

RED

REviewing Design

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*These authors contributed equally to the preparation of this presentation



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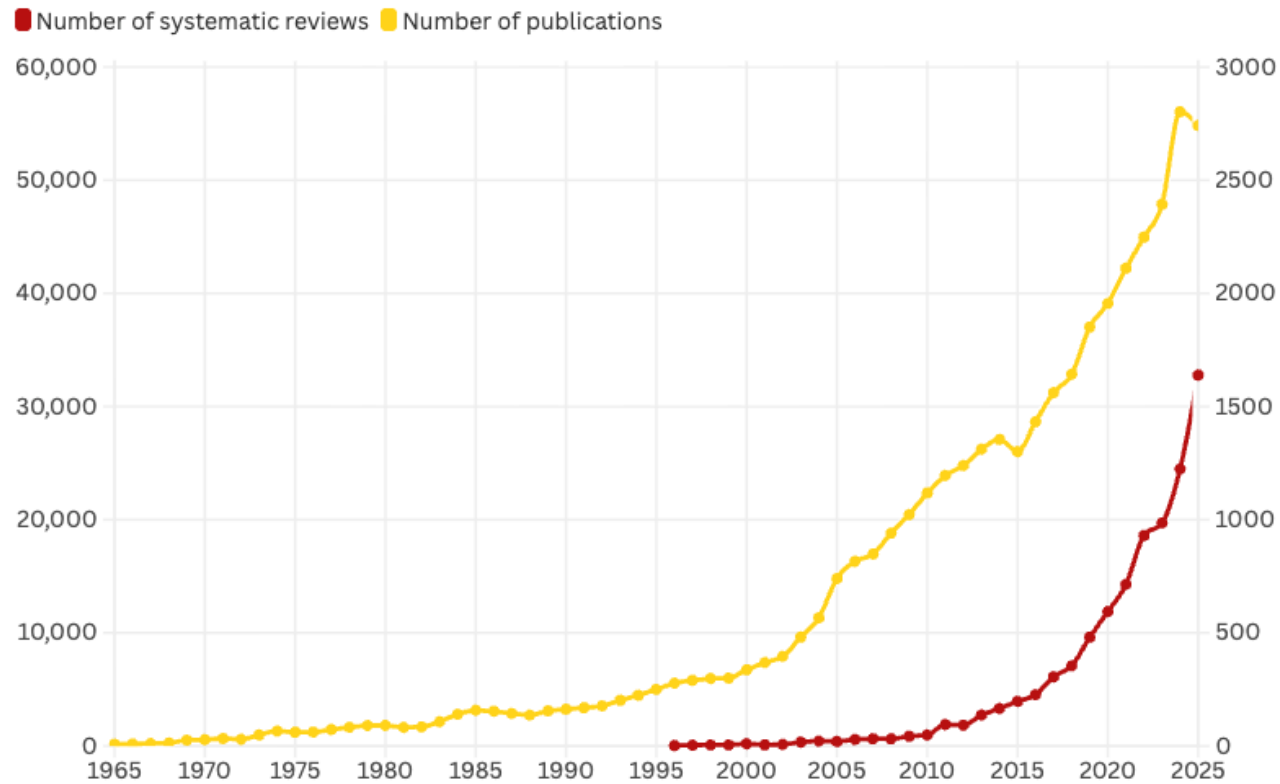
The aim:

Investigating possibilities of systematic review frameworks or practices adapted for design disciplines.

RED RReviewing Design

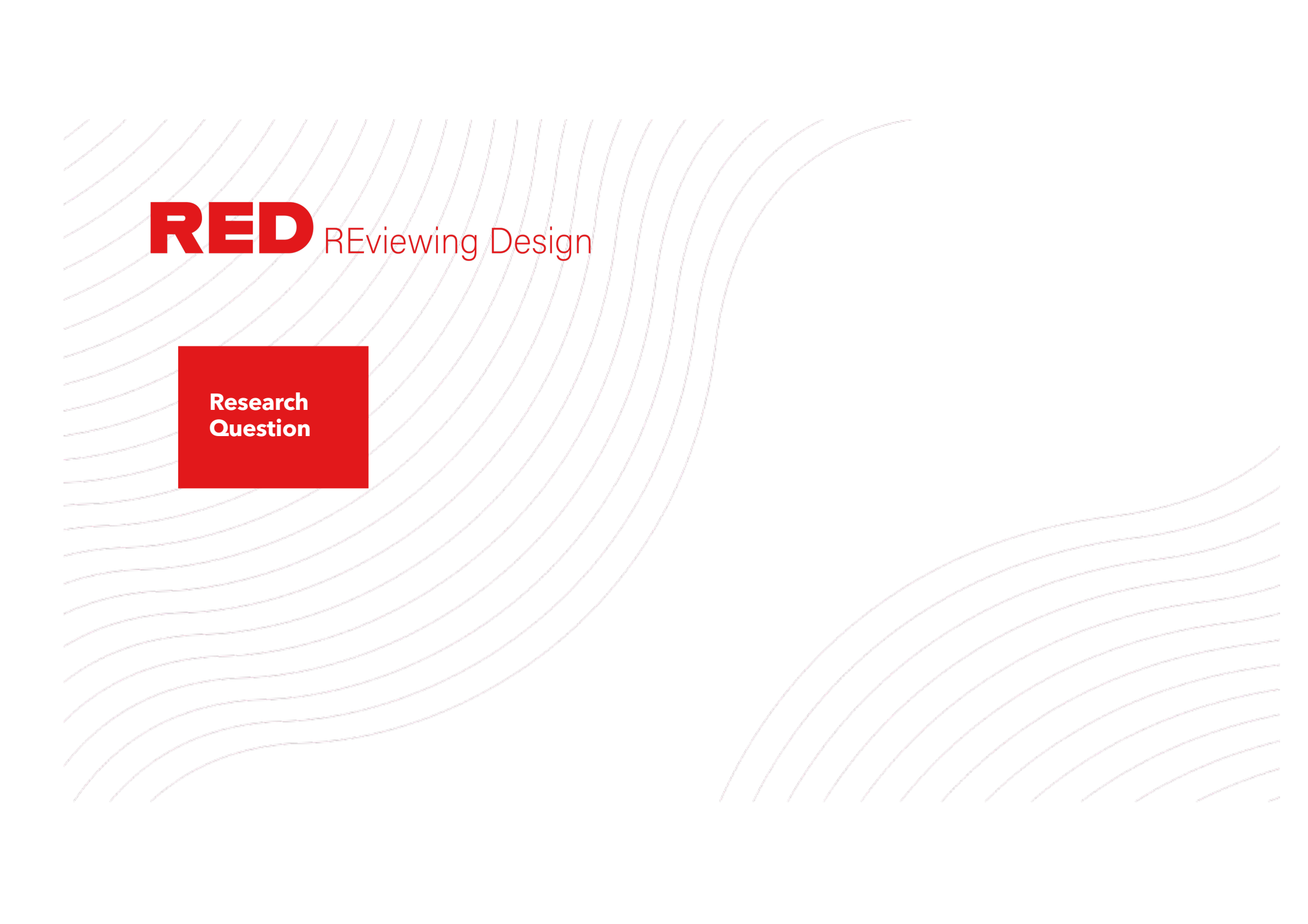
Why ?

Unparalleled increase in the number of publications requires sound evidence synthesis and systematic reviews have become the gold standard for synthesizing evidence in various disciplines including design.



Yellow: Evolution of Publications in Design since 1965 (Bruce Archer's seminal publication) on Scopus
 (Search String : TITLE-ABS((([Design Disciplines*] OR [Design Approaches*]))

Red: Evolution of Publications of Systematic Reviews in Design since 1965 on Scopus
 (Search String : TITLE-ABS((systematic w/3 review) AND ([Design Disciplines*] OR [Design Approaches*]))

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RED REviewing Design

**Research
Question**

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**Research
Question**

**Search for
studies**

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**Research
Question**

**Search for
studies**

Formulating
Keywords

RED RReviewing Design

**Research
Question**

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studies**

Formulating
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Databases

RED REmarking Design

**Research
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Formulating
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Snowballing

RED RReviewing Design

**Research
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Screening

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RED REmembering Design

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Inclusion/
Exclusion

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Assessing the
Quality

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RED RReviewing Design

**Research
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**Data extraction
& analysis
/ synthesis**

Formulating
Keywords

Inclusion/
Exclusion

Databases

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RED REmviewing Design

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Reporting

Formulating
Keywords

Inclusion/
Exclusion

Quantitative

Databases

Assessing the
Quality

Qualitative

Snowballing

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	Full Name of the Framework	Statement Paper	Primarily Intended Field
Systematic Reviews Guidelines			
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses	Moher et al. (2009) Page et al. (2020)	Healthcare
JB	JB Manual for Evidence Synthesis	Aromataris et al. (2024)	Healthcare
Cochrane Reviews		Higgins et al. (2024)	Healthcare
SWiM	Synthesis Without Meta-Analysis	Campbell et al. (2020)	Healthcare
QUOROM	QQuality Of Reporting Of Meta-analyses	Moher et al. (1999)	Healthcare
Repository of SR Protocol			
PROSPERO		Booth et al. (2012)	Healthcare

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Tools for formulating Research Questions

PICO (also has variants such as PECO, PICOT, PICOS, PICOC)	Population, Intervention, Comparison, Outcome (exposure instead of intervention in PECO) (+timeframe in PICOT) (+study type in PICOS) (+context in PICOC)	Richardson et al. (1995)	Healthcare
SPICE	Setting, Perspective, Intervention, Comparison, Evaluation	Booth, A (2004)	Healthcare
SPIDER	(Sample, Phenomenon of Interest, Design, Evaluation, Research type)	(Cooke et al., 2012)	Healthcare

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But...

Are current frameworks or practices adapted to the specificities of design research ?

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WP1

Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.

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"A key challenge in this context is that the topic of creativity is extremely broad and systematic reviews tend to be applied in technical areas where it is easy to quantify different characteristics. For example, the Problem, Intervention, Comparison, Outcome (PICO) framework [36] [...] has been adapted as shown in Table 1 to represent aspects relevant for the present study, such as key population, intervention, context, and outcome issues." (Casakin and Wodehouse 2021, p.2)

Framework Component	Definition	Description
Population	Students	Activity undertaken by students as part of their architectural education.
Intervention	Design activity	Focus on the earlier stage of the design process where methods, tools, models or frameworks support ideation.
Context	Architectural studio	Activity by both architectural students and teachers in the studio setting.
Outcome	Creativity issues	The potential impact of creativity that can be considered in many ways, e.g., confidence of participants, rated quality of concepts.

(Casakin, H., & Wodehouse, A. (2021). A Systematic Review of Design Creativity in the Architectural Design Studio. Buildings, 11(1), 31. <https://doi.org/10.3390/buildings11010031>)

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	n	%
Cochrane	19	3,32
JB	9	1,57
Kitchenham	47	8,2
PRISMA	337	58,81
QUOROM	1	0,17
SWIM	0	0
PICO	23	4,01
PECO	0	0
PICOC	7	1,22
PICOS	10	1,75
PICOT	0	0
SPICE	0	0
SPIDER	3	0,52
PROSPERO	24	4,19
OSF	2	0,35

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	n	%
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PRISMA	337	58,81
QUOROM	1	0,17
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PICO	23	4,01
PECO	0	0
PICOC	7	1,22
PICOS	10	1,75
PICOT	0	0
SPICE	0	0
SPIDER	3	0,52
PROSPERO	24	4,19
OSF	2	0,35

Did they mention...	n	%
Adaptations	72	10,96
Struggles	71	10,81
New framework / recommendations	20	3,04

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Why do we need systematic reviews in Design Research?

What counts as evidence in Design Research and where can we find it?

How to analyze and synthesize design evidence?

What are (or could be) the challenges of conducting a systematic review in Design?

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WP1

Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.

WP2

Workshop

AIM = Open together the possibilities of what can evidence synthesis be in design research with various profiles



RED REmviewing Design

WP1

Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.

WP2

Workshop

AIM = Open together the possibilities of what can evidence synthesis be in design research with various profiles

WP3

Synthesis + Publication

AIM = Discuss results from WP1 + WP2 and transform it into actionable methods.

You're very welcome to join us
😊

KEYNOTES

13:00 | AI-assisted systematic reviews: accelerating evidence synthesis

by Prof. Dr. Jeroen Lakerveld, Amsterdam UMC

13:30 | Systematic reviews and other forms of evidence synthesis in design research

*by Assoc Prof. Dr. Guillaume Lamé,
Université Paris Saclay*

14:00 | Tactics for including artistic and design related research as evidence in systematic reviews

by Prof. Dr. Karin Hannes, KU Leuven

14:30 | World Café

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A 'World Café' format



A participatory methodology based on collective intelligence

A collaborative atmosphere inspired by the spirit of a 'coffee break'

An opportunity for everyone to explore all the suggested questions

A joint wrap-up to share the ideas from the afternoon

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iewing Design

A participatory mindset



I listen attentively.

*I respect the point of
view of others, their
convictions, and their
ideas.*



*I do not judge what is
said.*

I respect confidentiality.

I feel free to speak.

RED R

Ev

iewing Design

A participatory mindset



*I give plenty of ideas,
even if they seem crazy
to me.*



*I build on ideas.
Taking up an idea [from
someone else] is not
cheating.*

RED R

Ev

iewing Design

A participatory mindset



I feel free during the session.

I can eat, drink, and move around.



I put my phone on silent mode.

I respect others when they are speaking.

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Reviewing Design

4 questions

- A - Why do we need systematic reviews in Design Research?
- B - What counts as evidence in Design Research and where can we find it?
- C - How to analyze and synthesize design evidence?
- D - What are (or could be) the challenges of conducting a systematic review in Design?



Question |

1 2
3 4

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Organization

4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

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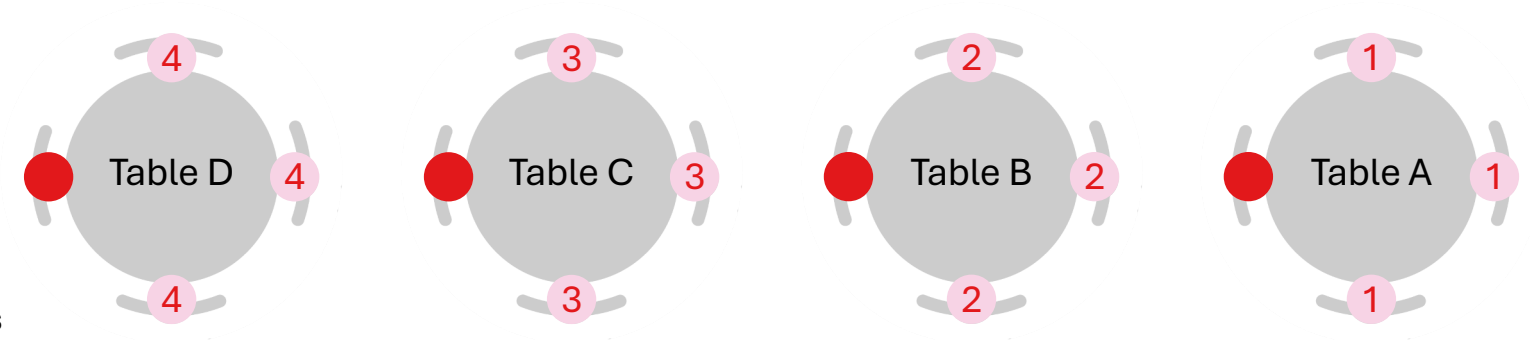
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Organization

4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

ROUND 2

● Facilitators
● Participants

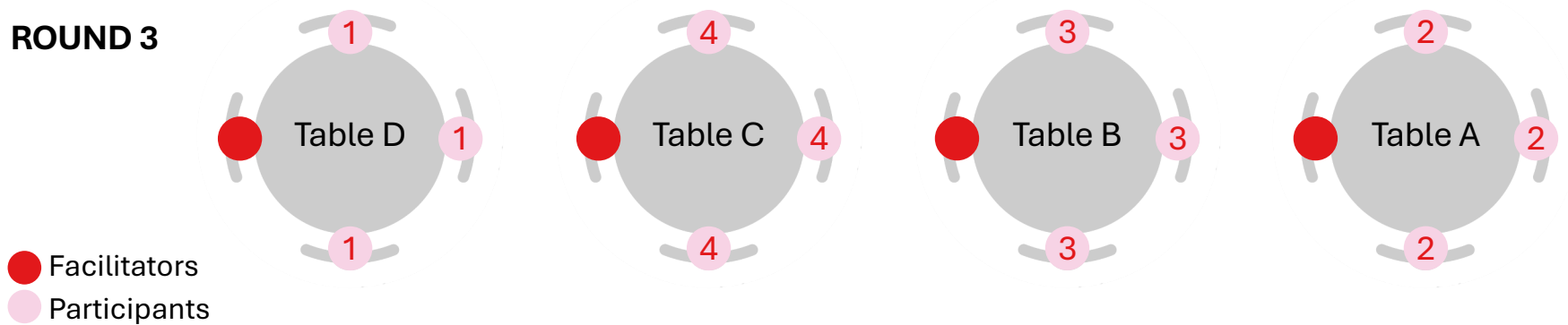


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Organization

4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

ROUND 3



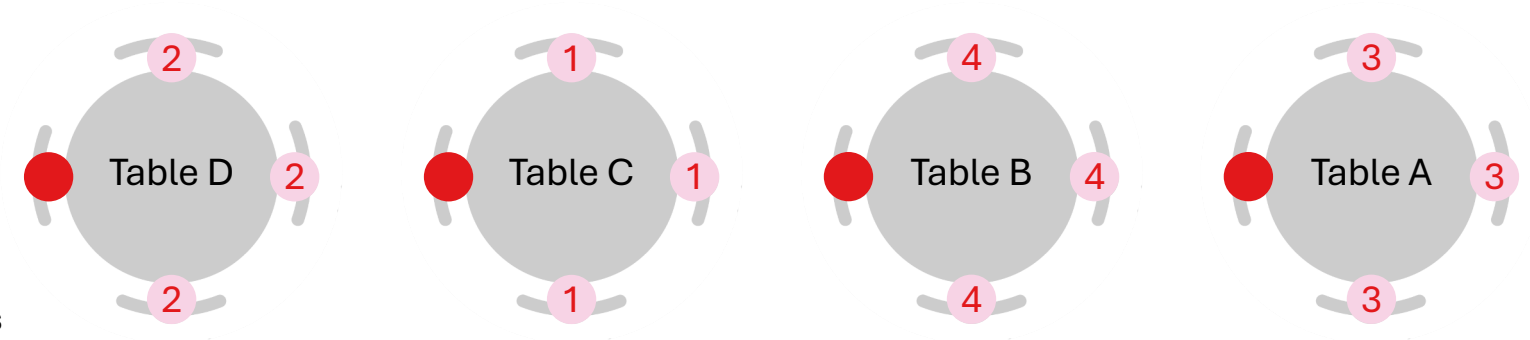
RED RReviewing Design

Organization

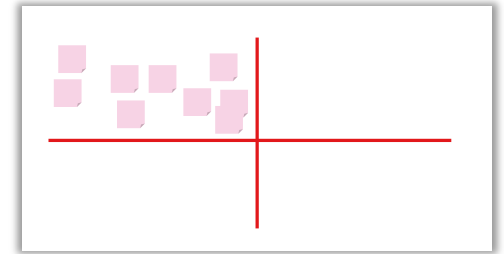
4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

ROUND 4

● Facilitators
● Participants



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Tasks during ROUND 1

15': Take turns answering three questions to **break the ice**:

Who I am

Why I'm here

What interests me about today's topic

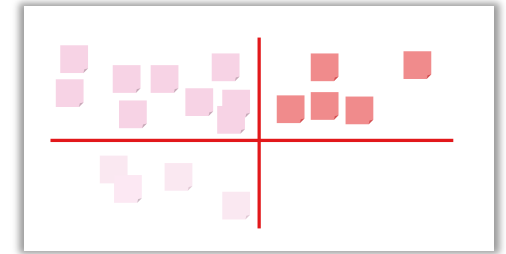
5': **Write** down your ideas **individually** on sticky notes
(one idea per sticky note, in uppercase letters)

20': **Go round** the table, with one participant at a time sharing an idea
(one at a time, for as many turns as necessary)

5': **Group** similar ideas together and **check** that the information on
the template is complete

RED R

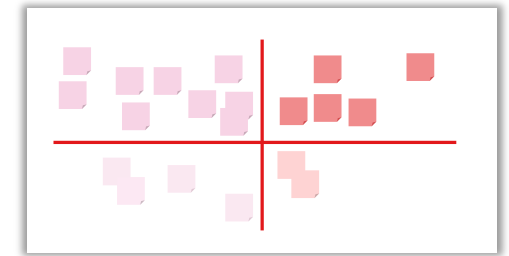
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Tasks during ROUNDS 2 and 3

- 5': **Read** through the notes already suggested by the other group(s)
- 5': **Write** down your ideas **individually** on sticky notes
- 15': **Go round** the table, with one participant at a time sharing an idea
- 5': **Group** similar ideas together and **check** that the information on the template is complete

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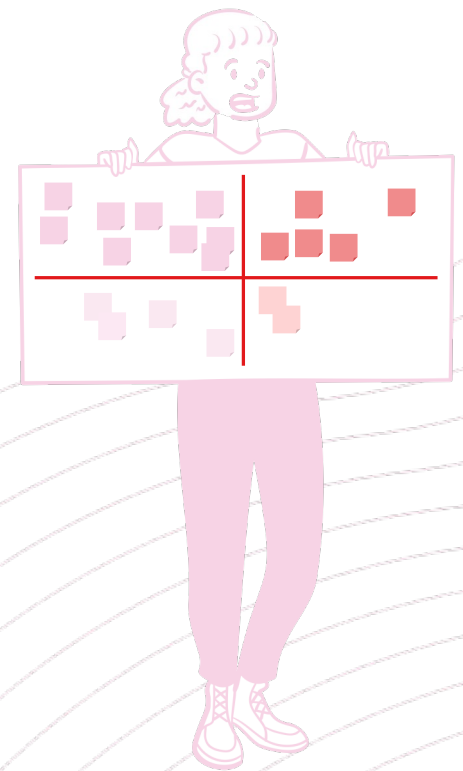
Tasks during ROUND 4

- 5': **Read** through the notes already suggested by the other group(s)
- 5': **Go round** the table, with one participant at a time sharing an idea
- 5': **Group** similar ideas together and **check** that the information on the template is complete

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Wrap-up session

Summary of the contributions by the facilitators
3' maximum by table
Audio recording



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ROUND 1

Group 2 —————> Table B

Group 3 —————> Table C

Group 4 —————> Table D

Check your badge to see your group number

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ICE BREAKER

15 minutes

Take turns answering **three questions**:

1. Who I am
2. Why I'm here
3. What interests me about today's topic

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ROUND 1

30 minutes

Write down your ideas **individually** on sticky notes
(one idea per sticky note, in uppercase letters)

Go round the table, with one participant at a time sharing an idea
(one at a time, for as many turns as necessary)

Group similar ideas together and **check** that information is complete

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ROUND 2

Group 2 → Table D
Group 3 → Table B
Group 4 → Table C

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ROUND 2

30 minutes

Read through the notes already suggested by the other group(s)

Write down your ideas **individually** on sticky notes

Go round the table, with one participant at a time sharing an idea

Group similar ideas together and **check** that information is complete

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iewing Design

ROUND 3

Group 2 → Table C
Group 3 → Table D
Group 4 → Table B

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ROUND 3

30 minutes

Read through the notes already suggested by the other group(s)

Write down your ideas **individually** on sticky notes

Go round the table, with one participant at a time sharing an idea

Group similar ideas together and **check** that information is complete

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WRAP-UP

3 minutes for each table

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INVITATION

Let's continue this discussion together
and valorize the workshop results