They said it couldn't be done

The story of Transport & Environment

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Foreword

Reflecting back... and forward

We have all had moments of hope, when we sit in a room, preparing the ground for an initiative, and visualising how it will be the start of something that can grow and on which we can one day look back with pride. Occasionally, a meeting intended to start something leads to a truly meaningful and productive initiative.

A chaotic gathering on 26 November 1988 was just such a meeting, as it kicked off what later became T&E. At the end of a two-day conference in Dortmund, a diverse group of people stayed on to talk about setting up some sort of European umbrella organisation. There were academics, staff members of environmental groups and green car owners, public transport advocates and one consultant (me). The meeting was chaotic because of so many contradictory opinions. Just before everyone had to rush off, a founding board was formed. Whoever raised her or his hand was in, and because I was the only Dutchman around, I raised my hand.

Three things became crystal clear to me during this one hour of confusion. First, this was an excellent and important idea. Second, this organisation should become professional and couldn't rely only on motivated volunteers. Third, combining a think tank with an advocacy group would be most effective. I also realised that it would take a lot of effort to set up a European umbrella, made up of such a variety of organisations with diverse interests. Together with Martin Sommer from the Verkehrs-Club der Schweiz and Stephen Joseph from Transport 2000 in the UK (now Campaign for Better Transport), we decided to go for it.

Now, over 30 years later, T&E is a vibrant, professional organisation. Much better than I dared to dream of in 1988. This success has been achieved by very many dedicated, inventive and knowledgeable people – in the staff, at the member organisations and on the Board. A great 'thank you' to all! I will mention just two more of my T&E friends. Per Kågeson shared the same vision and strategy for T&E, so the direction we had set at the beginning was continued when he succeeded me as president. And Jos Dings led T&E to the next two levels in his 13 years as executive director. There have been many other contributors to T&E's successes, as this book shows.

Having NGOs like T&E is important for the future as well. The world is connected, and national borders are permeable. Think of multinational industries, climate change, migration, and of course dangerous viruses – digital as well as biological. To be successful in this globalised world, countries have become competitors. Attractive tax rates, low social standards and lax pollution control are common tools to attract industries. Globalisation has reduced national autonomy over the last half century. The nation-state has become a competition state. Power is now shared between nation-states, international markets and a variety of international arrangements. Creating change in this complex world can only be done by acting at national and international level combined. This is exactly the approach chosen by T&E. The cooperation between national members and the staff in Brussels is the key to our impact.

A second consequence of the emergence of the competition state is that commercial interests have gained weight at the expense of public values, and also public assets such as clean air and clean water. Protecting the vulnerable – people and the environment – deserves greater priority. NGOs fill the gap. And governments need to support NGOs to level the playing field and countervail the power of business interests who are backed by their funds and experts.

I stress, we live in a connected world. Advances in transport and communications technology have brought us many benefits, but at the same time we need to realise that a well-connected system becomes less stable and more prone to crises. It means that connecting the world brings with it the responsibility to safeguard its stability and the common good.

We have achieved so much over the past 30 years, but there is lots of work still to be done. T&E will continue to play its part.

Arie Bleijenberg

First and current president of T&E Delft, December 2021

Introduction

Leaving our mark

Every organisation has its foundational myth. Ancient Rome was founded by twin boys nursed by a wolf. Apple and Tesla started with Steve Jobs and Elon Musk in Californian garages. T&E was created by a small but determined group of environmentalists, researchers and green motorists getting together in a room in Dortmund more than 30 years ago.

No-one in Dortmund had a crystal ball. They simply had the faith that if you keep presenting clear arguments based on science, technology, facts, data and sound economics, they would eventually make progress.

And they did. Back in 1990, when diesel and petrol engines spewed out toxic fumes that would make even VW's Dieselgate engineers blush, the idea that we would regulate carmakers to eliminate emissions seemed unattainable. Almost as fanciful as the idea that the age of combustion engine cars and trucks, or indeed coal and gas powered electricity, would end. Yet all of that is now on the horizon.

There is still very much to worry about. Without radical change, global warming will make life on earth hell, not in some distant future, but in our lifetime. And yet there is cause for optimism. Today, perhaps for the first time in T&E history, it is reasonable to proclaim that we will succeed in changing mobility and revolutionising the way it is powered in our lifetime.

Different generations of T&E-ers have all left their mark. Yet it is extraordinary how closely we always adhered to the ideas that inspired our founding. What are those ideas?

It is no coincidence that so many of our early presidents and board members were scientists. T&E was always a little bit geeky and 'think tanky'. Many of the things we achieved started with an investigation or a research report. It's this expertise that gives us our most precious asset: credibility.

At T&E facts and arguments have the last word. Back in 2011-12 we had evidence Europe's car CO_2 standards weren't working because of carmakers cheating. It was uncomfortable since we were staunchly defending those very standards from industry lobby attacks. We published the evidence anyway.

That is our role in the environmental movement. Other NGOs work in different ways. This is good. We should never forget that it is the work of our members, and grassroots campaigners, that provides the spark for the policy reforms we seek. We complement each other.

T&E's focus is policy change. We believe smart regulations are the single best way to achieve change at speed and at scale. That means we often adopt reformist tactics: we need democratic majorities to support our proposals. But make no mistake. Our programme is radical: we need to, and will, change mobility and revolutionise the way it is powered.

We believe in the power of technology and innovation. Since this organisation was created, the boundaries of what is technologically feasible have shifted spectacularly. They can shift much further still. Yet our faith in technology isn't blind. We understand that the disruption we seek won't "just happen". It requires government action. We also understand applying new technologies such as batteries at unprecedented speed and scale will create new challenges. We must take responsibility for this.

We are and have always been, an organisation in a hurry. And yet, this book is full of examples of T&E playing the long game. Since 1998, we were saying carmakers were cheating on emissions tests. It took us years of dogged research and advocacy but when Dieselgate broke, we were ready. Whether it's the lonesome fight against the airlines, false fuel economy claims or road pricing, we do not relent.

Finally and fittingly for an organisation that works for change, we are not afraid of innovation. We started testing cars when no-one else was. Faced with a deadlock in our biofuels work, we started our first real public facing campaign, and we're now building on this approach through the Clean Cities Campaign. Similarly, we recently created a finance programme to start to 'follow' and change the money that fuels the environmental crisis.

This is partially a book about our tactics and how we have achieved some remarkable successes by combining the best assets of a think tank and a campaign group. This is the T&E model. But it is above all a book about people. The life of an environmental advocate can at times be thankless and soulless. How many days do you come home having suffered setbacks? In our line of work you have to be resilient. You also have to take the long view – and that's what we do in this book.

It is remarkable how the stories on the next pages breathe the spirit, values and core beliefs set out three decades ago. It is that very spirit that I found when I walked into this organisation about a decade ago. It is my sincere hope that when people read these words, they will be inspired, knowing that 'it can be done'. Equally, I hope that, when our successors read about the old T&E, they will recognise in this book the very essence of what makes T&E special.

William Todts Executive Director Brussels, December 2021







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2008: 7.5 litres/100km





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1948 Volkswagen Beetle (Type 11), 7.5 litres / 100km "Average running", source: Volkswagen Type 11 "Instruction Book", pg 5, 1948; 2008 Volkswagen New Beetle Luna 1.6 Petrol, 7.5 litres / 100km (EU combined), source: www.volkswagen.de





Car wars, the campaign for mandatory emissions standards

"We can never accept this, and if we won't accept it, it won't happen."

This statement came from a leading official of the European carmakers' umbrella organisation referring to limiting CO_2 emissions from new cars. In retrospect, it is hard to imagine anyone could say such a thing in the 21st century, but for Europe's powerful car industry this attitude was normal. While he was not to know it, those old certainties were changing fast. Within a year his industry's control over legislation would be falling apart.

The concept of finding ways of limiting CO_2 emissions from cars has been central to T&E's activity since it was founded. In 1992, Per Kågeson's paper 'Making fuel go further' sought a European regulation or marketbased instruments for curbing CO_2 -emissions from new passenger cars. By December 1995, the European Commission had proposed that all new cars sold by 2005 should emit no more than 120 grams of CO_2 per kilometre. That was equivalent to a car using five litres of petrol per 100km, or 4.5 litres of diesel.

One of the buzzwords of the 1990s was the Auto-Oil Programme, in which the car makers and the oil companies came together to work out how to reduce emissions from road traffic. At a seminar in May 1996 where T&E's director Gijs Kuneman was present, the car industry insisted it was not feasible to make cars that consumed less than five litres per 100km – at which point Greenpeace unveiled its re-engineered version of the Renault Twingo, which could travel 100km on three litres. The carmakers had to admit the obstacles to be surmounted were not technological, yet they still managed to persuade the Commission to agree to a softer target – 140 g/km by 2008 – and that this would be voluntary, not mandatory. Environmental NGOs instantly sensed this was a licence for inaction, and they took every opportunity to highlight figures that showed the automotive industry was falling behind the clock in the drive to reach 140g by 2008.

In 2005, at the height of the impasse between the carmakers and environmental pressure, T&E's then director Jos Dings was at an event that involved representatives of the car industry. The calls for mandatory CO₂ standards to be introduced were getting louder, but the carmakers continued to block progress. In the margins of this event, a leading figure in the European Automobile Manufacturers Association (ACEA) was chatting informally to Dings. He put his hand on the T&E director's shoulder as if to offer some avuncular advice, and said: "You know, I really like the case you're making [for car makers to face mandatory CO₂ limits], and I can see the sense in what you want to achieve. But this is something that we as a car industry can never accept, and you have to understand that if we won't accept it, it won't happen."

Undeterred, T&E continued to make the case for mandatory CO_2 standards, and at a conference hosted by T&E in the summer of 2006, Dings once again said mandatory limits would come unless the car industry made significant progress, and quickly. The response of the ACEA representatives present was again to dismiss this idea, yet within weeks the whole landscape had changed – thanks to a T&E initiative.

Dings recalls: "One of the biggest problems with the voluntary agreement was not just that it was voluntary and not mandatory, but that the terms agreed with the Commission in 1998 made clear that no figures for individual car makers would ever be made public. Only

the average of all the car makers would be published to monitor progress towards the twin targets of a 25% reduction per manufacturer, and an industry-wide average of 140 g/km by 2008.

"So we took a gamble. It involved spending €15,000 of T&E's money – which was a big sum given that our turnover at the time was only just over half a million – on commissioning the Institute for European Environment Policy (IEEP) to get us the data on what each carmaker was doing. We were concerned that some manufacturers were making their contribution to the emissions reduction target, but the overall industry was being held back by those who weren't, so we knew we would have a lot of sympathy from those companies who had taken their obligations seriously.

"Our problem was how to use the data the IEEP had given us to form a ranking that gave fair weight to both elements of the voluntary agreement, and I agonised a lot about this. I knew that our findings would make a big splash, but they would only have an impact if the figures were indisputable. Then one night I realised how we could do it, and from there the final report almost wrote itself.

"From the moment we went public in October 2006, the whole narrative changed. By presenting brand-by-brand breakdowns of which cars and carmakers were tackling the issue of CO_2 emissions and which weren't, we changed the landscape of the discussion. The idea that the good guys – and society – should suffer because the bad guys were hiding behind them was a powerful news argument.

We had front-page stories in the *Financial Times* and other respected newspapers on how the voluntary agreement was failing. Within four months (February 2007), the Commission published a report setting out the need for mandatory CO_2 limits from new cars. By October 2007 the draft legislation had been presented, and in 2009 it completed its passage through the EU legislative process. All less than four years after that car industry lobbyist had told me it would never happen because his industry wouldn't allow it!"

Enter Merkel, the car industry fights back

Yet the struggle to secure the legislation in 2008 was fierce. Carmakers had managed to persuade the Commission to propose 130 g/km for 2012 on the basis of a set of 'parallel measures' that would reduce road transport's contribution to climate change. Now, with some large member states, they pushed hard to postpone the 130g/km requirement until 2015. At the same time, other states and MEPs proposed more stringent targets for 2020. Ultimately, it was on the 2020 targets that the most significant concessions were gained.

Leading the NGO campaign was T&E's Kerstin Meyer, who remembers, "For the main stage of the discussions in the European Parliament we were joined by lots of colleagues from T&E member organisations and other environmental organisations. This joint effort to strengthen the legislation paid off: we won and the 95g target was agreed for 2020."

Or was it? When the evaluation of the 95g law arrived in 2013, the carmakers piled on the pressure again. The

Commission initially proposed to simply confirm the target and even though carmakers objected, in the end Council of Ministers and Parliament agreed. But that was not to Angela Merkel's liking. She had been Germany's environment minister in 1995, but now she was leading a powerful economy with a proud and fierce car industry.

Greg Archer, T&E's former clean cars director, recalls, "Angela Merkel was under huge pressure from the German car industry and was determined to weaken the 95g target, but she didn't have the support she needed amongst other countries. So she put extreme pressure on the Irish presidency of the Council of Ministers so they wouldn't put the matter on the agenda for sign-off. This was in the midst of the eurocrisis, Merkel and Germany were at the height of their power - without them, some countries faced bankruptcy and the EU might literally collapse." For months, behind closed doors, Germany proposed new ways to weaken the rules. Yet using its impressive contacts, T&E exposed what Germany was doing and published analyses showing why the various proposals wouldn't work. After months of stalemate, the 95g was confirmed with a modest phase-in, with 5% of cars being excluded from the 2020 target and some limited doublecounting of electric cars, which allowed carmakers to continue selling gas-guzzlers if they sold a minimum number of low-emission vehicles.

"Looking back on it," Archer says, "Germany spent a huge amount of political capital for very modest returns. That's especially true if you consider how much effort the industry still needed to make to hit the weakened 2021 target. In 2020 almost 10% of vehicles sold had a plug, a threefold increase compared to 2019."

"I don't think we can underestimate the importance of T&E's member organisations campaigning on this issue," says Meyer, "especially the lobbying of MEPs. This joint effort on cars' CO_2 standards meant we started working together more intensively, it strengthened the ties between Brussels and members, and it was incredibly effective in getting MEPs to vote for ambitious action in the crucial votes."

One of the T&E members that was part of this campaigning initiative was the German organisation Deutsche Umwelthilfe (DUH). Its chief executive Jürgen Resch reflects, "This campaign highlights the importance of environmental NGOs joining forces to stand firm against the interests of industry, which have been – and still are – massively supported by the German government. For the future, our common goal will not only involve technical solutions but an overall change in transport modes. We need to look back on such successes to highlight the importance of a strong collaboration in mastering the challenges ahead."

"We didn't achieve things as quickly as we wanted to," reflects Dings, "but without T&E's willingness to stand up to industry and present the brand-by-brand findings, we might still be a long way from where we are now. We made the case for mandatory CO_2 limits irresistible, and eventually the car industry ran out of excuses.""

Going Electric, a controversial course correction

The car industry running out of excuses was one thing, but soon T&E ran out of road on how far it could push the carmakers on engines. For a long time small, efficient cars, powered by hybrid systems had been touted as the only technology solution for cars. In 2009, when it published a paper called "How to Avoid an Electric Shock'

> T&E was not yet very enthusiastic about electric cars, mostly out of concern that a 'silver bullet' solution could serve as an excuse not to tighten CO_2 limits too drastically. In fact, much of T&E's focus in the 2012 car CO_2 debate had been about avoiding 'supercredit' multipliers for electric cars because they'd give carmakers the green light to continue producing gas guzzlers. But by the early

2010s change was in the air.

"Keynes said that when the facts change, we need to change our minds and this was clearly such a moment." Jos Dings reflected. "Wind and solar prices were dropping and by 2015 most new power was wind or solar. Cars like the Nissan Leaf, the BMW i3 and the Tesla Model S suggested that electric cars could be much more than a niche, especially if battery prices kept coming down. So we started to run the numbers and debate within the organisation and soon it became clear that we needed a new strategy."

In addition, T&E became frustrated with its own 'every gram counts' approach to regulation. Carmakers were finding loopholes in regulatory tests, meaning that CO_2 cuts in the lab did not translate into cuts on the road. CO_2 -based fuel regulation wasn't working either, especially when the truth came out that regular biodiesel was worse than the fossil diesel.

Then at the end of 2015 came another important development, the Dieselgate scandal (see chapter 4). Jos Dings says, "That told me that as long as a car has an exhaust pipe, the carmakers will always find a way to cheat. Take away the exhaust pipe and they can't cheat. It was clear that if we wanted to be serious about tackling climate emissions from road transport, we had to push for a transition to electric.

ON THE ROAD TO ENERGY EFFICIENCY WITH J.M. BARROSO



We urge our national representatives to advocate a strict European legislation on average emissions of new cars of 140g/Km by 2008, and of 120g/Km by 2010 It's time President Barroso parked his gas-guzzler and got Europe's carmakers on the road to fuel efficiency!

"We received a lot of support from northern Europe, both T&E members and other NGOs. Some partners in southern Europe wanted to focus on demand management instead. But in the end the new strategy was endorsed."

Putting its faith in e-vehicles was a controversial move for T&E at the time. The car and oil industry accused T&E

of abandoning technology neutrality and made fun of us, calling us the Total Electrification NGO behind our backs. But it turned out to be a visionary shift in strategy.

The 2017-18 car CO_2 campaign became all about whether carmakers would go electric or not. The then Climate Commissioner, a Spanish conservative, Miguel Arias Cañete had proposed new CO_2 standards of -15% by 2025 and -30% by 2030.

"With diesel, their pet technology, discredited and Tesla and China pulling ahead, our campaign was as much about industrial policy as it was about climate," says William Todts. "At one point we produced a briefing showing European carmakers were investing seven times more money in producing EVs in China than in Europe. This was key in convincing EU lawmakers to accept a higher 2030 target of -37,5%, much to the dismay of auto CEOs."

> Three years after that episode, and almost exactly thirty years after T&E first paper on cleaner car standards the EU Commission presented a law requiring 55% emission reductions from new cars between 2021 and 2030, as well as a goal of no CO_2 emissions per kilometre by 2035. If adopted, this would make Europe, the birthplace of internal combustion engines, the first continent to say goodbye to cars running on oil.

Helping consumers choose — tyre labelling

T&E achieved a small but remarkable success on tyre labelling. Tyre quality can have a major impact on emissions, noise and safety, but until T&E got involved there was no way for consumers to distinguish between different types of tyres. The Commission's initial plan was to develop a fuel economy label for tyres, but by working with an information designer T&E managed to convince the Commission and Parliament that a multi-indicator label would be well understood by consumers – not only fuel efficiency but also safety (wet grip) and noise – to demonstrate that there's not necessarily any trade-off between those three characteristics.

"It was essential to get all three factors on the label to ensure that tyres wouldn't be optimised for just one at the expense of any of the others," T&E's former deputy-director Nina Renshaw says. "And like with the truck cabs, the key to our success lay in us developing the visuals that convinced the policy makers. We teamed up with an information designer, John Alderson, who works with both graphic design and psychology to ensure that key information is easily understood from a design, and this was instrumental in showing that it could be done without confusing consumers. We even did some testing to prove it, which was enough to convince the Commission. "The Commission previously thought it would be too complex, consumers wouldn't be able to understand, and that it would need text in all EU languages to explain and therefore be impossible to do with one simple label (all views that the tyre industry was pushing hard). When John and I went to the Commission to present his proposed designs, the desk officer literally ran down the corridor to show her boss that we'd solved their problems for them!"

Alderson was then hired to develop the Commission's proposal which ended up looking remarkably similar to T&E's ideas. There was still some work to be done on noise, but lobbying of MEPs got that through, and the regulation was adopted in 2009. Looking back now, Renshaw says: "The tyre industry was strongly against this kind of labelling, but it clearly didn't see us coming and didn't have the capacity or strategy to propose their own illustrated alternatives. When we won the vote in the Parliament, I overheard the boss of the tyre industry federation shouting at her lobbyists 'What the hell just happened here?!!' which was affirming! And the results were very quick we spotted the first labels in a tyre shop on Avenue d'Auderghem within a year or so. It was pretty special to be able to actually see the results of our work in the real world - and to show family and friends that this is what we do."

A new vision for European transport

T&E was founded on 12 January 1990 when Arie Bleijenberg, the chair of T&E's first AGM, declared "the formal establishment of the European Federation for Transport and Environment".

The trio who set the early tone for T&E were Arie Bleijenberg, Stephen Joseph and Martin Sommer. Sommer had founded the Swiss VCS ('Verkehrs-Club der Schweiz', literally Transport Club of Switzerland) in 1979, as a counterweight to the road lobbying activities of Switzerland's two major motoring service organisations. After the success of the VCS and similar organisations in Germany (VCD) and Austria (VCÖ), Sommer envisioned a European umbrella organisation, which in a consultation paper he called the 'Verkehrs-Club Europa' or VCE.

Joseph had become the director of the British campaigning group Transport 2000 in 1988, and was very aware how many issues of transport policy were decided at EU level rather than national level. Bleijenberg was the deputy director of the Dutch research institute now known as CE Delft; he too understood the need for transnational cooperation among those whose aim was to reduce transport's environmental impact, but he was alarmed at how unprofessional many of the existing campaigning groups were.

If Sommer, Joseph and Bleijenberg played the midwives' role in the birth of T&E, John Whitelegg was the 'agency' that brought them together, along with many of the NGOs who became founder members of T&E. An energetic geography professor from England, he was on a sabbatical with the Ministry of City Development in Dortmund. The office had a dedicated research wing of 50 staff, 10 of whom worked on traffic and transport issues. That put him in contact not only with examples of good practice in transport from across Europe, but with many of the people working to give greater importance to the environment in transport decision-making.

Whitelegg was also involved with Transport 2000 International, an attempt to bring together environmental transport campaigners from across the world. Its founder and president was Pierre Bermond, a retired French doctor. In 1985, Bermond had tried to set up Transport 2000 Europe, a European version of Transport 2000 France, which he had founded in 1975, but it was little more than a name with no organisational back-up.

In 1988, Whitelegg and his line manager, Helmut Holzapfel, brought many of these people together to discuss setting up a European umbrella organisation. The meeting, in November 1988 in Dortmund, connected three constituencies: general environmental organisations, public transport users groups, and the consumeroriented 'Verkehrsclubs'. As part of the preparations, Whitelegg wrote a paper setting out the objectives for a new transnational non-governmental federation, a 'friendly, cooperative organisation'. The final session of the conference was the moment of T&E's germination, even though it took another 14 months for T&E to be formally constituted. The Dortmund meeting set the scene for a series of meetings. The first, on 14 January 1989, was seminal. Sommer, Joseph and Bleijenberg were convinced that the new federation would only work if it was professionally run and focused on being effective. They were determined that the group behind the Transport 2000 initiatives should not take control. Bleijenberg would welcome everyone to the first steering group meeting, and assume chairmanship of it.

A researcher, the president of a green car club, and the leader of a green transport NGO took the helm of what was soon to become T&E. The importance of this cannot be underestimated. A choice was made, a direction of travel chosen, and by and large, T&E has remained on the path charted 30 years ago.

Once officially founded, full and associate members of T&E had to pay 100 ecus (the forerunner of the euro), and supporting members a minimum of 10 ecus. The first T&E headed paper featured the name 'European Federation for Transport and Environment' in English, French and German, plus a fourth line, 'Transport 2000 Europe'. In mid-1991 a new white-on-blue logo replaced this and the original black-on-white design by Agnes Weber.

T&E's first policy paper, written by Bleijenberg, arrived on 24 October 1989. It recommended that T&E should concentrate on campaigning for clean vehicles and transport pricing.

The European Federation for Transport and Environment was formally established in Brussels on 12 January 1990 at its first annual meeting. The Federation had eight members: the three German-speaking 'Verkehrsclubs', Transport 2000 (GB), Wijs op Weg (NL), FNAUT (F), RAPD (B), and the Italian Public Transport Users Association (I).

It was a tumultuous time for Europe. The previous four months had seen the collapse of the Soviet bloc of central European countries, including the fall of the Berlin Wall, the internal market was due to come into effect in 1992, and the Rio Earth Summit catapulted climate change onto the world agenda. It was an auspicious time to launch a European umbrella organisation fighting for clean transport.



From left to right: John Whitelegg, Helmut Holzapfel, Arie Bleijenberg, Martin Sommer, Stephen Joseph and Peter Osten

Charging of Heavy Goods Vehicles in the EU

Electronic network-wide toll (distance-based charge)

Toll with physical barriers (distance-based charge)

Countries with time-based charges (i.e. vignette)

Countries planning to introduce an electronic network-wide toll

Countries with neither



Source: Transport & Environment 2017

The bell tolls for trucks: establishing the 'polluter pays' principle

If it was a challenge to get T&E up and running, establishing T&E's credibility among the politicians and officials who held the power to change things was an even greater challenge. The success of T&E's first major research project, and the subsequent Getting the Prices Right report, was critical in putting T&E on the map.

In 1991, the Swedish Society for Nature Conversation's board member, the transport economist Per Kågeson, stood for the post of T&E president with the suggestion that T&E should embark on a project to highlight the external (unpaid) costs of transport, and propose ways they could be internalised. Internalising external costs wasn't totally new, but it was underexplored in terms of the consciousness of decision-makers in and outside Brussels.

"There was a basic economic principle at the heart of this – that if you don't charge a sector of the economy the full costs of its activity, you create distorted prices, and the result will be artificial patterns of development," Kågeson argued. "That was happening with transport, mainly with the costs to society of climate change, but also other social costs such as exhaust emissions, noise and unpaid costs related to the risk for traffic accidents of adding an extra vehicle kilometre."

T&E was at that time so new that very few people attacked the idea behind the project. In fact, the anticipated early opposition from the automotive industry never materialised.

The research, titled Internalising the Social Costs of Transport, was agreed in late 1991 and led by Kågeson, who authored the final report. Not everyone was convinced, and concerns about whether this was the right thing for T&E were debated at length during a board meeting in Copenhagen in 1992. Eventually, the whole board backed the project. One of T&E's British members, Transport 2000, was sceptical about allowing polluters to pay their way out of their harmful activity. It favoured an approach that pushed for greater regulation, which it argued was a fairer approach where everyone had the same obligations. The discussion continues in different forms to this day in debates about equity and who should carry the burden of tackling environmental problems.

The T&E board's backing for Kågeson and his work, which he did as a volunteer, culminated in the 210-page 'Getting the Prices Right' report published in 1993. At the time T&E was a tiny, little known organisation with Chris Bowers as its only part time staff. 'Getting the Prices Right' changed that.

"I became aware very quickly that the report had made a strong impression on the Commission," recalls Kågeson. "The director-general of transport Robert Coleman made some quietly admiring noises, and then the following year Neil Kinnock became the transport commissioner, and the study had clearly impressed him. At the time, the Commission was used to dealing with opposition from the German Greens and a couple of high-profile NGOs. What it had from us was evidence-based material and a concrete proposal for an alternative way of running things, which it could more easily relate to than to the louder campaign groups."

Neil Kinnock, who had nearly become British prime minister in 1992, had just been appointed the EU's transport commissioner. In an exclusive interview to T&E in 1995, he confirmed his support for pricing, saying, "I can see all the benefits of using pricing. My only problem is in finding a system of calculation that really will stand up under examination and be fair. I want it to happen, but it would be foolish of me not to recognise the complexity of the exercise. I want a system which can enjoy widespread acknowledgement and consensus."

Kinnock's interest in a system that would be widely supported was also influenced by what was happening in the Alps at that time. Switzerland and Austria were planning toll systems for trucks that most neighbouring countries saw as an unfair barrier to trade, and very much against the spirit of European integration.

"By 1990, the Swiss had had enough of trans-European lorry traffic thundering through their Alpine country, creating noise, foul smells and all sorts of other environmental problems," says Matthias Zimmermann, T&E's president from 1996 to 2002, and also president of the VCS. "Switzerland had resisted up to a point, because it had kept its 28-tonne weight limit for lorries, whereas by then the rest of Europe allowed trucks up to 40 tonnes. But the flow of heavy vehicles through the Alps was still a big problem."

"So an 'Alpine Initiative' was launched, calling for all transit traffic through Switzerland to be shifted from road to rail within 10 years. It attracted the necessary 100,000 signatures, and in 1994 it was approved in a referendum. In other words: by 2004 all goods transiting Switzerland had to go by rail. "

But there were extra elements to the 1994 vote. On the same day, another motion was put to the Swiss people proposing that a distance-based heavy vehicle tax should be introduced to fund improved rail infrastructure to help shift transalpine goods from road to rail. This tax was also approved. Zimmermann says, "In effect, this meant that Switzerland was saying to the rest of Europe: you can still send your goods through our territory, but they have to go by rail, we will provide the new rail capacity through the Alps, and we will fund it by charging heavy vehicles using Swiss roads an extra tax for every kilometre they drive. In Brussels they still thought we were mad, but for all the nice words about greening transport in the EU, we were the ones putting good intentions into practice." It took years of preparation and some compromising with the EU – the Swiss had given up their 28-tonne limit - but the EU had had to compromise too, accepting Switzerland's night-time and Sunday truck ban, but more importantly it accepted the principle that money raised from road traffic could be used to benefit rail traffic.

On 1 January 2001, the Swiss heavy goods fee came into effect. The charge had to reduce traffic – and it did. In 2000, the number of road freight crossings through the Alps stood at just over 1.4 million. Over the next 18 years the number came gradually down – not to the 650,000 that was the target, but to 941,000.

"The role of Austria and Switzerland was pivotal," says Nina Renshaw, who joined T&E as its road charging lead, having first worked in Austria for LKW Walter, a trucking company. "The Austrians had a system called Ökopunkte, similar to what the Swiss were planning. The EU wanted them to abandon it. The Commission didn't want the Austrians to use their central position to extract tolls from the rest of Europe. So this interaction led to the EU

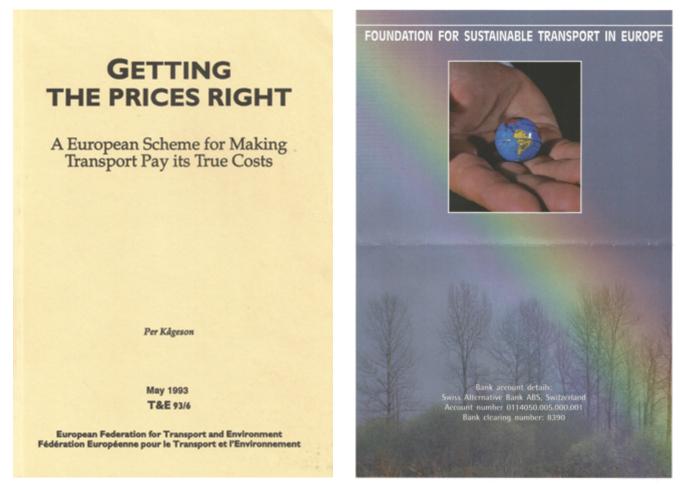
creating rules on what was allowed in terms of road charging."

The Commission had been busy putting Neil Kinnock's 1995 vision of 'Fair and Efficient Pricing in Transport' into practice, leading to the 1999 Eurovignette directive. Reading the 1999 law shows how much of the

initial thinking was quite restrictive. Tolls and road charges were allowed, but with a number of caveats and conditions on where tolls could be levied and especially how high those tolls would be.

Over time the Eurovignette directive developed into a much more encouraging framework with the EU actively promoting distance based tolls, incentivising fleet renewal, external cost charging, and most recently the inclusion of CO_2 and lower tolls for zero emission trucks.

"Tolls are always a little bit about taxing foreigners, and the Swiss and Austrians definitely accelerated the conversation," says Renshaw. "But we provided policymakers with facts and evidence on how tolls would improve the overall transport system, improving



The cover of the 310-page 'Getting the Prices Right' report which launched T&E's reputation as a fact-based environmental advocate (left); a promotional leaflet for the Foundation for Sustainable Transport in Europe, a Swiss-based vehicle to allow T&E to grow without breaching EU funding restrictions (right)

efficiency and boosting rail. Once the EU adopted 'internalisation of external costs' as its mantra, first hesitantly, but then wholeheartedly, tolls spilled over from one country to the next. Road tolls have become the second most important environmental tax hauliers pay in Europe after fuel taxes, and even the Dutch are introducing truck tolls now!"

Looking back on Getting the Prices Right, Kågeson says, "Its biggest impact was that the Commission, and in particular the transport directorate, saw fair pricing as an important issue. We pushed the subject, we presented our reasoning, and we established T&E's credibility. I believe that had enormous importance on our ability to influence transport policy at European level. The road haulage industry later admitted that it felt T&E was too small in 1993 to have much influence, but that it had underestimated us."

The early years

Today's set-up of 71 staff in seven capitals, including Brussels, didn't happen overnight. It took several years for T&E to establish a tiny version of its current staff, secretariat and national office structure.

Only in 1993, three years after it was legally established, did T&E realise its ambition of a Brussels-based secretariat. While early correspondence listed a Brussels address, that was merely the address of Luc Lebrun, T&E's first secretary. During 1990, T&E recruited a new secretary, Erwin Alderlieste. Alderlieste was to run T&E from the offices of CE Delft, an arrangement that ended as quickly as it started when Chris Bowers was appointed T&E coordinator in May 1991.

Bowers was the founder-director of the Environmental Transport Association (the fourth of the 'Verkehrsclubs' and the first established outside the German-speaking countries). He was invited to become T&E's first coordinator, working from the ETA's office in Croydon, England. Bowers started the T&E Bulletin in July 1991, which he promised would appear 10 times a year. It has more or less stuck to that in the three decades since.

Without a base in Brussels, T&E board meetings were held in different locations, largely depending on who was willing to organise them, and often in concert with a conference, campaigning action or some other event. There were meetings as far apart as Dijon, Copenhagen, Budapest, Lisbon, Tallinn, Stockholm and Barcelona (and occasionally Brussels). In the spring of 1991, though, T&E's German board member Peter Osten offered to host a meeting in the former East Germany. Osten was a judge who had been sent from his regular job in Karlsruhe to help set up the justice system in the new (eastern) state of Sachsen-Anhalt.

Osten arranged for the board meeting to take place in Wernigerode, a small town just on the eastern side of the old inner-German border, which would have great significance for T&E's future direction. He also arranged for everyone coming to the meeting to travel to Bad Harzburg, the last train station on the western side of the old border, and for the board to walk towards Wernigerode along the trackbed of the disused railway line that crossed the border. T&E's board member and soon-to-be president, Per Kågeson, recalls, "It was a symbolic walk, both signifying the new borderless Europe and making a statement that T&E was serious in wanting to reach out to the new post-Soviet states of central and eastern Europe." Within two years, the Czech and Slovak traffic club (Dopravni-Klub) was a member of T&E, and more organisations from countries formerly 'behind the Iron Curtain' joined shortly after.

Core funding was secured from a variety of sources – including the European Commission and significant contributions from the three German-speaking 'Verkehrsclubs' – and an office in Brussels became viable. A room was secured in the headquarters of the European Environmental Bureau at 26 Rue de la Victoire. Chris Bowers remained in the UK while Gijs Kuneman was employed as T&E's first Brusselsbased coordinator from 1 January 1993. Kuneman's job was upgraded to director in December 1994, while Frazer Goodwin became T&E's first communications manager in October 1996. Kuneman's departure in 1997 saw the arrival of Beatrice Schell, who expanded the staff to six. She was succeeded nearly six years later by Jos Dings, who came from one of T&E's spiritual homes, CE Delft. Per Kågeson gave up the presidency in 1996, to be replaced by Matthias Zimmermann who held the post until 2002.

Europe United

In September 1991, the T&E board was due to meet in Wernigerode, which only a year earlier had been part of the old East Germany. The board members took the train to Bad Harzburg, just on the western side of the old East-West German border, walked along the trackbed of a disused railway line that crossed the recently dismantled frontier, to be met by a welcoming party at Stapelburg railway station, for the short train journey to Wernigerode. There, T&E's German board member Peter Osten presented the driver and conductor of the train with a symbolic gift: a box of rail track screws which came from all the railways of Europe. At least that was the story T&E gave the local press. The truth was that the screws, which hold pieces of track securely to the wooden 'sleepers', came from a railway company in the Karlsruhe area where Osten lived, but in 1991 the symbolism was worth more than the exact truth!



T&E's director Beatrice Schell (second from left) with leading board members at a meeting in Basel. From left: Ulla Rasmussen, Jürg Tschöpp, Sonja Klingberg and Matthias Zimmermann



Test-cycle beating: Dieselgate and the end of carmaker impunity

There's a saying in show business, that you can spend 20 years becoming an overnight star. That is how T&E felt on 18 September 2015 when Volkswagen admitted it had rigged its cars' computers to cheat the emissions tests used for type approval.

T&E's director of communications and campaigns, Nico Muzi, remembers the day very clearly. "It was a Friday evening, 19:34. I was making dinner for my family when my mobile pinged. 'Oh wow!' read the message from Greg Archer, T&E's former clean vehicles director. I couldn't resist the temptation and opened the email. The message said: 'VW admitted use of defeat devices on US diesels for NOx after an EPA investigation with CARB. Huge! FT writing the story – I'm helping them with the details! The ****s have finally been caught!' That kicked off the most frantic media time in T&E's history.

"From that moment on, and for the next three weeks, seven staff members (Greg Archer, Julia Poliscanova, François Cuenot, William Todts, Jos Dings, Carlos Calvo Ambel and I) did nothing but answer media enquiries. A typical day would see Greg opening the first news programme on BBC Radio at 6:30am, Jos going live on the news reports at midday on Dutch TV, Julia doing a pre-recorded piece for CNN in the afternoon, and Carlos closing at 9:15pm on the news programme at Spain's Cuatro. It was crazy, but it was also wonderful."

Greg Archer remembers it similarly. "We were taking calls from six in the morning to midnight," he says. "This went on for over three weeks. I was particularly short with one newspaper journalist who phoned me at midnight, but he understood the situation and we've got on well ever since. At first it was the news journalists, then it moved to the feature writers, and then onto the investigative journalists who were quite demanding because they wanted a lot of detail and their own unique angle."

Such a response to the Dieselgate scandal, in particular people turning to T&E for comment, didn't just happen by accident. T&E had spent 20 years preparing for this day – even if it was helpful that nobody knew at the time that it would take so long.

In 1995, T&E became aware of a couple of motoring journalists who mentioned in articles that cars emit far more pollutants and climate-changing emissions on the road than they do in the tests new models must go through to establish their environmental impact data. That year, the federation's president Per Kågeson met the director of Rototest, a Swedish company that offered independent exhaust emission tests on new and old cars. Following this conversation, Kågeson secured funding from the Swedish environment protection agency to pay Rototest to provide data on the discrepancy between emissions in test conditions and emissions in real-world driving.

Kågeson recalls, "It was clear by then that the on-board computers being installed in new cars were sufficiently intelligent that they could be made to recognise, within a few seconds, when a car was being tested against the official European test cycle, and they could adjust the car's engine and exhaust equipment to give priority to low emissions rather than high performance. In effect, this was exactly the Dieselgate syndrome, but nearly 20 years before Dieselgate happened."

The results that Rototest provided were used for T&E's 1998 publication 'Cycle Beating and the EU Test Cycle for Cars'. In its executive summary it highlighted the problem in simple language: "The test new cars take on

the amount they pollute is unrealistic of real driving and too predictable. This allows car manufacturers to design their cars to pass tests, and results in cars producing higher levels of pollution when driven on the road."

It was the start of a 15-year period when T&E regularly repeated its criticism of the NEDC test cycle used for

type approval of new cars, but very little happened. Finally, in 2015, the Commission and EU member states agreed to replace the NEDC test with the new WLTP test (World Light vehicles Test Procedure). This took place before Dieselgate happened, but when the scandal broke no date for its implementation had been agreed. Once Volkswagen admitted to the US Environmental Protection Agency that it had quite blatantly cheated, the landscape changed. major car manufacturer was selling diesel cars that fail to meet EU air pollution limits on the road. The Guardian ran a feature based on our data headlined 'Nine out of 10 new diesel cars exceed EU pollution limits'. So when the VW admission came out of America, all the leading environmental journalists knew we were the people to contact."

"One of the most effective tactical decisions we took when Dieselgate broke was to stress that this was an industrywide problem," Greg Archer adds. "The reaction of the car industry was to try and blame it on 'a handful of rogue engineers', in fact that was a phrase that was regularly used. They were happy to throw VW to the lions to try and save their questionable technical practices, but we knew this was a problem across all carmakers, so we chose not to focus on VW but to campaign for an industry-wide solution.

"This was 2015, in the midst of the eurozone crisis, and when trust in Europe was at its lowest," recalls William Todts. "I still remember the discussions about how we would react. Journalists wanted us to say it was the Commission's fault. An easy headline but it wasn't true, and it would do nothing to solve the problem. The solution was more European oversight, not less Europe."

T&E's main message was that national governments had given carmakers a free pass for years and that the EU should introduce US-style testing oversight. It was no coincidence that Dieselgate broke in the US. Julia Poliscanova, T&E's Senior Director, Vehicles and E-Mobility, explains, "The US Environment Protection Agency has the power to test vehicles and if there's a problem they can impose huge fines on carmakers. In Europe, carmakers were overseen by their friends in the national transport ministries. In reality, they were untouchable."

"There were solid reasons why T&E was the go-to organisation for journalists when Dieselgate broke," Nico Muzi recalls. "We had done a lot of data collection on the discrepancy between test cycle results and real-world driving conditions, and just four days before Volkswagen admitted cheating, we published a provocative report, 'Don't Breathe Here!', in which we stated that every When you consider that we helped create the conditions for the WLTP to replace the NEDC, and that there's now a real-world driving test, our 'Mind the gap' reports exposing the widening gulf between what cars emitted in their type approval tests and what they emitted on the open road, really did achieve something."

Twenty-four years on from 'Cycle Beating and the EU Test Cycle for Cars', how does Kågeson view progress today? "In theory it's still possible to beat the test cycle, but I don't think any carmaker would dare try. That is perhaps the real result of Dieselgate, the fear of consequences if any manufacturer is caught cheating again – but it is still possible, which is why both the media and campaigning NGOs need to keep watching the industry closely.

"Another clear result of Dieselgate is that trust in an industry that once had an iron grip on policymakers collapsed," Julia concludes. "The full glare of the media spotlight brought to light the shady dealings of the auto industry and regulators, it shook public confidence in household brands and, with their dirty laundry hung out for the world to see, the impunity they had previously been able to take for granted ended. It also completely transformed Europe's largest carmaker Volkswagen, which is now becoming an e-mobility champion."

Toxic pollution from a toxic culture

The car industry might have been publicly chastened by the Dieselgate scandal, but its questionable lobbying continued behind the scenes. At a working group meeting at the European Commission in 2021 to discuss stricter pollutant emission standards for cars and trucks (Euro 7), an auto industry lobbyist claimed that women would be at greater risk of being attacked in car parks if car makers were forced to use new technologies to clean up polluting emissions. The industry was effectively saying air pollution that claims more than 50,000 premature deaths annually across Europe is the price we have to pay for women's safety. The move backfired, as it provided the inspiration for a hard-hitting T&E briefing paper 'The seven (dirty) air pollution tricks of the auto industry'. On the day it was published, along with media articles and an EUwide social media campaign, the head of the carmakers' lobby federation ACEA called T&E to request a meeting to discuss the upcoming standards.

A kitchen sink drama

When an NGO is in demand from the media, it sometimes requires an invasion into a campaigner's private sphere, and that's what happened at the height of the Dieselgate scandal to T&E's clean cars director Greg Archer. Archer was on leave from Brussels visiting his parents in south-east England, as his mother needed to go into hospital for a major operation, but he was being chased by BBC Television for an interview on Dieselgate. Eventually he said to the reporter chasing him "The only way you're going to get this interview is if you send a camera team to my mother's living room!" The reporter replied that the crew were on their way, and Archer did the interview as his mother went under the knife. "The bizarre thing was," he recalls, "that once they had gone, and my mother came round from the anaesthetic, she turned on the news to see film from her living room!"



An illustration used in the media showing that, while Volkswagen was the carmaker caught red-handed, the entire industry was complicit to some extent in producing cars that emitted more on the road than they did in type approval tests.

Made in Europe - the right to clean air

In early 1996, T&E teamed up with five other environmental, consumer and public health associations to launch a 'European Clean Air Campaign'. It was intended to influence the formulation of the EU's first Air Quality Framework Directive (96/62/EC) and its 'daughter directives', which established standards for a range of pollutants including ozone, particulate matter (PM10) and NO₂ in the period up to 2004. They were supposed to become legally binding as of 2005.

It wasn't the big breakthrough NGOs were looking for at the time but at least countries had to start monitoring and reporting to the public on air pollution.

"This gave local campaigners something concrete to fight with, namely air quality standards that forced cities to do something about traffic and is still in use today as a legal basis to establish low- and zero-emissions zones," T&E's then director Gijs Kuneman says. "The connection we made with the European Public Health Alliance was particularly important, as was the presence of a wonderfully stubborn Commission environment official who fought hard for the result.

The fight for clean air continued in the 2000s. While the Commission wanted to introduce new limit values for smaller particles (PM2.5), many Member States were rather keen to postpone the entry into force of the existing limits for PM10. The discussion in those years was more focused on particulate matter with countries like the Netherlands pushing back strongly against the Commission proposal. NO₂, the flashpoint for the Dieselgate scandal in 2015, was less controversial at the time. In the end, both happened: new PM2.5 values were introduced, the existing limit values were postponed, but the directive did contain legally binding obligations for member states to reduce ambient air pollution.



T&E's director Gijs Kuneman presenting the leading MEP Caroline Jackson with some filters used in air quality measuring which showed graphically the levels of pollutants in the air of Europe's cities

An organisation transformed: T&E today

T&E today is unrecognisable from the group of people who came together for the first annual meeting in January 1990. Even T&E-ers working for the organisation in the 2000s would find it hard to recognise the team today.

These days, the T&E secretariat inhabits a suite of offices that is the workplace for around 70 staff. The top T&E official is no longer 'the director', these days the top official, William Todts, is the 'executive director' reflecting another aspect of organisational development. Where there was no formal structure in the T&E secretariat for a long time, there is now a senior management team with five senior directors, two of them in charge of policy, one in charge of communications, one heading operations, and another overseeing T&E's national work.

The T&E board which had long played a more hands-on role in the organisation - witness the number of early T&E reports authored by board members - developed into an advisory body, leaving the day to day running of the organisation to the Executive Director and senior team. It's a far cry from when Gijs Kuneman had to do it all himself, or Beatrice Schell managed a grand total of four members of staff.

T&E has always had a strong focus on data and analysis, but where this was previously the remit of the director, board members or one or more gifted members of staff, doing this on an ad hoc basis, T&E now has a well-respected in-house team of analysts that also coordinates 'clusters' of analysts, usually scientists or engineers, in policy teams. This Trends & Analysis team is in charge of cross-cutting studies, forward looking analysis and ensures that all T&E scientific outputs adhere to high standards.

Communications has always been central to T&E's success, and the high standards of our scientific output have been combined over the years with excellent story telling crafted by a now seven-person communications team. It's one of the reasons why T&E's reports are regularly cited in quality news media across Europe and the world, and why journalists look to T&E as a trusted source of information and opinion. One measure of that success can be seen in the growth of media coverage: in 2008 T&E reported being quoted in 1,132 media articles; by 2020, that had risen tenfold to 11,474 articles.

The organisation also is no longer solely Brussels based. Cécile Toubeau, the first director of the national offices, recalls how it all began: "We felt we were doing OK in Brussels, working with the Commission and Parliament, but real decisions on EU policy were increasingly made in EU capitals. Given the complexity of the topics we work on, and the fact that most members were focused on national topics, we thought we needed to open a new front. For me this was as much about policy impact as about democratic accountability. We can't allow ministers and officials to do whatever they want in Brussels just because no-one is paying attention."

In 2017, national offices opened in Spain and Italy, and in 2019 a third opened in the UK, run by T&E's long-standing cars campaigner Greg Archer. Since then, offices have opened in Poland, France and Germany. Those offices act as a liaison between national level groups, policymakers and the Brussels team. They are a unique feature of the organisation, and have grown its impact and influence considerably. The creation of the Spanish and Italian offices coincided with Spain and Italy changing their stance on certain transport issues, notably becoming less pro-road and pro-oil following changes of governments (a shift T&E was happy to emphasise in Brussels). And the creation of the UK office, just after Brexit, helped T&E shape the UK government's climate and transport strategy, including a promise for a zero-emission vehicle mandate, a first in Europe.

The first real surge in T&E's growth came in the years that Jos Dings was director. And that surge was not just in the size of the T&E office, but in its influence on EU policy. Dings joined T&E in May 2004 when the turnover was \notin 450,000 and the staff was six. He left in February 2017 with the turnover at around \notin 3.6 million, having achieved a steady year-on-year growth in the size of the staff and budget of around 10-15% per year. Then came a second surge, starting in 2018-19. Since then, T&E's income has grown to over \notin 11 million in 2021, nearly three times higher than in 2017.

Such growth meant T&E was able to staff all its core issues properly, with a full-time director for every field of T&E's interest. A separate trucks team was created, and aviation and shipping, long cobbled together in one 'bunkers' team, became teams in their own right. Growth also happened as a result of T&E branching out into new areas such as national trade (now defunct), climate policy, batteries and truck safety. A major new addition was the creation of the sustainable finance team in 2019.

The growth also meant T&E was constantly outgrowing its office space. Having been in the Rue de la Victoire, the Boulevard de Waterloo and the Rue de la Pépinière, in 2009 T&E moved to much bigger offices in Mundo-B, a new sustainable office building in the Rue d'Edimbourg in the heart of Brussels' European quarter. It allowed not just for sustainable office space but for close contacts with a number of other environmental NGOs who were also housed there. But by 2013, even that proved too small, and T&E moved to its current location near the European Parliament building in the Square de Meeûs. That office space was doubled in 2021.

One thing that changed dramatically since the early days is the gender diversity of the organisation. T&E's founders and its first board was entirely made up of men. Judith Hanna from Transport 2000 was T&E's first female board member when she replaced Stephen Joseph in 1991. Beatrice Schell was T&E's first senior female employee when she became director in 1997. But the transport and auto industry remained a male dominated environment, as borne out by the following anecdote.

Back in 2012 T&E was involved in a campaign for quieter cars, led by two women, Nina Renshaw and Cécile Toubeau. One weekend Nina Renshaw was on standby for media interest ahead of a vote in the European Parliament on vehicle noise standards. T&E had just revealed to the press that Porsche had written the compromise amendments for the Czech rapporteur. Porsche's angry response to being found out was to tell a journalist from The Guardian that Renshaw was "just a girl – what would she know?"

This backfired spectacularly: Renshaw received a lot of calls, and ended up being interviewed for a German investigative TV show, Frontal21, about it. Unbeknown to anyone in the German car industry, Renshaw was secretly a Formula 1 fan, and she hadn't confessed to her colleagues where she was going that weekend – she was in Spa-Francorchamps to watch the Belgian F1 Grand Prix. Luckily, no calls came in while the cars were screaming past, but then that would have made for an interesting way to refute Porsche's claim that she was "just a girl" who knew nothing about cars.

Today, 51% of T&E employees are female and the majority of its board members are women. But we understand that diversity is much more than gender. In 2021 we partnered with the Hewlett Foundation to build a European team of Sustainable Finance experts exclusively sourced through a diversity and inclusion focused hiring programme. This is a critical process T&E is committed to continuing.

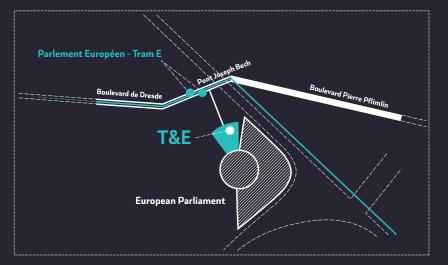
A change that came in during 2006 was that T&E shortened its name. Since its foundation in 1990, it had been the European Federation for Transport and Environment, or T&E for short. Dudley Curtis, who was communications manager at the time, says: "It was a simple issue of space. We worked out that 'Transport & Environment' was much more likely to be used than the full version and was better than being referred to as 'an environmental group' which some media were doing because T&E was too short and the full name was too long." But it was never a formal name change, and T&E remains to this day officially the European Federation for Transport and Environment.



Staff days out have been a feature of T&E over the past 30 years, to build team spirit and make working for T&E fun. Pictured here in 2005: (from left) Dudley Curtis, Aat Peterse, Karsten Krause, Emma Bagyary, Beatrice Chiantalassa, Jos Dings, Paolo Ferraresi and Markus Liechti

MONDAY 12/09 & TUESDAY 13/09 STRASBOURG - EUROPEAN PARLIAMENT WWW.INCONVENIENTTRUCK.EU







Making trucks sexy ... and safer, and more aerodynamic

A typical exchange between the T&E communications team and the trucks team in the early 2010s would go roughly like this:

"This is a niche issue. Outside the logistics business, nobody cares about trucks. I'm sorry, that's just the way it is."

"We're gonna change the way millions of big trucks look. This is huge! You're the comms gurus. Find a way to make trucks sexy!"

If it was a struggle within T&E, it took a lot longer for politicians and the media to start paying attention to trucks. When T&E launched its clean trucks programme in 2009-10 the EU had no ambition to clean up trucks. A decade on, clean trucks are firmly entrenched into the EU's climate laws and the only question is how fast trucks will go electric and hydrogen.

T&E's successful campaign to radically change the design of all trucks sold in Europe, and many other parts of the world, marked the beginning of a process that is transforming not just the design of trucks but also what powers them. In addition, the smart trucks campaign illustrates the power of ideas and outside-the-box thinking. In some ways, the communications staff were right: this was a niche issue. So much so, that without T&E's campaign, it simply would not have happened.

That did not mean there was no opposition. The idea of forcing truckmakers to make their cabs according to a new design was unpopular with, well, truckmakers. It also needed internal advocacy to convince T&E's own federation that this was a worthwhile project.

William Todts, now T&E's executive director but who originally came to T&E in 2011 to work on heavy road vehicles, says, "T&E hadn't really been working on CO₂ from trucks up to then. It had done a lot of work on the pricing of freight, and had been against 25-metre 60 tonne trucks used in Scandinavia. But the rest of T&E's policy towards heavy goods vehicles could be summarised as: shift it to rail. Eventually, we agreed this wasn't good enough, road haulage would continue to be a means of goods transport for a long time. Pretending rail was going to solve the problem was letting the truckmakers off the hook."

It started with a brainstorm. Since the 1980s, European trucks had adopted the brick-shaped cab-over-theengine design as opposed to the American big nose trucks. Why was that? And was that ideal? T&E's then director, Jos Dings, and deputy director, Nina Renshaw, had seen some interesting cab designs with short round noses at truck fairs in the mid 2000s.

Dings says, "I had a hunch that round-nose designs would be much more aerodynamic, a bit like bullet trains. They would probably be safer too. We got very excited, but we wanted this to be solid. Our discussion came at the time when the Commission was proposing so-called megatrucks, lorries up to 60 tonnes and much longer than the previous maximum, so approval for them would mean revising the EU's weights and dimensions legislation. We were obviously opposed to mega-trucks, but I didn't want us just to say no, I wanted us to use the revision of the legislation to do something positive. Our focus on redesigning the cabs meant we could say we wanted 'better, not bigger." The leap of faith that Dings and Renshaw took was to use around €70,000 of European Climate Foundation money to fund a study by a German engineering consultancy. The consultancy came up with a new design for truck cabs, with accompanying estimates of safety and emissions benefits. The final report included a scale model and the results of wind tunnel testing to figure out aerodynamic efficiency and fuel savings, as well as fieldof-vision mock-ups for cyclists and pedestrians.

"This was the best money we ever spent," said Renshaw. "The aerodynamic and fuel savings were good, but the safety gains were even more impressive. New designs could prevent hundreds of people dying in truck accidents every year"

In 2011, T&E had a meeting with the transport commissioner, Siim Kallas, at which it would present the design and other findings of the study. Renshaw took the lead. "We knew Kallas was a keen cyclist," she says, "so I presented the safety and emissions benefits and fuel savings, and pitched the legislative change to make it possible. The consultants had provided great visuals of the truck itself, aerodynamics and crash test dummies which made it quite easy to tell the story. Dudley Curtis, T&E's then communications manager, had also come up with the analogy of a brick for the existing cab model, which helped a lot.

"Kallas instantly got it. We could see it was a lightbulb moment for him. He turned to his deputy head of cabinet and said, 'This is very doable.' It's so rare to clinch a massive decision like that in one meeting. He was as good as his word and instructed the directorate to get to work

on it quickly. I think we saw the proposal come to fruition within months of that meeting. It was probably my personal best advocacy moment ever!"

For a while, the progress continued. T&E established a relationship with the German truckmaker MAN, which was keen to embrace the new designs and clearly stood to benefit from the new rules. But then things took a turn for the worse. "There was a brief moment when we were talking to MAN a lot," says Todts. I visited them in Munich, and I had some secret meetings with their EU lobbyist in some shady Brussels bars. But then one day she just disappeared. She had been sacked."

The truckmakers as an industry had learned of the new cab design that had so impressed commissioner Kallas, and they closed ranks.

> Henceforth, ACEA, the European carand truckmakers federation, would represent the truckmakers' interests, MAN would have no say other than as a member of ACEA, and the industry would oppose the new designs for at

least a decade to guarantee no-one would benefit from the new rule early.

To counter this new opposition, T&E adopted a new model of campaigning, one that has become its standard modus operandi in subsequent campaigns. It formed alliances. In this case, it teamed up with safety campaigners and road hauliers, both of whom had an interest in seeing the new cab designs become reality. This was a major break from the past, as environmental campaigners and hauliers had always eyed each other with suspicion, but now they had a common interest.

In 2014 the law changed, but it was only a partial victory. Newer, safer and more aerodynamic cabs would not be allowed until the early 2020s, and a lot of detail would need to be sorted out in a yet-to-be-proposed General Safety Regulation. Detailed rules would also need to be agreed.

"There was one moment I will never forget. We had been telling regulators across Europe that it was abnormal for the truck industry to be opposing more design freedom. It smelled of collusion," Todts says. "Then one day in 2014 the Commission announced that it was officially charging all truckmakers with collusion in what was going to be the biggest cartel case in EU history. It is really tough taking on big industries full of smart engineers and arrogant lobbyists as a young professional working for a small NGO. I felt vindicated." "I wasn't happy about the outcome on the cabs," says Todts. "It should have been a home run for us, but it ended in victory for truckmakers. Yet it was to prove a pyrrhic victory for them. The truckmakers were in the spotlight now and regulators did not like what they saw.

That was to prove pivotal in the next big truck fight. "The mantra in the industry and the Commission was that the truck market was functioning, and there was sufficient market pull for fuel efficiency," says Todts. "So we set about showing the regulators that, left to their own devices, the truckmakers had made next-to no progress."

At this time (2014), T&E took on a new campaigner, Stef Cornelis, to campaign on trucks, and his job ending up starting before his first day in the office.

"I was going to take a break in between jobs but then William called me," Cornelis recalls. "Could I start right away? He wanted me to take care of a big truck stunt T&E were planning. We had a few aces up our sleeve, and the biggest one was the complete lack of innovation in the truck sector. We compiled data showing trucks hadn't become more fuel efficient for 20 years. The truckmakers were furious. They even started their own testing programme to disprove us. We had momentum but needed something big to drive our point home.

"We had sent a trainee on a trip to Munich to go through hundreds of old trucking magazines to build a database of historical truck fuel efficiency trends. It was great data but we had to show people what it meant. So I dug into the data for a comparable pair of trucks, and ended up buying a 1994 MAN truck and renting a comparable 2014 MAN truck. Their fuel economy was identical."

As part of the campaign, T&E decided to try and display the two trucks in front of the European Parliament building in Strasbourg.

"It was a nightmare," adds Cornelis. "First, we had to complete all the paperwork to get permission for this. And then the logistics. The old truck was leaking diesel and broke down constantly. There was this moment where we could not get it off the transport truck right in front of the Strasbourg Parliament. MEPs and staff were walking past whilst a group of environmentalists attempted to offload a big old truck.

"It was super stressful. Finally a MAN maintenance guy got the ignition to work and we were just shouting and laughing. A few hours later we had the trucks in front of the European Parliament with a big banner saying: '20 years of progress?' It was stunning, the two trucks looked identical and the message hit home with visiting MEPs. One of them, an Italian whom I tried to charm in my Erasmus Italian, became the lead MEP on trucks and was key to getting the EU to adopt new CO₂ rules for trucks. What a way to start a new job!"

This stunt, combined with the cartel case and the fact that Barack Obama had just introduced a round of truck fuel economy standards on Daimler and others in the US, helped seal the deal. Mainstream media also got interested, with the Financial Times and many other big publications regularly covering the Brussels truck fight.

Under current EU legislation, new trucks must emit 15% less CO₂ by 2025 and 30% less by 2030 (compared with 2019 levels). T&E is still fighting in Geneva to get good vision requirements to protect cyclists in blind spot accidents, but the new cab designs should start to become a feature of Europe's roads very soon.

It brings tears to the eyes of Renshaw. "It'll be quite something to see the results of our work on the streets, because that doesn't normally happen as a result of what goes on in the T&E office. And I'll have to explain to my friends why seeing a truck will have me tearing up!"

"What we didn't know then was that this crazy idea was going to unlock all this progress on trucks," Todts concludes. "It was visionary, but it was also a long hard slog. Three generations of T&E staff had to fight to get to where we are now. And in a way we're only just getting started on transforming trucks. It's a great example of creativity but also tenacity."



Biofuels: the dumbest thing the EU has done in the name of climate

Biofuels took up much of T&E's campaigning time from the mid 2000s. In this case, it wasn't a question of T&E proposing a wonderful solution and finding established interests saying it couldn't be done. This was a case of European countries thinking they had the answer to all their problems, and T&E having to find a way of saying: if it looks too good to be true, it probably is.

When a role for biofuels in transport first emerged, the European Commission must have thought all its Christmases had come at once. The idea of growing crops in fields that would provide emissions-free fuel was great for fighting climate change, great for the farming sector, and great for guaranteeing security of energy supply. It would also mean less adaptation of cars and trucks, as they could continue to be powered by internal combustion engines running on liquid fuels. Yes, there were likely to be some issues with certifying whether and how much carbon all those biofuels actually saved, but the key thing was to be ambitious.

The then director Jos Dings recalls,

"At the time the discussion was only about how much carbon was absorbed by crops before they got burned as diesel. But it was clear to me this wasn't the entire story. We'd need land to grow those crops, and we'd still be eating, so we'd have to expand farmland. I didn't know exactly how bad this would be but I knew this wasn't going to be good, so we opposed the transport target."

"Looking back it still fills me with pride that we were the one NGO that said, no, this is stupid. We don't just sign up to calls for ambition. We want to know it can be done, understand what it will do to the market, and if it's likely to have more negative than positive effects, we're happy to be a bit less ambitious but fact-based."

Despite T&E's misgivings, the 2008 Renewable Energy Directive committed the EU to having at least 10% of its transport fuels coming from renewable sources by 2020. In reality that meant close to 10% of renewable energy for transport would come from biofuels.

Yet even by the time the directive was agreed, biofuels were already controversial. It soon became evident that the biofuel that was likely to have the greatest take-up, biodiesel, was one of the worst. The fact that rainforests were being cut down in SouthEast Asia to make way for biofuel crops - especially palm oil - meant there was mounting evidence that some biofuels caused more greenhouse gases, not fewer. The EU would be encouraging activities that made climate change worse, not better.

Nusa Urbancic, a campaigner who had joined T&E in 2008 to work on electric vehicles, quickly became

immersed in T&E's biofuels work. "The Commission gave three justifications for biofuels," she says, "but the main one was that they would help in the fight against climate change, so we attacked biofuels on CO_2 emissions grounds. We also took the line that we were not against biofuels, we were only against the biofuels that would damage the fight against climate change – which was

very reasonable. But it became increasingly clear that biofuels weren't the solution because very few biofuels would make a significant contribution to decarbonising transport." One of the buzzwords that emerged amid the biofuels debate was ILUC, or Indirect Land Use Change. The Commission had some 'sustainability criteria' written in, which stipulated that biofuels qualifying for state support had to be at least 35% better in greenhouse gas terms than fossil fuels, and no direct land-use change (like deforestation) would be allowed in the process of growing biofuel crops. But what about indirect land-use change? What happens if a field that was used for food crops is then used to grow biofuel crops, meaning other land is needed elsewhere for food? This became a central theme of the early biofuels debate.

Initially, ILUC proved difficult to get accepted, because it was so difficult to quantify. But Urbancic, who designed and led the campaign on ILUC,

remembers a discussion in the office. "We had Commission officials saying it was crazy to question the value of biofuels because of a syndrome whose impact was nearly impossible to assess," she says, "but then Jos quoted the economist Maynard Keynes who said 'It is better to be roughly right than precisely wrong."

It was hard to get traction on ILUC

until one day T&E received a copy of an important internal Commission memo. It had been sent from the director-general of the Commission's agriculture unit to the director-general of energy, and it expressed the fear that the emerging scientific consensus around ILUC could 'kill' biofuels.

"I had been trying for months to find a way into the story, and was struggling," Dudley Curtis recalls. "When Nu? a showed the leaked memo to me, I knew it was a bombshell. We decided to give it to two important media contacts, Pete Harrison of the Reuters news agency and James Kanter of the New York Times, who had both been helpful on other stories and who saw the power of it immediately. From that point on, Pete in particular became personally invested in biofuels, he wrote a long explanatory article quoting the leaked memo, and he did a lot of follow-up work on biofuels."

The leaked memo also prompted Urbancic to file an official request demanding access to the documents

that were worrying the agriculture department, and in early 2010, 116 reports were released, showing biofuels causing widespread ecological problems.

Eventually the pressure became too much. In September 2012 the Commission announced it was reducing the contribution of biofuels made from food crops to 5% of the target, while it said its post-2020 preference was for "biofuels produced from non-food feedstocks, like waste or agricultural residues such as straw". That was the victory, and on the day it was announced, Jos Dings threw a party for the T&E staff who had worked for four years and more to discredit the biofuels myths.

In the end ILUC was agreed by the EU and a cap was put on crop biofuels.

"They said the Commission would never get rid of the target, but in the end it actually backtracked because of our pressure," reflects Urbancic. "Ultimately we created massive uncertainty. Industry and investors hated that – they loved the target because it guaranteed them a market for their biofuels, but once we started to publicise the growing evidence that biofuels would not tackle global warming but would in reality add to it, they were unwilling to invest."

Yet that was only half the fight. We had only prevented disaster. We hadn't actually made things any better. That was the next step.

Not in my tank

Palm oil is a great crop for biofuels. As long as it has rain and heat, it grows abundantly, giving off a high yield, and is cheap to grow. So fuel producers started using large quantities of palm oil for their biodiesel, and as it could only be grown in tropical places like South East Asia, Latin America and sub-Saharan Africa, evidence started to emerge that the rush for palm oil was causing deforestation and food supply problems in some of the poorest countries in the world.

"That changed the whole debate on biofuels," says Nico Muzi, T&E's communications and campaigns director at the time. "Despite all our good work, we weren't making much progress. The ILUC debate had stalled, we were locked into a grind with the farm lobby, and even though the Commission said it wanted to phase out crop biofuels, it was clear we weren't winning that battle. Once we brought palm oil into the equation things changed."

Following the publication of a Commission investigation, the Globiom report, T&E analysis concluded palm biodiesel was three times worse for the climate than conventional fossil diesel. T&E also secured a leaked document from the vegetable oil producers association Fediol. As a result of this leak, T&E was able to reveal in April 2016 that almost half of palm oil imports to Europe were used to make biodiesel.

Laura Buffet, a clean energy policy expert who has led T&E's advocacy work on biofuels since 2016, says, "This changed the politics dramatically. Singling out palm oil as the worst performer allowed us to work with European farmers and gave us access to centre right lawmakers that had previously been deaf to our arguments. Finally, the message that the cure (biofuels) was worse than the disease (fossil fuel) was getting across. All of a sudden we were out of the stalemate and we could start making progress again.

"The breakthrough happened when MEPs voted in early 2018 to kick out palm oil biofuels from the list of green renewable fuels."

But the vote in Parliament, and even widespread support amongst national governments, wasn't enough. The Commission's foreign affairs and trade departments opposed anything that could strain relations with SouthEast Asian nations. In the end, the Commission blocked a decision on palm oil and gave itself 'delegated powers' to deal with the problem in 2019, all the way at the end of its mandate.

"We were so frustrated. Burning palm oil to save the planet was so obviously stupid and still we couldn't get a straight win. I remember sitting with Nico and Laura and weighing our options. We all understood the time had come to take off the gloves. Data and arguments weren't going to be enough. We had to change the politics completely,"

stresses William Todts.

"T&E wasn't really a campaigning organisation at the time," Muzi says. "We did good advocacy and media work but couldn't mobilise the way Greenpeace could. Palm oil was our chance to try something different. So we went fundraising, hired Luca Bonaccorsi and a few weeks later we kicked off our first real campaign.

"It was amazing, we put together a big NGO coalition with the invaluable support of our members, we created stunts with people dressed up as orangutans, we developed stunning visuals that a lot of people thought were a little too much. It wasn't T&E's 'style', but by the time the Commission had to make its decision we had palm oil diesel all over social media and 660,000 Europeans backing our call to end palm oil diesel. When 12 of our members and William met with Commissioner Cañete, the key decision maker, he said he'd take into account the unprecedented public support for our call when drafting the act."

This time the Commission had no choice but to listen. The Commission's delegated act made it all but impossible for palm oil to be counted as a green fuel by 2030. To disqualify palm oil, the Commission used a methodology based on ... ILUC.

The bigger picture has been that, with the miracle of biofuels proving nothing more than a cheap and dirty trick, there was no longer an easy way out for carmakers. That seemed highly unlikely when we first got started and supporting high biofuel blending mandates was seen as the hallmark of 'ambition'.

"There's so much in this story," concludes Todts. "It's about what we are as an organisation, calling out bullshit when we see it. It's about us being madly persistent and focused on hard facts, but it's also about us evolving,

> realising that if your goal is to change the world, data and suits only get you so far."



Shifting freight off the roads and onto rail

They say a first love never dies. And if Transport & Environment campaigners love one thing above all else it is rail. The efficiency, speed, comfort and accessibility of rail has long made it the ultimate symbol of clean travel. Put a group of European transport campaigners together and it takes about 60 seconds for them to start talking about trains and how we could make rail great again.

T&E's approach to rail was a key issue when it was founded. Some of T&E's members wanted T&E to focus on promoting public transport and rail. But people like Arie Bleijenberg and Per Kågeson, who both played a key role in defining T&E in the early 1990s, argued for a different approach.

"We believed it would be important for T&E not to be seen to promote rail over other modes," said Kågeson. "We wanted to be an organisation that demanded improvements from all sides. I think that has served us very well in terms of being credible."

"I have always felt that we should care about the environment first," Arie Bleijenberg agreed. "Rail has a role to play, but I did not want T&E to be an extension of the rail lobby. We had to be smarter than that. We didn't need another organisation shouting rail is great, we needed to make progress on policies that would make a difference."

T&E's approach in the early years was focused on promoting fair pricing. These days it's widely accepted that making road transport pay for its real environmental costs will benefit cleaner modes such as rail, but at the time some T&E members wanted a much more dirigiste approach. If the aim was to promote rail, why not simply impose it? The issue came to a head during a board meeting in Copenhagen in 1992 where T&E committed to fair pricing for transport. "It only dawned on some people during that meeting that road tolls would help level the playing field with rail. For a lot of people the kind of ideas Arie and I were promoting were very new. But once that was established it was a lot easier," recalled Kågeson.

A lot of the pro-rail momentum in the EU, but also in T&E, has traditionally come from Switzerland. It had approved the Alpine initiative in 1994, and by 2004 all goods transiting Switzerland had to go by rail. On the same day in 1994, another motion was put to the Swiss people proposing that a distance-based heavy vehicle

tax should be introduced to help fund improved rail infrastructure that was going to help shift transalpine goods transport from road to rail. Another vote in 1998 resulted in 30 billion Swiss francs being spent on expanding the Swiss rail network through a transalpine rail tunnel (the New Alpine Rail Axis).

By this time, T&E was actively promoting policies that would help shift freight from road to rail. In 1999, it published a paper entitled simply 'From Road to Rail', and that same year it published 'Electronic kilometre charging for heavy goods vehicles' (co-authored by Per Kågeson and future T&E director, Jos Dings), which set out a framework for the whole of Europe to adopt the technology that the Swiss were committed to.

In 2000, T&E attempted to harness this Swiss momentum further by setting up a specific project, 'Freight from road to rail', financed by ministries in Switzerland, Sweden and Catalunya, as well as NGOs from several countries. Heading up the project was a Brussels-based transport economist Markus Liechti, himself Swiss, who saw his job as making the Swiss heavy goods charge 'oven-ready' for the EU.

In June 2002, Liechti wrote, "In many ways, Switzerland has been Europe's environmental conscience. While Europe has talked about internalising external costs and creating the conditions for a shift to less polluting modes of transport, Switzerland has actually taken measures to achieve this while the EU has done little to back up its good words."

Matthias Zimmermann agrees. "Now the president of the European Commission, Ursula von der Leyen, wants to get most freight off the roads and onto rail. She needs to look no further than Switzerland. Switzerland has succeeded in significantly reducing truck traffic through the Alps. Today 70% of freight transit through the Alps goes by rail."

Follow the money

Another way T&E tried to boost rail was by changing EU transport spending.

The arrival of the internal market meant the EU became a big player in infrastructure development. It started with the European Round Table of Industrialists publishing 'Missing Links and networks', a wishlist of big transport infrastructure projects it said were vital for European integration and economic growth. The plan included thousands of kilometres of new roads, high speed trains and airports. T&E countered this narrative in several reports, for example a December 2000 report that concluded unequivocally that "there are no automatic economic or employment benefits from building transport infrastructure". The paradigm shift happened during the 2008-09 financial crisis when it became clear that the 'build, build, build' development model that had boosted the economies of Spain and other 'new' EU states, was in fact eroding their economies.

"That's when things started to change," Nina Renshaw remembers. She was working on the EU's Connecting Europe Facility (CEF) and Trans-European Networks (TEN-T) at the end of the 2000s. "This was a very complex and not very sexy file," she says. "It never got the kind of attention the big car files received, but that meant we could push a lot of things through like climate conditionality and green spending targets without anyone noticing. A major change we secured was that from then onwards the majority of CEF funding would have to go to rail.

"CEF isn't where the big money was. The regional funds are more important, but it created an important precedent."

> A decade later, that precedent is still working well. Part of the regional funds are managed in line with CEF's spending rules, and the EU's giant post-Covid stimulus plan, Next Generation EU, more or less rules out spending on new roads, demanding countries prioritise rail spending, after over a million EU citizens supported an T&E-led call for a 'Green Recovery'.

'Mega-trucks' — the emergence of a mega-problem

But whilst progress was being made on tolling and infrastructure a new threat was emerging: mega-trucks.

Sweden and Finland had been using longer and heavier trucks for decades. The 25-metre 60-tonne trucks were ideally suited for forestry related transport and, given that so much of Scandinavia is sparsely populated, there had been little opposition to the big trucks.

From the mid 2000s onwards, hauliers and truckmakers started to aggressively promote bigger trucks, or 'megatrucks' as T&E called them, across Europe, as a way to reduce the carbon footprint of trucking. The main obstacle was that EU rules didn't allow mega-trucks to cross borders. Changing that law, the weights and dimensions directive, became the focal point of the truck lobby.

"The proposition was that if we would just increase the payload of the truck by 50%, there would be far fewer trucks needed to transport the same volume of goods," Jos Dings explains. "We called this out early. Making trucking cheaper has never led to emission reductions. We had an alternative: proposing to make trucks better, not bigger, by redesigning them."

"A big part of our concern was related to rail freight," said Philippa Edmunds, at the time freight lead at Campaign for Better Transport and a T&E board member (2012-17). "We were working so hard to make rail better, taking trucks off the streets and cutting emissions, and then governments were thinking about giving this big present to the road haulage sector. It made no sense."

Fearing a popular backlash the EU Commission had long refused to reopen the weights and dimensions directive. But when the Estonian Siim Kallas became transport commissioner, the logistics industry saw its chance. The Danish EU presidency masterminded a deal whereby the Commission would reinterpret (rather than formally change) the existing rules on weights and dimensions of trucks to allow mega-trucks across borders in Europe.

It took fierce opposition by T&E and some very vocal members of parliament and countries like Austria and France to stop the mega-trucks' plan.

"For me the central argument was about road safety. The idea that we should roll out these Scandinavian gigaliners all across Europe was just abhorrent," says Edmunds, who played a major role in the 'better, not bigger trucks' campaign at T&E. "This is what ultimately helped scupper the Commission's plan to reinterpret the rules."

To this day mega-trucks can only be used nationally. They remain mostly a Scandinavian and Dutch phenomenon although lobbying for their expansion continues. "We must remain vigilant" says Edmunds.

"People keep asking, why don't you work more on rail?", William Todts, T&E's current executive director says. "I think the answer is that we've done a lot of work supporting cleaner modes such as rail. But as an EU focused policy organisation, we have focused on areas where we can make a real difference; things like tolling, spending or mega-trucks."

EU shipping's climate record

Maritime CO₂ emissions and real-world ship efficiency performance

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ENVIRONMENT

Taking the fight global: aviation and shipping

Aviation and shipping have been two of the most difficult areas for T&E to influence. That should be no surprise, because at the 1997 Kyoto climate conference (COP-3), the resulting Kyoto Protocol tasked developed countries to take action on aviation and shipping working through the International Civil Aviation Organisation (ICAO) and the International Maritime Organisation (IMO), two United Nations agencies governed by representatives of national governments and well known for their intimate links with the respective industries. On climate, both have a powerful track record of doing nothing and obstructing everything.

Securing emissions trading for aviation

T&E published what is believed to be the world's first paper on aviation and the climate in 1995. It was a short paper by Arie Bleijenberg and Chris Bowers, but it highlighted the important finding that the Chicago Convention, which has regulated international air traffic since 1944, does not prevent a tax on aviation fuel and never did (although it does prevent double-taxation). Given that this was a line pushed by aviation interests, sweeping away an obstacle to a tax on kerosene was a small but significant step.

The next step should have been an aviation charge for Europe, but T&E was too far ahead of the Zeitgeist. In 1998, a pioneering paper 'A European environmental aviation charge – a feasibility study' appeared. The study was initiated by T&E and its member organisation Stichting Natuur en Milieu (Netherlands Society for Nature and the Environment), whose transport campaigner Ton Sledsens was on the T&E board. The paper was researched and written by Bleijenberg and Ron Wit of the CE Delft consultancy; it concluded that a European aviation charge was feasible when properly designed, and it recommended a European aviation charge to catalyse a global charge on air transport. The world, however, wasn't ready for this advice.

A more significant step came in the early 2000s, when T&E not only set up a coalition of NGOs – under the name International Coalition for Sustainable Aviation, or ICSA – but gained observer status for it at ICAO. Beatrice Schell, T&E's director at the time, says, "ICAO was, and remains, a real fortress protecting the interests of airlines. We were the first ever NGO to penetrate that fortress and I believe we have contributed to increased awareness outside and inside the aviation industry. We did a lot of high-quality technical work with a corresponding amount of publicity."

The ICSA's biggest success was creating the conditions for, and then helping to defend, the introduction of emissions trading into aviation.

This was again achieved in the face of relentless opposition from ICAO, which may have been given responsibility at Kyoto for tackling aviation's environmental impact but saw its role as ruling out virtually every possible measure; it even passed a resolution ruling out a kerosene tax on the eve of Kyoto. The only thing ICAO didn't rule out was emissions trading, so attention turned to that. ICAO tried to shut it down at its 2004 general assembly, when it effectively said a global emissions tradition system for air transport was too difficult, but it left the door open for emissions trading at regional level.

T&E seized on this to press the EU to introduce aviation into its new Emissions Trading System (ETS), which had begun in 2004 by covering the major industrial sectors. T&E's 'Clearing the air' publication in 2006 played a major role in putting the environmental impact of aviation on the EU agenda, which in turn helped the Lucas Report on aviation and climate change get through the European Parliament by a big margin. That created tremendous pressure on the EU to act on the climate impact of aviation, and by 2008 it had agreed that all flights into and out of the EU would be subject to emissions trading from the start of 2012.

It was a regional emissions trading scheme exactly as ICAO allowed - but as soon as it was finalised, the opposition began. US carriers launched a legal challenge in the British courts, which was referred to the European Court of Justice. T&E helped the case to protect aviation in the ETS, and won - the ECJ ruled that emissions trading for flights was lawful, and the scheme began for all flights involving EU airports on 1 January 2012. Meanwhile, the US carriers had been building up alliances with Russia, China and India - T&E named it 'the coalition of the unwilling' - which started making all sorts of threats. T&E got hold of the coalition's first pronouncement after a meeting in India, and the document's properties revealed its true origins: the Federal Aviation Administration in Washington. The Chinese government threatened to stop buying Airbus planes unless aviation in the ETS was stopped.

In mid-2012, the British, French and German transport ministers, responding to intense European industry pressure, descended upon the Commission's president José-Manuel Barroso. Within two weeks the directive enshrining aviation in the ETS had been cut back to only covering flights within the EU. The EU had never seen a speedier alteration of legislation. T&E subsequently published an obsequious letter by the chief executive of Airbus to the Chinese, in which he claimed credit for fixing the ETS and asked that Airbus orders be reinstated. The following year a recorded vote at ICAO's assembly on emissions trading went heavily against Europe.

Yet aviation for intra-EU flights survived, indeed it survives to this day. Despite intense pressure to remove aviation from the ETS in favour of ICAO's alternative 'Corsia' offsetting scheme, the Commission has stood by emissions trading for flights, indeed it has ruled out Corsia covering intra-EU flights. The price of carbon has not done as much to decarbonise the aviation sector as it might have done, and carbon emissions from aviation on intra-EU flights increased by 29% between 2013 and 2019, though that percentage is likely to have been higher without emissions trading.

But as the EU ETS gains strength, it's worth reflecting on what was lost. Full-scope EU ETS would now be applying an increasingly effective carbon price to 13% of global aviation emissions. It could have spawned similar regional measures elsewhere. It would have given confidence to investors to put money into solutions to decarbonise aviation, such as clean fuels. A decade later, as the industry faces a significant climate challenge, it's worth asking whether its opposition to the scheme was really in its own long-term interest.

T&E's long-time aviation and shipping director Bill Hemmings says, "It's easy to see the retreat from non-EU flights in 2012 as a defeat for all our efforts, but the fact that intra-EU flights have remained in the ETS is a significant achievement and the ETS remains by far the most extensive scheme regulating aviation emissions. Without T&E's presence, ICAO would find it far harder to dismiss environmental action in aviation. Over the past 20 years, T&E has been a loud and professional voice on aviation in Europe."

"Intellectually we have won the battle," Beatrice Schell adds. "It's clear the world has to tackle emissions from aviation. We just need aviation politics to catch up with environmental reality for the work T&E has done over 20 years to have a major impact."

The Greta Effect

Thankfully, there are signs that pressure on industry isn't going to ease up. The likes of Greta Thunberg were influential in launching a truly grassroots movement, Flygskam (Swedish for Flight Shame), which said that if industry wasn't going to clean up its act, then individuals weren't going to get on their planes. Five years ago, a group of activists launched a campaign group, 'Stay Grounded', calling for individuals to kick the flying habit entirely. Suddenly the industry had more to worry about than carbon pricing!

But it's Greta Thunberg who has really made aviation into the poster child of global climate inaction. "By stopping

flying, you don't only reduce your own carbon footprint but also that sends a signal to other people around you that the climate crisis is a real thing and that helps push a political movement," she said in 2019. Her efforts, along with effective measures introduced by governments to cut emissions in other sectors, are creating a political climate in which it is increasingly untenable for aviation to offer its usual recipe of slightly cleaner aircraft and the occasional offset.

This is now starting to pay off, with draft EU legislation envisaging returning the ETS to full scope if Corsia continues to fail and, importantly, the Commission's 'Fit for 55' proposal seeking to remove the obstacles in the Energy Tax Directive that prevent a kerosene tax on intra-EU flights. There is also progress on developing sustainable aviation fuels such as synthetic kerosene, and while the production of e-kerosene remains in its infancy, 'Fit for 55' proposes a legal requirement on fuel suppliers to produce these cleaner fuels, blend it with kerosene and supply it to airports.

All this would not have happened as quickly without the efforts of T&E and other NGOs, and the demands of grassroots campaigners.

RIP Duty Free

Topics that were part of T&E's everyday work included ending duty-free shops at airports. The arrival of the EU internal market in 1993 meant duty-free shops had in theory no role within the EU, but airports lobbied for them to continue operating within member state borders until 1999, claiming the revenue was vital to the profitability of airports. T&E opposed this, and the battle was eventually won.

Securing low sulphur shipping fuel

T&E's work on shipping has followed a similar pattern. As part of a coalition of NGOs, T&E played an important role in the establishment of a 0.5% limit on the sulphur content on marine fuels in 2006-08, but Up to 2010, T&E was allowed to attend meetings of the International Maritime Organisation only as a guest of Friends of the Earth. But T&E then did the heavy lifting, in particular leading efforts to put together the Clean Shipping Coalition (CSC), a group of NGOs which gained its own observer status at the IMO and which T&E administers to this day. CSC has developed into the most influential environmental voice in the IMO, and on shipping in Europe.

That influence led to an unlikely success: the imposition of a global cap of 0.5% on the sulphur content of marine fuels, which came into force in January 2020. It will cut SOx emissions from shipping by 85% compared with 2008 levels, and thereby reduce premature deaths from lung cancer and heart disease. But it took all T&E's tactical skill to get the legislation passed.

The commitment to 0.5% maximum sulphur content was first agreed by the IMO in 2008. But the legislation included a review which would take place before the 2020 implementation date was confirmed – with the option of a five-year delay until 2025 if 2020 was too soon. Such is the sluggish pace with which changes happen within the IMO that there were many in the shipping industry who thought after the 2008 agreement that the 0.5% sulphur cap would not have any impact on them for at least 17 years, if not longer.

When the EU updated its sulphur directive in 2012 to align it with IMO decisions, T&E worked hard to ensure that, whatever happened at the IMO, the cap would apply within the EU in 2020. The work of T&E's shipping officer Antoine Kedzierski in lobbying the European Parliament proved crucial in getting this through. What it meant was that, when the IMO came to carry out its 'review' of the 2008 decision in order to see if enough low-sulphur fuel would be available by 2020 to make a 0.5% cap feasible, the EU had already committed to a 0.5% cap for January 1, 2020. That put pressure on the IMO to agree to its 2020 date, too. But another measure T&E secured within the IMO also proved vital.

Using the array of talent available within the Clean Shipping Coalition, T&E secured a seat in the IMO process that oversaw the review, and used its influence to ensure that the respected Dutch environmental consultancy CE Delft was asked to carry out the feasibility review, not a consultancy favoured by the shipping industry. CE Delft said 2020 was a realistic date for a global 0.5% sulphur limit, and together with a report by researchers from the USA and Finland (James Corbett and James Winebrake) that the cap would prevent some 140,000 premature deaths each year due to less toxic fumes in coastal waters, there were no grounds for the shipping industry to object. Nonetheless, there was still concerted opposition from industry and key IMO member states led by Russia and Saudi Arabia, but the low-sulphur requirement was approved and became law in 2020.

"It was a landmark decision," Bill Hemmings says. "It was one of those rare occasions where we manoeuvred the shipping industry into a corner. Of course it tried to fight back, but we had done such thorough groundwork that it simply ran out of delaying tactics.

Everything we did was necessary – it wouldn't have happened without the EU committing to 2020, and both the CE Delft report and the Corbett-Winebrake health impacts study created the perfect storm from which even the shipping industry could not find shelter. With the IMO agreeing in March 2020 to a ban on ships carrying heavy fuel oil as propulsion fuel, we have forced the shipping industry to go much further on marine pollution than it wanted to."

The shipping industry gets a fright

T&E's other success at the IMO is less conclusive but still a considerable achievement in an industry so resistant to tackling its environmental impact.

Despite the role allocated to it under the Kyoto Protocol, nothing happened towards reducing shipping's contribution to climate change for 12 years. Then in 2009, extensive discussions on an IMO fuel levy and global emissions trading began and looked promising for a couple of years, but the opposition mobilised and the momentum fizzled out. It was only in the run-up to the 2015 COP-20 in Paris that the topic was picked up again, and T&E had a share in this. T&E arranged a visit for representatives of the Clean Shipping Coalition to the Marshall Islands, a chain of extremely low-lying coral atolls and volcanic islands in the central Pacific that are threatened with extinction if sea levels rise. Securing some philanthropic funding, T&E and Seas at Risk helped bring several Pacific small island delegations to the 2015 IMO general assembly, led by the Marshall Islands' foreign minister Tony de Brum. There de Brum made an impassioned speech, setting out the existential threats to islands in the Pacific,

> describing warming of 2C as "a death warrant", and calling for urgent action on reducing climate emissions from ships. His intervention was dismissed by the IMO's Japanese Secretary General Koji Sekimizu, who responded by saying he was sorry that the Marshall Islands had a climate problem but the IMO was busy

looking after the welfare of shipping and would get back to him later. De Brum waited for his moment, visibly walked out, but not before shaking the hand of T&E's representatives and others who had supported him.

Despite Sekimizu's attempt to silence the Marshall Islands' case, the intervention started a tidal wave that led to the IMO voting in 2018 to reduce greenhouse gases from shipping by 50% (over 1990 levels) by 2050. Again, in the IMO's context, this was a remarkable achievement, even if it has since become clear that 50% by 2050 is wholly inadequate and will need tightening up in the coming years (as this book went to press, the IMO was facing calls to agree to "net zero" by 2050, and the Marshall Islands is actively championing calls for a \$100 carbon levy on international shipping).

Getting the IMO to adopt global greenhouse gas targets was not an easy feat. There was a lot of resistance from developing countries, but also within the institution itself. To put pressure on the IMO and the shipping industry, T&E pulled off one of its most successful strategies. In 2016-18, its pressure on MEPs led to the European Parliament voting to allow international shipping emissions in EU waters to be included in the ETS. Even though this was later rejected by the Council of Ministers, it scared the industry into fearing that, without tangible progress, IMO's role as a global regulator would be undermined. Fearing the seriousness of the EU threat, industry representatives implored the IMO to make progress on climate measures. As one industry representative put it, "Europe is breathing down our neck with regional measures."

Hemmings adds:

"Although progress on reducing greenhouse gas emissions is slow, we have achieved a lot, and T&E, Seas At Risk and a growing group of NGOs are turning up the pressure on the IMO. Working with the European Parliament, T&E has played a critical role in ensuring that Europe reserves the right to act unilaterally if the IMO does not act on climate change. Indeed the Green Deal now recognises that shipping cannot be left out of European action on climate change and has proposed including shipping in the ETS."

"If we get a decent carbon price, and good legislation forcing ships to lower the intensity of the energy they use in propulsion from 2025, we will have created a market for low-carbon maritime fuels," said Faig Abbasov, T&E's current shipping director. "So even though the IMO continues to move at the speed of a turning tanker, and has yet to agree on any effective follow-up measures since it agreed a global greenhouse gas reduction target in 2018, we are keeping up the pressure that will mean shipping will soon have no alternative but to embrace decarbonisation."

Cruise control and fighting fit

More recently, T&E brought out a report showing that just one cruise ship company, Carnival Cruises, emitted in 2017 more cancer causing sulphur dioxide in European seas than all of Europe's 260 million passenger vehicles. And because cruise ships are, in effect, massive hotels, they need enormous amounts of energy to run auxiliary engines, especially in ports. T&E found that cruise ships docking in Barcelona are spewing out five times more SOx than the city's 560,000 cars every year. The data work done by Faig Abbasov and T&E's current director for Trends & Analysis, Thomas Earl, on cruise ships and port air pollution, was undoubtedly instrumental in securing a proposal in the 'Fit for 55' policy programme that mandates ports to provide on-shore power to cruise ships by 2030.

The impact of T&Es work on cruise ships was illustrated when, during the launch of the 'Fit for 55' package,

European Commission President, Ursula von der Leyen, referenced our findings in her speech: "Our existing Emissions Trading System has already helped significantly to reduce emissions in industry and in power generation. So we will strengthen the existing system in these sectors. And we will make the Emissions Trading System applicable to aviation and extend it to the maritime. We need this because we just have to consider that one single cruise ship

alone uses as much CO₂ per day as 80,000 cars."

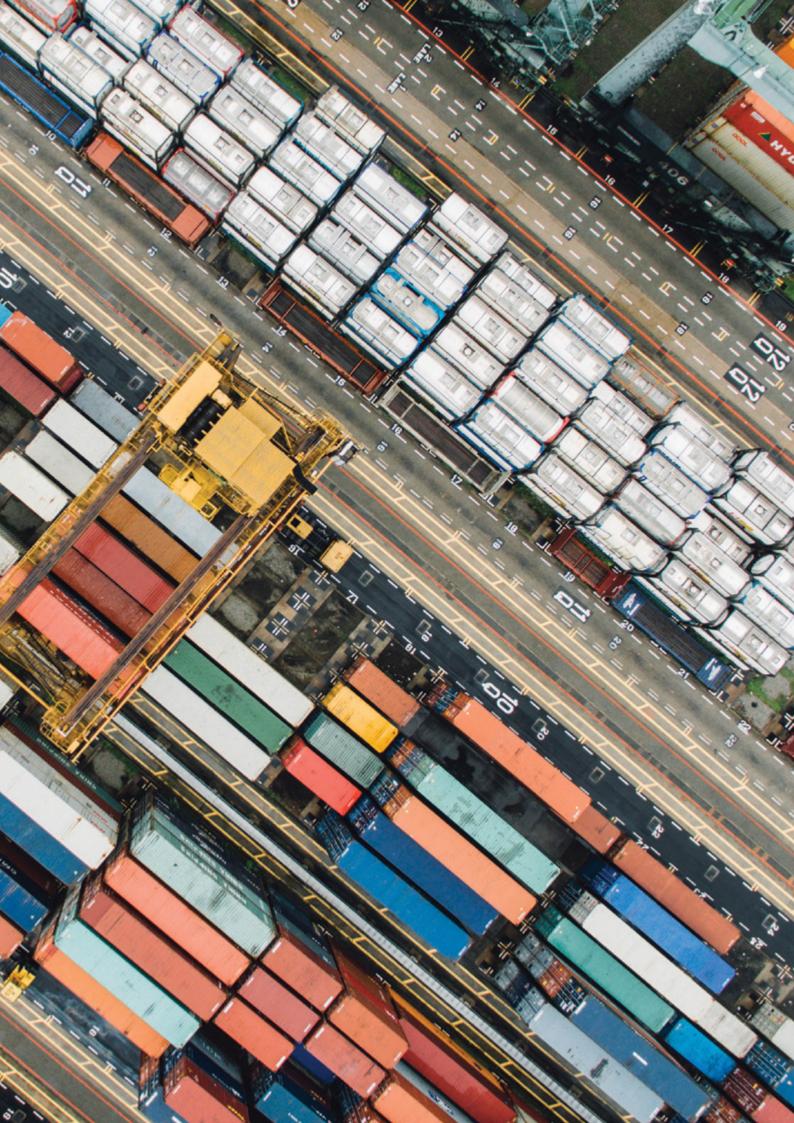
When it comes to the EU Fit-for-55, T&E's efforts were critical. It all started following the May 2019 European elections, when T&E led an extensive effort to educate new MEPs about the need to act on shipping emissions in Europe. This led Ursula von der Leyen, at the time a candidate for the Commission President, to commit to including shipping in the EU carbon markets. This was later confirmed in the European Green Deal.

Not complacent with this big win, T&E continued to put pressure on the EU Commission to ensure that EU measures to be proposed cover both international and domestic traffic. By publishing the single most modelling-intensive analysis in T&E history, which scientifically debunked industry fear-mongering that the shipping ETS would cause ships to evade European ports if international traffic is included in the ETS. The EU Commission based its own impact assessment on maritime ETS on T&E's analysis. As a result, despite the aviation experience on ETS from 2012, the Commission even went ahead and proposed including extra-EU voyages in its legislative proposal on the first ever carbon pricing on shipping anywhere in the world. The difficulties of influencing the parallel sectors of aviation and shipping has exercised the mind of João Vieira for the best part of two decades. Vieira was was T&E's aviation and shipping policy officer 2006-08 and later became T&E president. "Because aviation and shipping are by nature the two modes where transport policy goes global," Vieira says today, "they ought to lead the way in tackling international environmental challenges.

"Yet that's not the case at all. Regardless of all the ambitions of several UN Secretary Generals,

the two UN agencies tasked with delivering emission reductions in aviation and shipping emissions have failed to do so, working more on raising barriers to protect polluters than on greening these businesses to protect populations from climate change and harmful air pollution. T&E's work over the last two decades has been essential to expose this contradiction, it has been behind some of the small steps for its reversal, and it has pushed Europe to be a world leader on green air and waterborne transport."





T&E's people

T&E is an entity, but it is the sum of a lot of talented, qualified and dedicated people working as a team, sometimes in highly stressful circumstances. All deserve a mention, even if the directors and the presidents will be the best-known.

The directors



Chris Bowers (1991-92)

Bowers was T&E's first employee under the title 'coordinator'. A newspaper and radio journalist by training, he had taken a break from the media to set up the Environmental Transport Association in London. He set up T&E's first office in Brussels, but didn't want to work there, so left at the end of 1992. Since then he has worked mainly as a writer, commentator and historian on professional tennis, but has remained part of the T&E communications team and is in effect T&E's resident historian.



Gijs Kuneman (1993-97)

Kuneman came to T&E from agricultural college, initially as the first Brussels-based coordinator, and then as director as the staff grew from one to three. He left to go into nature and agricultural campaigning in his native Netherlands. Today he leads a cooperative of more than 500 forest- and land-owners, supporting members with knowledge and practical help on ecology and management of forests and nature areas.



Beatrice Schell (1997-2003)

Schell was working for the public affairs department of GlaxoWellcome when she decided to switch to the NGO side in the climate debate and joined T&E. A German with a Romanian upbringing, she oversaw a doubling of T&E's staff from three to six. She left to start a family with her then partner Jörg Beckmann (a former T&E policy officer), before working for the Oak Foundation in Geneva and the International Fundraising Consultancy. She now works as a part-time secondary school teacher.



Jos Dings (2004-17)

Dings had worked on projects with T&E for more than 10 years before he became director in May 2004, the job title later becoming 'executive director'. With a degree in mechanical engineering, he arrived at T&E from the Dutch consultancy CE Delft where he headed the transport division. After overseeing a massive surge in T&E's growth, he left in February 2017 to become head of European government relations and business development with the electric car company Tesla.



William Todts (2017-)

Todts studied history and European affairs before working in politics, first as an assistant to an MEP, then as a member of Belgium's EU presidency team to help negotiate the first CO_2 standards for vans. He joined T&E in 2011 as policy officer, became freight and climate director in April 2015, and was promoted to executive director in 2017.

The presidents



Arie Bleijenberg (1990-93)

Bleijenberg is back on the T&E board after a gap of over 25 years and in his second stint as president. He worked as a researcher and deputy director at the environmental consultancy CE Delft and as head of strategy at the Dutch transport ministry. His special interest has been – and remains – the driving forces behind transport growth and their implications for transport policy. Now he divides his non-T&E time between his role as business director at the Dutch research institute TNO and his own consultancy, Koios Strategy.



Per Kågeson (1992-96)

Kågeson was already established as an environmental writer and researcher before he joined the young T&E. He was vice-president of the Swedish Society for Nature Conservation when T&E began. He is now a retired professor of environment system analysis (Royal Institute of Technology, Stockholm) and has written more than 30 books and numerous papers, most of them on the cost-efficiency of measures and policies for improving the environmental performance of transport.



Matthias Zimmermann (1996-2002)

Zimmermann was T&E's first non-EU president, having come to the role from the Swiss VCS, of which he became president in 1992. Having qualified from the Swiss Federal Institute of Technology, he worked in atmospheric pollution and meteorology, before moving to nature conservation, which included spending three years working in Cameroon. Since 2003 he has been a partner in a consultancy, Seecon, dealing with tropical greenhouses, engineering projects, and the management of transition processes. He retired 10 years ago.



Sonja Klingberg (2002-08)

Klingberg attended her first meeting with T&E in 1992, joined the board in 1996, and in 2002 became president. After studying business administration and civil and environmental engineering, she worked in the private sector and for a public transport authority before joining T&E's German member VCD, where she eventually became national director. Since 2010 she has worked as the environment manager of the protestant church in Baden.



Magnus Nilsson (2009)

Nilsson had long been involved in environmental issues both as NGO activist and journalist when, in 1996, he started a record 15 years as a member of the T&E board. As head of the Stockholm region branch of the Swedish Society for Nature Conservation, he played an instrumental role when congestion charging was introduced in the Swedish capital in 2006. For the last 10 years he has worked as an independent consultant and researcher on climate, transport, forestry, and conservation, specialising in EU climate policy.



Ulla Rasmussen (2009-12)

Rasmussen was a T&E Board member from 2002 to 2014, and was president 2009-12. Before moving to Austria, she worked for the environmental unit of the Danish Ministry of Transport. For the last 20 years she has been working with one of T&E's founding members, the Austrian NGO 'VCÖ – Mobility with a Future'. Rasmussen now leads the organisation's work on climate, energy and air quality, as well as being the liaison person for EU policy.



João Vieira (2012-17)

Vieira has been involved with the Portuguese environmental movement since university. He has been a board member of the GEOTA study group on spatial planning and environment, and the Portuguese Association for Environmental Engineering. An expert in EU and international issues with experience in communications, he has been a transport, energy and environment consultant for more than eight years, before becoming responsible for innovation and strategy at one of Lisbon's main public transport operators.



Jeppe Juul (2018-20)

Juul is senior policy officer on transport at the Ecological Council in Denmark, working mainly on EU-related transport issues, but also partly on integrated product policy. He has also worked on green consumer issues since 1996. He joined T&E's board in 2016 and was elected T&E President in January 2018

A total of over 100 people have worked for T&E over the first 30 years. We hope we haven't missed anyone off this list.

Policy

Faig Abbasov Ibtihal Abdelrahim Veronica Aneris **Greg Archer** Jacob Armstrong Denise Auclair Emma Bagyary Jörg Beckmann Peter Biczok Erika Bjubery Saldes Jekaterina Boening Silke Bölts Luca Bonaccorsi Barbora Bondorova **Heather Brooks** Sascha Brose Luka de Bruvkere Isabell Büschel Laura Buffet Pietro Caloprisco **Carlos Calvo Ambel Griffin Carpenter** Nora Christiansen Geert De Cock Sofia Coelhoso dos Santos **Stef Cornelis** Chiara Corradi Eva Corral Llorente Jo Dardenne Marie-Charlotte Debouche Sofie Defour **Bruno Deremince** Thomas Earl Juliette Egal Malcolm Fergusson Matt Finch **Pauline Fournols** Tiziana Frongia **Miguel Galdiz** José-Manuel Garcia Petar Georgiev Lucy Gilliam Yoann Gimbert Matteo Giaconi **Delphine Gozillon** Anna Grabowska **Gaspard Granger** Florent Grelier **Bill Hemmings** Lea Hemtsberger Julia Hildermeier Joseph Houghton Edouard Huyghebaert

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