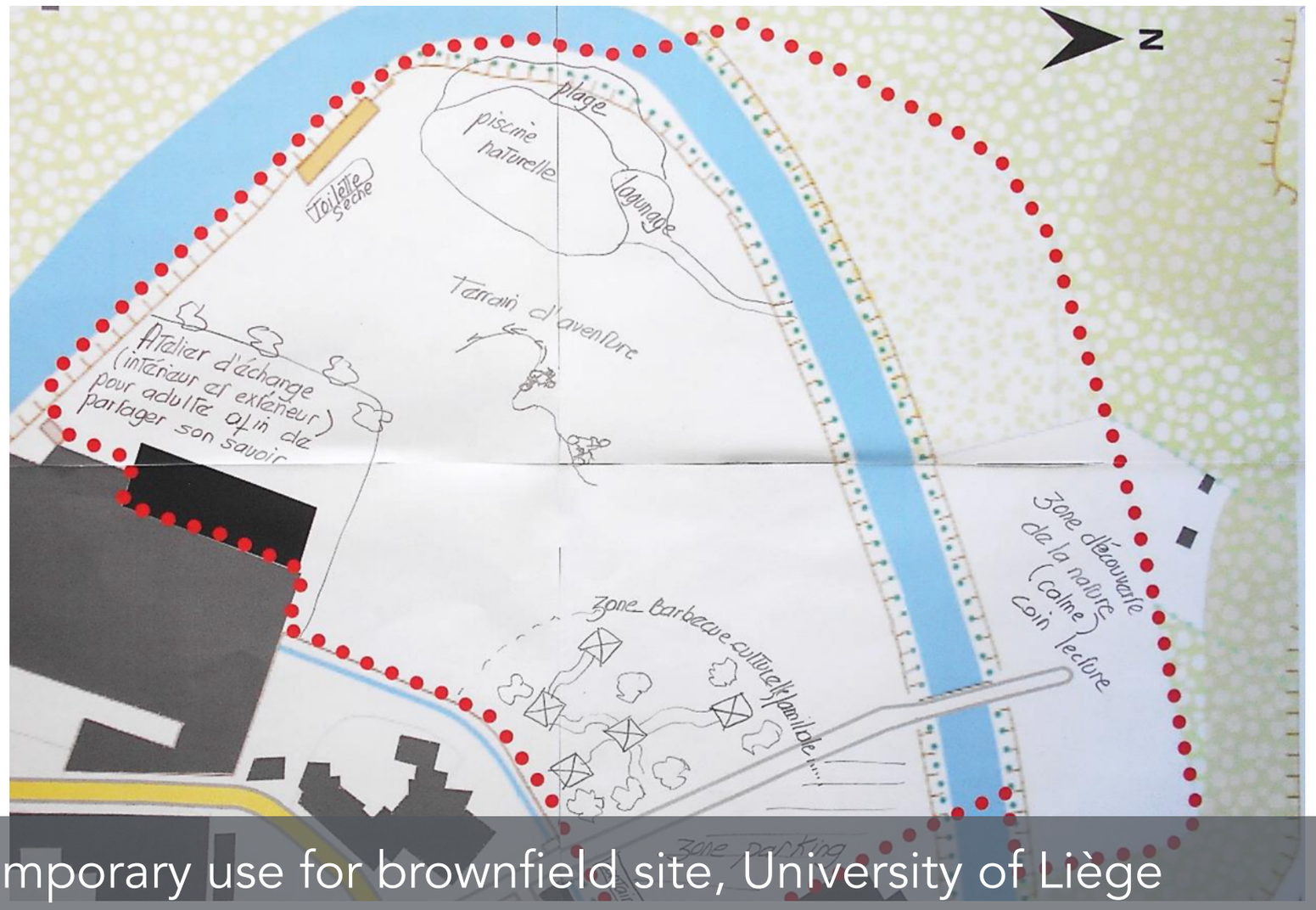

Co-design Workshop, Designing temporary use for brownfield site, University of Liège

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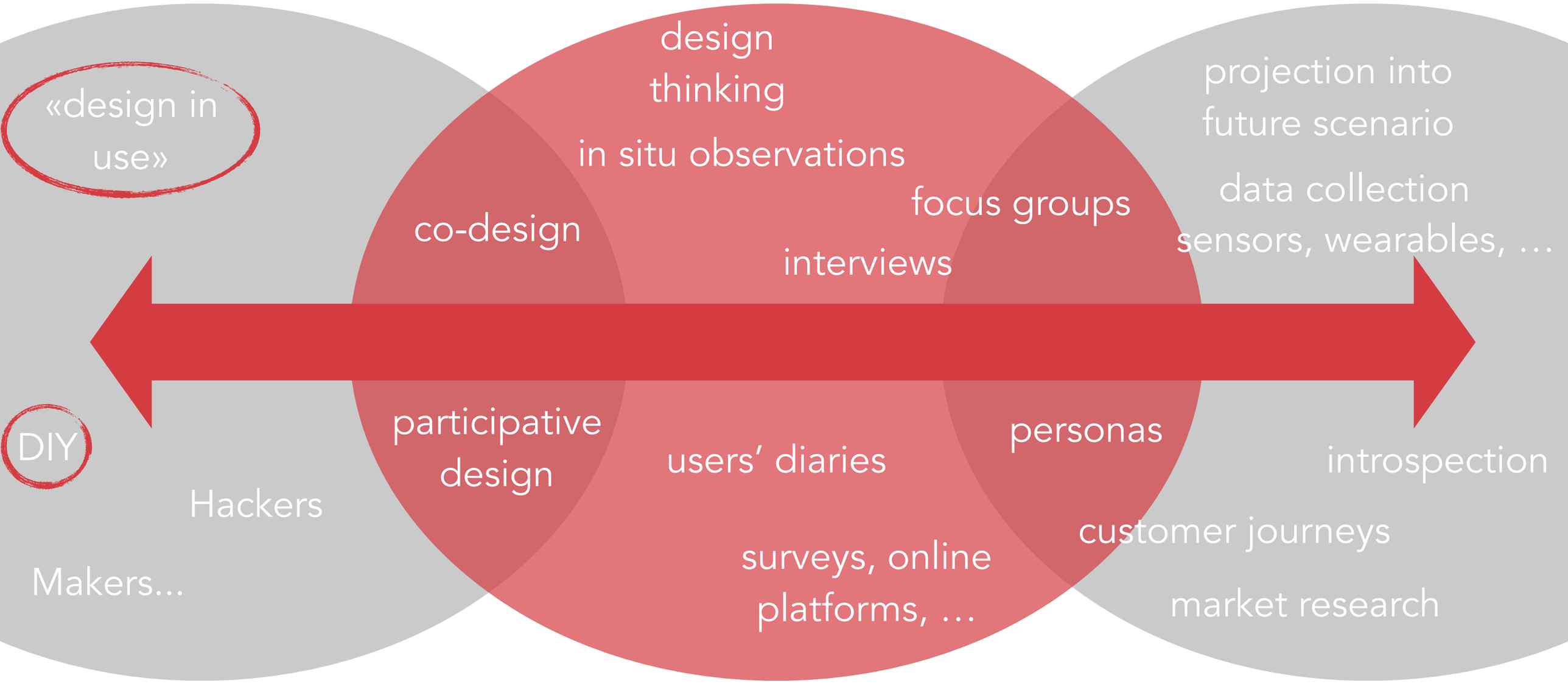

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IMPACTS ?

1. Return on Investment ?
2. What about radical innovation ?

3. Does it require Change Management ?

[Cain, 2005; Norman & Verganti, 2012; Postma et al., 2012]

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Return on Investment

pepsi

Levi's

Walgreens

P&G

jetBlue AIRWAYS

BAYER

gsk GlaxoSmithKline Consumer Healthcare

Fisher-Price

CONVERSE

SAMSUNG

Ford

hp

Unilever

JPMorgan

Oxfam

at&t

Adobe

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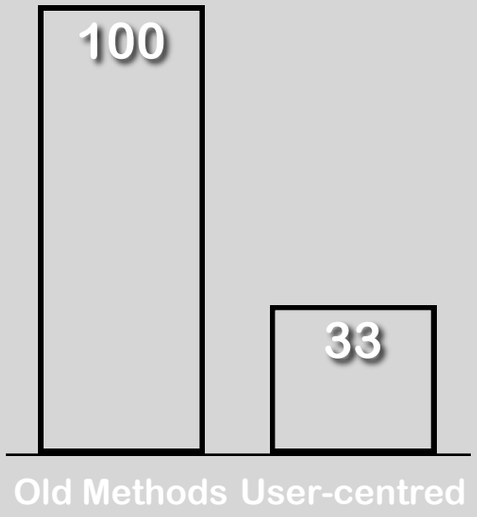
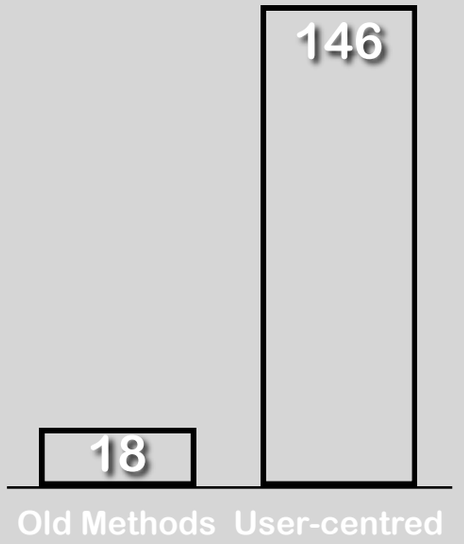
Return on Investment



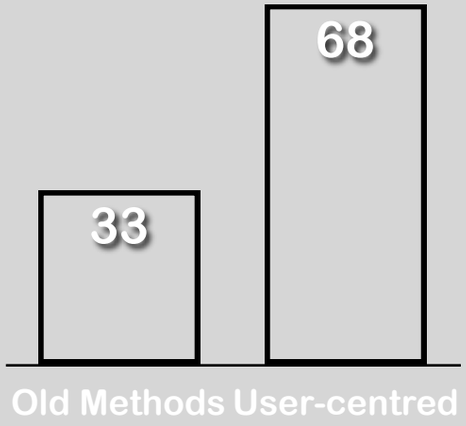
67% less !

Timing of Development



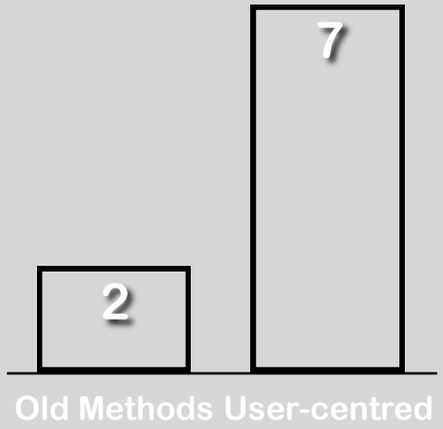
~ 8 times more !

Average selling, after 5 years



> 2 times more !

Market Shares, after 5 years



> 3 times more !

Average number of new Product Lines introduced every 4 years

3M - Source: The management Roundtable 2001, «Creating Breakthroughs at 3M»

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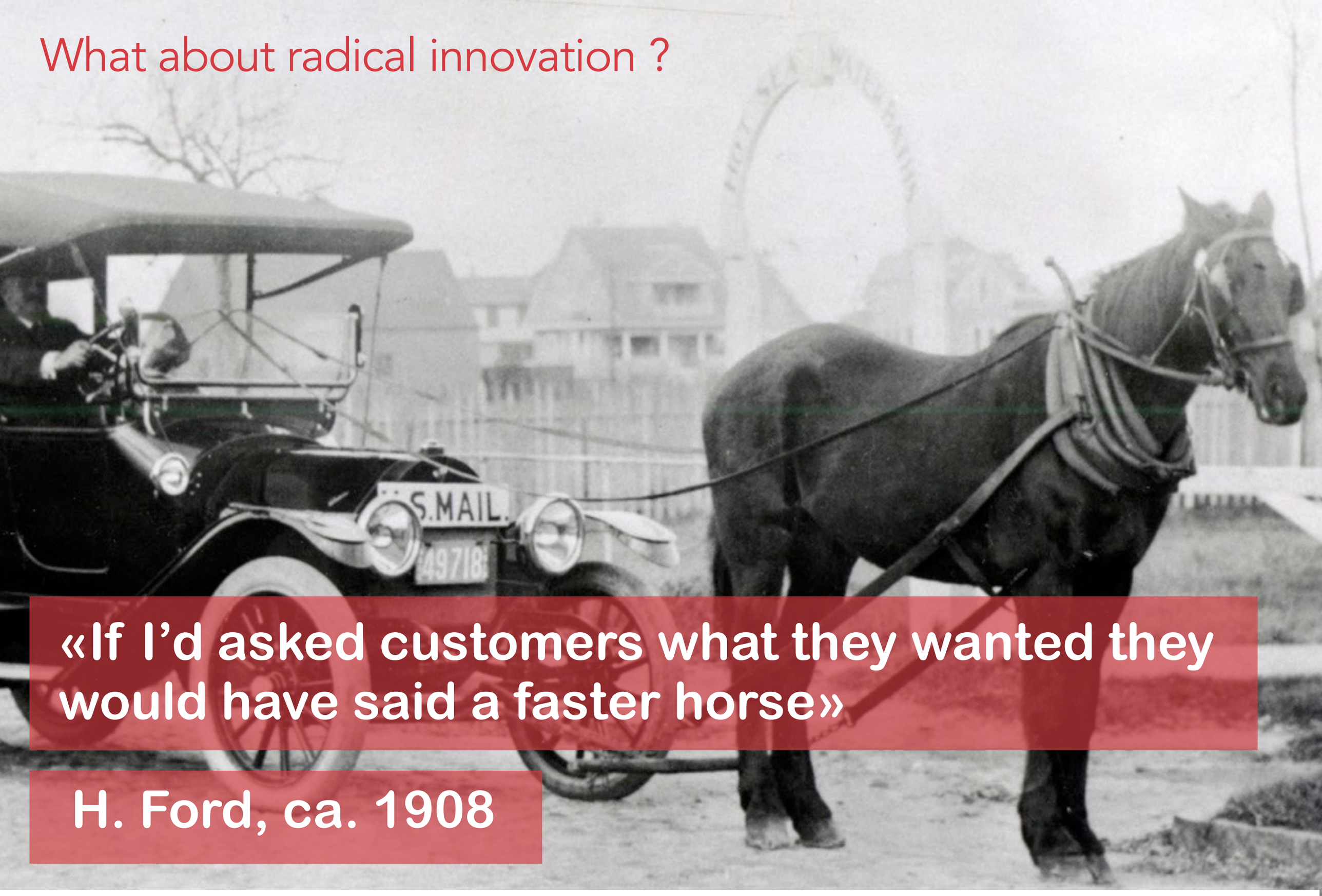
What about radical innovation ?



«If I'd asked customers what they wanted they would have said a faster horse»

H. Ford, ca. 1908

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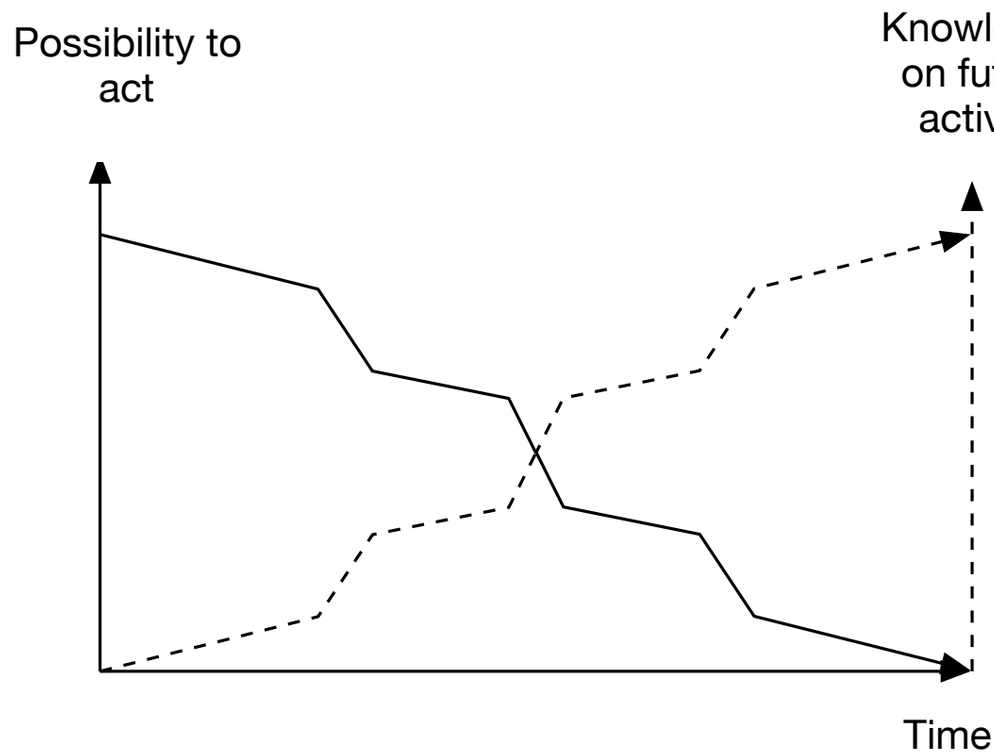

(Midler, 1996)

> get rid of preconceived ideas

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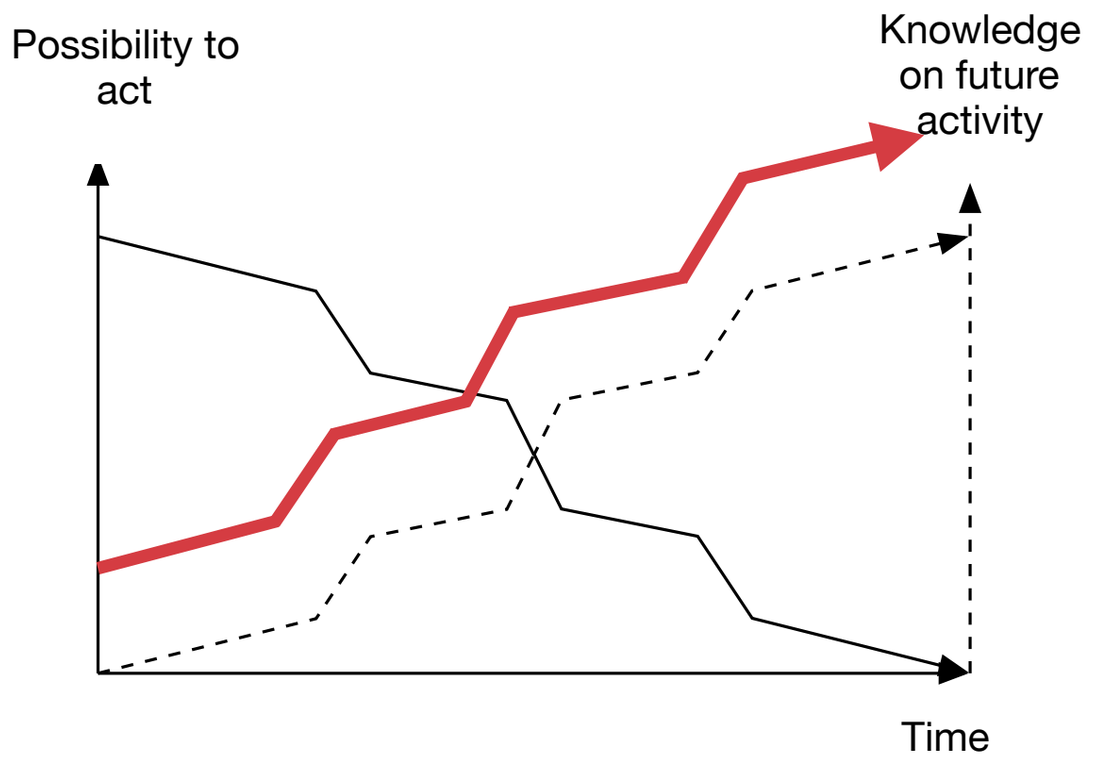

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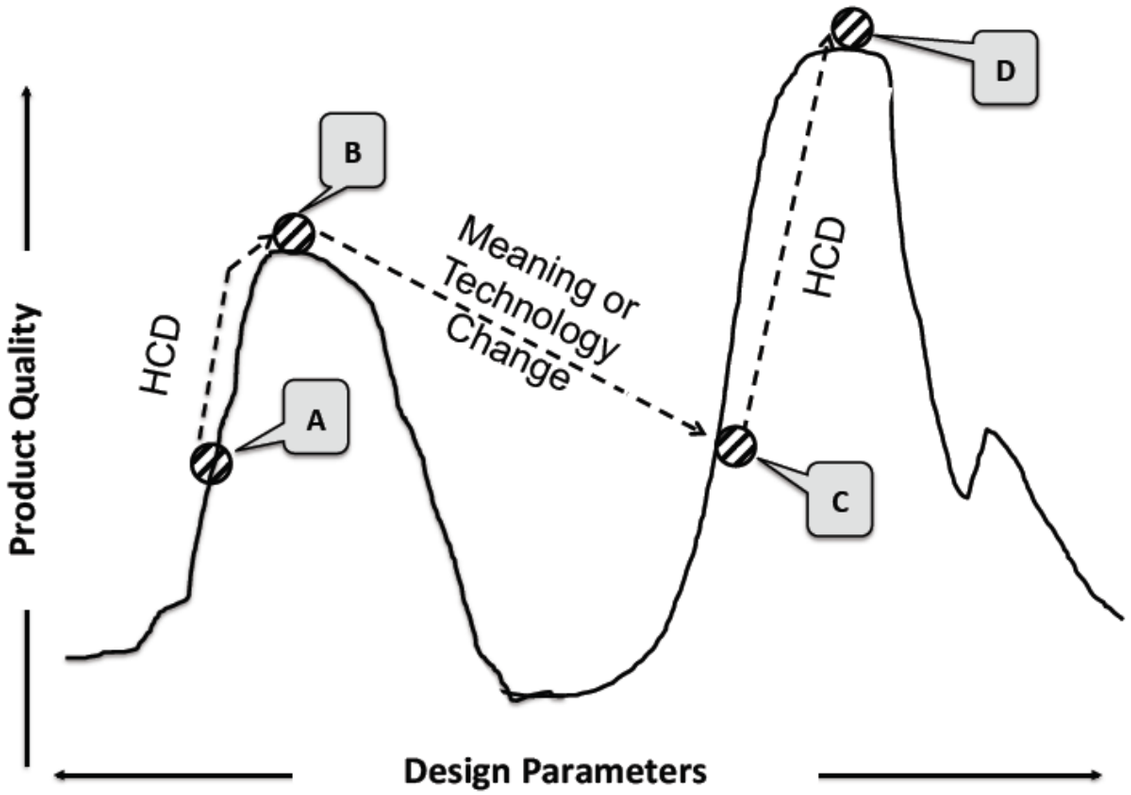
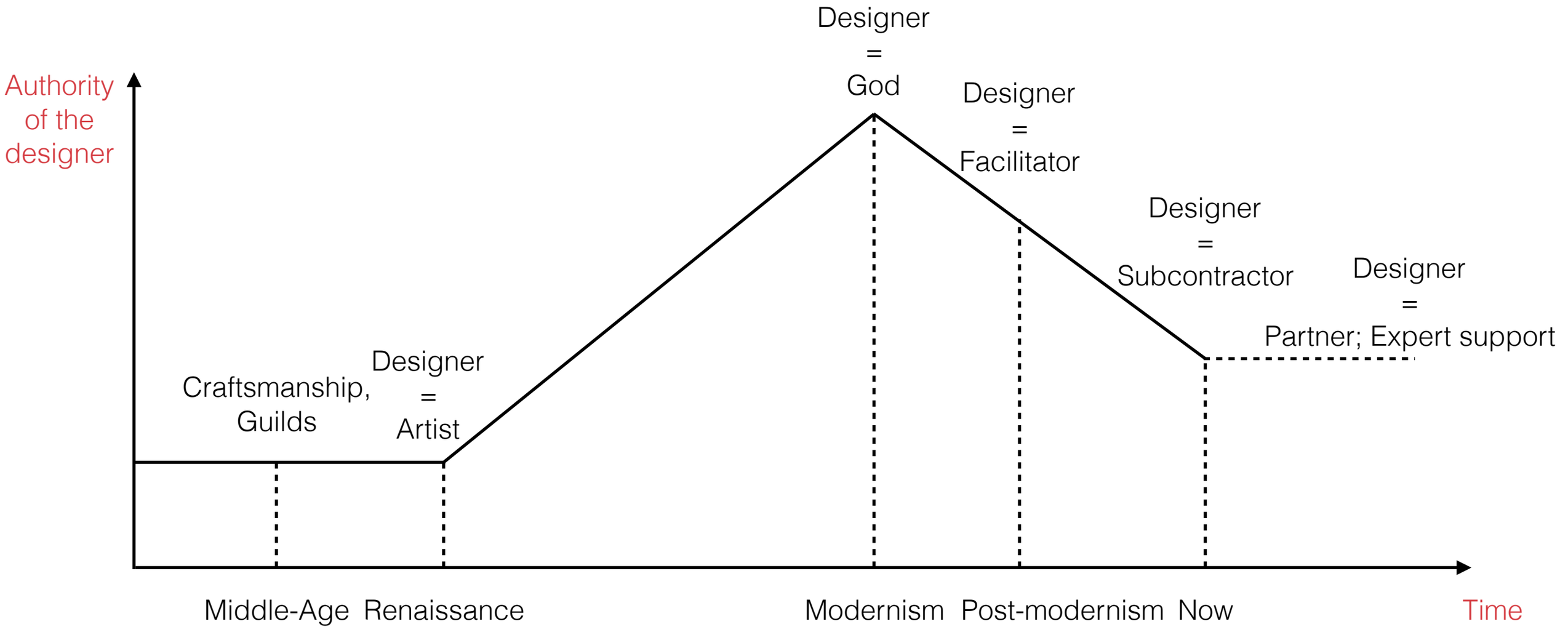


[Norman and Verganti, 2012]

> associate « technology change » with « user-centric /-driven change »

Does it require Change Management?



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