

Handbook

HS2 INDEPENDENT
DESIGN PANEL

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1 Foreword

The contribution that the Independent Design Panel of HS2 makes can have a fundamental impact on the quality of design of all aspects of the HS2 operation. The commitment and enthusiasm of both HS2 Ltd and individual members of the design panel to make sure that the design panel is positive and useful is both encouraging and heartening.

This handbook for members of the design panel provides advice and guidance on many important aspects of the design panel's work. It will, I hope, contribute to a clear understanding of the HS2 design panel process and the specific role that design panel members play within that process.

The work of the design panel is diverse: we are reviewing, advising, mentoring – depending on what best meets the needs of each project and team. There have already been successes – with improvements in the ambition, quality and consistency of the projects that we have reviewed. The handbook sets out in some detail the work of design panel: the HS2 design panel process; the contribution of its members; and the different types of meeting.

We hope that you will find the handbook a useful and informative guide.

Professor Sadie Morgan
Chair
HS2 Independent Design Panel

October 2016



Professor Sadie Morgan, Chair of the HS2 Independent Design Panel

2 Aspirations for HS2

I am delighted that the HS2 Independent Design Panel has been established and has started its work. It has already had an impact.

Given the scale and importance of HS2, every design task is critical. Everything that we create is designed and every design discipline is covered in our interpretation of design – which is set out in the HS2 Design Vision, under the themes of people, place and time.

HS2 Ltd will soon start work on an early works contract and seven massive civil engineering design-and-build contracts. And at the same time we will be undertaking the Parliamentary Design of Phase 2B.

We will be the client for the most intensive design effort that the UK construction industry has ever seen. And we need to be an intelligent client that uses design as a means to achieving the social and economic benefits that are the basis of HS2. The Independent Design Panel will play an important role in this as ‘critical friend’ advising on this work.

It is a mark of the significance of HS2 that the design panel has attracted such a wealth of talent from across many disciplines. This will help us to deliver the high speed rail network that we aspire to – one that will enhance the lives of future generations of people in Britain and that is admired around the world.

Sir David Higgins
Chairman
HS2 Ltd

October 2016



Sir David Higgins, Chairman of HS2 Ltd

3 Implementing the HS2 Design Vision

Why an HS2 Independent Design Panel

HS2 Ltd is committed to driving design excellence in every aspect of its work and the Independent Design Panel has been set up to support that ambition.

The HS2 Design Vision sets out nine principles grouped around three themes: People; Place; and Time. The design panel is using that framework to help the HS2 Ltd leadership, project teams and other partners to make the right design choices – and also to hold them to account.

Independence

The HS2 Independent Design Panel has been set up to provide professional expertise and advice to HS2 Ltd. The design panel must be fully independent if it is to be seen as credible by stakeholders and communities and trusted to act in the public interest. Design panel members must be able to say what they think – impartially and independently.

Although the panel is funded by and works closely with HS2 Ltd, it is independent. It has its own terms of reference and a governance structure that supports its independence and establishes its accountability.

A Governance Advisory Panel has been established, to keep the operation and effectiveness of the panel under review. This also helps inform reporting of key issues to HS2 Ltd and the Department for Transport (DfT). Its current members are:

Prof. Sadie Morgan	Chair
Tony Burton	Vice chair
Annie Coombs	Deputy chair
Caroline Cole	Deputy chair
Martin Stockley	Deputy chair

The panel is managed by an independent secretariat – Frame Projects. The secretariat is responsible for facilitating the panel's work, by co-ordinating a programme of reviews agreed with HS2 Ltd, recording the advice given at panel meetings, and reporting on strategic issues.

A diagram providing details of the governance meetings that are in place to ensure good communication with HS2 Ltd, panel members, and the DfT is provided at Appendix A.



Discreet fence integrated with landscape adjacent to HS1 © Arup

4 Principles of design review

HS2 INDEPENDENT
DESIGN PANEL

Advice given by the HS2 Independent Design Panel and its members will adhere to the following principles (based on widely accepted industry best practice 'Design Review Principles and Practice' by Design Council Cobe, Landscape Institute, Royal Town Planning Institute and the Royal Institute of British Architects)

Impartial

The advice is informed by independent experts, people who are unconnected with the scheme's promoters and decision makers, and it ensures that any potential conflicts of interest are managed in an open and transparent way.

Timely

The advice is conveyed as early as possible in the design process, because this can avoid a great deal of wasted time. It also costs less to make changes at an early stage.

Open

The advice on specific projects, such as stations, submitted for planning approval will be made public. Panel comments on strategy or guidance documents which have been published by HS2 Ltd will also be made public. The panel will also provide a safe environment for early design stage discussions to take place in confidence.

Expert

The advice is delivered by suitably trained people who are experienced in design, who know how to criticise constructively and whose standing and expertise is widely acknowledged.

Advisory

The advice will inform / influence the people who make decisions.

Accountable

The advice must be clearly seen to work for the benefit of the programme, with a view to enabling the project team to deliver against the sponsor requirements and adhere to the principles set out in the HS2 Design Vision. The advice will also fully take account of the budget restrictions and affordability limits set for the whole project.

Multidisciplinary

The advice combines the different perspectives of design and other specialist experts to provide a complete, rounded assessment.

Objective

The advice will be based on reasoned and objective criteria rather than the stylistic tastes of individual panel members.

Accessible

The advice and findings are clearly expressed in terms that design teams, decision makers and clients can all understand and make use of.

5 Panel remit

Range of expertise

The Independent Design Panel acts as an advisor and a critical friend to HS2 Ltd. It brings together a comprehensive range of design disciplines – extending beyond the more usual focus of design review panels on architecture and the built environment.

Design panel members are working at the highest level in the fields of architecture, landscape architecture, heritage design, urban design, town planning, environmental sustainability, and development delivery. Many design panel members have expertise in more than one area.

The composition of the design panel for each review is chosen as far as possible to suit the topic or scheme to be reviewed. Issues that the panel may be invited to advise on include:

- procurement
- urban design
- architecture
- engineering
- landscape
- operational design
- service design
- community engagement
- inclusive design
- sustainability

A number of criteria – within five categories – for determining where a contribution from the design panel will be appropriate and beneficial have been identified

Scale and use

- Large structures with great visual impact
- Public realm or landscape design schemes over a large area
- Projects above agreed capital expenditure threshold
- All stations

Potential

- Development of a unique technique or product
- Presents a design opportunity

Precedence

- Long-term usage, requiring flexibility over the life of the project
- Setting a precedent for HS2 or other projects
- Family of solutions, for example, surface treatment and fences

Site

- Schemes in Areas of Outstanding Natural Beauty (AONBs)
- Extraordinary impact on local surroundings
- Major impact on listed structures or sensitive landscapes

Public Benefit

- Schemes particularly relevant to quality of everyday life
- Significant impact on passenger / people experience
- The project conflicts with the design vision
- Contribution needed as an arbitrator on conflicting priorities
- Involvement required to manage reputation and / or controversy

6 Panel programme

HS2 is divided into three sections, with different programmes for completion. The map on the right shows the geographic extent of each phase, and the target dates for completion of each phase are below.

HS2 Phase **Completion**

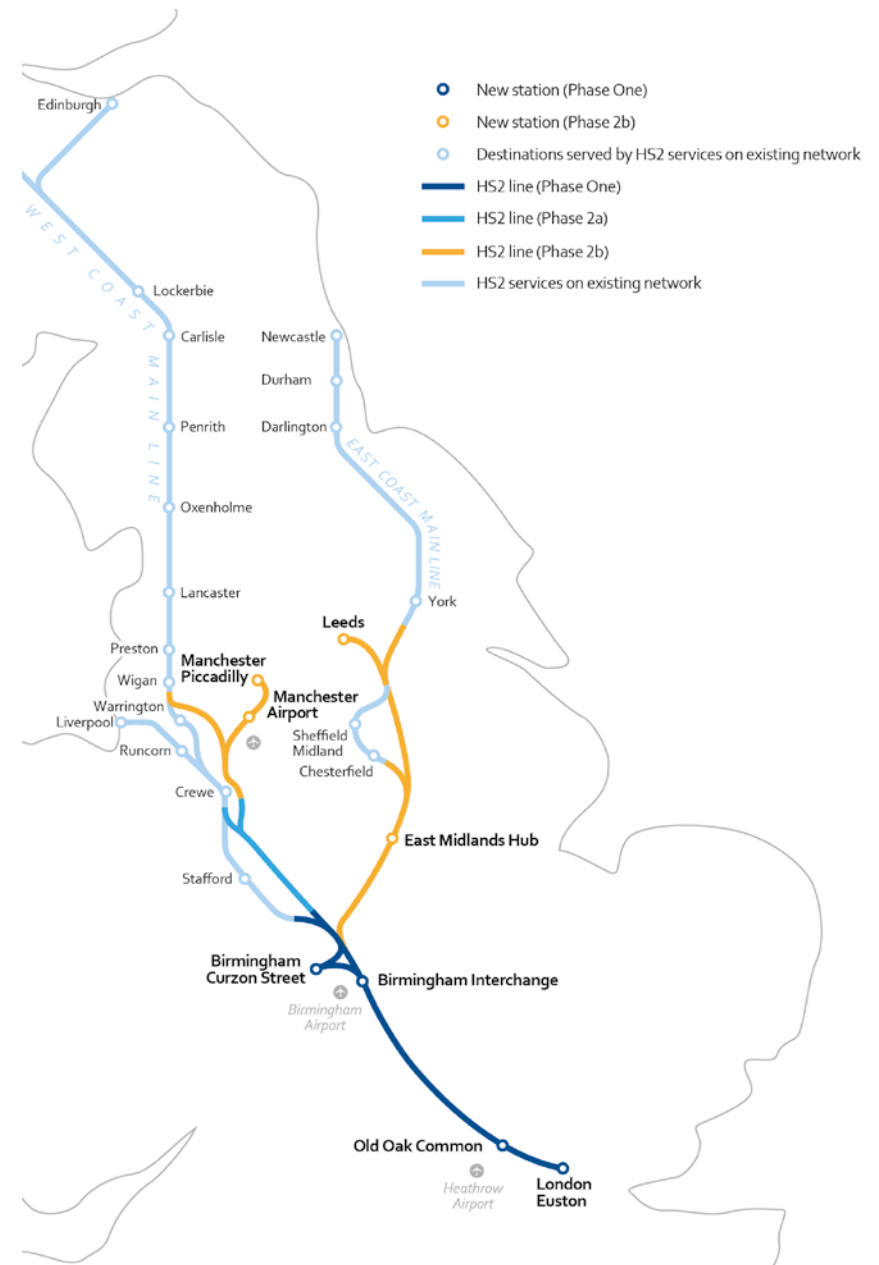
- Phase 1 2026
- Phase 2a 2027
- Phase 2b 2033

HS2 Ltd has also defined the following design stages for the purposes of managing the programme of design work for each phase.

- Parliamentary Design** - for the Hybrid Bill / to achieve Royal Assent
- Specification Design** - for design and construction contracts
- Employer Requirements Design** - scope for construction contracts
- Scheme design** - to obtain approvals and permissions to construct
- Detailed design** - for manufacture and construction

During the first year in which the panel has been in operation, a series of route briefings, tours and workshop meetings have been held, attended by both HS2 Ltd staff and selected panel members - this process has been repeated for each HS2 phase.

The purpose of this process has been to identify the projects and topics that would benefit from input from the panel. This has included agreeing the design stages (see above) at which each project or topic should be reviewed. Based on this, HS2 Ltd design managers will work with project leads to establish a schedule of dates for panel meetings.



7 Panel membership

Recruitment of the design panel

Professor Sadie Morgan, chair of the HS2 Independent Design Panel, was appointed by the Board of HS2 Ltd in early 2015. She subsequently oversaw the appointment design panel members, through a process managed by the secretariat of the panel, Frame Projects. Panel member contracts are with HS2 Ltd, but their participation in review meetings is managed by the secretariat to maintain the independence of the panel. A pool of around 45 design panel members have been appointed, representing a wide range of relevant professional expertise, and with experience of working in different locations within the UK and internationally.

Design panel members are appointed on the basis of their expert knowledge, professional credibility, critical and analytical skills – and also the ability to articulate comments clearly and sensitively.

To broaden the design panel's insights and understanding, there is an aim to achieve diversity - in terms of gender, ethnic background and age - in the design panel's membership.



The HS2 Independent Design Panel includes Simon Wright, Programme Director at Crossrail

8 Role of panel members

The role of a design panel member

At each review meeting, design panel members should:

- read the agenda and supporting information thoroughly before the meeting (panel members should assume they are not expected to spend more than half a day preparing for each meeting)
- attend site visits arranged for reviews
- bear in mind always that the first review of a scheme is vital – fundamental concerns must be flagged up at that stage, otherwise it will be difficult to raise them at a subsequent review
- feel comfortable commenting beyond their own particular specialism
- limit their comments to the subject under review – during the review meeting, so that HS2 Ltd has an opportunity to respond, and ensure that there are no misconceptions.

A review by the design panel offers the benefits of objectivity and an opportunity to raise issues that those involved with the project may not be aware of or able to recognise. Some criticism may be unwelcome to those who have committed time, effort and money to a project. Design panel members and the chair should be mindful of the

standpoint of the project team. For meetings to be effective, however, when necessary, the design panel must be able to voice fundamental criticism in front of those who have presented the scheme under review, as opposed to expressing them in private later.

For the design panel to work effectively, the highest levels of professionalism and conscientiousness are crucial.

Design panel members are expected to:

- abide by the seven Nolan principles of public life: selflessness; integrity; objectivity; accountability; openness; honesty; and leadership
- treat the design panel's discussions and advice as confidential, whether or not the advice has been made public
- refrain from expressing individual, personal opinions publicly if they differ from those agreed by the design panel
- respond as appropriate to any request for declarations of interest.

Conduct outside panel meetings

It is important that design panel members provide their advice in the context of design panel meetings – and not through any other channel. It is at design panel meetings

that HS2 Ltd and its design teams present information about the project, participate in the design panel's discussions, and hear its conclusions and recommendations. This allows for an open dialogue with HS2 Ltd and ensures that there are no misconceptions around the advice provided by panel members. Ensuring that the panel's recommendations are made during meetings also allows for a consensus view to be formed by those panel members attending. The discussion during each meeting and recommendations made by the panel are recorded by the secretariat in a report, which is signed off by the chair of the meeting.

Design panel members are therefore specifically requested not to make additional comments outside panel meetings.

Discussion between panel members – where HS2 Ltd has no opportunity to contribute or respond – is not best practice. Equally, design panel members should not contact HS2 Ltd staff directly to convey their individual views on the project under discussion. If a design panel member wishes to make any additional comments to those made at the meeting, these should be directed to the secretariat, Frame Projects, and / or the design panel chair.

9 Panel process

Role of the secretariat

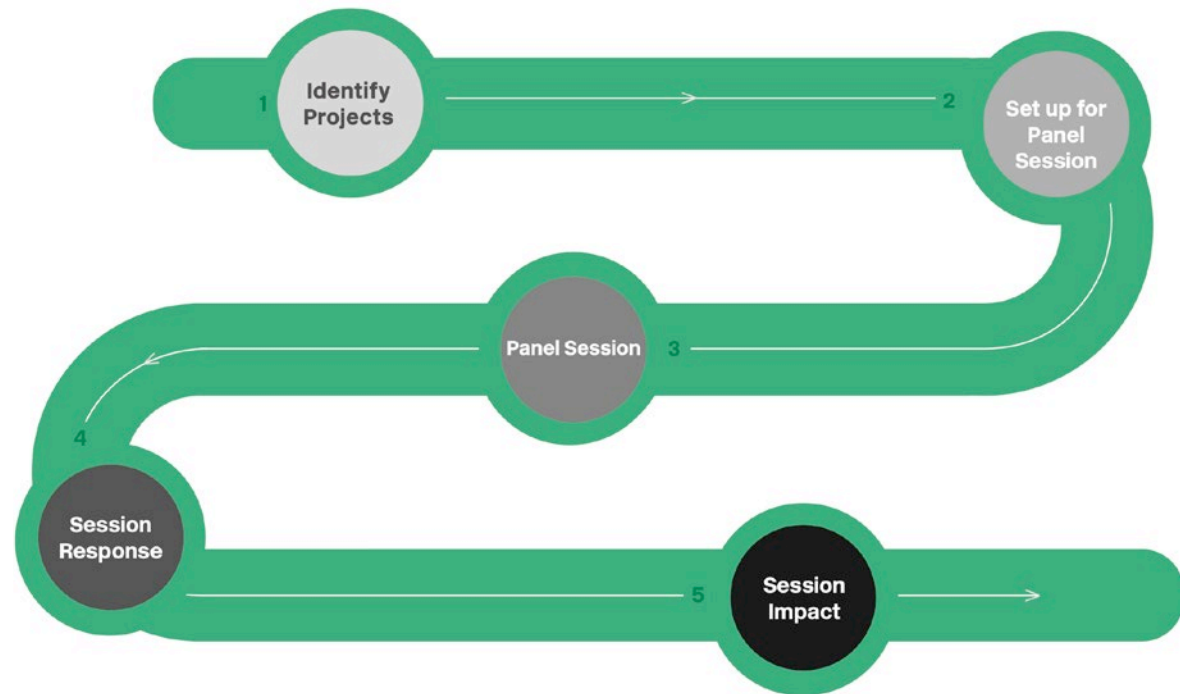
The HS2 Independent Design Panel is supported by an independent secretariat – Frame Projects. The secretariat is responsible for: setting up the design panel; the day-to-day running of the design panel’s activities; and relaying the design panel’s advice to relevant HS2 Ltd staff.

Process map

A clear and transparent process has been put into place to ensure that design panel meetings are organised efficiently and effectively – so that everyone knows what is required and at what stage. This is described in more detail through a process map (right) provided in full at Appendix B.

The process map sets out the way in which projects that would benefit from input from the panel are identified. It describes the work that is done in the run up to design panel meetings, by HS2 Ltd, their design teams, and the secretariat.

The panel session is the element of the process that panel members are most involved with, and the report of this is drafted by the secretariat and signed off by the chair, before being sent to all attendees.



Importantly, the process map sets out how HS2 Ltd responds to panel recommendations: through debrief meetings, at which actions to be taken are agreed, and recorded in response forms, which are then circulated to attending panel members.

Ultimately, the impact of the meeting may be not only on the specific project or topic under review - but also on the wider programme of HS2 design work. This is particularly important to ensure that lessons learnt from Phase 1 are applied to Phase 2.

10 Types of meeting

There are three different types of HS2 Independent Design Panel meeting :

- a full design panel – for the most significant and/or complex schemes
- a workshop design panel – for significant schemes or HS2 strategies / documents
- a desktop design panel – for smaller schemes or mentoring sessions.

Full design panels

A full design panel meeting is suitable for larger projects such as stations, and those civil engineering projects that have a significant impact on landscape and communities. Other schemes may also warrant a full design panel, for example, where they may have a major impact on an historic context, or where complex issues require a broad range of expertise. The chair and four design panel members would normally attend.

Where relevant, planning authorities will be invited to attend and asked to give their views after presentation of the scheme.

Full design panel meetings generally take place when the scheme's fundamental principles are established, and there are sufficient drawings, models and other information for a comprehensive discussion.

A site visit will take place before the first full design panel meeting for each scheme, to ensure that the design panel has a solid understanding of the context.

The scheme will be presented by a member of the design team, normally the lead engineer or architect, following a brief introduction by HS2 Ltd. Presentations may be made with drawings and / or pdf or PowerPoint and models, as appropriate.

A full design panel meeting typically lasts for 90 minutes:

- 10 minutes introductions and briefing on planning context
- 35 minutes presentation
- 45 minutes discussion and summing up by the chair

Larger projects may be split into smaller elements, to ensure that each component receives adequate time for discussion, for example, station design and over site development proposals.



Curzon Street Station has been the subject of several full design panel meetings

Workshop design panels

Workshop design panel meetings may be arranged for thematic topics such as HS2 Ltd design approach documents, procurement strategies, or significant engineering projects and architectural projects other than stations, such as ventilation shafts. The chair and two design panel members would normally attend.

Where relevant, HS2 Ltd will brief the design panel on its discussions with planning authorities, and other key stakeholders – including any public consultation.

Workshop design panel meetings may take place when draft design approach documents / strategies are available for comments, and there is sufficient information to inform a comprehensive discussion.

Site visits are not usually required for workshop design panel meetings – although, where relevant, design panel members who have attended route tours and are familiar with the site will be invited.

The scheme may be presented by the HS2 Ltd project lead or a member of the design team. Presentations may be made with drawings and / or pdf or PowerPoint and models, as appropriate.

A workshop design panel typically lasts for 90 minutes:

- 10 minutes introductions and briefing on planning context
- 35 minutes presentation
- 45 minutes discussion and summing up by the chair

Larger projects may be split into smaller elements, to ensure that each component receives adequate time for discussion.

For example, a civil engineering contract that includes several viaducts may require a discussion of general principles, followed by site specific comments.

Desktop design panels / mentoring

Where HS2 Ltd requires advice focussing on a specific issue, or comments on smaller projects, a desktop design panel meeting or mentoring session can be arranged.

Desktop design panels will most often be appropriate at early design stages, to help HS2 Ltd develop its design strategies and approach to commissioning design work. Often just one design panel member attends, or the chair together with another design panel member.

Where relevant, HS2 Ltd will brief the design panel on its discussions with planning authorities, and other key stakeholders – including public consultation.

Presentations may not be required – but documents may be circulated to design panel members to allow them to prepare before the meeting.

A typical desktop design panel lasts 60 minutes, with the format / timing tailored to the subject of the meeting. Generally, presentations are kept short to maximise the time for contributions from the design panel.



Desktop design panels might be appropriate where HS2 Ltd requests panel advice on a specific technical issue, such as biodiversity

11 Site visits

Wherever possible, site visits are arranged for full design panel reviews (unless it is a repeat review). All design panel members are required to attend site visits.

Route tours have also taken place to inform workshop discussions between the HS2 Independent Design Panel and HS2 Ltd about the topics of future panel meetings. A small group of panel members, including the chair or vice chair, has been invited to attend tours for Phase 1, Phase 2a and Phase 2b.

For location specific projects, such as HS2 stations, local authority officers are invited to attend the site visit, to allow them to brief the panel on the planning context, and share their local knowledge.



Site visits by the HS2 Independent Design Panel ensure a good understanding of context, for example heritage and cultural assets © Chrislofotos

12 Agendas and reports

Design panel agendas

Agendas for design panel meetings are issued to design panel members in advance of each review.

For full design panels, the agenda and supporting information will normally include:

- notes on the planning context
- details of the schemes to be considered, including consultant teams
- a scheme description setting out factual information
- key plans and images

Design panel reports

During the design panel meeting, a member of the secretariat, Frame Projects, takes notes of the discussion – and these form the basis of design panel reports. Reports are drafted, circulated to the design panel chair for comments and agreement, and issued within 10 working days.

Reports are shared with the design panel members who participated in the meeting, as well as all those who were present at the review - as well as and any other relevant HS2 Ltd staff and stakeholders who were not able to attend.

The report summarises the comments and advice provided by the design panel and clearly sets out specific recommendations for implementation by HS2 Ltd. HS2 Ltd is responsible for putting into place mechanisms for implementing the design panel's recommendations and monitoring progress.

Design panel reports are confidential, until the project or topic which is the subject of the meeting becomes public. This may be when a specific project, such as a station, is submitted for planning consent, or when a strategy or guidance document is published by HS2 Ltd.



Forth Rail Bridge
now 126 years since its completion in 1899 ©
George Gastin / Wikimedia Commons

13 Communications

Keeping panel members informed

The HS2 Independent Design Panel will be undertaking much work over the coming years. It is important that its members, as well as contributing to individual reviews, know what is going on more widely and feel part of the HS2 project as a whole.

Design panel members will be kept informed of the activities of the design panel by:

- e-mails from the chair and secretariat
- design panel newsletters (at least nine per year)
- design panel case studies (at least nine per year)
- annual panel update meeting

Newsletters

Newsletters will include information on the design panel's activities, recent developments, and also an insight into some of the people involved in the design panel process. For example, the July 2016 newsletter was used to announce the appointment of Tony Burton as vice chair of the HS2 Independent Design Panel, along with Caroline Cole and Annie Coombs as deputy chairs.

Case studies

Case studies will focus on a specific aspect of the design panel's work – for example, reviews undertaken by the design panel; its advice and recommendations; and the impact of its contribution.

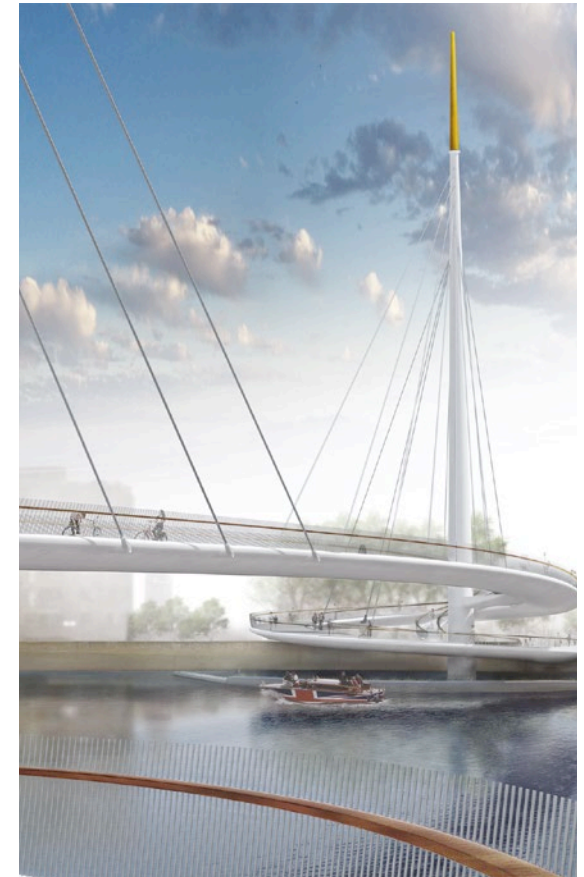
Quarterly chair's reports

A public report will provide an overview of the design panel's activities. It will provide analysis of key issues raised at meetings during previous quarter, highlighting both successes and opportunities for improvement.

Web page on GOV.UK

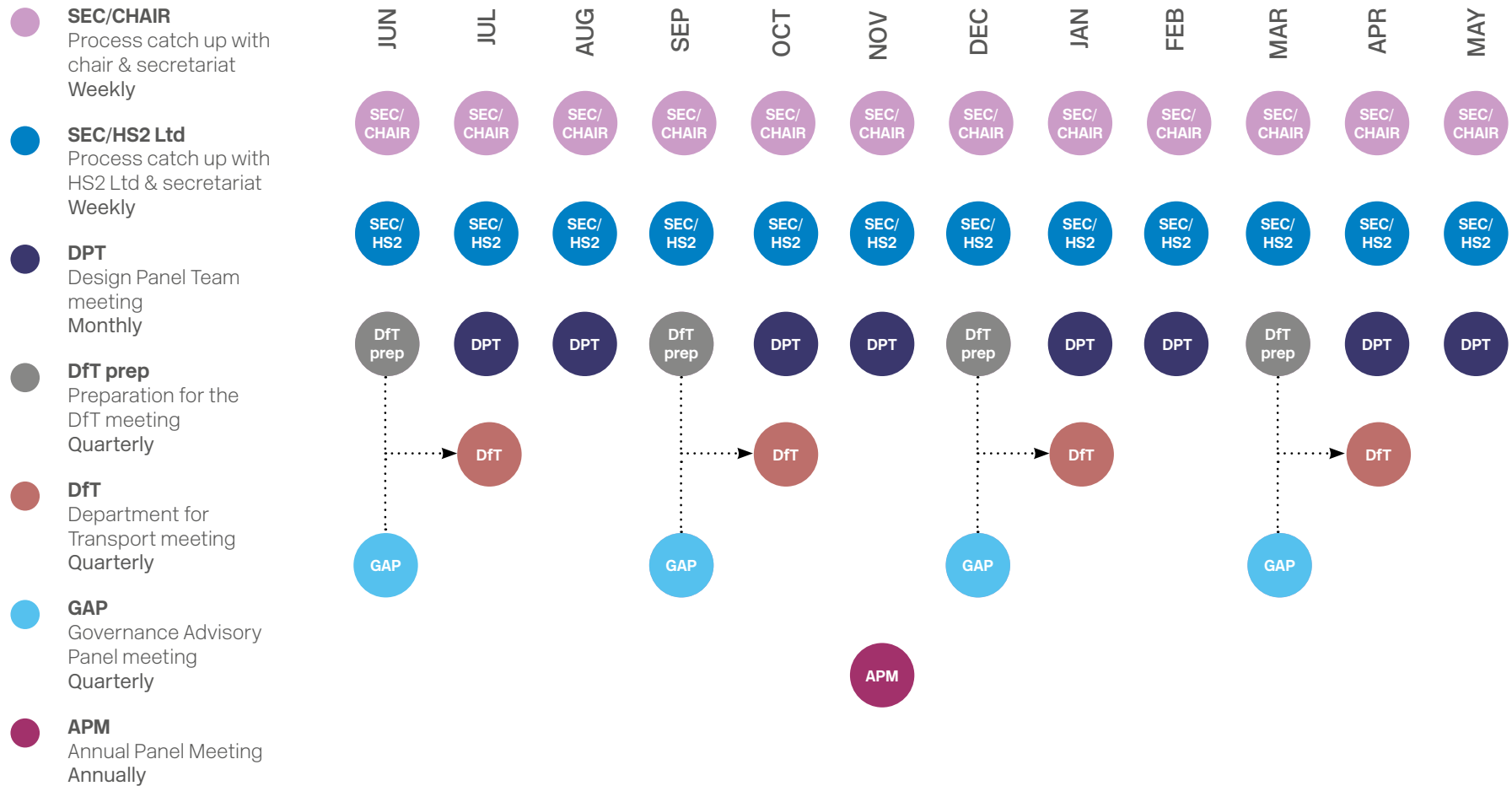
As a further measure to provide information about the design panel's activities to the public, a web page will be set up on GOV.UK, which will include the following items:

- HS2 Design Vision
- HS2 Independent Design Panel Handbook
- terms of reference
- biographies of panel members
- newsletters
- case studies
- quarterly chair's reports



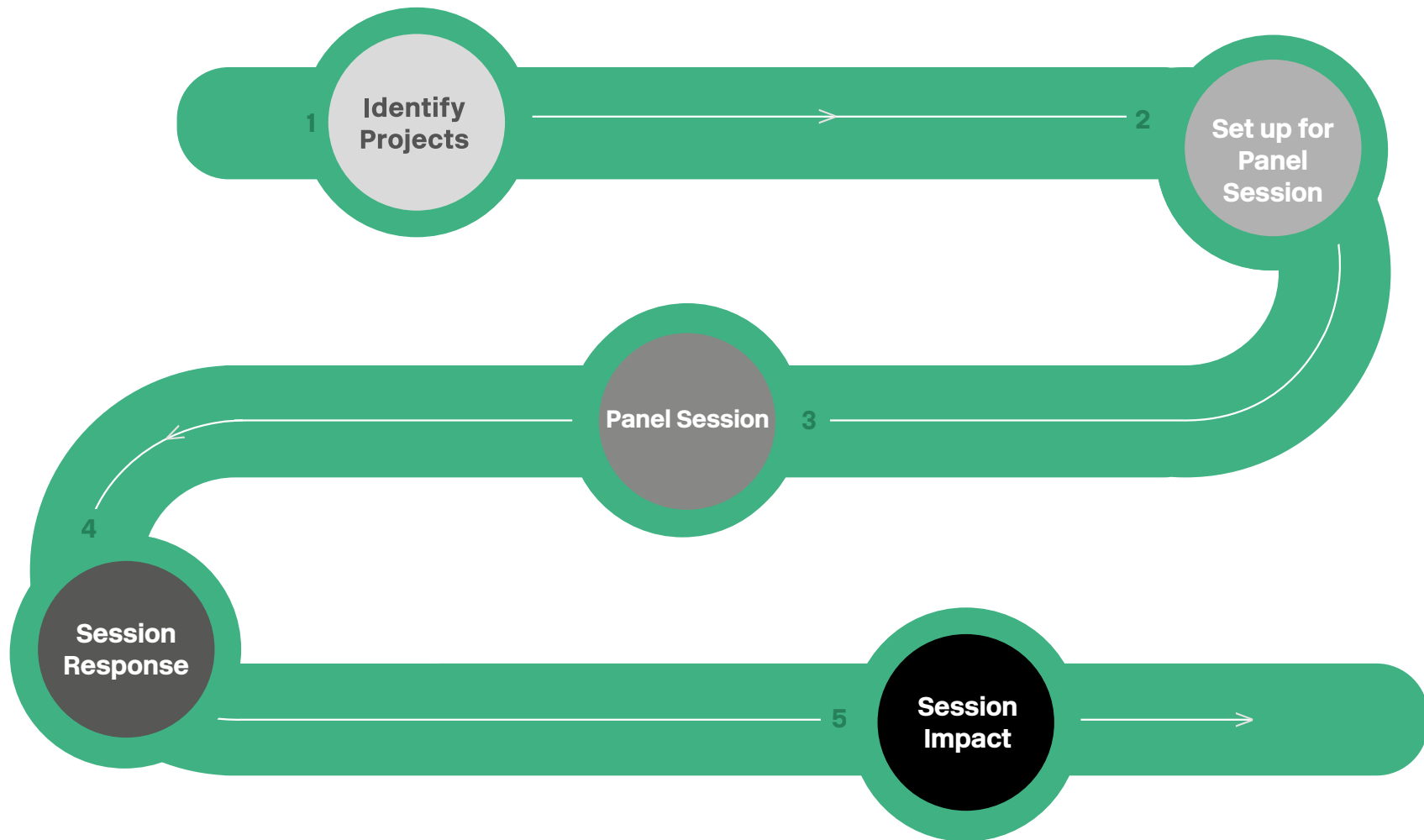
Bystrup Architecture's winning scheme for the Nine Elms to Pimlico Bridge competition, organised by Caroline Cole's consultancy, Colander

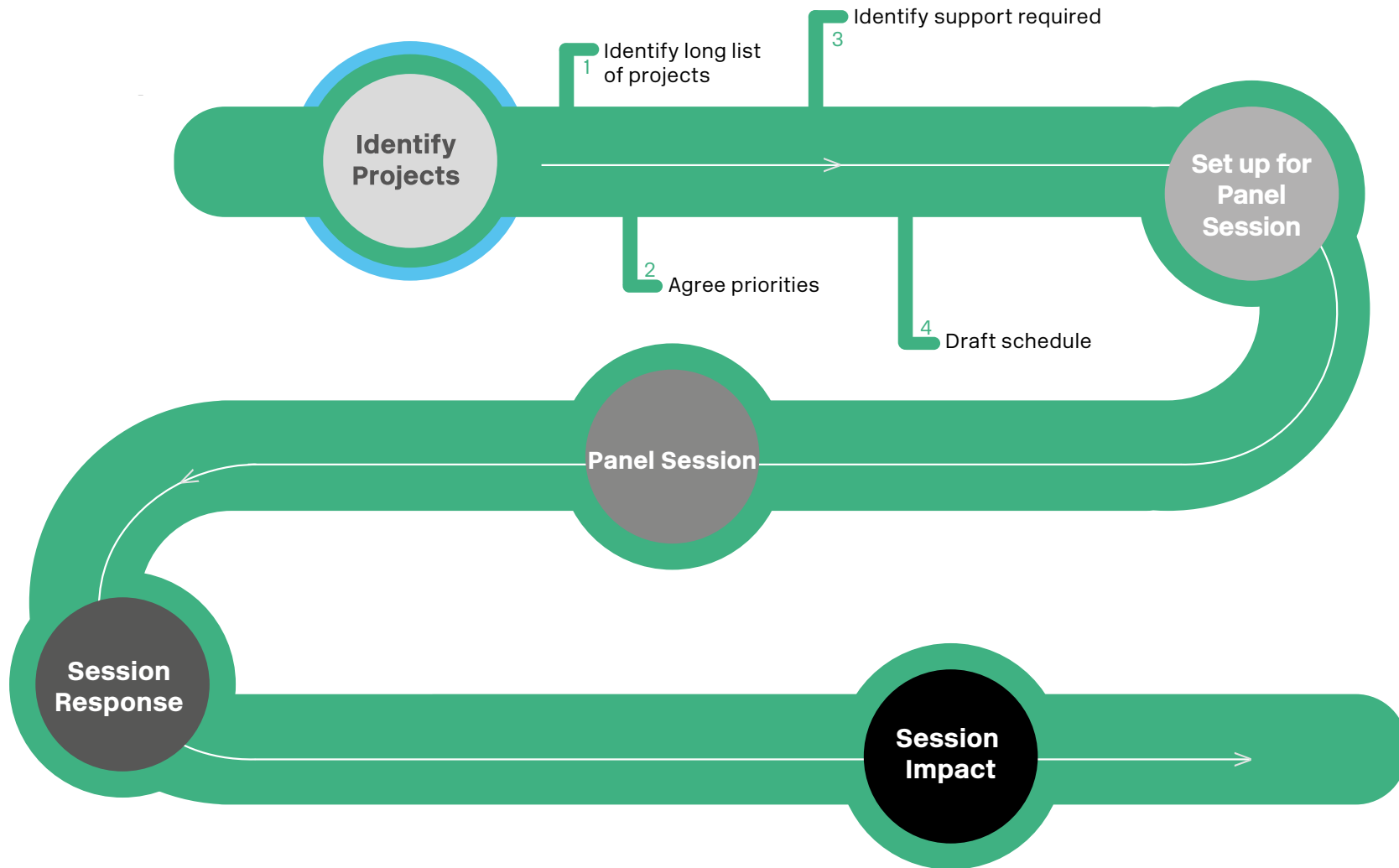
Appendix A: governance meetings

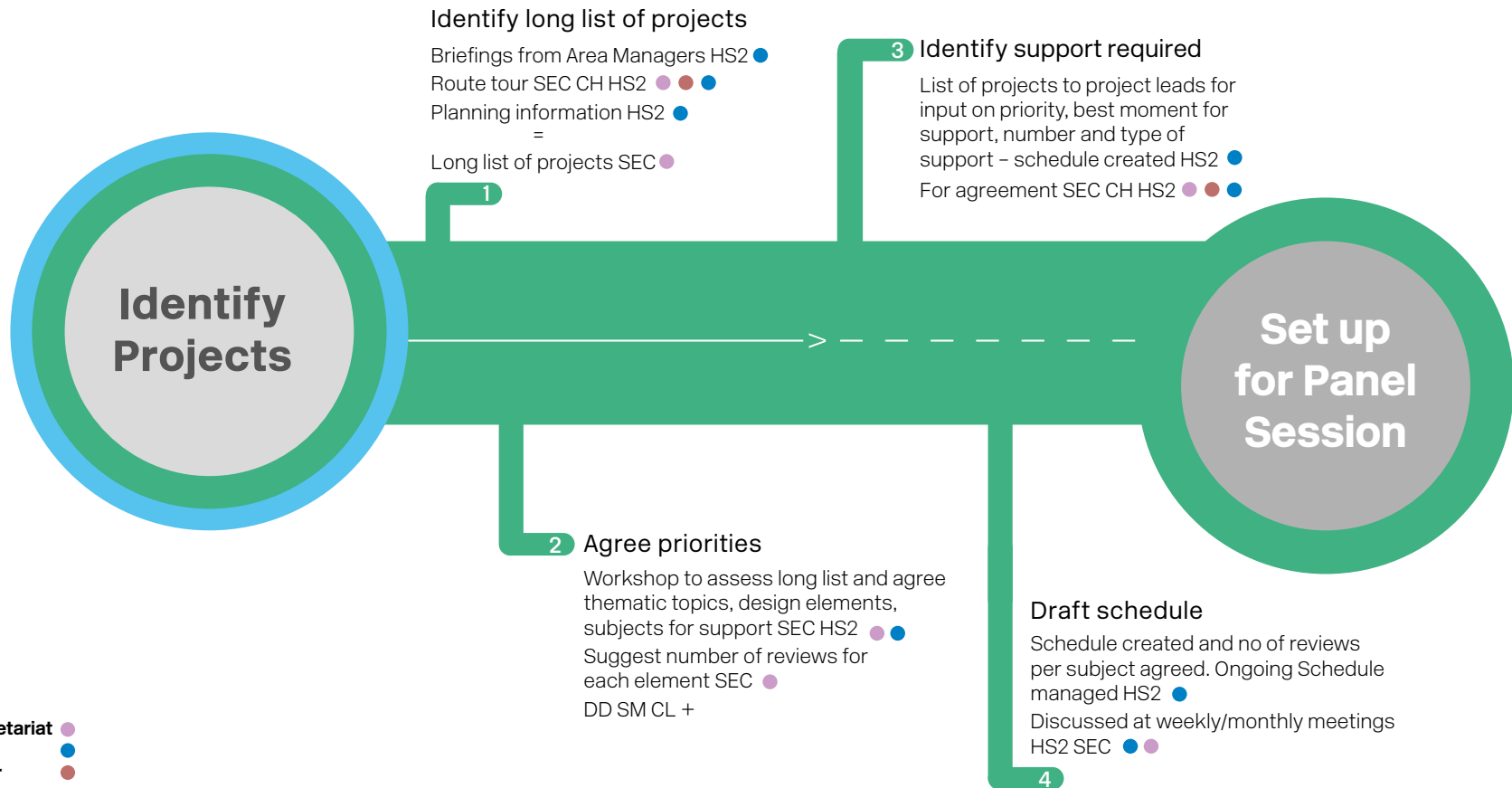
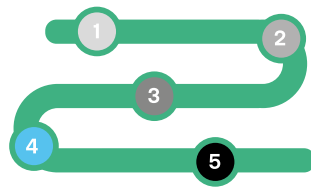


SEC - Secretariat to the HS2 Independent Design Panel (Frame Projects)

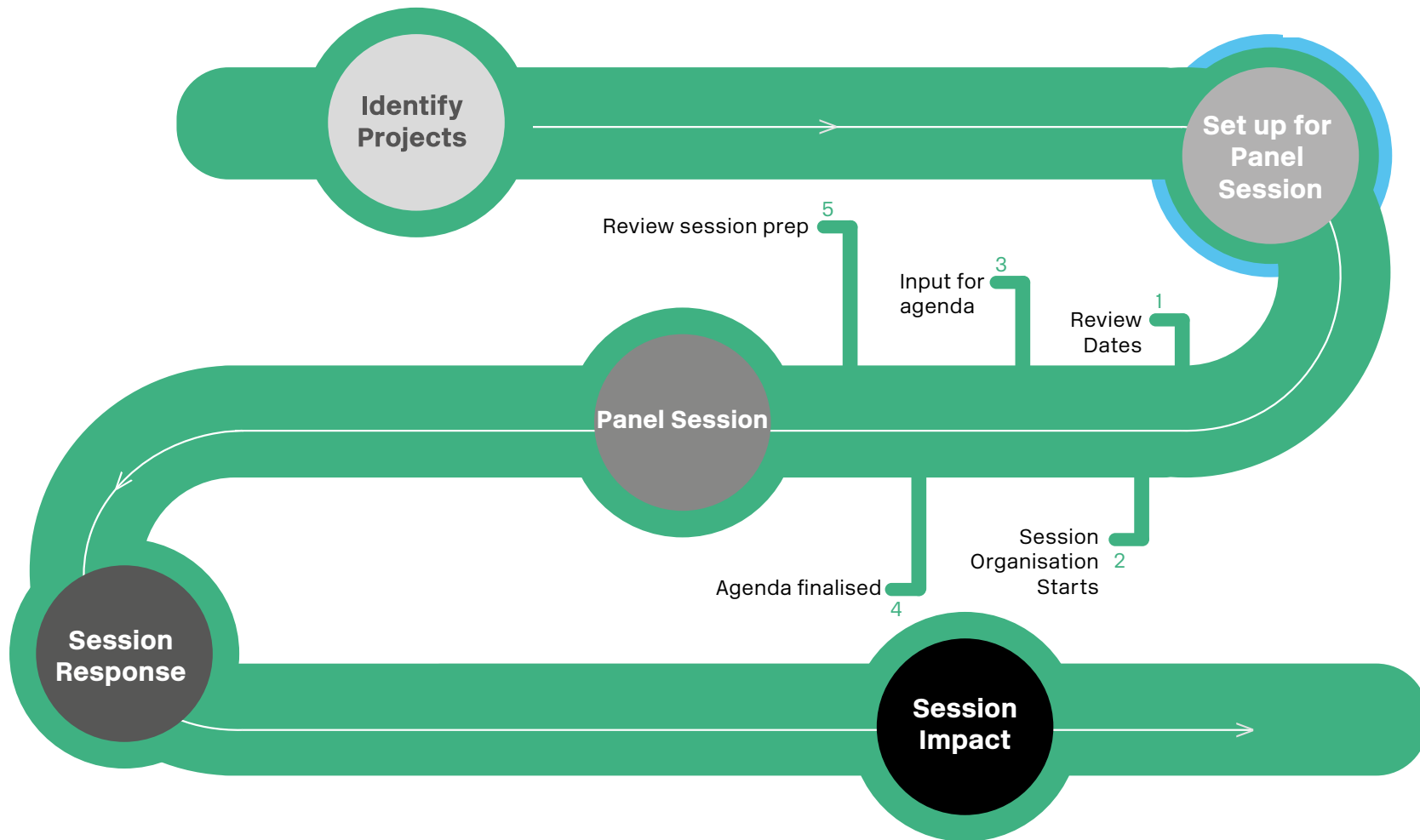
Appendix B: process map

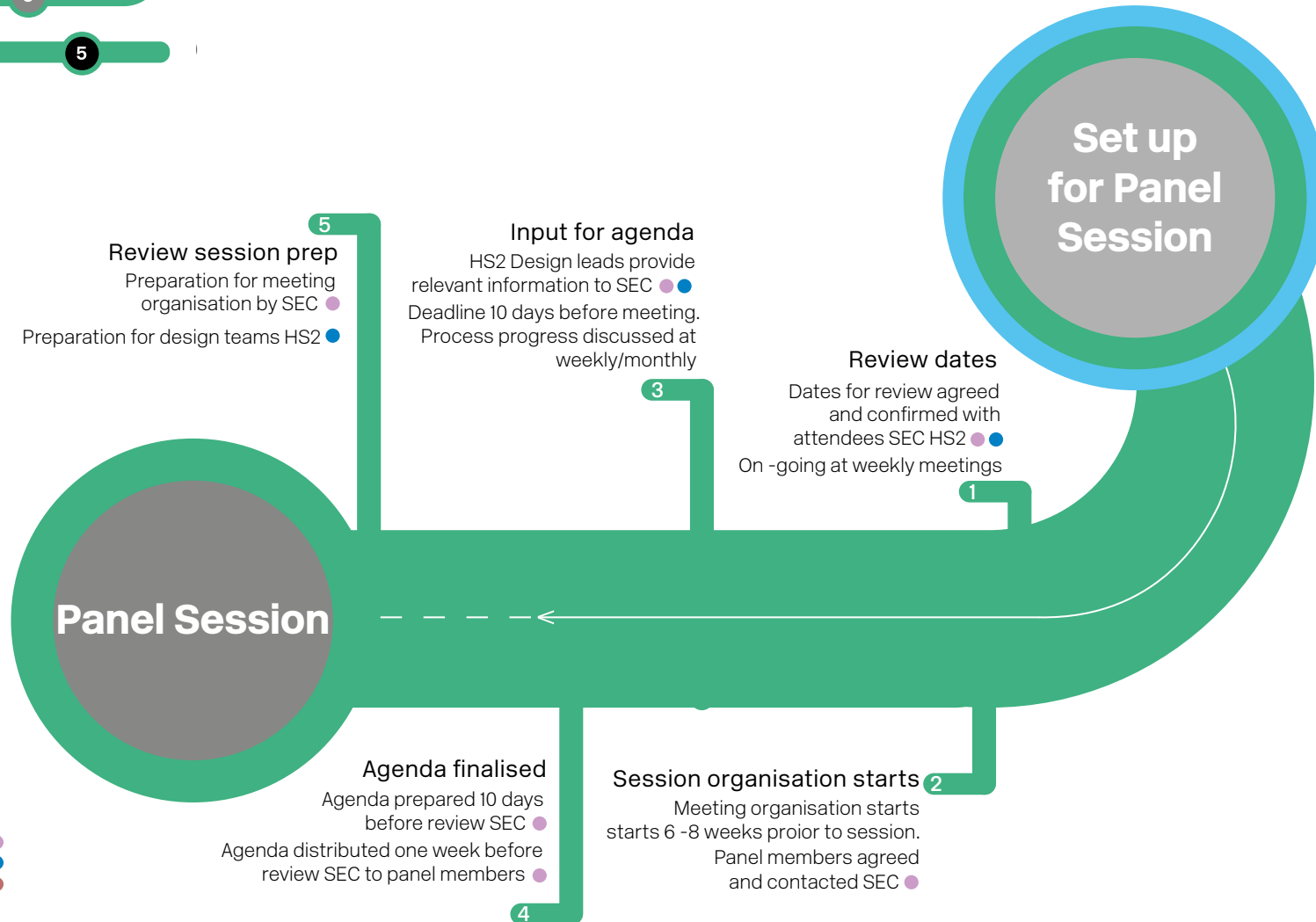
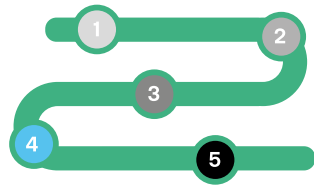


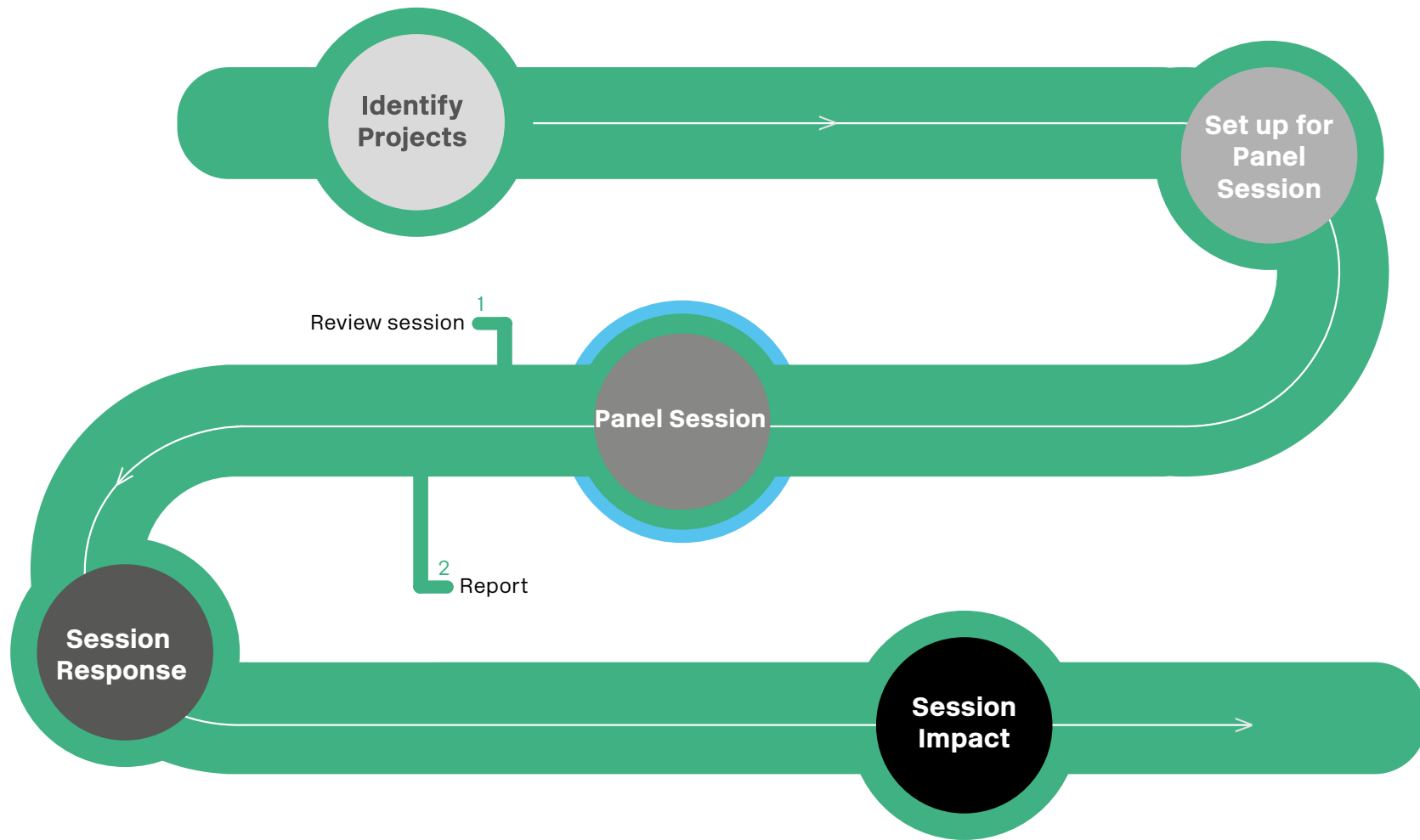


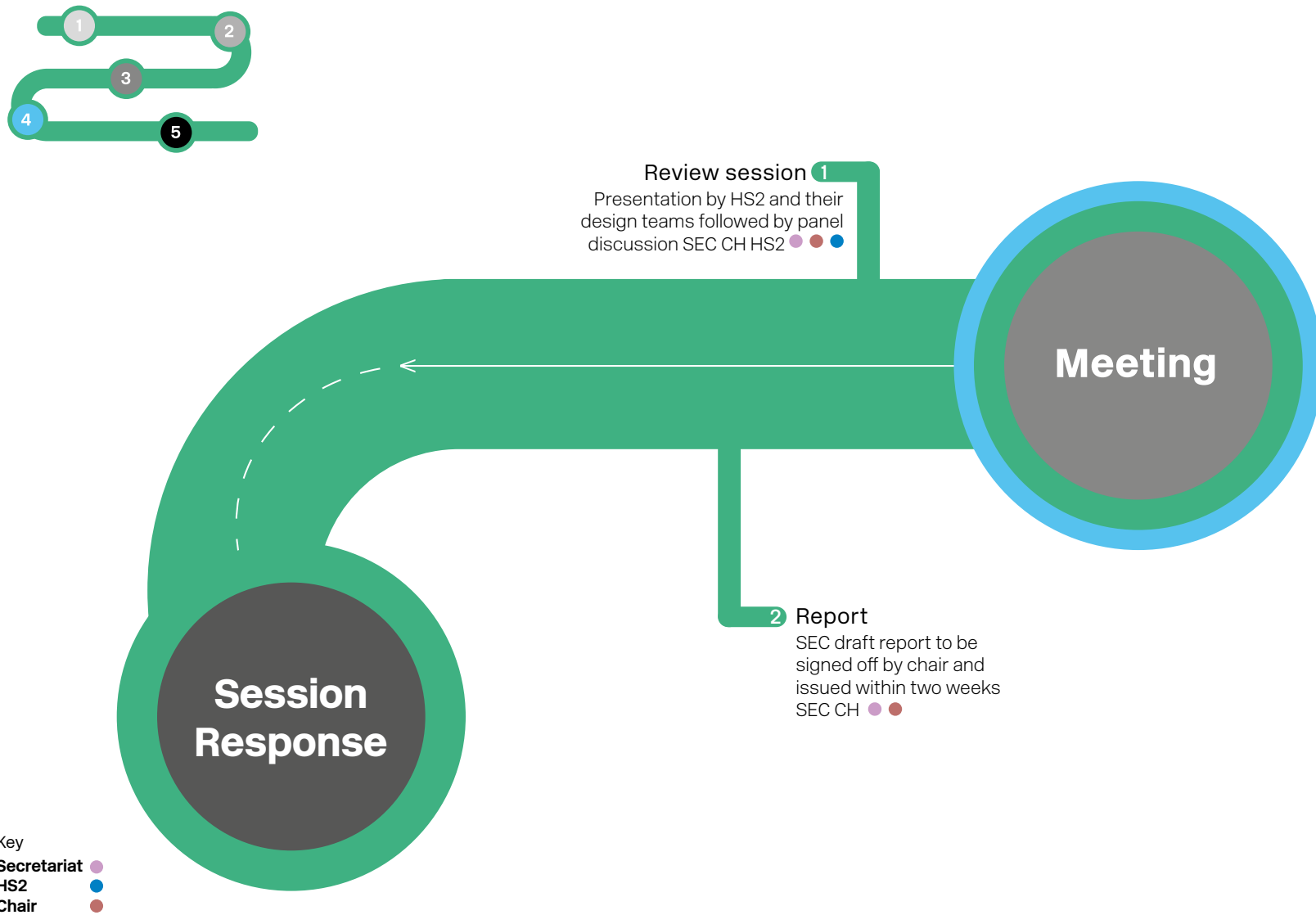


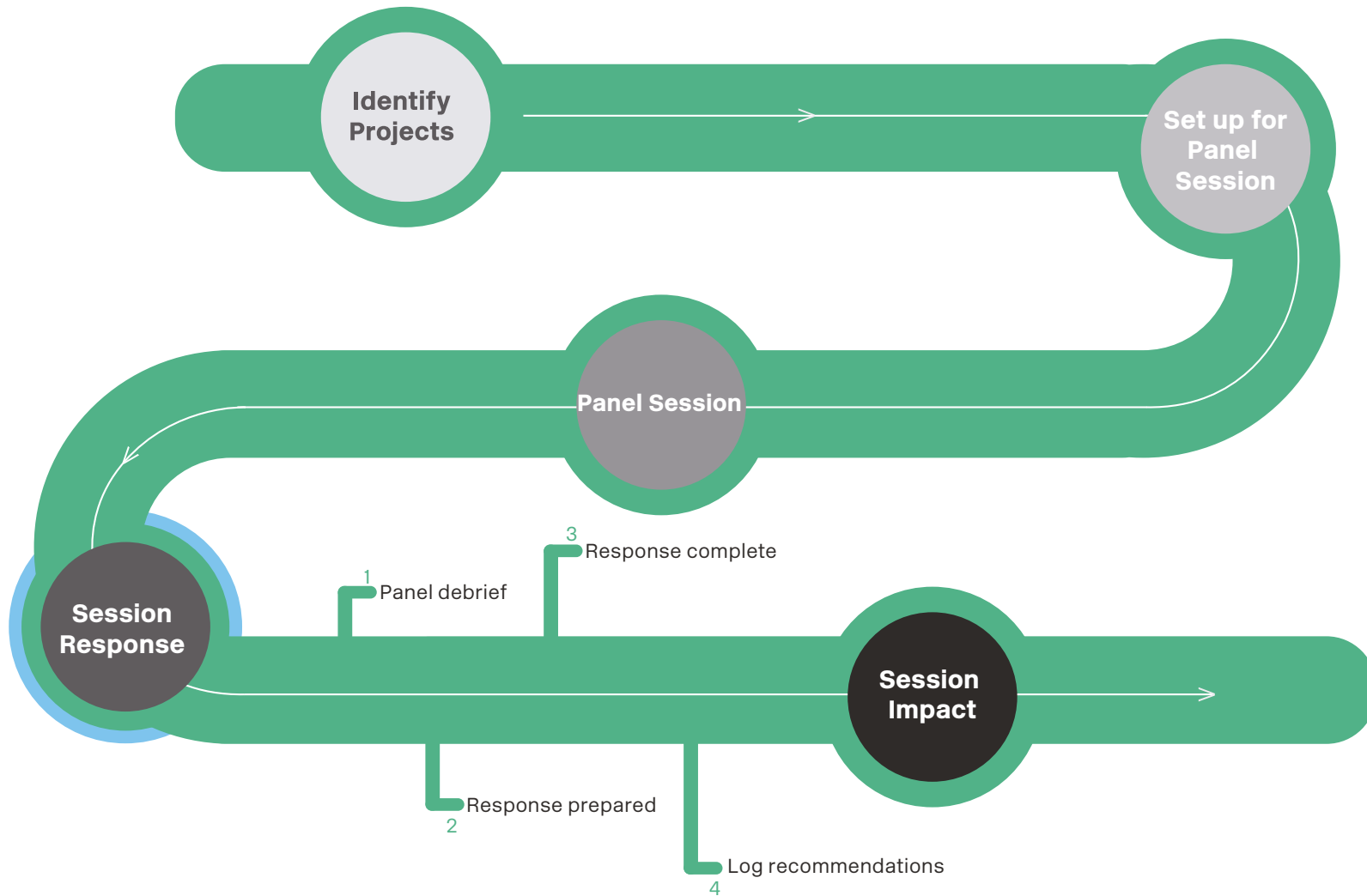
Key
Secretariat ●
HS2 ●
Chair ●

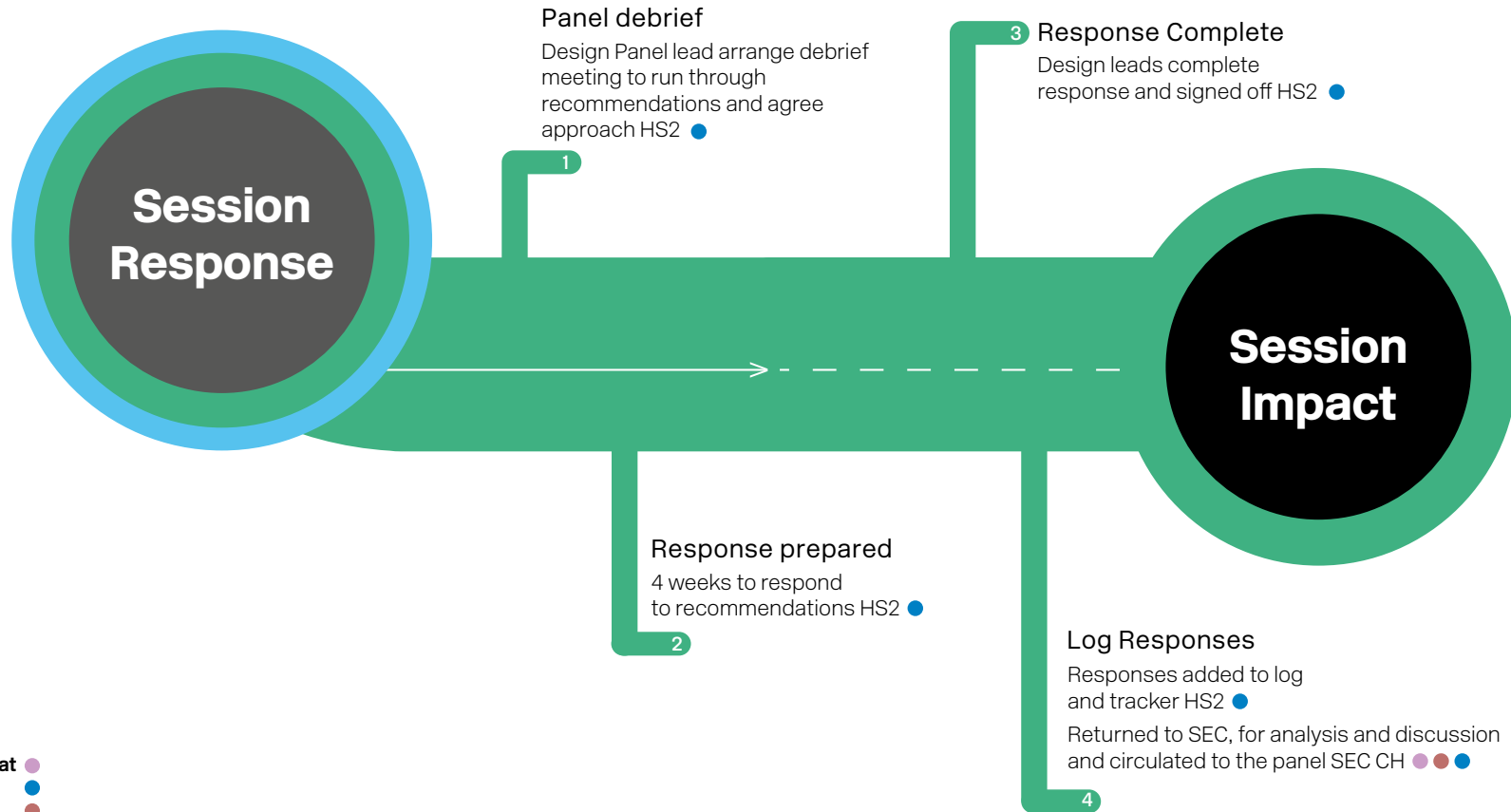
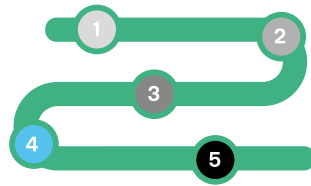




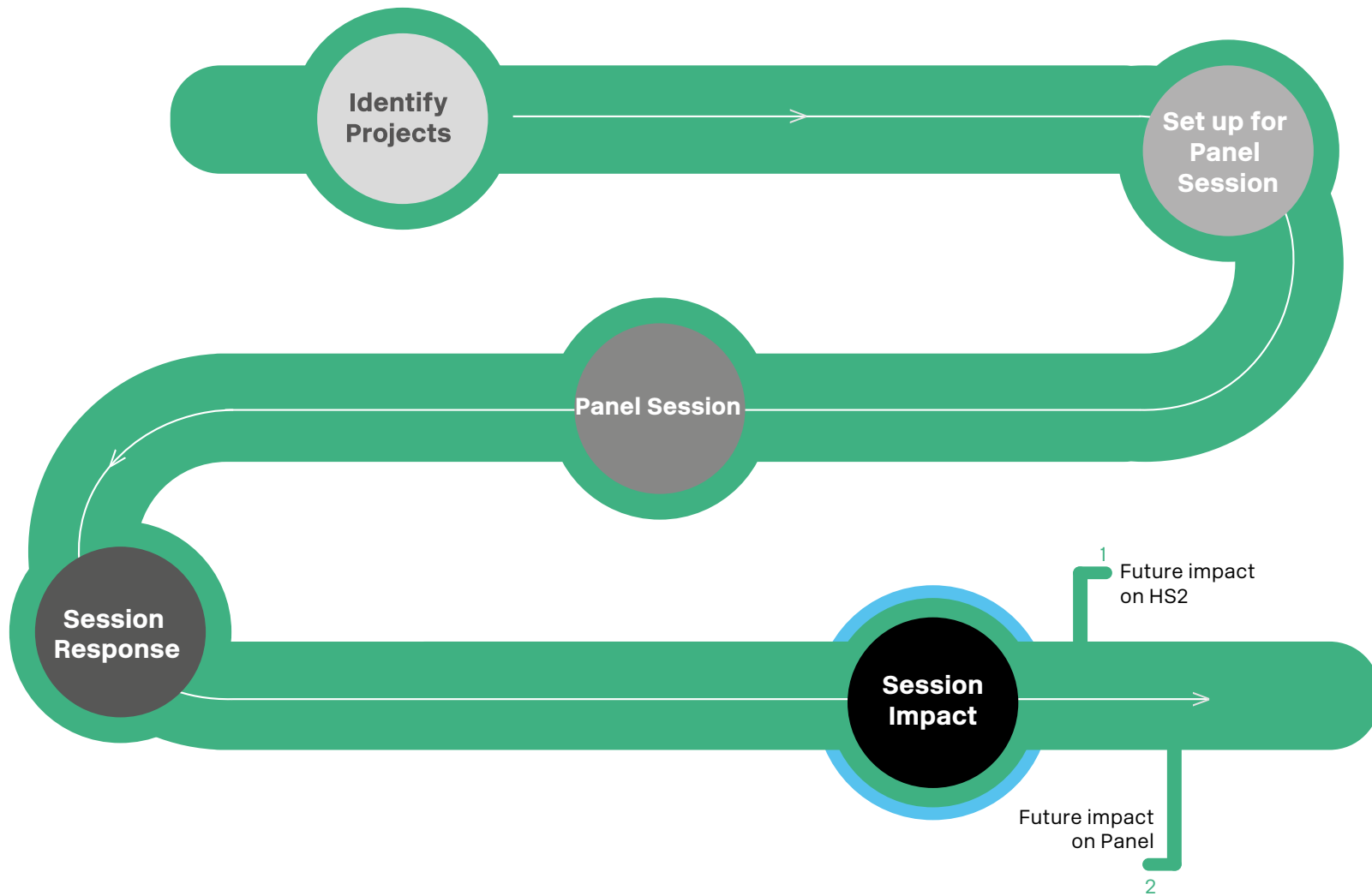


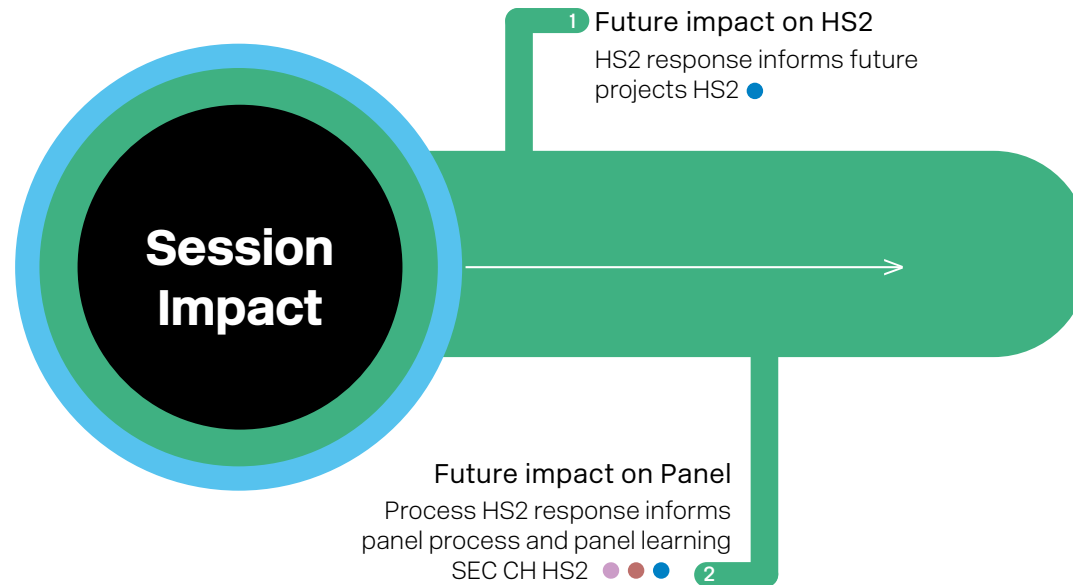
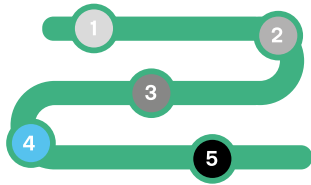






Key
Secretariat ●
HS2 ●
Chair ●





- Key
- Secretariat ●
 - HS2 ●
 - Chair ●



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