Decarbonized Futures
Narrating Low Carbon Societies

Workshop: 6 - 10 June 2016, Leiden, the Netherlands

Workshop Report

Introduction & Workshop Aims

For a quarter of a century, the problem of mitigating climate change has been portrayed as a matter of pollution control: of reducing the level of greenhouse gases emitted to the atmosphere at the 'end of pipe'. This view is now giving way to recognition that fundamental transformations are required in order to decarbonise society: to radically reduce the input of carbon into our economies. Grappling with this challenge requires not only action in the present but also that we think of the future in different terms. A range of techniques are being developed to this end – from modelling and scenario techniques, cultural interventions, forms of experimentation and demonstration projects, as well as the development of specific low carbon pathways. While diverse in their aims, they all rely on forms of narrative: of telling compelling stories about the nature of the low carbon future and the means through which it can (and cannot) be achieved.

The aim of the *Decarbonising Futures* workshop was to create a forum through which to activate a new conversation about the potential and limitations of these techniques as a means through which to catalyse the forms of political, economic and social response required decarbonisation. The development and use of such techniques is now rapidly multiplying in a context where society seeks both to intensify the process of negotiating and delivering international climate change agreements and to establish alternative arenas for governing decarbonisation, from the action plans of cities to efforts to decarbonise whole sectors of the economy. Yet to date the comparative and collective contribution in terms of how low carbon societies could be imagined or their impact on the political processes through which low carbon transitions might be achieved has not been bought into focus. Such a dialogue is now required in order that the potential for new thinking about how to achieve low carbon transitions can be realised and the tensions and discord between different approaches considered. The *Decarbonized Futures* workshop drew together those involved in the practice of these techniques – modellers, scenario developers, artists, curators, policy practitioners – with those engaged in their assessment and critique from across a range of disciplines, including political science, public policy, innovation studies, geography, science and technology studies, socio-technical transition studies, sociology, economics and the engineering sciences. Through a series of interactive forums, including immersion in the spaces and stories of low carbon futures, expert talks, open space dialogues and a design-studio process, the workshop enabled a new understanding of the commonalities, strengths, limitations and conflicts between these approaches and how we tell stories about a future decarbonised world.

This brief report outlines some of aims of the workshop and reflects upon the wide range of methods that was deployed to reach those aims during the workshop. The report also contains reflections regarding the content and the processes encountered by the participants.
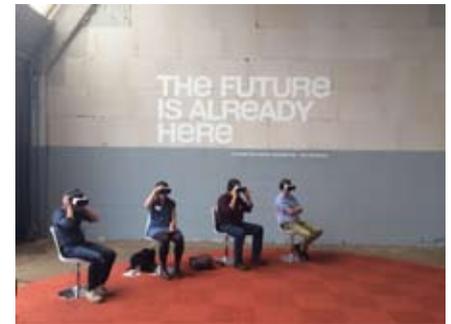
Organisers

- Harriet Bulkeley, Department of Geography, University of Durham
- Maarten Hajer, Urban Futures, Utrecht University
- Rob Raven, Sustainble Innovation, Technische Universiteit Eindhoven
- Janet Steward, Centre for Visual art and Culture, School of Modern Languages and Cultures, University of Durham
- Johannes Stripple, Department of Political Science, Lund University

Participants

The workshop brought together those who are engaged in the development of low carbon narratives (either through the building of models, the development of low carbon pathway documents, the design of demonstration projects, or forms of cultural practice) with those who focus on the assessment and critique of such techniques. The workshop was, over the week, attended by 44 scholars and practitioners (15 women) from eight different countries (a full list of those who attended is provided at the end of this report).[1] Many different academic disciplines were represented, from engineering and integrated assessment modelling to social science and the humanities. In advance of the workshop, a call for the participation of junior scholars were issued. The call got almost 70 applicants and ten were invited to participate.

The workshop was co-sponsored by the following research projects:
- *Pathways to Decarbonisation* (PI, Professor Matthew Hoffman, University of Toronto) and *Cultural Politics of Climate Change* (PI, Professor Matthew Paterson, University of Ottawa), both funded by the Canadian Social Sciences and Humanities Research Council (SSHRC).
- *Governing Climate Change* (PI, Dr Johannes Stripple, Lund University) funded by the Swedish Research Council FORMAS
- *Green Industrial Sustainable Transitions* (PI Professor Lars Nilsson, Lund Institute of Technology, Lund University) funded by the Swedish Energy Agency,

The *Decarbonized Futures* workshop enabled these projects to get to grips with a wider range of techniques for imagining and transitioning to a low carbon society, and for trying out and familiarizing with new methodologies for pursuing research in this area.

Fostering Interdisciplinary Understanding

The purpose of the *Decarbonising Futures* workshop was to bring together researchers from different disciplines involved in the practice or analysis of one of four dominant techniques through which narratives about the future low carbon society are created – modelling/scenario development, experimentation/demonstration, cultural interventions and pathways/transition management. The workshop was therefore not only diverse in terms of the disciplines involved but also in terms of the particular kinds of 'narrative'

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[1] See page 12.

with which participants were familiar. Our first aim was to build familiarity amongst the participants with the diverse ways in which low carbon stories can and are being told. Our second was to bring these different forms of narrative into comparative analysis in order to understand how they operate and with what consequence. Our third aim was to cross-fertilise both the content and ways of telling stories, the kinds of narrative tropes that they represent and the forms that they take, across these different techniques. In this rather radically interdisciplinary context, we sought to develop a series of different methods through which interdisciplinary understanding could be sought:

Aim 1: Building Knowledge

The *Decarbonized Futures* workshop involved a series of methods designed to help build knowledge in an iterative, interactive manner. These involved:

- *Scene setting*: a series of three short contributions were given by leading academics from different perspectives to reflect on the core entry points of the workshop – decarbonisation, society & the future (Nilsson, Hulme & Anderson).

- *Knowledge sharing*: for each technique participants provided short talks to share their knowledge and experience, these included practitioners from Shell, the Dutch Government, Arcadis, Meeneer de Leeuw, as well as academics involved in developing these techniques for policy-makers and communities (e.g. van Vuuren, Mander, Willis) and those working to explore and critique different methods (e.g. Tenngart, McDonald, Kumar).

- *Small group work*: each day involved breaks and reflection sessions used for improvised small groups to start discussions, share ideas, reflect on their experiences.

- *Immersion*: participants particularly involved the opportunities to engage directly with specific techniques, including the making of low carbon stories through film (Oliver Ressler), and through exhibition (IABR in Rotterdam), as well as the evening entertainment of a theatrical music play around low carbon activism (Sun City 2 artists).

Participants often remarked on the sheer novelty of thinking of these techniques in relation to one another and how their understanding of the ways in which low carbon stories are told had been radically expanded through exposure to the expertise, understanding and practices presented through the week. While 'Modelling and scenarios' have been a dominating technique, the presentations and the discussions underscored its diversity, from 'integrated assessment scenarios' to 'explorative scenarios' to 'backcasting'. The participants noticed that presented scenario-approaches seemed to entail different logics (e.g. to hedge against risk or to inform policy about options) and assume different theories of societal and technological change. Despite this diversity, fundamental commonalities are worth keeping in mind, Josefin Wangel reflects on this:

> all three presentations depart from an understanding of the future as essentially non-existing, apart from as a mental construct. Indeed, without this understanding of the future as open, there would be little use for scenarios, planning, or policy-making. 'Que sera, sera' (whatever will be, will be) would be an equally

(if not more) relevant approach. However, as indicated by Sarah, just because the future is open it is not empty. To use Barbara Adam's words, we are constantly colonizing the future, through resource use and pollution, through infrastructural investments, etc. etc.

A second and related reflection departs from the saying that 'no models are true, but some are useful', which is equally relevant for scenarios. This is partly because scenarios are models, i.e. simplified and curated representations of a complex, ambiguous and dynamic reality, but also because scenarios have to deal with the ontological uncertainty deriving from the understanding of the future as non-existing. However, the challenge is perhaps not as much to communicate that scenarios are not true (i.e. universal representations and predictions) but that this also goes for the unreflected expectations we (as in everyone of us) have on how the future will look like.

An underlying assumption of this workshop was that we are able to affect the future, shape it, and that representations of that future may influence how we do so. 'Cultural interventions' might seem like a technique far way from 'modelling and scenarios', but the presentations and workshop activities showed the potential and role of cultural interventions and artistic ways of telling stories.

The session provided many examples, from *Liberate Tate* (an intervention to make BP divest in their sponsorship of prestigious art) and *Birthmark* (people get a tattoo of the amount of carbon dioxide, measured in parts per million, in the atmosphere at the year of their birth), to the TV series *Utopia* in which a neo-Malthusian group wants to reduce the number of people on Earth to save the environment; nothing you do as a westerner will produce the same amount of greenhouse gas emissions as having children. Reflecting on these examples, Alexandra Nikoleris notes that

climate futures are very easily packaged as violent futures because they are thrilling, it is easy to tell compelling stories were everything goes to ruin. But these post-apocalyptic stories are also utopian for oil companies – they tell us that everything will suck after we've gotten rid of oil! Graeme thus invites us to look for better places after oil as so many stories still depend on oil to such a large extent. Exemplifying this, he showed us an excerpt from *The Road* in which the boy and the father relearn how to fish for gasoline products, even though everything seems to be ruined.

Through literary fiction we can encounter a future low carbon society through different kinds of 'world-making' – the ways in which literature create different understanding of the world. But a key question becomes (and this question resonate with all four techniques) on about what kind of worlds are allowed to be imagined? Are the conceptualisations confirming (what we already 'know' or assume) or are they creating new perceptions and worlds? Literature can be conservative, reflective, or disruptive to entrenched ideas. Literature can create different kinds of worlds – physical spaces but also 'affective spaces' in which stories about climate change are resonate and are made meaningful to people.

In reflecting across the board of cultural interventions, Alexandra argues that social change ('transition') is both about building the new, but also about getting rid of the present, and that cultural interventions are perhaps most apt for the latter.

We could see traces of future utopia in the cultural interventions, as actions *against* that which is found faulty in the present (murdering children in *Utopia*, holding

sermons over the death of oil in *Art not oil*, breaking free of ignorance and passiveness in the sci-fi novel *Flight Behavior*) but the *focus* of these stories/scenes is not future, they do not depict the solution. Rather, they show us what it is that needs to be *demolished*, broken down in parallel with, or before, building the new. The examples shown in this session, most notably by Oliver and Graeme, illustrate what must be overcome, but also points to the fact that there will be sacrifice, loss and demolishment in the transition from the present fossil world to a 'decarbonised' future. These things were not as clearly present at the biennale in Rotterdam, nor in many of the other ways of depicting solutions or futures that we saw during the workshop, as they are also are generally lacking in most of the sustainability transitions literature which focus on the new things that are to come.

Aim 2: Comparative Analysis

Through the week, we included a set of methods, including some fairly novel approaches, through which to engage the participants in undertaking comparative analysis of the different narrative techniques they had been exposed to through the week. The intention here was not to create a formal assessment as such, but rather to bring these techniques into productive tension with one another to enable us to learn more about how these techniques are used and how they might be challenged or rethought.

- *Comparative dialogue*: we bought together these experiences in a comparative dialogue session where each rapporteurs from the previous sessions captured some key insights, similarities and differences that fed into a group conversation about the experiences which began the process of examining what is being narrated, how is it being narrated, and what is missing in each story.

- *Interrogation and exploration*: break out groups, 'walking conversations' and 'open space' methods were used to enable participants to explore the knowledge presented and each other's experience and expertise in the area of each technique. At IABR we held an 'open space' dialogue where participants nominated themselves to discuss questions in relation to the core tropes of utopia, dystopia, social transformation and technological progress. We used the IABR as both a background to these conversations and as material input, with different groups focusing on different parts of the exhibition and the work that it does to tell stories about the (low carbon) future. One of the reflections from this work (on *Utopia*) was subsequently published by the IABR organisers.[2] We held two walking conversations (sometimes termed 'workshops' when undertaken for a more sustained period of time), one around Rotterdam harbour and the other on the beach before the BBQ dinner. In this method, participants are paired up and undertake a walk on a set route, swapping partners every 10–15 minutes to start another conversation. It is useful for promoting conversations between people who have not yet encountered one another and also for those who find one-to-one conversations more productive than group dialogues. It can feel rather awkward to begin with, but people fell into the rhythm of the first walking conversation very easily. By the second conversation, a few people were perhaps rather tired of the level of organisation and involvement and perhaps undertaking this activity at the start of the third day would have been more useful. Nonetheless, it was a great way to get an experience of both environments while also developing some new ideas and forming links with each other and served to cement the relationships in the group.

The last morning we organised two different sessions aimed at bringing the conversations together in various ways. The first session used a 'world café methodology', where a particular topic were to be discussed at a particular table. We arranged the tables in the room so that five larger tables (with chairs around) were constructed. Each table had an assigned 'table convenor' who stayed and the table and facilitated the discussion around the given question. The instruction for the participants was to pick a table/question, discuss the question for 15 minutes, then pick a new table (while the convenor stayed). We all switched at the same time, and three times in total. The convenor wrote up brief notes from the three rounds of discussions among different participants.

The second session was about how to tell new stories to particular audiences; 'What kind of narrative technique should/could this constituency use to achieve the change they want?', and, in reverse, 'What kind of stories should be used in relation to the particular audience?'. The participants gathered in three larger groups with each group assuming an audience (Government, Business, Community). Across the different narrative techniques, one break-out group (to use Rebecca Willis notes) were able to draw a useful distinction between

> narratives aimed at **political engagement** (what would make them pick the 'climate' book off the shelf at the bookshop?) – more grounded in **imagination** – such as visions, pathways, personal stories (like Zlatan the footballer) and cultural interventions;

> narratives aimed at **policy development** (now that we are convinced, what steps do we need to take?) – more grounded in **plausibility** – such as scenarios and models.

Political engagement narratives would be used to 'sell' an idea and build alliances and political space; policy development narratives then allow you to get down to work, compare options, work out what to do.

The final session helped to underscore that narratives are always told from somewhere, for someone, with some purpose. Jake Barnes captured this in his notes:

> There is a myriad of stories that can be told, each unique. So is there anything that can be said about new stories? This was an argument of the group which led to discussion about us, as researchers, engaging with particular communities and not others. In this sense who are the communities we most need to talk to and how should we identify them? Again this lead back to our role, with an implicit idea of researchers being somewhat instrumental in decarbonisation, reliant on normative aims.

**Aim 3: Cross-fertilising Narrative Approaches and Form**

As well as developing knowledge and a comparative critique of the ways in which low carbon futures are narrated, we also sought to engage participants in bringing together what they had encountered to create their own narratives about the low carbon future. We designed this method broadly around the 'studio' process used in architecture and design to promote the creative engagement with new ideas to produce innovative new ideas. Participants worked in pre-assigned small groups around the challenge of designing the bicycle of the low carbon future. Taking an everyday, familiar object that

everyone had some connection to was important, and likewise choosing an object often associated with being 'low carbon' already was deliberately intended to provoke people to extend their thinking. The task was to create a 'narrative' about the bike in the low carbon future and to think about both the content and form of the narratives that had been encountered to consider how these stories might be made more/less persuasive.

This exercise took place over one whole day and involved several stages:

- An introduction to the exercise was provided by the organisers, including two short presentations about innovations in relation to the bicycle and the challenges that facing shifting away from car-based transportation.

- Each group was provided with space and a set of reference and creative materials and a group leader assigned to manage the process: ideas flowed freely.

- A panel of experts, led by Pepik Henmann from a Dutch social innovation organisation, as well as other participants provided feedback on interim designs throughout the day as each group 'pitched' their ideas.

- Final designs for the low carbon future were pitched at the end of the day, providing an amazing array of creative ways of both thinking about the content of the low carbon future and ways of telling stories.
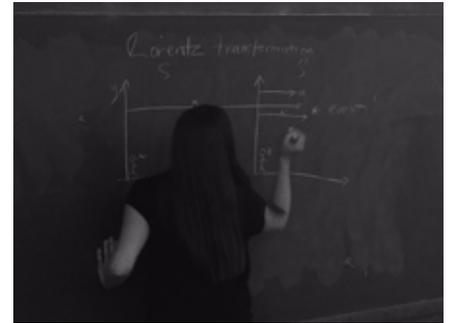
Narrating Decarbonisation: The Bike in a Low Carbon Future

Group 1: Delivered – A Bike to Bike Delivering Network

Core idea: Delivered is a movement and a service which utilise an already existing practice in the city. The idea is simple, cyclists criss-cross the city many times during the day. Using a platform system these cyclists can help each other and others to deliver goods, creating a flexible delivery system, which also reduce the number of delivery trucks on the road, creating a more silent environment in the city and less pollutants such as nitrogen and sulphur oxides. Starting off in a small scale, connecting the first enthusiasts, the producers, consumers and cyclists, the vision of Delivered is a truck free city and strawberries full of flavour, not customized to long travel.

Group 2: Everyone Can Cycle

Core idea: The group's vision was focused on an imaginary of the future where even the most reluctant cyclists had made the car-free transition in Glasgow. We wanted to embed how this transition happened in narratives told through the eyes of specific characters that represented to us a segment of the population that might be the hardest to reach in a modal shift. Woven into our stories are concrete changes (social and technical) that enabled our characters to start using bikes for the trips that were central in their lives. It was important to us that this imaginary represented a positive future. At the presentation the group made a live voice-over narration of each of the four biographies; Maureen, Lorna, Lars and Pete.

Group 3: Cyclomindium

Core idea: The idea for Cyclomindium draw on the condominium boom in Toronto. Because of the high demand and prices, city authorities could mandate developers to install infrastructure and other services. So Cyclomindium combines a 'hard' edge of mandates for developers (bike infrastructure including bike lanes, storage, repair facilities) with a 'soft' edge, eg social innovations like the bike clubs, information provision and so on. The Cyclomindium idea assume that power (as coalition building) is central to achieve new biking futures. Cyclomindium brings together a coalition of developers, residents groups, the cycling union, and bike manufacturers or retailers. Cyclomindium includes new innovations such as a 'bike concierge', which is a twist on the normal condominium concierge schemes, and a new way of thinking about what should be included within a 'living service'. The bike concierge service, could be run as a social enterprise.

Group 4: Bicicleta Malmö – Bicycle Kick

Core idea: One of the greatest challenges facing Malmö (and many European cities) is the marginalization and exclusion of large immigrant communities (1st, 2nd generation). At the same time, the flat and mild Malmö, is already a city well-prepared for and suited for biking. Biking provides a key to enhancing the access to the city services, creates an inroad for social mobility and inclusion, while at the same time resolving one of the major fossil fuel dependencies in modern society – almost as an afterthought.

Bicicleta Malmö envision a biking transformation up to 2040, which reorients social life, integration and transportation in the city. This development takes place in four steps. Step 1, 2017–2020, entails a redefinition of the bicycle identity through direct interventions. Through a kick-starting social marketing campaign with Zlatan Ibrahimovic, *THE BICICLETA*, oriented to the young population, with a focus on the lower class immigrant communities, biking gets a new meaning and symbolism. It becomes not only urban, modern and cool but also slightly outlaw and rebellious. This intervention is carried out in collaboration between the city government, the local collage Malmö Högskola and community organizations in Holma, Rosengård and Nydala. Step 2, 2020–2025, entails the bottom up creation of various biking communities, businesses (such as repair and service centers), social networks, apps and new bikes. The city provides various forms of support including spaces and facilities at low cost. This creates a significant scaling momentum and biking starts to take over as the norm of local transport across socio-economic groups. Step 3, 2025–2035, is an institutionalization phase, where biking becomes more and more dominant and starts to serious challenge the private car and bus regimes, competing for space and competing for priority in new infrastructure planning. Conflicts do happen. In Step 4, 2035–2040, the city concedes and reacts to the new development and starts to orientate Malmö's infrastructure transport planning to a 'Odense design', where only biking and walking allows you to pass through the city. Cars can only go around and a short stretch in.

Group 5: The PUrV (Personal Urban Vehicle)

Core idea: The starting point was an observation about car ownership in Singapore: a city-state with massive overcrowding on its road network, where citizens will nonetheless pay an immense money premium simply for the legal right to purchase and own a car, let alone for the vehicle itself. Here was an extreme example of a phenomenon we'd seen in other materials earlier in the week: the car as fetish, as status symbol, as collector's item, as sociocultural artefact. Without too much exaggeration, it seems that Singaporeans buy cars for pretty much any and every reason other than the supposed convenience with which car ownership is primarily associated elsewhere.

The group realised that what Singaporeans really needed wasn't a car, but something that substituted for a car in much the same way that the tamagothi was meant to substitute for a real pet. "We laughed pretty hard for about a minute at the sheer absurdity of the suggestion... but five minutes later, the presentation was starting to take its basic shape, with the PUrV at its heart". The PUrV is a teeny tiny matchbox-sized car, beautifully designed and personalised, giving you everything you desire from car culture without the inconvenience, expense or pollution of an actual vehicle. And the best thing about it is that you can clip it to your handlebars when you cycle along Dutch canals looking at tulips.

The whole exercise generated many interesting comments. Lars Nilsson, reflecting on both the Cyclomindium idea and the exercise as such, wrote that

> I was quite happy with the result of the Bike Studio and the Cyclomindium idea. It became very clear how carelessly bikes are treated in planning. At the best, the building owner may put up some roofs on bike racks. I think people would appreciate safe and clean indoor bike garages with easy access (not the old style where you had to haul your bike up/down the basement stairs. It sort of revealed how embedded thinking is in cultures and norms and planning paradigms. I also enjoyed the studio format and will think about how to use it in the future in projects with stakeholders.

Paul Tenngart, in his reflections, contrasts the decarbonised futures that were on display at the Rotterdam IABR exhibition, for example the North Sea Wind Power project, and the Toronto case of a non-commuting, down-town community with literary fiction and the Bicicleta Malmö narration.

> These scenarios (IABR) were all neat and ordered. They were days without clouds, or even the prediction of clouds – everlasting not too hot summers. And it struck me that most positive scenarios about the future are like that: they imagine, with an advertisement rhetoric of perfection, a sunny, harmonious society where every-thing is in its right place, unambiguous, clean, free of fiction, far from the pre-dominant characteristics of human life. In fact, they strike me as inhuman, ripped of the complex and conflict-stricken messiness that – at least for me – defines human life. Why are struggles and conflicts such dominating elements in literature? Not only, I would say, because they make dramatic stories, but because the lack of any trace of them would be inhuman. What we tried to create in my group was, at least in my mind, a desirable future that includes the messy conflicts of human life. Malmö in 2050 is decarbonized, but it still includes the joys and horrors of sexual tension, status struggles, differences in opinions and opportunities – it still includes edge. To me, the Thursday excercise resulted in a comforting thought: we can imagine a better future without erasing the pros and cons of being human from the picture.

The PuRV was a fascinating case of 'design fiction', the deployment of an 'extreme example', much in the line with a classic science fictional story strategy, a variation on the dystopian 'if things carry on like this...' plot format. Paul G Raven comments that

design fictions, such as the PUrV presentation, are interesting and powerful precisely because they inhabit that liminal space where the orthogonal creativity of design and the arts overlaps with the rigour and discipline of the more foresightful social sciences.

The PuRV project did also contain a very interesting shift in perspective during the process. In the first iteration, the presentation was intended to mimic a product launch to the public, while in the final version it mimicked an in-house presentation within the automotive industry. This was a result of an intervention by Shane Gunster who saw the PUrV as patronizing, ridiculing people who couldn't free themselves from the car culture. Paul G Raven comments that

This seemingly slight change of frame was important, because it shifted the sharp end of the satire to a different target. In a satirical product launch to the public, the belief being satirised (namely the notion that the car is valuable for everything other than its intended functionality) is located within the imaginary public being presented to. This leads to the very real possibility of members of the "real" public (i.e. the audience that the design fiction is meant to persuade) identifies more strongly with the imagined public (i.e. the fictive audience that the design fiction appears to address), and thus ends up feeling that they are the butt of the satire, rather than feeling they're in on the joke. A feeling among heavy carbon emitters that they are being personally persecuted or targeted by policy and/or rhetoric is a recurring theme of decarbonisation research, and it was felt that the PUrV concept could be seen by car owners as ridiculing their position if framed in this manner. Of course, the alternate framing, which relocated the target belief within the automotive industry itself rather than its customers, could still be seen as mocking – but here, the mockery and satire is "punching upward", which is to say it takes aim at those who possess systemic power and advantage, rather than those who are subject to them.

Echoing this, Josefin Wangel comments that

In the context of speculative design, relevant questions 'of who' encompass: 'Who is represented in the speculation?' 'Who is critiqued by the speculation?' 'Who is to learn from the speculation?' 'Who is invited by the aesthetics and language use of the speculation?' (and the 'behind-the-scenes' question of 'Who has taken part in developing the speculation?') This also works for other types of futures studies, just replace the 'speculation' with 'scenario' or 'image of the future. This is what makes the reservation (or intervention in the intervention) by Shane so important, because ultimately his concern was a matter of asking who was critiqued, and in what way, from what position.

We reflected together on the different narratives told and found that they showed there was significant potential to tell stories about low carbon futures in ways that exceed current practice and which might generate new forms of innovation. As Jake Barnes put it

On reflection there are a few interesting things to note about how the project turned out. First, there wasn't a clear decarbonistation narrative in our pitch/presentation. Second, it wasn't really about mobility either, although this came as subtext. Really it was about linking and creating new futures, which had various co-benefits: health, new economics, participation etc. The activity was certainly fun. I think it also challenged us to think creatively and move beyond simple,

maybe standard (?) cycling narratives to create new stories that were more about opportunities and new desirable futures rather than incremental enhancement of existing bike mobility ideas.

General Reflections, Next Steps and Follow-up

There are already been a few outputs which have been circulated to a wider audience, picking up on various aspects. Rebecca Willis wrote a longer blog post, *Dystopian fiction, energy pathways, architectural imaginings and the little PUrV in the bike lane: stories of our low-carbon future.*[3]

> As someone of a practical bent, it felt quite indulgent at times to sit about story-telling when there's real work to be done. But that would miss the point. It hadn't really occurred to me before that when economists present models, or Shell sets out its scenarios, they are in fact stories: narrated accounts of a possible future. Just like climate fiction, or a community renewables project. That's not to say they're all the same, or interchangeable, or that they can be dismissed as mere discourse. But they do have a fundamental character in common: they are all telling a story about futures. And there is a politics, and a normative vision, behind all these different stories – even if their authors don't realise it.

For the Rotterdam IABR homepage, Laura Tozer wrote a piece, using one groups work at the IABR.[4]

> The idea of utopia was particularly enticing to a group of the workshop participants. Utopia seemed to draw together shared interests in experimentation, better ways of being, and about the possibilities of positive story telling. At the same time, we were also curious about how easy it is to limit utopia. As we reflected on what we had seen in the exhibit, our group discussion developed along a key line of tension: utopian potential vs. limitations on utopia. Though we saw limitations on utopia in the exhibit, this tension in our group discussion showed how utopia might be a useful concept to exercise anyway. Maybe utopianism is a way of thinking that can be enabled or limited. Perhaps it is like a muscle that can be exercised and we can get better at flexing utopian thinking as we try to tell stories about low carbon futures.

We are also planning to share our insight with Dutch government and corporate actors. The process for this is led by Maarten Hajer and the Urban Futures Studio at Utrecht University.

A conference session on 'researching low carbon pathways and their politics' is in the making, perhaps as part of the annual AAG conference or the ECPR Joint Sessions workshop.

Johannes Stripple is convening a Pufendorf Advanced Study Group on 'Narrating Climate Futures', which enables some of the themes emerging from the workshop to be rearticulated and developed.

A group of scholars will, under the facilitation of Paul G Raven, write up the design fiction exercise as a research paper reflecting on design fiction exercise held at the workshop.

[3] http://www.rebeccawillis.co.uk/dystopian-fiction-energy-pathways-architectural-imaginings-and-the-little-purv-in-the-bike-lane-stories-of-our-low-carbon-future/
[4] http://next.iabr.nl/looking-for-utopia/

List of Participants

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