

QA[4]EuroFam Training School
Quality family support and research for social impact

Consensus Methods in Family Support Research

Cristina Nunes and Cátia Martins
University of Algarve, Portugal

Faro, 4th and 5th July 2024



Definition



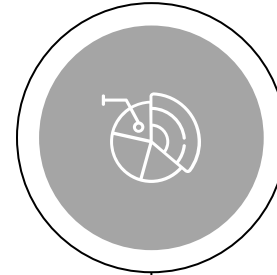
Agreement

To establish how well experts agree on a particular issue



Accuracy

Accurate assessment can be best achieved by consulting a panel of experts and accepting the group consensus



Reliability

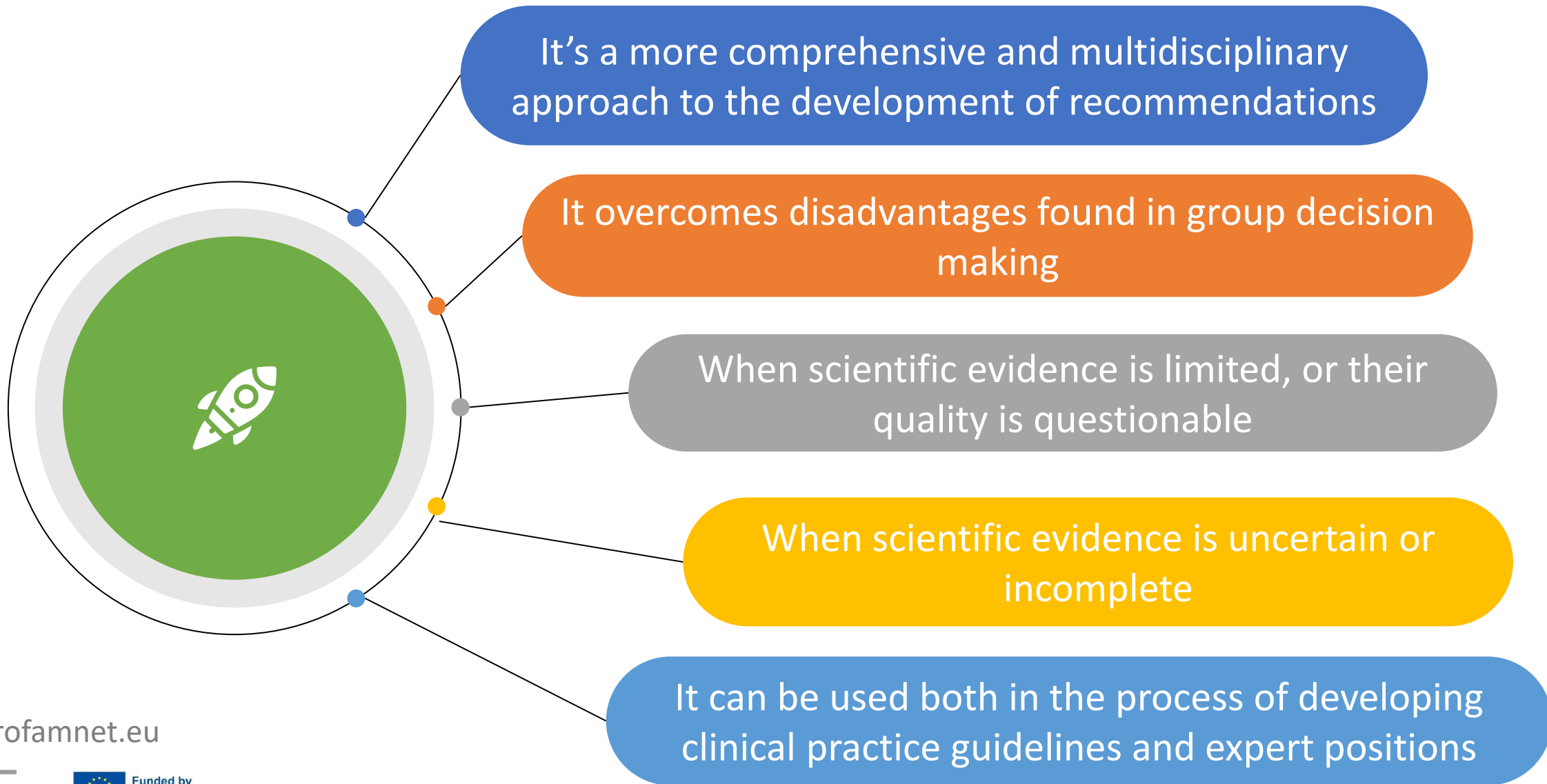
Reliable assessment can be best achieved by consulting a panel of experts and accepting the group consensus



Cooperation

Group decision-making as a cognitive process based on cooperation

WHY AND WHEN?



Consensus Methods

The group seeks the **best solutions** through discussion, exchange of views and opinions.



Is more than a vote for or against, it's a form of **reaching agreement through negotiation**

To find solutions that are **acceptable to all** involved in the process, rather than being achieved through concessions

Types of Consensus Methods



Delphi Method (DM)



Nominal
Group
Technique

Nominal Group Technique (NGT)

The
RAND/UCLA
Appropriateness
Method
User's Manual

RAND Corporation/University of California Los Angeles Appropriateness Method (RAND/UCLA)

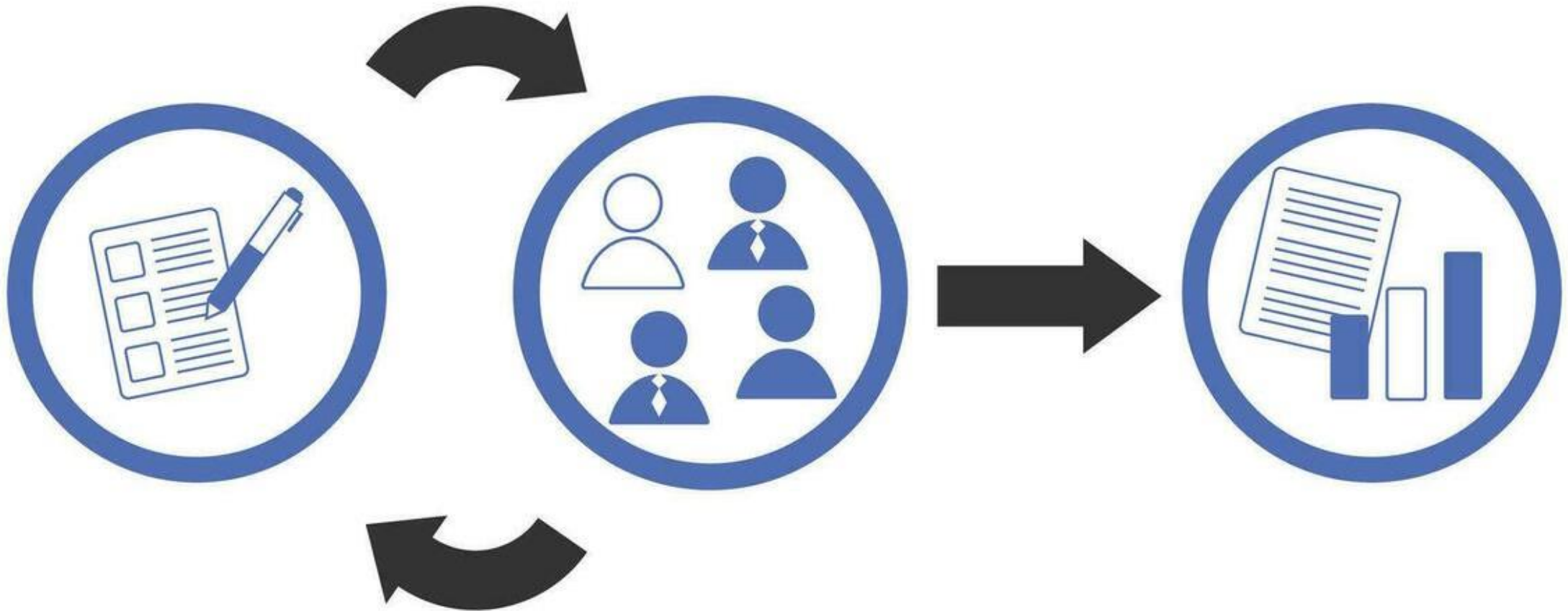


Consensus Conference (CC)



Deliberative Dialogue (DD)

Delphi Method

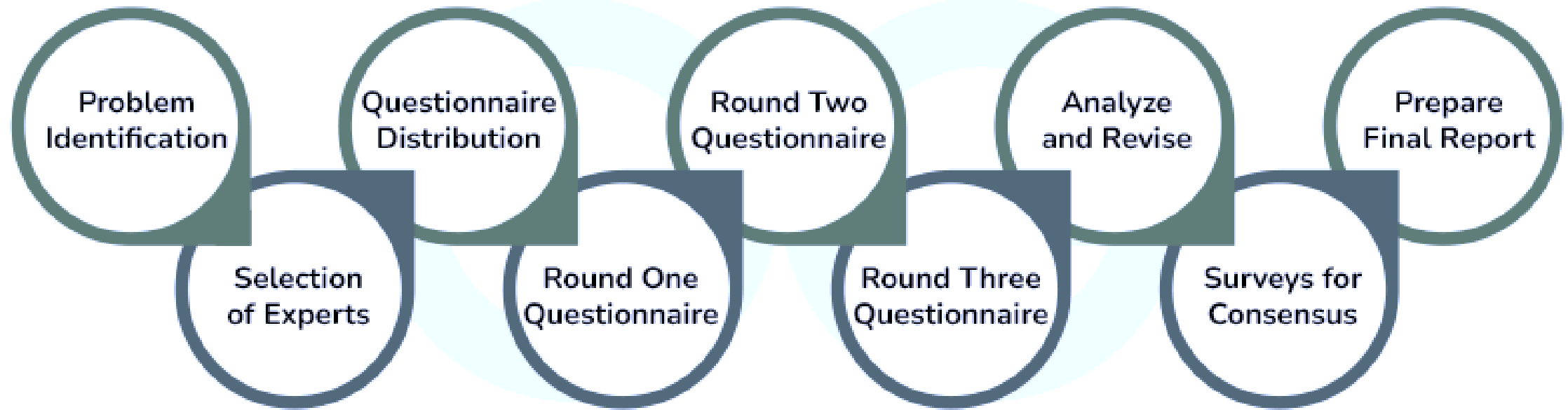


DELPHI METHOD

Characteristics of Delphi Method



Delphi Method Process



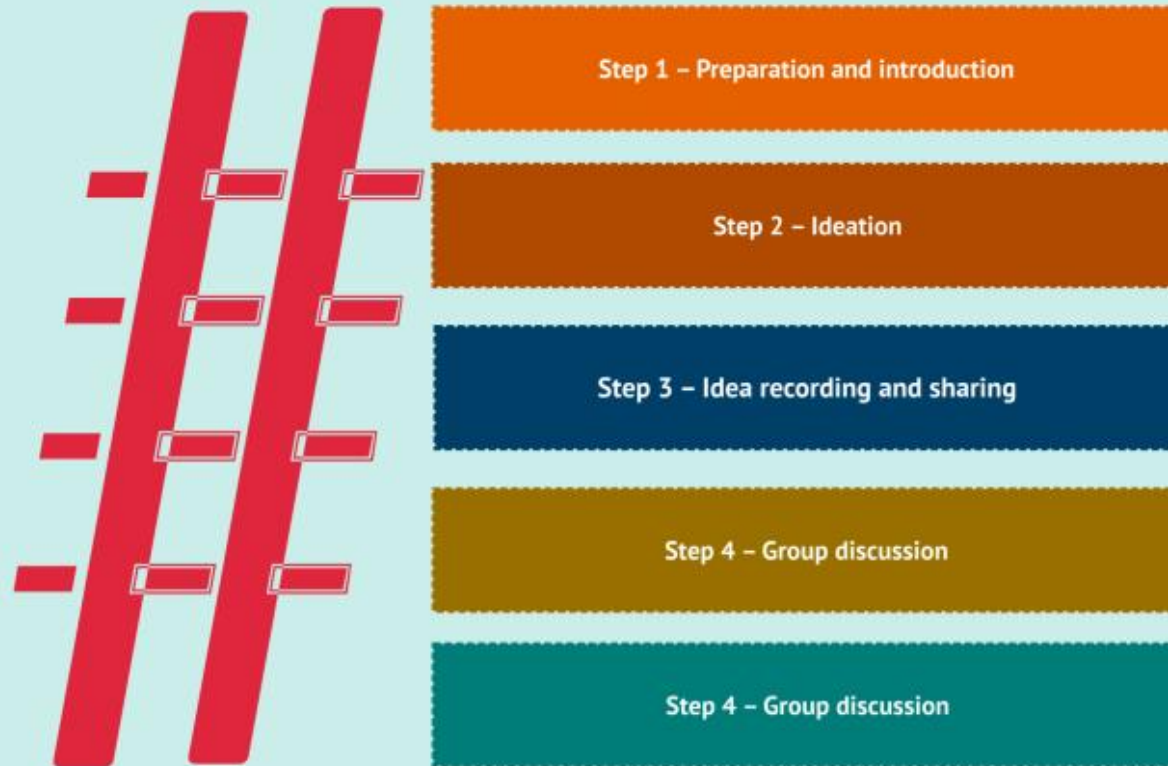
This process is repeated until the best possible level of consensus is reached, or until a predetermined number of rounds have been completed (Humphrey-Murto et al., 2017).



Nominal Group Technique

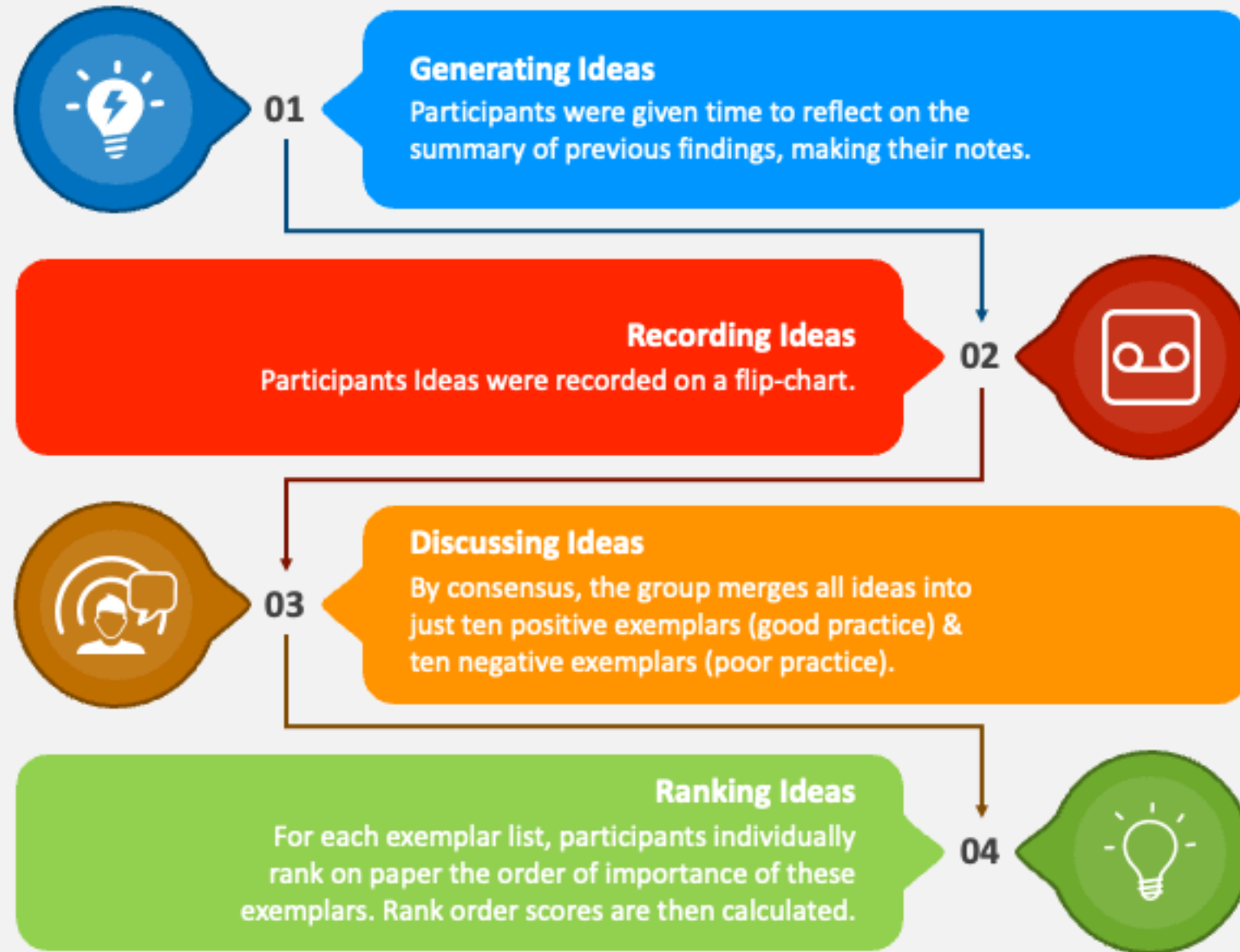
Nominal Group Technique

The nominal group technique was initially conceived by Andrew H. Van de Ven and Andrew L. Delbecq in their 1975 book *Group techniques for program planning: A guide to nominal group and Delphi processes*. The nominal group technique (NGT) is a brainstorming framework that encourages equal contribution from stakeholders and facilitates group consensus on key issues, problems, and their solutions.



NOMINAL GROUP TECHNIQUE

4 Stages of Nominal Group Technique

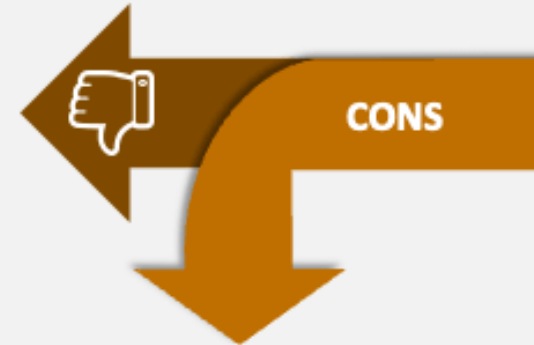


NOMINAL GROUP TECHNIQUE

Advantages & Disadvantages of Nominal Group Technique



- Opportunity for equal participation
- Non-Dominance of discussion by one member
- Tight Control of time
- Generation of a larger number of ideas
- Potential for discussion and debate



- Members frustrated by the rigidity of procedure
- Gain no feelings of cohesiveness
- No cross-fertilization of ideas
- A smaller number of participants than the Delphi
- The potential for dominant participants to unduly influence the group

The
RAND/UCLA
Appropriateness
Method

RAND/UCLA, also
referred to as a
hybrid of the
Delphi and NGT



The RAND/UCLA



Review literature and develop evidence summary

Develop rating form



Panel median rating

DI	1	2	3	4	5	6	7	8	9
	Bottom third (1-3)			Intermediate third (4-6)			Top third (1-3)		
<1 (Agreement)	Inappropriate			Uncertain			Appropriate		
≥1 (Disagreement)									

Expert panel repeats ratings (second-round)



Analyze and develop consensus statements



Pablo Lazaro
 Mirjam van het Loo
 Joseph McDonnell
 John Paul Vader
 James P. Kahan

c) >20% ≤30%	1	2	3	4	5	6	7	8	9
3. Two vessel disease with PLAD									
LVEF a) >50%	1	2	3	4	5	6	7	8	9
b) >30% ≤50%	1	2	3	4	5	6	7	8	9
c) >20% ≤30%	1	2	3	4	5	6	7	8	9
4. Two vessel disease without PLAD									
LVEF a) >50%	1	2	3	4	5	6	7	8	9
b) >30% ≤50%	1	2	3	4	5	6	7	8	9
c) >20% ≤30%	1	2	3	4	5	6	7	8	9

1 = Highly inappropriate; 9 = Highly appropriate

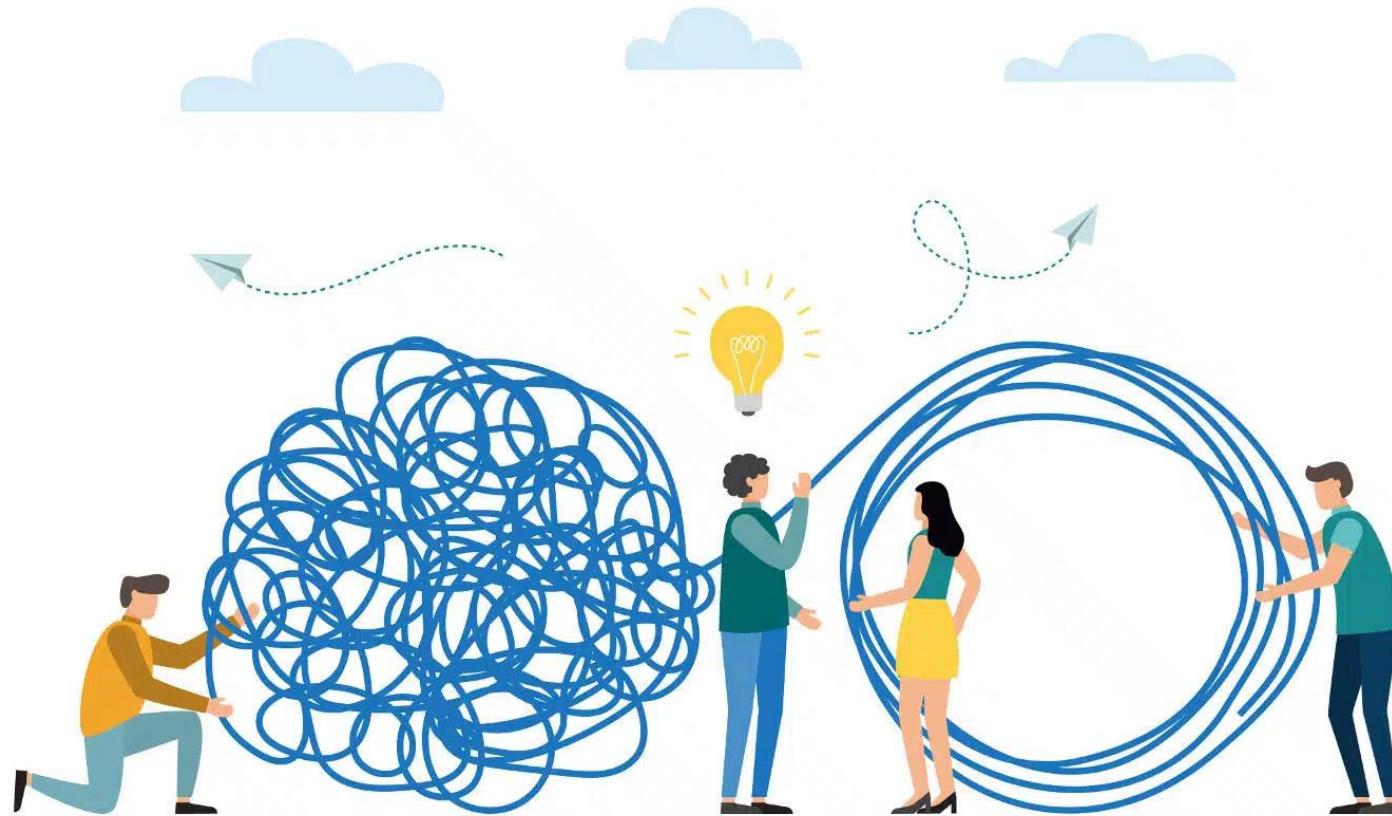
RAND Europe

RAND Health

Comparison of the Characteristics of Consensus Group Methods and Informal Consensus Meetings^{1-4,7}

Characteristic	Consensus group methods			Informal consensus meetings
	Delphi	Nominal group technique	RAND	
Mailed or e-mailed questionnaires	Yes	No	Yes (first round)	No
Private decisions collected (anonymity)	Yes	Yes	Yes	No
Formal feedback of group ratings	Yes	Yes	Yes	No
Face-to-face interactions	No	Yes	Yes (second round)	Yes
Structured interactions	Yes	Yes	Yes	No

(Humphrey-Murto et al., 2017b, p. 1).



Consensus Conference

ORIGIN

The U.S. National Institutes of Health, which assesses and disseminates information about medical technologies and research.

PROCESS

Includes a literature review, a summary of the current state of knowledge, expert presentations and discussions.

AIM

To develop a mutually acceptable declaration of consensus on a pre-defined topic.

DURATION

Conferences often last for two or more days and aim to develop an agreed written common position.

PURPOSE

Brings together representatives of different groups (e.g., professionals, researchers, patients, and decision makers).

PARTICIPANTS

The number of experts participating in the panel may vary, but usually ranges from 9 to 18 ($M = 10$).



Consensus Conference

<https://eurofamnet.eu>

Part 1: Plan ahead



Part 2: Running your meeting



The Consensus Conference starts with the selection of panel drawn randomly from the organization

Approach to Consensus Conference – Overview

Significant issues relevant to the topic of concern are discovered, drawn, and documented during the first two weekends prior to the Consensus Conference.



Deliberative Dialogue



Deliberative Dialogue



TO PROMOTE MUTUAL UNDERSTANDING AND EXPLORE DIFFERENT PERSPECTIVES, RATHER THAN JUST REACHING A QUICK CONSENSUS.



Inclusion of Diverse Perspectives

Involves a wide range of participants, including ordinary citizens, experts, and stakeholders.



Open and Reflexive Process

Emphasizes the open exchange of ideas and deep reflection on the issues under discussion.



Facilitation

Typically facilitated by a neutral moderator to ensure all voices are heard and the discussion is productive.

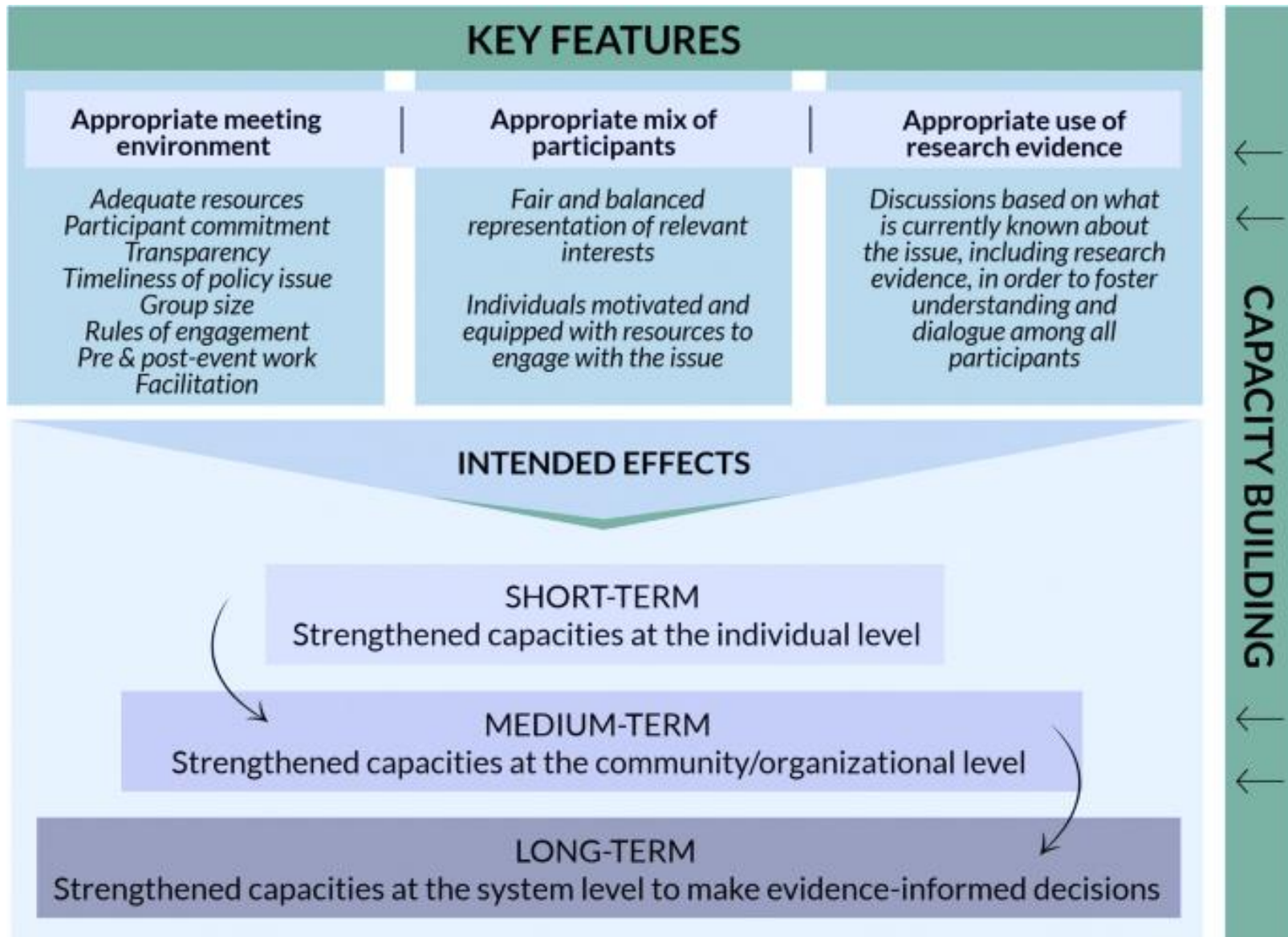


Objective

Focus on building understanding and collective learning, which may or may not result in a consensual decision.

<https://eurofamnet.eu>





(Sween-Cadieux et al., 2018)



FEATURES

Criterion	Delphi method	Normal group technique	RAND/UCLA method	Consensus Conference
Scope of the panel	multidisciplinary	multidisciplinary	homogenous or multidisciplinary	multidisciplinary
Number of panelists	6–11	5–12	7–15	9–18
Need for a direct meeting	No	Yes	Yes	Yes
Literature review	Yes – indispensable	If the problem under consideration requires review. Not obligatory	Yes	Yes – results research/data presented by experts
Anonymity of assessments/opinions	Yes, fully anonymous		Yes, partially	No
Moderator/Chair	Yes	Yes	Yes	Yes

Table I. *Characteristics of formal consensus methods*

(Siwiec et al., 2019, p. 227)

Advantages	Consensus Technique			
	Delphi Technique	Nominal Group Technique	RAND/UCLA Appropriateness Method	Consensus Development Conference
Anonymity/confidentiality	x	x	x	x
Interactive with controlled feedback	x	x	-	x
Iterative process	x	x	x	x
Structured/systematic	x	x	x	x
Lack of group meeting/travel	x	x	-	-
Results not dominated by few individuals	x	x	-	x
Geographical extent of participants	x	x	x	-
Large sample size/diverse	x	x	x	x
Ability to revise opinions	x	x	-	x
Statistical analysis of group responses	x	x	x	-
Time efficient	x	x	-	-
Ease of obtaining information	x	x	-	x
Reliability/validity of findings	x	x	x	x
Cost effective	x	x	-	-
Facilitated group meeting*	x	x	x	x
Unambiguous statements/less bias/better quality	x	x	-	-
Flexibility of technique	x	-	-	-
Ability to objectively/impartially analyze data	x	-	-	-

The "x" next to each item, where applicable, represents a stated advantage or a reason to use a certain technique.

* Certain modified versions of the Delphi incorporate a group meeting aspect.


(Block et al., 2021)

Advantages	Consensus Technique			
	Delphi Technique	Nominal Group Technique	RAND/UCLA Appropriateness Method	Consensus Development Conference
Anonymity/confidentiality	x	x	x	x
Interactive with controlled feedback	x	x	-	x
Iterative process	x	x	x	x
Structured/systematic	x	x	x	x
Lack of group meeting/travel	x	x	-	-
Results not dominated by few individuals	x	x	-	x
Geographical extent of participants	x	x	x	-
Large sample size/diverse	x	x	x	x
Ability to revise opinions	x	x	-	x
Statistical analysis of group responses	x	x	x	-
Time efficient	x	x	-	-
Ease of obtaining information	x	x	-	x
Reliability/validity of findings	x	x	x	x
Cost effective	x	x	-	-
Facilitated group meeting*	x	x	x	x
Unambiguous statements/less bias/better quality	x	x	-	-
Flexibility of technique	x	-	-	-
Ability to objectively/impartially analyze data	x	-	-	-


The "x" next to each item, where applicable, represents a stated advantage or a reason to use a certain technique.

* Certain modified versions of the Delphi incorporate a group meeting aspect.

(Block et al., 2021)



advantages



disadvantages

Advantages/Disadvantages

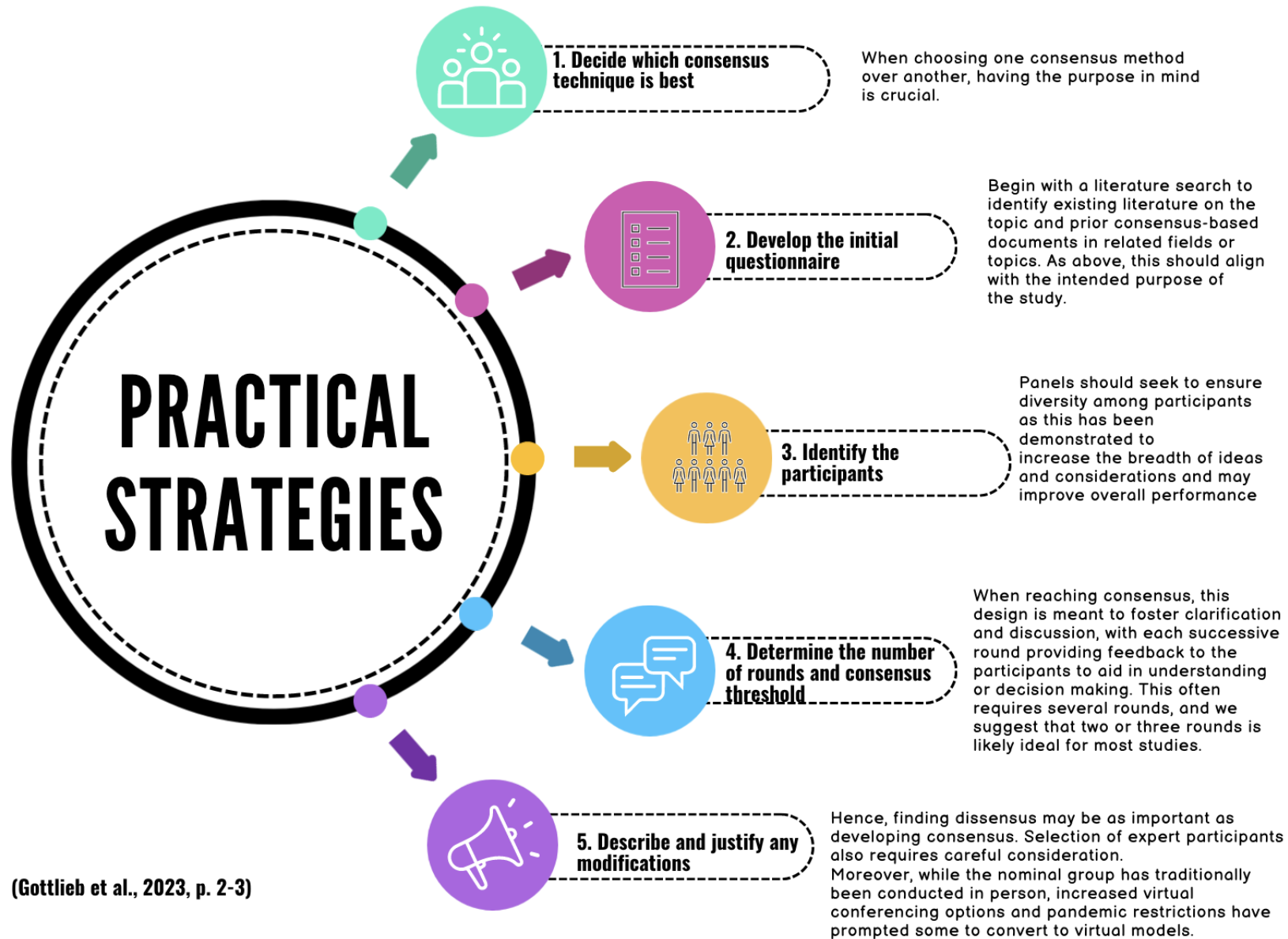
- **Reduction of Bias:** Anonymity helps minimize biases and groupthink, leading to more unbiased and independent opinions.
- **Diverse Expertise:** It leverages the diverse expertise of participants, from various geographically distant places, providing also a comprehensive view of the issue.
- **Systematic Process:** The method provides a systematic framework for collecting and analyzing expert opinions.
- **Flexibility:** It can be adapted to various situations and group sizes.
- **Costs:** Relatively inexpensive.

- ❑ **Resource Intensive:** Conducting multiple rounds and managing the studies can be resource-intensive in terms of time and effort.
- ❑ **Expert Availability:** Especially in niche or specialized fields.
- ❑ **Consensus Difficulty:** Achieving consensus can be challenging and may not always be possible, particularly if experts have strongly divergent views.
- ❑ **Potential for Group Polarization:** In some cases, the process may inadvertently lead to group polarization, where participants' opinions become more extreme over time.
- ❑ **Subjectivity:** Still subject to the subjectivity and biases of the participating experts.



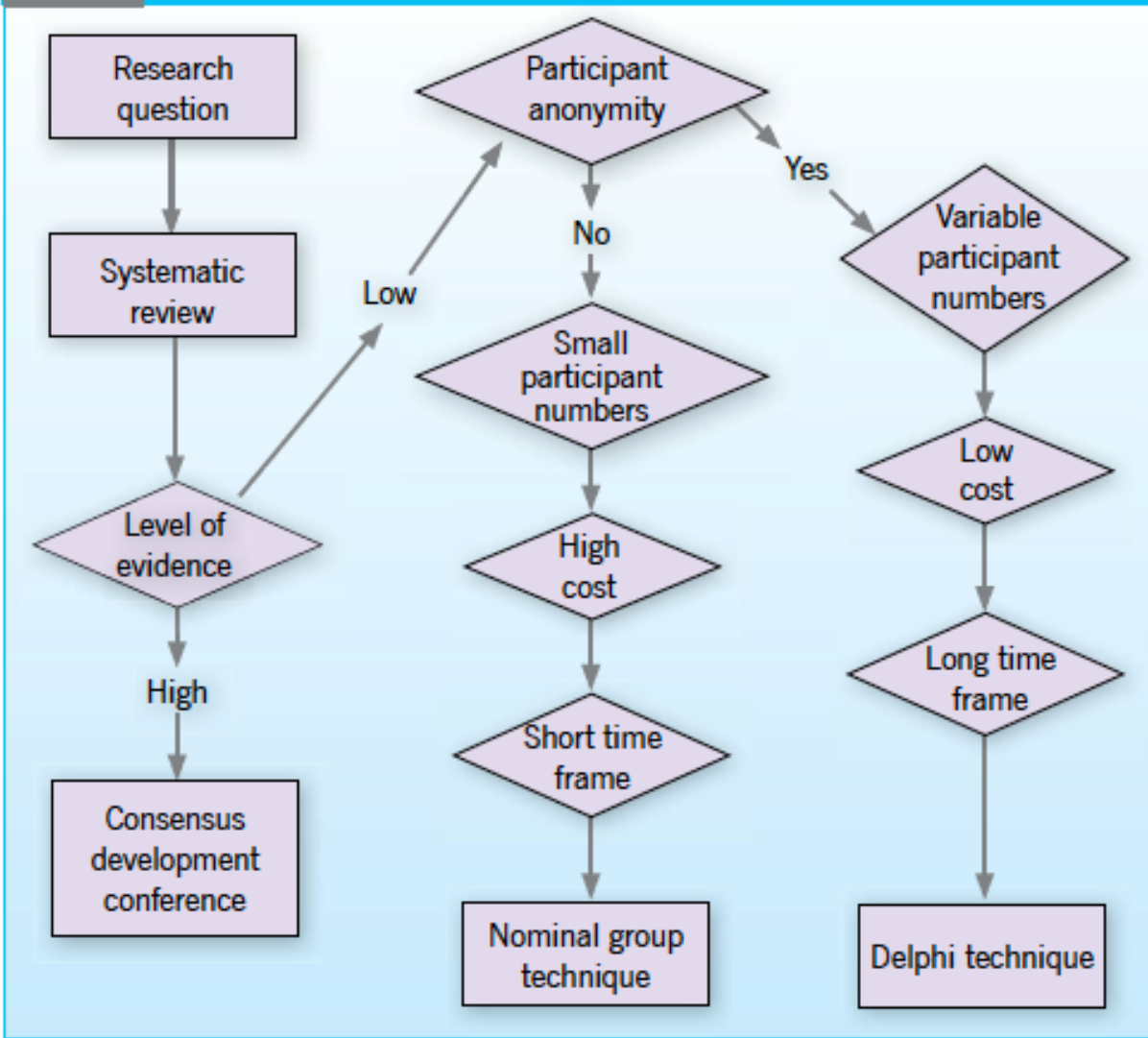


PRACTICAL STRATEGIES FOR FIVE KEY STEPS



(Gottlieb et al., 2023, p. 2-3)

Figure 1 Flowchart for selection of a consensus development method



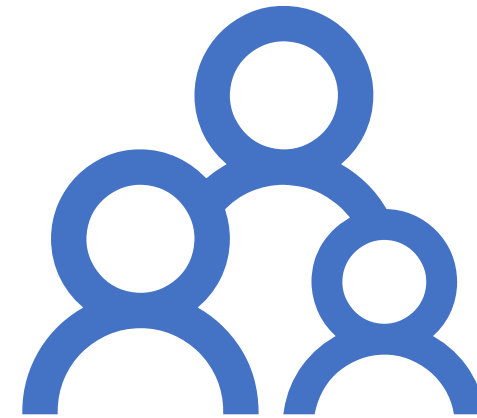
(Warren-Forward, 2015, p. 39)

	Delphi Technique	Consensus Development Conference	Nominal Group Technique
Purpose	Postal or email surveys to assist in prioritisation of issues relating to policy and practice	Presentation of current evidence and subsequent discussion of issues relating to policy and practice	Generation and collation of ideas with subsequent discussion and voting on priorities
Location	Distance	Local	Local
Time Frame	Several rounds conducted over months	One to three days	One day
Anonymity	Yes	No	No
Panel size	Variable	6-12 panel members	6-9 panel members
Analysis	Variable Statistical and descriptive	Variable Majority voting and levels of agreement	Statistical Ranking

(James & Warren-Foward, 2015, p. 11)

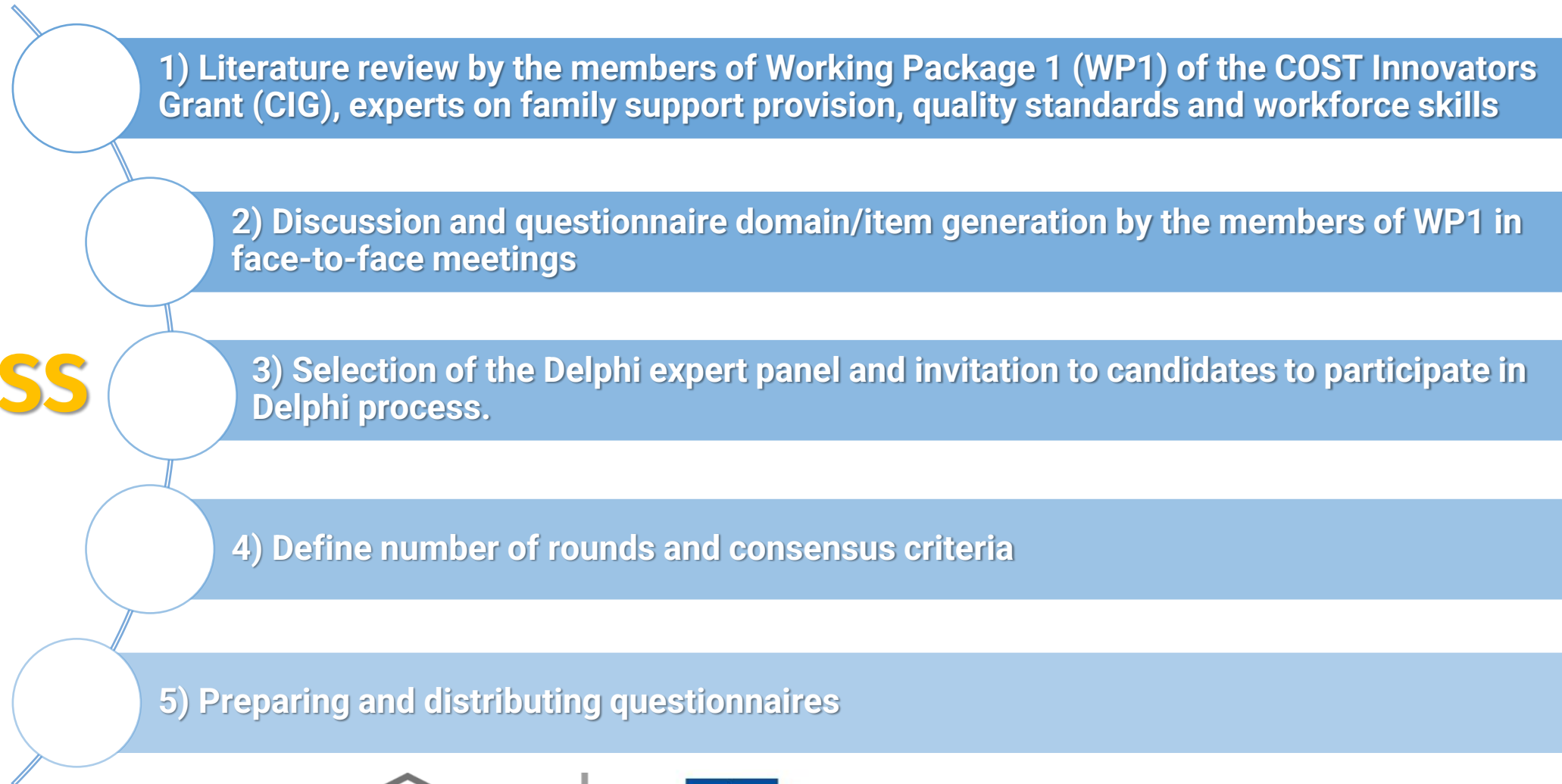
An example:

Family Support
Quality Standards. A
Delphi study



FAMILY SUPPORT QUALITY STANDARDS

PROCESS



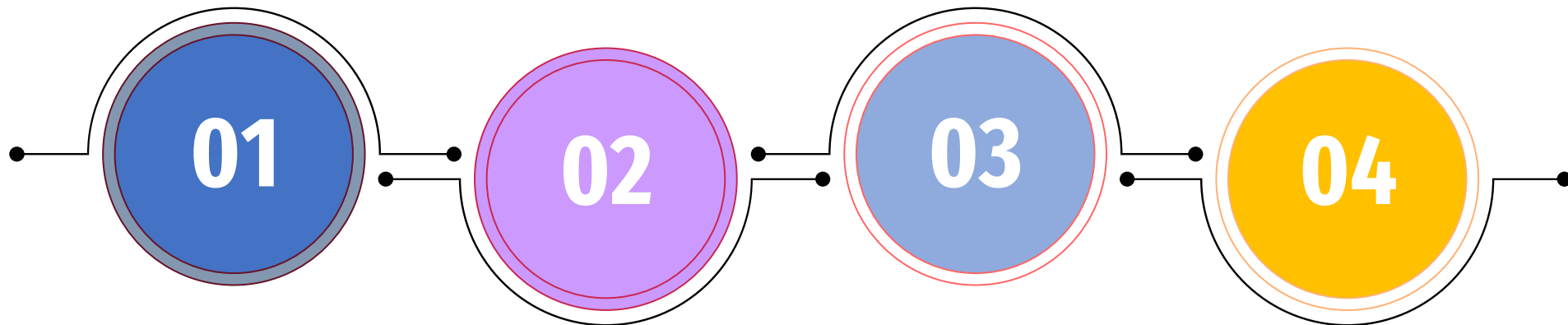
DELPHI STUDY METHOD

ONLINE SURVEYS

Two rounds, 69 indicators about 3 domains of family support: practice system, provision system and evidence system

CONSENSUS CRITERIA

- The 70% responding to the category 3 and 4
- Mean above 3.5
- The interquartile range below 1
- The standard deviation below 1.5



PARTICIPANTS

46 experts with experience in family support provision, quality standards and workforce skills (WP 2 CIG+ Advisory panel CIG + Nacional Leaders CIG).

EXPERTS ASSESSED

(1) Clarity in writing, (2) Coherence between the indicator and the quality standard and (3) Relevance of the item to the quality standard, using a 4-point scale

Quality standards in family support: a Delphi study

Dear Colleague,

You are kindly invited to fill in the questionnaire below which is part of the Delphi study performed by the team of researchers from members of Working Package 1 (WP1) of the COST Innovators Grant (CIG).

We believe that you can make an important contribution to the development of family support quality standards. We planned to collect data using the Delphi method in two or three rounds.

The research is anonymous, and your personal data will be protected. Only the research team will have access to your personal data, in order to perform the study properly. Participants in the study will not have access to your responses; they will only receive aggregated data. Individual responses will not be shared outside the research team and will be stored securely.

Participation in the survey is voluntary, and consent can be withdrawn at any time. By starting the survey, you agree to participate in this study.

In you have any questions about the study, you can contact the study team at eurofamnet@gmail.com.

** Indica uma pergunta obrigatória*

1. Start the survey *

Marcar apenas uma oval.

Yes

No

1. Family support practice system

Please evaluate the following **indicators (Item)** of quality standards, regarding:

- **Clarity** of writing
- **Coherence** between the indicator and the quality standard
- **Relevance** of the item to the quality standard

Use the following scale:

1= Nothing 2= Some 3= Quite 4= A lot

1.1. Quality Standard: Frame the services objectives from the standpoint of rights and developmental needs of children, youth and families.

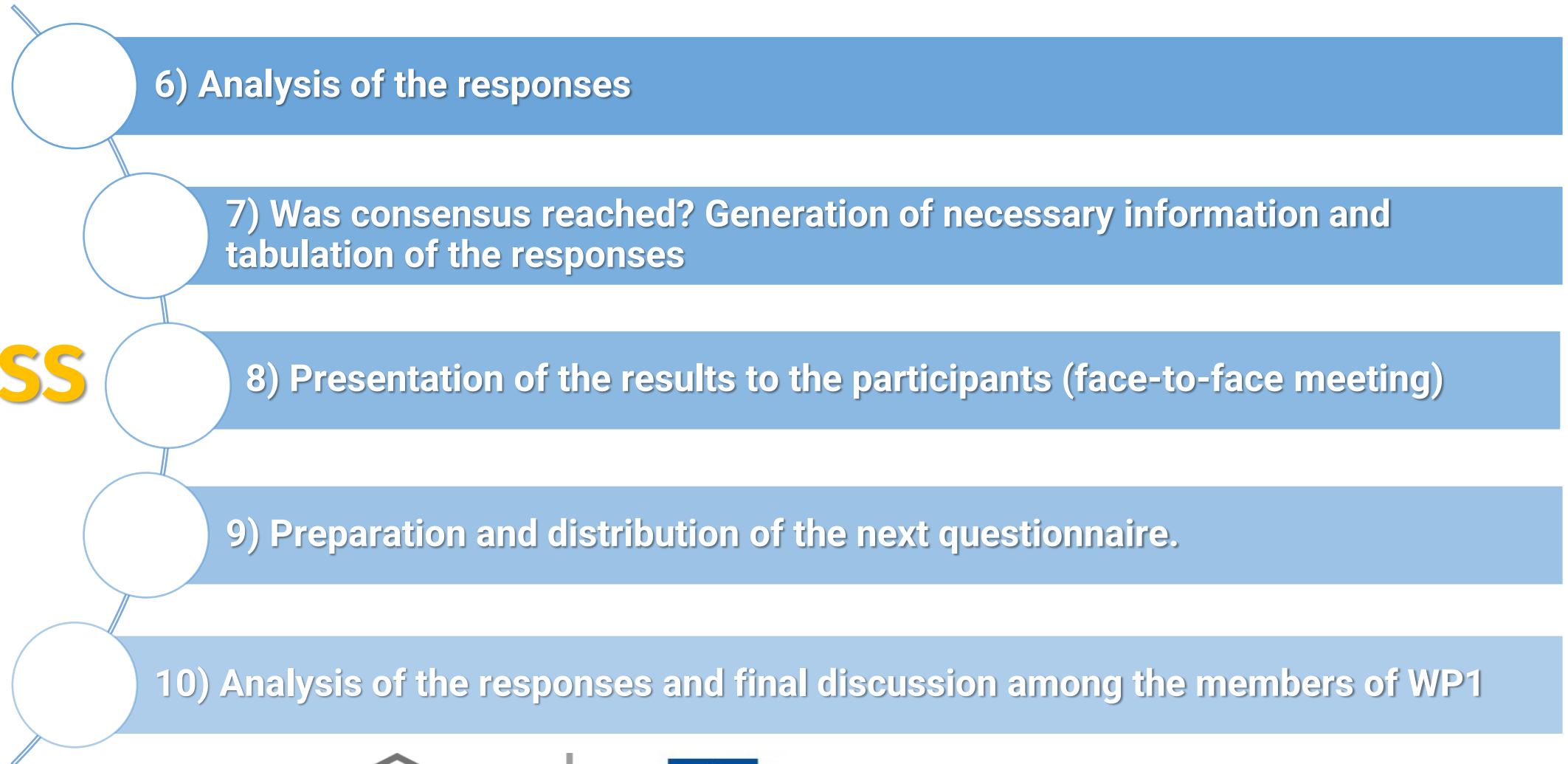
1.1.1. Indicator (Item): The services takes into account the best interest of the child and respects the developmental needs of children and youth (and their families) when taking action.

Marcar apenas uma oval por linha.

	1	2	3	4
Clarity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coherence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relevance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

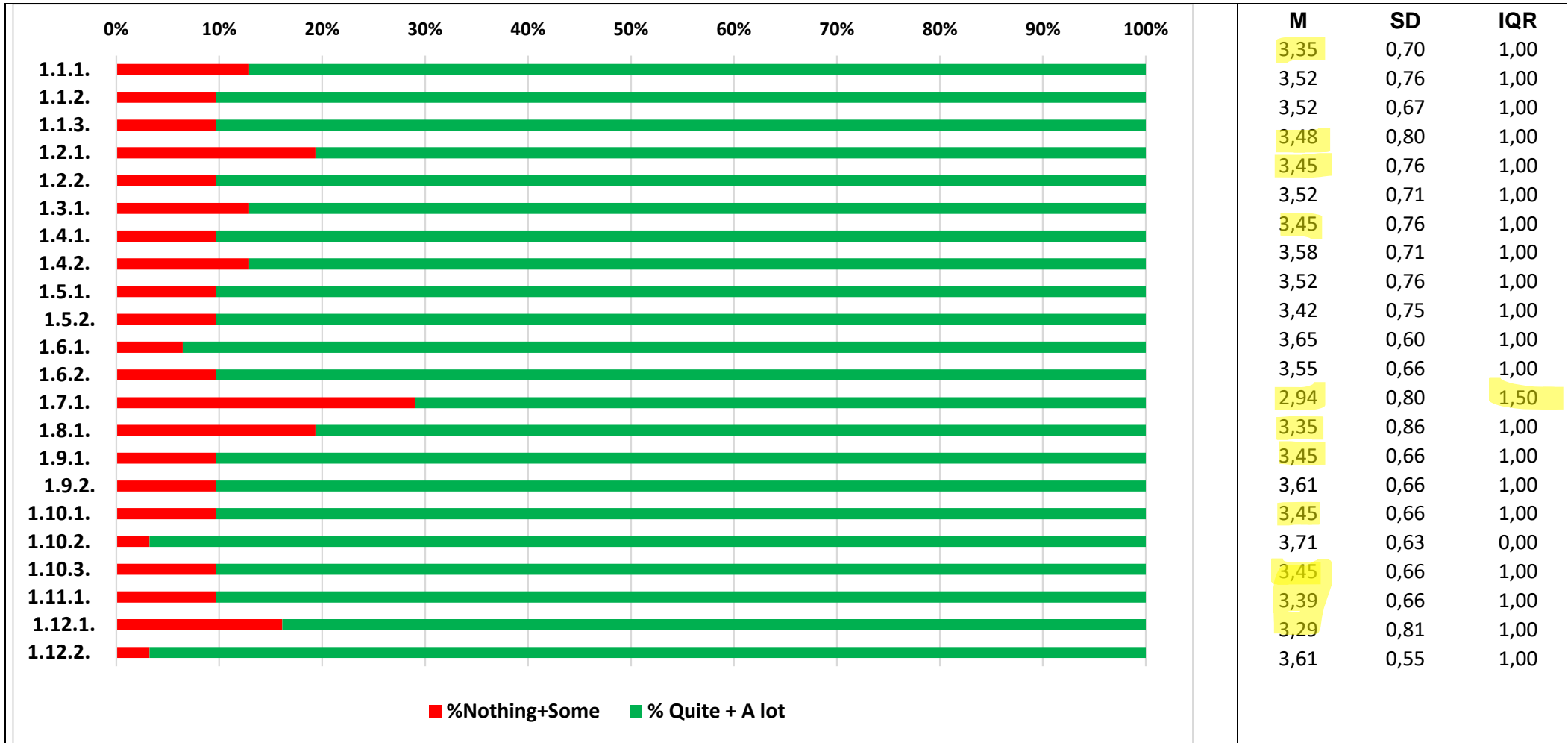
FAMILY SUPPORT QUALITY STANDARDS

PROCESS



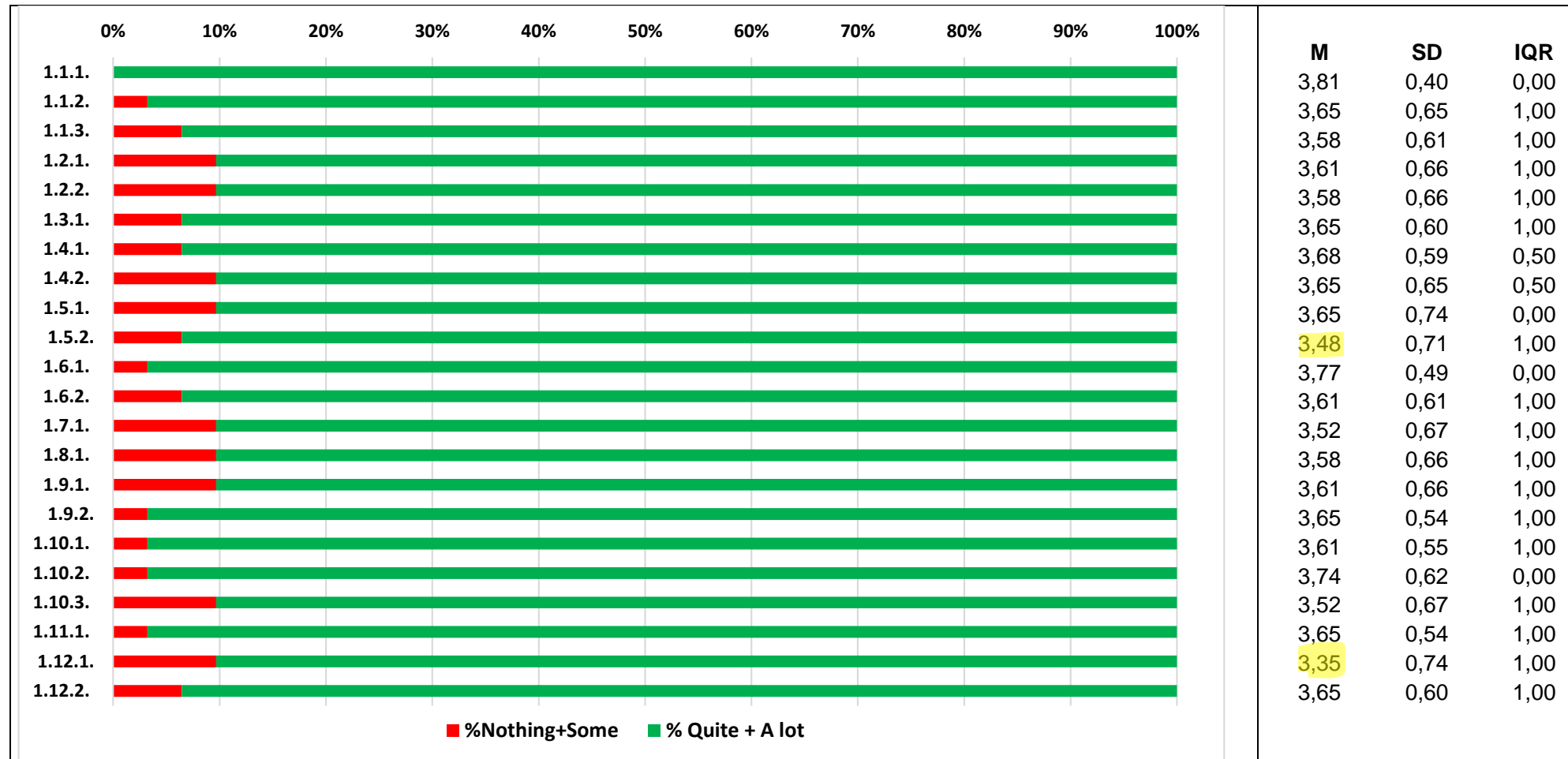
DELPHI STUDY RESULTS 1st round

Family support practice system indicators - Clarity



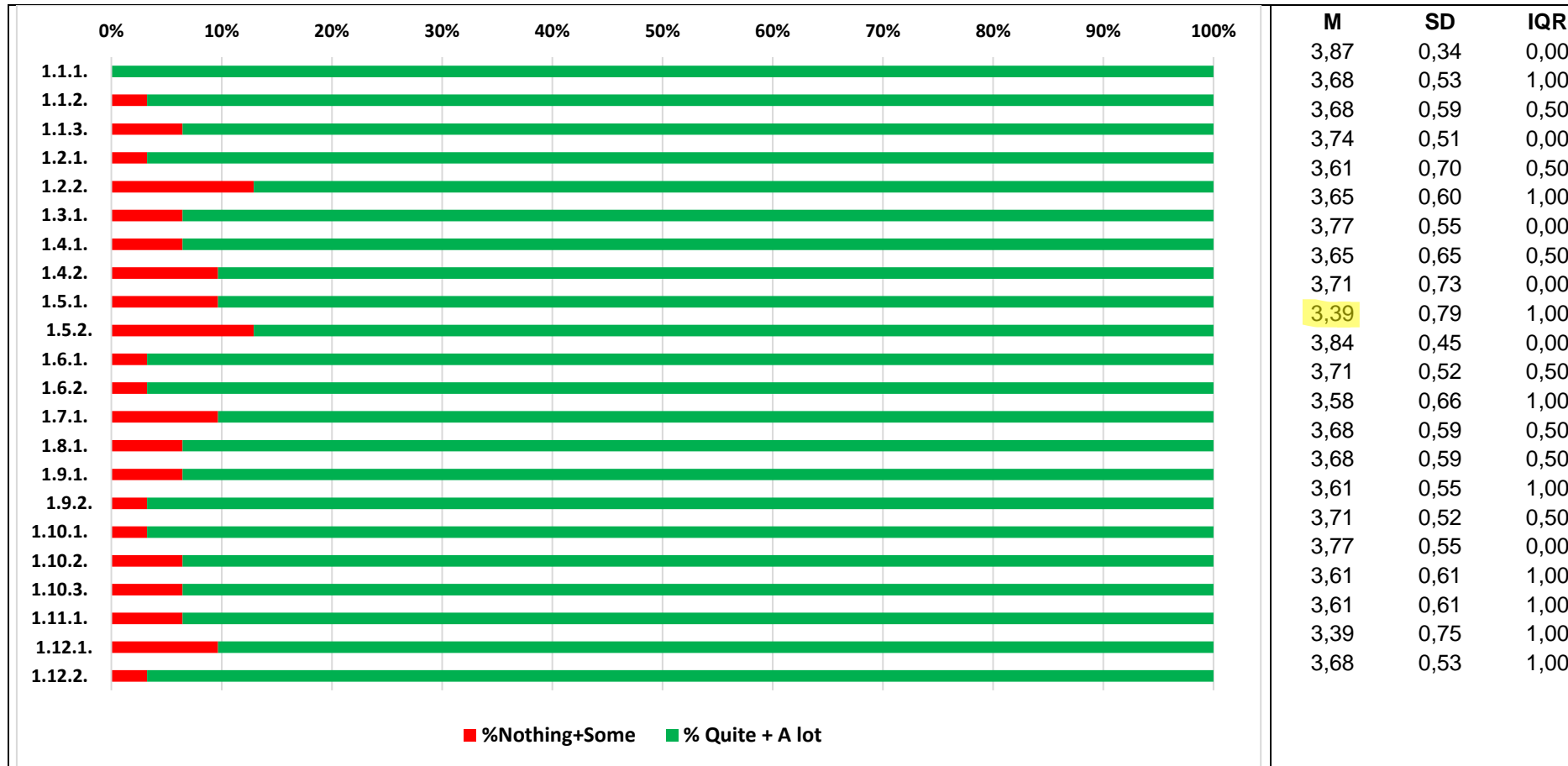
DELPHI STUDY RESULTS - 1st round

Family support practice system indicators - Coherence



DELPHI STUDY RESULTS - 1st round

Family support practice system indicators - Relevance



DELPHI STUDY RESULTS – 2nd round

Quality standards in family support: a Delphi study (2nd round)

Dear Colleague,

You are kindly invited to fill in the questionnaire below which is the 2nd round of the Delphi study performed by the team of researchers from members of Working Package 1 (WP1) of the COST Innovators Grant (CIG).

The members of the research team incorporated the suggestions resulting from the results of the 1st round, reduced the number of indicators and improved the writing.

We believe that you can make an important contribution to the development of family support quality standards.

1. Family support practice system

We kindly ask you to evaluate **each indicator (item)** indicating your agreement with its current wording with a view to its inclusion in the Quality Assurance Protocol, using the following scale:

1= Strongly Disagree

2= Disagree

3= Agree

4= Strongly Agree

1.1. Quality Standard: Frame the services objectives from the standpoint of rights and developmental needs of children, youth and families.

2. **1.1.1. Indicator (Item):** The services take into account the best interest of the child and respects the rights and developmental needs of children and youth (and their families) when taking action. *

Marcar apenas uma oval.

1 2 3 4

DELPHI STUDY RESULTS – 2nd round

	% Quite +		Intercuar		
	A lot	M	SD	til	Mdn
1.1.1.	0,90	3,68	0,60	0,25	4,00
1.2.1.	0,93	3,71	0,52	0,25	4,00
1.3.1.	0,97	3,82	0,38	0,00	4,00
1.4.1.	0,86	3,68	0,66	0,00	4,00
1.5.1.	0,90	3,71	0,59	0,00	4,00
1.5.2.	0,93	3,64	0,55	1,00	4,00
1.6.1.	0,79	3,46	0,78	1,00	4,00
1.7.1.	0,93	3,57	0,56	1,00	4,00
1.8.1.	0,93	3,64	0,55	1,00	4,00
1.8.2.	0,83	3,46	0,73	1,00	4,00
2.1.1.	0,76	3,46	0,82	1,00	4,00
2.2.1.	0,83	3,54	0,73	1,00	4,00
2.3.1.	0,90	3,64	0,72	0,25	4,00
2.4.1.	0,90	3,57	0,62	1,00	4,00
2.5.1.	0,90	3,71	0,59	0,00	4,00
2.6.1.	0,93	3,79	0,62	0,00	4,00
2.7.1.	0,79	3,39	0,77	1,00	4,00
2.8.1.	0,86	3,43	0,86	1,00	4,00
2.9.1.	0,86	3,61	0,67	1,00	4,00
3.1.1.	0,93	3,71	0,52	0,25	4,00
3.2.1.	0,90	3,68	0,60	0,25	4,00
3.3.1.	0,86	3,57	0,68	1,00	4,00
3.4.1.	0,93	3,71	0,52	0,25	4,00
3.5.1.	0,86	3,57	0,68	1,00	4,00
3.6.1.	0,86	3,71	0,65	0,00	4,00
3.7.1.	0,90	3,61	0,62	1,00	4,00
3.8.1.	0,86	3,50	0,68	1,00	4,00
3.9.1.	0,93	3,57	0,68	1,00	4,00
3.10.1	0,90	3,61	0,62	1,00	4,00

This are the **DELPHI RULES**

1. Select experts that represent the various communities concerned by the research problem
2. Choose an adequate number of experts and close supervision by the trainer
3. Provide conditions for free speech and expression of own opinions
4. Do not omitt any opinion in the process, with particular reference to extreme positions, and pay attention to their arguments;
5. Must have uefulness in solving problems and establishing a recommended course of action on a given issue

- (Siwiec et al., 2019)

References

Christie, C. A., & Barela, E. (2005). The Delphi technique as a method for increasing inclusion in the evaluation process. *The Canadian Journal of Program Evaluation*, 20(1), 105. Available at <https://www.evaluationcanada.ca/secure/20-1-105.pdf>

Giannarou, L., & Zervas, E. (2014). Using Delphi technique to build consensus in practice. *International Journal of Business Science & Applied Management (IJBSAM)*, 9(2), 65-82. Available at <http://hdl.handle.net/10419/190657>

Murphy, M. K., Black, N. A., Lamping, D. L., McKee, C. M., Sanderson, C. F., Askham, J., & Marteau, T. (1998). Consensus development methods, and their use in clinical guideline development. *Health Technology Assessment*, 2(3), i-88. <https://doi.org/10.3310/hta2030>

Naisola-Ruiter, V. (2022). The Delphi technique: a tutorial. *Research in Hospitality Management*, 12(1), 91-97. <https://doi.org/10.1080/22243534.2022.2080942>

Siwec, J., Konieczna, M., & Koperny, M. (2019). Good practice for guidance development-review of consensus methods. *Public Health Management/Zdrowie Publiczne i Zarzadzanie*, 17(4).

Tammela, O.(2013). Applications of consensus methods in the improvement of care of paediatric patients: a step forward from a 'good guess'. *Acta Paediatr.* 102, 111–115. <https://doi.org/10.1111/apa.12120>

Vernon, W. (2009). The Delphi technique: a review. *International Journal of Therapy and rehabilitation*, 16(2), 69-76. <https://doi.org/10.12968/IJTR.2009.16.2.38892>