

RIO, Multiple value creation and Design Thinking

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designing unfolds in a world that is already interpreted where people are already acting, where options are constrained, where control is minimal, and where things and options already matter for reasons that are taken-for-granted - Karl Weick

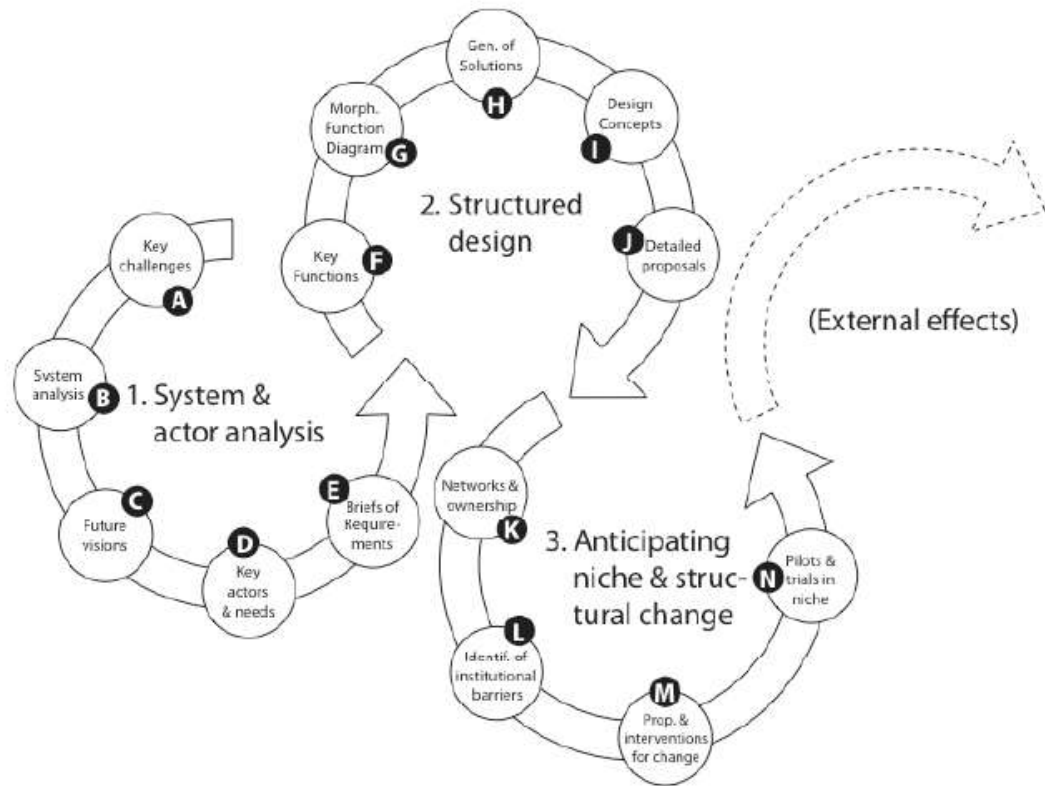
From the TransB proposal

- In just a few decades, cities are to become carbon neutral and climate proof and circular. **This project uses design thinking to co-create new options and foster competences and behavioural change** of professionals and citizens in four settings. **It also seeks lessons about wider changes that are needed**
- Conceptually, the project will generate lessons about the **recursive** aspects of transitions and behaviour, based on the experiences with four projects that apply multi-functional thinking.

What the proposal says about design

- Methodologically, co-creation projects (as conceived) **will yield lessons about [needs and] resistance and ways of dealing with those via synergetic design** not only of innovations per se, but also on the institutional, discursive and material contexts of the practices for their use and governance. Methods of **participatory design** (Ehn, 2008), **adversarial design** (di Salvo, 2015) and interactive technology assessment (Grin & Van de Graaf, 1996) and boundary work (Velter et al., 2018) are combined with insights from innovation science and transition studies on how to achieve second-order reflexivity (Voß and Kemp, 2006), i.e critically review incumbent structural contexts.
- **Reflexive interactive design** (Grin et al., 2004; Bos & Groot Koerkamp 2007) will provide the overall methodological framework for such integration.

HOW? Working on system innovation



Reflexive Interactive Design (RIO) = Methodology to facilitate system innovation

- **Reflexive:** continuous reflection on goals, assumptions and frameworks
- **Interactive:** Work together with stakeholders
- **Design:** systematic way of designing technical systems and associated governance arrangements

Reflexief Interactief Ontwerpen (RIO)

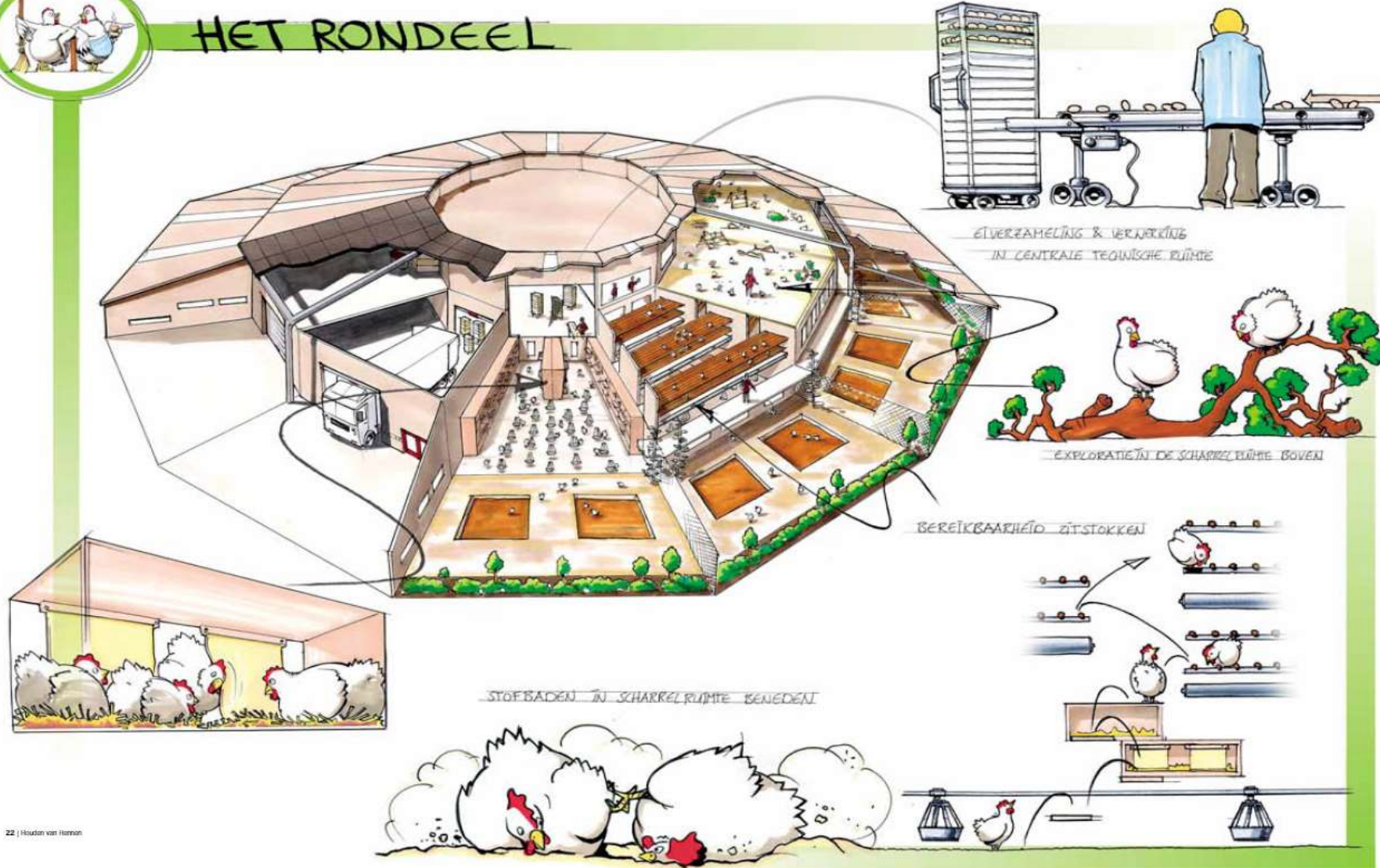
ontwikkeld door Bram Bos en John Grin

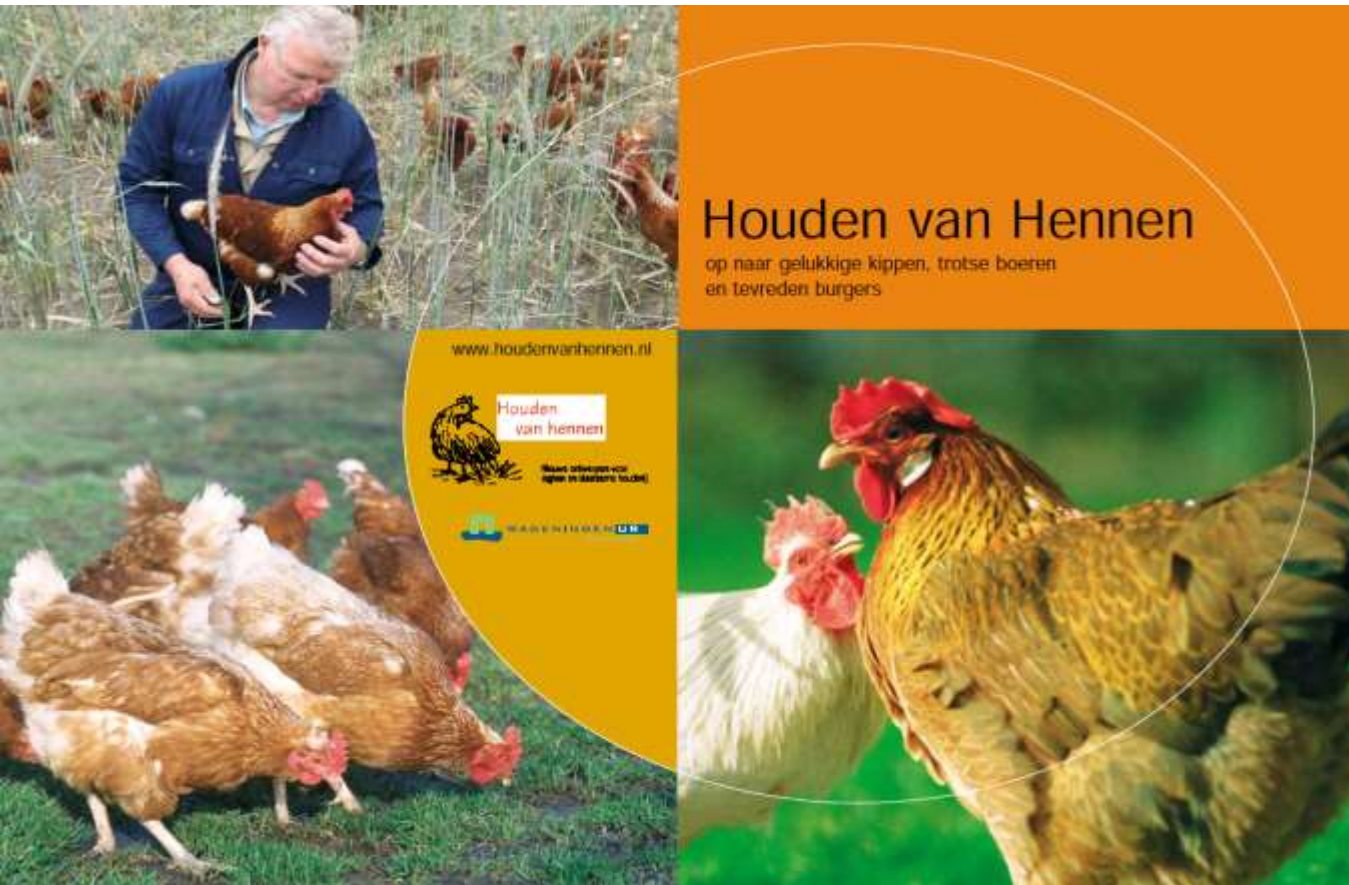
- **Denken (thinking)**
 - Reflection on needs and assumptions
 - Analysis of dominant structures
- **Ontwerpen (design)**
 - Equal attention to technical, emotional and ethical needs
- **Doen (doings/action)**
 - A phased approach to implementation by making use of the improvement perspectives of actors and institutional work to deal with external constraints

Rondeel-eieren als meervoudige waardecreatie: dierwelzijn, trotse boeren en tevreden burger-consumenten



HET RONDEEL





Kenmerken:

- alles onder één groot dak en geen contact met andere vogels;
- centrale eierverzameling en sortering, en overzichts-ruimte;
- de scharrelruimte biedt voldoende uitdaging;
- in het hok zijn de ruimtes voor rusten, eileggen en eten en drinken slim en intensief bij elkaar samengebracht;
- twee klimaatzones gecreëerd

Ondersteunende innovaties, activiteiten en instituties

- Certificaat van dierenwelzijn (van NGO)
- Afzet via retailers (w.o. AH)
- Speciale verpakkingen (van zetmeel in de vorm van een rondeel)
- Mensen kunnen het rondeel bezoeken
- Videos

Quotes about design

- **By design, we mean the giving of form to an idea**—shaping artefacts and events that create more desirable futures.” This begs the question “*desirable for whom?*”
- [...] **designing unfolds in a world that is already interpreted where people are already acting**, where options are constrained, where control is minimal, and where things and options already matter for reasons that are taken for granted. These taken-for-granted reasons are lost in history and hard to retrieve, if retrieval were even an issue. **The question “*why are we doing this*” seldom comes up in the mood of thrownness because acting with what is at hand is primary and detached reflection secondary.** Source: Weick, K.E. 2004. p. 75).

RIO is an approach for *doing* reflexive modernisation (Bos and Grin, 2008). It is rooted in the recognition (Grin, 2004; Grin et al., 2004) that earlier forms of technology assessment do not fit problems that require structural change as well. It is a specific form of deliberative or participatory technology assessment (Gutmann and Thompson, 1996; Grin *et al.*, 1997; Bellucci and Bellucci, 2002) that adopts *design* of both the technical and social features of societal systems for production and consumption as its central activity and focus of deliberation. **In this way, definition of both the problem and the solution takes place in a reciprocal and iterative argumentative exchange between stakeholders, and the people needed for implementation. Design thus becomes a matter of iteration between the desirable – in the sense of contributing to the desired change – and the feasible.** Source: Bos, A.P., Grin, J. (2012) Reflexive interactive design as an instrument for dual track governance.

Limits of design and designers

- **single alternative design solutions cannot compete against the inertia created by the ‘sociotechnical regimes, built over the decades** by interlinkages in industry structures and production technologies, investment patterns, scientific bases, institutions and policies, market mechanisms, user preferences and cultures of consumption (Hyysalo et al., 2019, p. 188; referring to Geels, 2004; Geels & Schot, 2007).
- **designers are quite intuitive, nonsystematic, opportunistic, and sometimes inconsistent in the ways they deal with abstraction, and hence in their creation and use of models.**
- **designers are not particularly good at questioning**—on the contrary, all but the most expert designers are quite vulnerable to jumping to conclusions. (Kees Dorst, What Design Can’t Do, <https://doi.org/10.1016/j.sheji.2019.11.004>)

Responsiveness as a precondition for MVC

- **Multiple value creation seeks to make the primary concerns of actors compatible with one another.** To do so, it is necessary that *all relevant actors are involved in the process.*
- We consider this pluralism and adaptability of the designer's role to be crucial and one of **responsivity** rather than *responsibility*, which is why we call this practice socially responsive design (Gamman and Thorpe 2006) (in Thorpe and Gamman, 2011)
- Learning from enactment requires designers and managers to understand and critically examine their assumptions, values, and practices, and how these may—even if **inadvertently—silence some voices and strengthen some inequities.** It suggests designers and managers be open to learning from a multiplicity of perspectives, as well as being willing to be less certain, less assertive, less directive, more provisional, more collaborative, and more experimental. (Orlikowski, 2004)

Why design for MVC requires a *process* and *suited partnership*

- Involving partners is guarantee that there concerns are considered; this helps to limit negative effects. Creative thinking helps to find a suite of benefits
- A complete parternships guarantees responsiveness to wants and demands for fairness of the process and outcomes
- A good parternship is not enough: **you also need a good process** with reflections, mutual understanding and creativity and adequate funding

Het loopt niet zo lekker qua co-creatie en reflexiviteit

- De ervaringen van BSD (opv indrukken)



Systemeembarrières bij koppeling van transitie

1. **Denken vanuit de eigen sector of organisatie**, ingegeven door wet- & regelgeving
2. **Keten**-denken als gevolg van lineair proces van beleidsvorming, programmering & realisatie
3. **Standaard**-ontwerprichtingen voor de hele sector of de hele stad
4. **Afbakening** van taken, opdrachten en projecten
5. Schaalniveau van & investeringen in bestaande infrastructuur
6. Afwachtend & risicomijdend gedrag van nutspartijen, ingegeven door wet- & regelgeving
7. **Gebrekkige informatiedeling** tussen nutspartijen en gemeentelijke afdelingen
8. Bestuurlijke nadruk op de (relatief) **korte termijn** projecten
9. Aanbestedingsbeleid staat vroegtijdig betrekken (commerciële) partners niet toe
10. **Fragmentatie** van financiën en budgetten, en verantwoording op alleen korte termijn
11. Schaarste in werkbare ruimte ondergronds
12. **Onvoldoende regie** op inrichting en werken in de ondergrond, en verouderde ordeningsprincipes
13. **Beperkte ervaring** met & kennis van gebruik(ers) van nutsvoorzieningen
14. **Ontbreken van kennis, taal en markt voor meervoudige waardecreatie**

([Circulair Potentieel: Koppelkansen Water & Energie in de Metropoolregio Amsterdam](#))