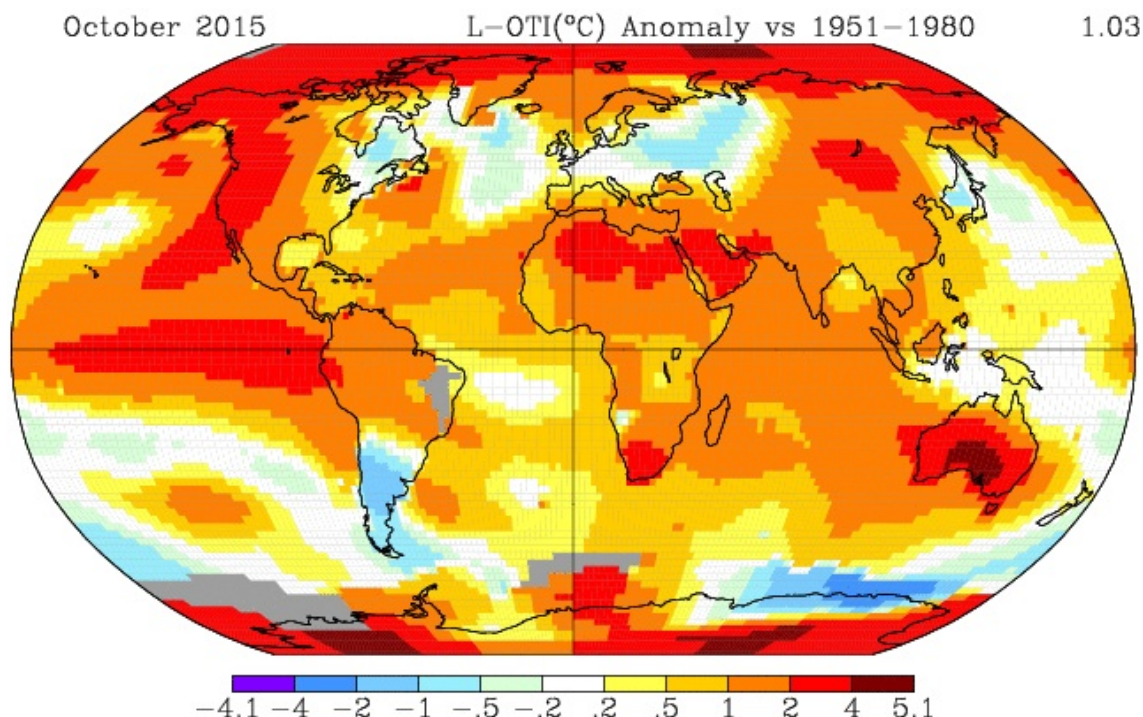




## “We’re entering uncharted territory”



*Global temperature anomalies for the month of October 2015, according to NASA.*

*The global average surface temperature came in at 1.04 degrees Celsius above average for the month; biggest warm temperature anomaly in recorded history*

November 19, 2015. **The Forgotten U.N. Climate Goal: 1.5°C** by John Upton, Climate Central. “**The scientific finding is that 2 degrees is not enough**” (...) **The May report** of United Nations warned of the “high” risks that would accompany 2°C of warming, including crop failures, floods, extreme weather events that jeopardize health, and “mass coral bleaching. But it also pointed out that “there would be significant residual impacts even with 1.5°C of warming.” It concluded that “most” species would be able to keep up with climate change if warming is kept below 1.5°C. It found, bleakly optimistically, that “up to half of coral reefs may remain” if the planet warms 1.5°C, that sea level rise “may remain below” 3.3 feet, ocean acidification impacts “would stay at moderate levels,” and that it would be easier for communities to adapt to climate change — especially farmers. Strategies for limiting warming to 1.5°C by century’s end “are similar to those limiting warming to 2°C,” the report noted. It concluded that such strategies would involve “more immediate” actions and “an additional scaling-up” of clean energy and of any technology that captures and stores carbon dioxide pollution, such as at coal power plants.”

November 16, 2015. **CDP Climate Change Report 2015: The mainstreaming of low-carbon on Wall Street**. “CDP was set up, almost 15 years ago, to serve investors. A small group of 35 institutions, managing US\$4 trillion in assets, wanted to see companies reporting reliable, comprehensive information about climate change risks and opportunities. Since that time, our signatory base has grown enormously, to 822 investors with US\$95 trillion in assets (...) The data, and this report, shows that **companies have made considerable progress in recent years**— whether by adopting an internal carbon price, investing in low-carbon energy, or by setting long-term emissions reduction targets in line with climate science. For our signatory investors, insight

leads to action (...) **Decarbonizing the global economy is an ambitious undertaking, even over many decades.** But the actions that companies are already taking, and reporting to CDP, show that corporate leaders understand the size of the challenge, and the importance of meeting it. **We are on the threshold of an economic revolution that will transform how we think about productive activity and growth.**"

November 11, 2015. **Energy Hasn't Been This Hot Since They Invented Fire** by Eric Roston, Bloomberg. "And the revolution is just beginning (...) **Renewables are no longer "alternative energy."**"



#REenergise



"There is no answer to climate change without substantially, dramatically, increasing the level of renewable energy in the global energy system. Frankly it is one in the same – you address climate change by increasing renewable energy."

– Christiana Figueres,  
Executive Secretary UNFCCC

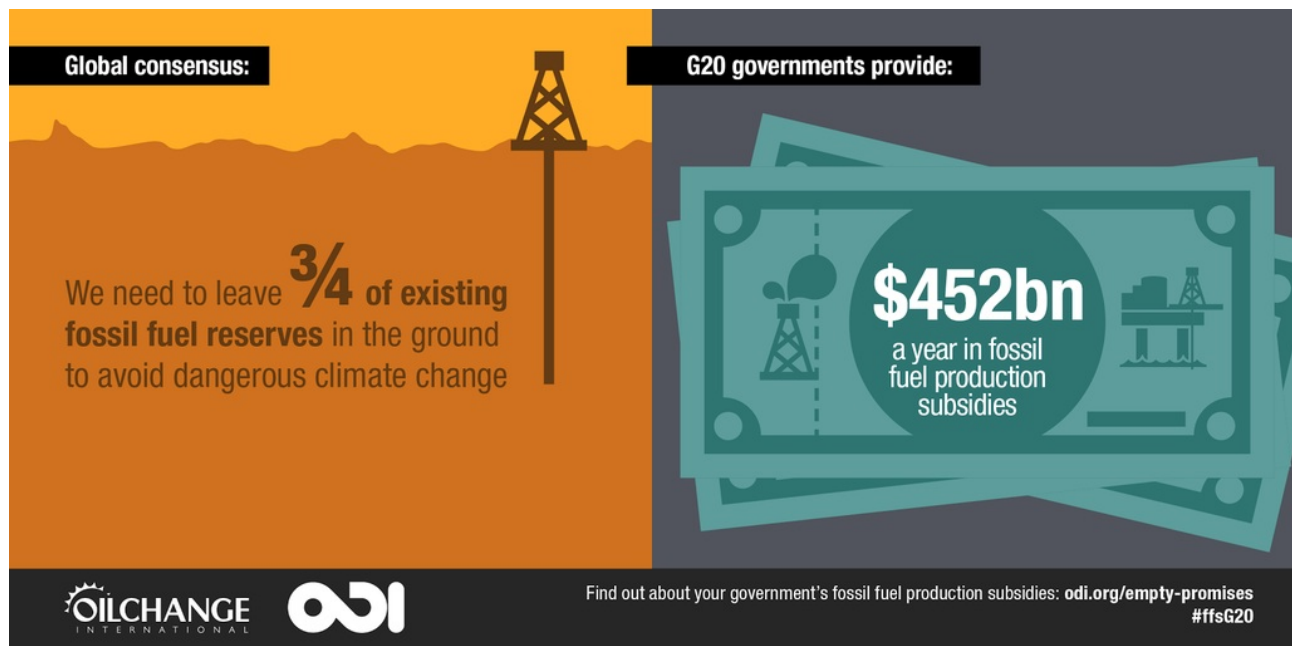


November 10, 2015. **Banks shift billions and billions into clean energy** Barbara Grady, GreenBiz. "**Follow the money, the advice goes, because the trail indicates where the future is headed.** The largest U.S. finance and banking companies lately are putting big money into renewable energy lending and investments — as highlighted by a Goldman Sachs announcement last week that it aims to triple its allocations to clean energy finance to \$150 billion over the next 10 years. That's a lot of money. But the investment bank has company in Citi, which announced earlier this year a clean energy finance target of \$100 billion in the next decade, and Bank of America, which plans to invest \$125 billion over a decade "in low carbon business" — not to mention overseas banks that surveys find are even more active in this sector. **What's driving the growth in clean energy financing is demand,** even as the banks talk about the need for a low-carbon economy and set their own sustainability goals (...) Even as they shift huge amounts of funds into renewable energy lending and investments, **U.S. banks are being criticized for not adequately assessing the risk on their books from their fossil fuel investments.**"

November 9, 2015. **We're Halfway to Global Warming's 'Dangerous Limit'** by Brian Merchant, Motherboard. "Scientists and climate leaders have pegged 2° Celsius (3.6° F) as the degree of temperature rise to which we must, at all costs, limit global warming. The number itself has been nigh-endlessly debated, but the reasoning goes that if temps rise any more than 2°C, **we risk triggering what scientists say are "dangerous" levels climate change—think melting polar ice sheets, scorching temps, and rapidly rising sea levels that could seriously disrupt human civilization itself.** And, as of this year, it looks like we're already halfway there."

November 6, 2015. **Fossil crisis deepens as Exxon probed on climate cover-up** by Ambrose Evans-Pritchard, The Telegraph. "Exxon's scientists believed CO2 would cause harmful global warming. "They knew the truth and lied at the expense of the planet," said Bernie Sanders, the U.S. Democratic presidential candidate."

November 6, 2015. **ExxonMobil's Alleged Climate Change Lies Dwarf Big Tobacco** by Mark Hertsgaard, The Daily Beast. “**Big Tobacco’s lies contributed to the deaths of smokers and their loved ones. But if ExxonMobil lied about climate change, every person and business interest on earth is affected** (...) “Emphasize the Uncertainty,” urged ExxonMobil’s top PR official in a 1988 memo outlining how the company should respond to growing concern about global warming.”



*This is almost 4x the \$121bn that the entire world provides in subsidies to renewables*

November 2015. **Empty promises: G20 subsidies to oil, gas and coal production** by Elizabeth Bast, Alex Doukas, Sam Pickard, Laurie Van Der Burg and Shelagh Whitley, Overseas Development Institute (ODI), and **Oil Change International**. “This research discovers that **G20 country governments’ support to fossil fuel production marries bad economics with potentially disastrous consequences for climate change**. Governments are propping up the production of oil, gas and coal, much of which cannot be used if the world is to avoid dangerous climate change. The report **Empty promises: G20 subsidies to oil, gas and coal production documents, for the first time, the scale and structure of fossil fuel production subsidies in the G20 countries**. The evidence points to a publicly financed bailout for some of the world’s largest, most carbon-intensive and polluting companies. It finds that, **by providing subsidies for fossil fuel production, the G20 countries are creating a ‘lose-lose’ scenario**. They are directing large volumes of finance into high-carbon assets that cannot be exploited without catastrophic climate effects. This **diverts investment from economic low-carbon alternatives**. In addition, the scale of G20 fossil fuel production subsidies calls into question the commitment of governments to an ambitious deal on climate change.”

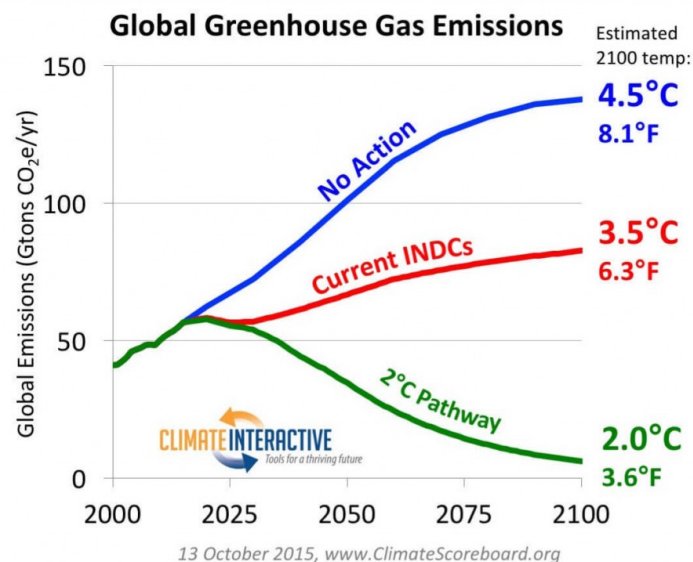
November 6, 2015. **Warning: Oil company defaults are coming**. “The U.S. shale oil boom lured tons of prospectors in recent years. Oil companies of all hues loaded up on massive amounts of debt to fund rigs and fancy new drilling equipment. The problem is the companies were banking on oil prices closer to \$100 oil when they took on the debt. Now oil is around \$45 and no one is expecting prices to hit \$100 any time soon. What that means is the likelihood of unpaid debt has gone up for many companies. “Energy has been really treacherous. There are going to be a lot of defaults”

November 5, 2015. **Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General** by Justin Gillis & Clifford Krauss, The New York Times. “Mr. Schneiderman’s decision to scrutinize the fossil fuel companies may well **open a new legal front in the climate change battle**.”



November 4, 2015. **Volkswagen s'enfonce dans la crise avec une fraude au CO2.** Après le trucage à grande échelle de ses moteurs diesel, a avoué de nouveaux mensonges, précipitant le géant allemand de l'automobile encore un peu plus dans la crise, avec une nouvelle gifle en Bourse (...) Volkswagen, colosse aux 12 marques et 600.000 salariés dans le monde, fleuron de l'industrie allemande, **a fait état d'«irrégularités» sur les émissions de dioxyde de carbone de 800.000 voitures dans le monde**, ajoutant un nouveau volet au scandale retentissant qui l'ébranle depuis mi-septembre.”

November 3, 2015. **This Oil Bust Will Change The Energy Industry Forever** by Wal van Lierop, Forbes. “As an investor in start-up companies, I am always working to test my assumptions and update my understanding of where the energy sector is now, and the direction it is moving in towards the future. Some key questions for this dynamic year: Is the current oil crisis the marking of a step change towards a cleaner energy industry or merely history repeating itself? While today's oil price at \$45-50 per barrel is probably too low to be considered the new normal, what should we expect moving forward? **One thing is for sure: change is coming (...)** **We are in an enormous transition with sweeping implications for global financial institutions, energy demand and supply, and regulation.** But does anyone really care and will COP21 be a catalyst for meaningful change? Hopefully this will become much clearer in Paris this December, with **firm commitments forcing an acceleration of change fuelled by innovation, very possibly the only card to play.**”



November 3, 2015. **Misleading U.N. Report Confuses Media On Paris Climate Talks** by Joe Romm, Climate Progress. ”Memo to media: **If countries go no further than their current global climate pledges, the earth will warm a total of 3.5°C by 2100.** A very misleading news release from the U.N. Framework Convention on Climate Change (UNFCCC) — coupled with an opaque UNFCCC report on those pledges, which are called intended nationally determined contributions (INDCs) — has, understandably, left the global media thinking the climate talks in Paris get us much closer to 2°C than they actually do.”

November 2, 2015. **Goldman Sachs to invest \$150 billion in clean energy** by Katie Fehrenbacher, Fortune. “**The investment bank is almost quadrupling its commitment to finance clean energy infrastructure around the world.**”

November 1, 2015. **Les énergies renouvelables, incontournables pour limiter le réchauffement climatique.** “**Les deux tiers des émissions de CO2 sont liées à la production, à la distribution et à la consommation d'énergie**, donc décarboner le secteur de l'énergie est probablement le moyen le plus rapide de décarboner le monde», affirme Adnan Amin, directeur général de l'Agence internationale des énergies renouvelables (Irena).”

October 30, 2015. **Paris climate summit: 'The world is ready for change'** by Christiana Figueres, executive secretary of the UN Framework Convention on Climate Change. **“The political will to act on climate has arrived. We will look back at Paris as a turning point of this century towards a brighter future** Change is created by turning points. Whether through evolution or revolution, turning points in history have changed the way we think, move, communicate, live. We are at a turning point now. A decisive hour when a historical event occurs, when a decision must be made, when we have understood that the consequences of the past need us to intentionally and decisively redefine the future.”

October 30, 2015. **La réponse mondiale au changement climatique garde la porte ouverte à la limite de température de 2 degrés Celsius.** Un nouveau rapport de l'ONU résume les plans d'action climat nationaux de 146 pays en amont de Paris. “Un effort mondial sans précédent est en cours pour lutter contre le changement climatique, ce qui renforce la confiance dans le fait que les pays peuvent atteindre l'objectif annoncé de maintenir la hausse des températures mondiales en dessous de 2 degrés Celsius, et ce, de façon rentable (...) **«Les INDC ont la capacité de limiter l'élévation de la température prévue d'environ 2,7 degrés Celsius d'ici 2100, ce qui n'est en aucun cas suffisant, mais se situe beaucoup plus bas que les quatre, cinq degrés voire plus de réchauffement projetés par beaucoup avant les INDC»**, a déclaré Mme Figueres.”

October 30, 2015. **'Carbon bubble' threatens Swiss markets.** “Climate change also has consequences for the Swiss financial markets: investments in companies which emit a lot of carbon dioxide could plunge in value, wiping billions off stock markets and pension funds, according to a government study. First study of its kind was carried out on behalf of the Federal Office for the Environment.” **Swiss government agency joins Bank of England in warning about carbon bubble financial risk.**

October 29, 2015. **El Supremo emite por primera vez una condena de cárcel por emisiones de gases con efecto invernadero.** “Dos empresarios han sido condenados a dos años y medio de prisión por triturar de forma ilegal 2.236 frigoríficos, con lo que liberaron a la atmósfera 3.378 toneladas de CO2. La sentencia establece que existió un delito contra el medio ambiente y los recursos naturales, generando "un gran riesgo para las personas". El alto tribunal rebaja la condena impuesta en primera instancia por la Audiencia de Madrid, que ascendía a cuatro años de cárcel”.

October 28, 2015. **El Niño Could Push CO2 Permanently Above Milestone** by Andrea Thompson, Climate Central. “El Niño has its fingers in a lot of pies this year: Not only is it helping to boost 2015 toward the warmest year on record, but it is also a major factor in blockbuster hurricane activity in the Pacific and is contributing to a major worldwide coral die-off. By this time next year we'll probably be able to add another effect to that list: This El Niño is likely to tip us over into a world with carbon dioxide concentrations permanently above 400 parts per million.”

October 25, 2015. **As oil industry bleeds jobs, Asia's green energy drive offers bright spot** by Jacob Gronholt-Pedersen, Reuters. “Renewables are powering a rare bright spot in the energy industry, with record job hiring in solar, wind and hydro partly offsetting the biggest round of job losses in the oil and gas sector in almost two decades. **The boom in new green jobs is being led by Asia** where governments in countries such as China and India are embarking on massive programs to use more renewable energy. The fresh opportunities come as the oil sector is suffering its worst downturn since the late 1990s, encouraging engineering students to rethink their options and even mid-career switches for some who have spent more than a decade in the oil sector.”

September 22, 2015. **Farms Harvest Cuts in Carbon Dioxide via Soil** by Camille von Kaenel and ClimateWire Scientific American. Farming to improve crops and store more CO2 gains traction. **Carbon farming: funding agricultural practices with climate benefits.** “Energy’s got funding, transportation’s got funding,” said the director of policy at the Carbon Cycle Institute “Agriculture has been so underfunded for these practices, this is part of the catch-up.”

**“We are finally starting to recognize that climate change leads to wars and economic ruin”**

November 18, 2015 [350.org Response to French Government Prohibition of Climate March and December 12th Mobilization](#). “The government can prohibit these demonstrations, but **our voices will not be silenced** (...) While our plans in Paris must change, the movement for climate justice will not slow down.”



*Marches banned, Paris plans [human chain for climate of peace](#)*

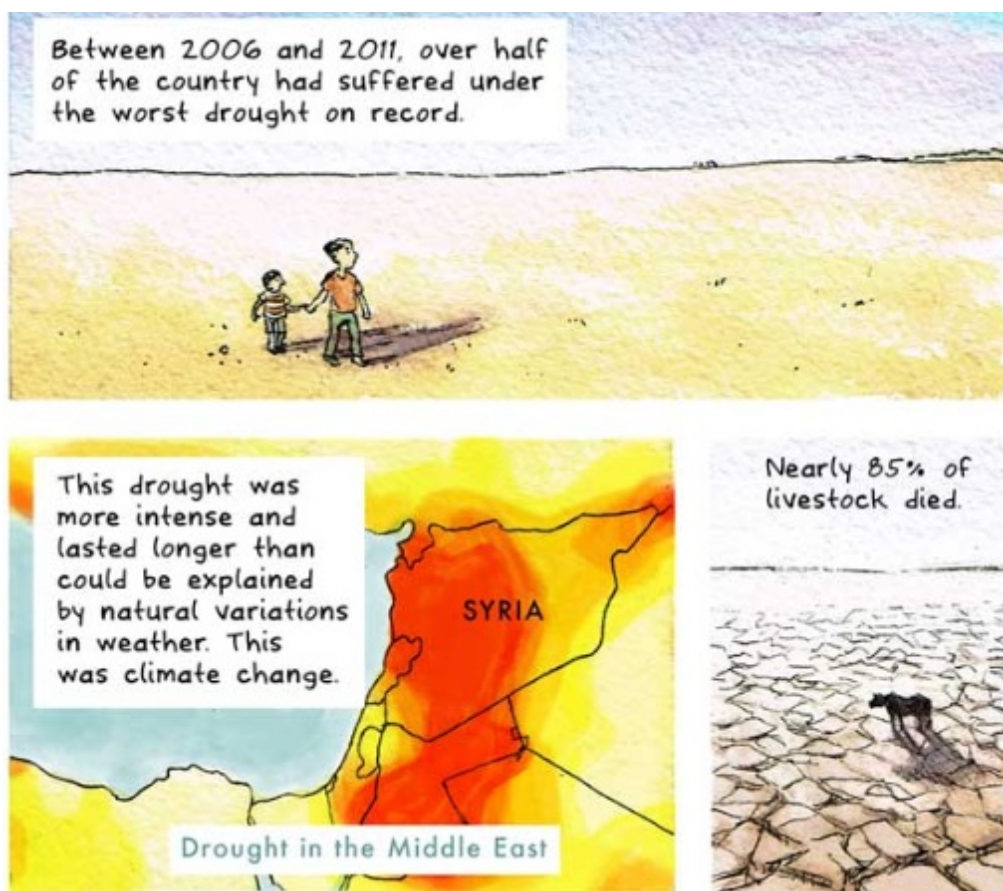
November 18, 2015. [Why a Climate Deal Is the Best Hope for Peace](#) by Jason Box and Naomi Klein, The New Yorker. “Soon after the horrific terror attacks in Paris our phones filled with messages from friends and colleagues: “So are they going to cancel the Paris climate summit?” “The drums of war are beating. Count on climate change being drowned out.” (...) After the attacks, the French government stated that the COP21 climate summit would begin as scheduled at the end of November. Yet **the police have just barred the huge planned marches and protests, effectively silencing the voices of people who are directly affected by these high-level talks** (...) When our safety feels threatened, it’s difficult to think of anything else. Major shocks like the Paris attacks are awfully good at changing the subject. But what if we decided to not let it happen? What if, instead of changing the subject, we deepened the discussion of climate change and expanded the range of solutions, which are fundamental for real human security? What if, instead of being pushed aside in the name of war, climate action took center stage as the planet’s best hope for peace? (...) **Paris “should be considered not just a climate summit but a peace conference—perhaps the most significant peace convocation in history.”** (...) **We are finally starting to recognize that climate change leads to wars and economic ruin.** It’s time to recognize that intelligent climate policy is fundamental to lasting peace and economic justice.”

November 16, 2015. [Why Bernie Sanders Was Right To Link Climate Change To National Security](#) by Joe Romm, Climate Progress. “Democratic candidate Bernie Sanders elaborated on why climate change remains “the biggest national security threat facing the United States. Sorry, conservatives: when President Obama describes climate change as the greatest threat we face, he’s exactly right (...) **Terrorism can’t and won’t destroy our civilization, but global warming could**



**and might (...) In fact, climate change is directly related to the growth of terrorism.** And if we do not get our act together and listen to what the scientists say you're going to see countries all over the world — this is what the CIA says — they're going to be struggling over limited amounts of water, limited amounts of land to grow their crops. **And you're going to see all kinds of international conflict.**"

November 16, 2015. **Climat, le nerf de la paix** par Pascal Canfin, alterecoplus. "Au-delà de la tenue – nécessaire – de la Cop21 dans la ville de Paris frappée par les attentats, **quels liens peut-on faire entre le climat et le terrorisme ?** Il n'y a évidemment aucun lien mécanique entre le fait qu'une région soit frappée par les conséquences du dérèglement climatique et le fait qu'elle devienne, soit victime du terrorisme, soit source du terrorisme. Mais le ministère de la Défense américain a désigné depuis quelques années **le changement climatique comme un «multiplicateur de menaces** ». Le cas de la Syrie est éloquent : 1 million de déplacés internes [dans un pays de 20 millions d'habitants] liés à une sécheresse historique entre 2006 et 2010 ont contribué à la dislocation du pays.(...) Imagine-t-on que cela n'aurait pas d'impact sur la stabilité politique du pays ? (...) Je ferai également un deuxième lien entre climat et terrorisme (...) Directement ou indirectement les revenus du pétrole sont donc à la base de la puissance économique des groupes terroristes qui ont frappés la France. **Sortir de notre dépendance aux énergies fossiles**, qui est bien l'un des enjeux d'une Cop21 réussie, **c'est aussi réduire l'argent que nous laissons chaque jour aux monarchies du Golfe et, indirectement, aux groupes terroristes**"

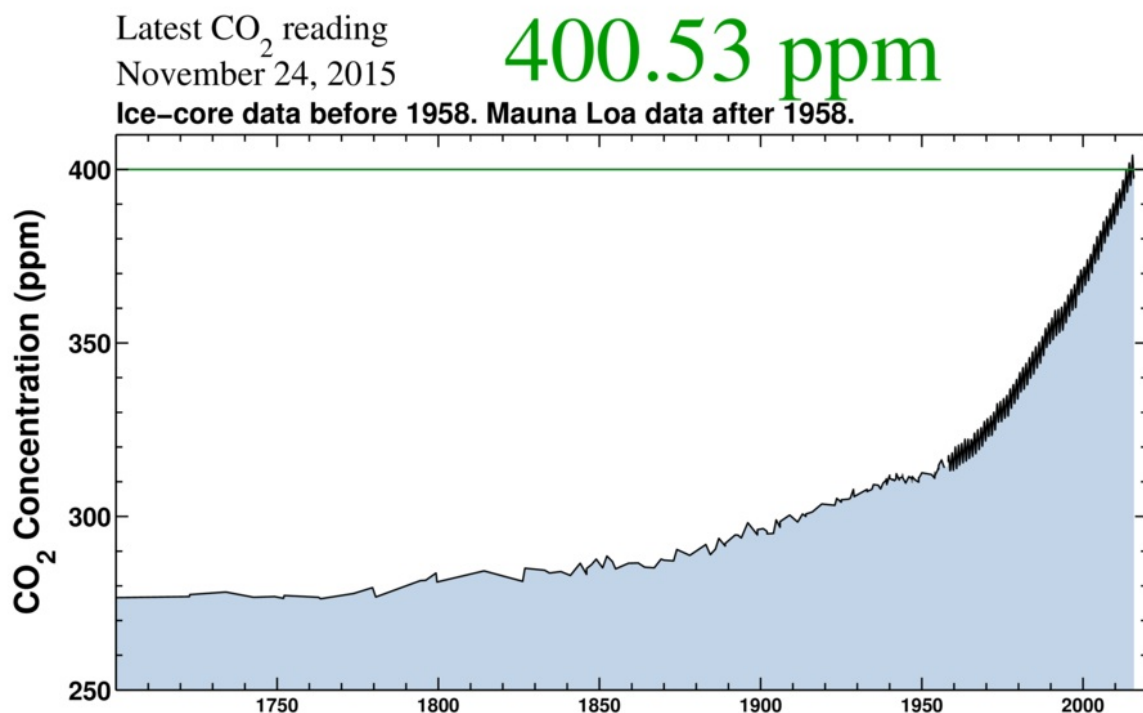


*Syria's Climate-Fueled Conflict, In One Stunning [Comic Strip](#):  
How climate change helped spark a bloody civil war  
by Audrey Quinn and Jackie Roche.*

November 15, 2015. **Why Climate Change and Terrorism Are Connected** by Justin Worland, Time. “U.S. military officials refer to climate change as a “threat multiplier” that takes issues like terrorism that would pose a threat to national security and exacerbates the damage they can cause. A 2014 Department of Defense report **identifies climate change as the root of government instability that leads to widespread migration, damages infrastructure and leads to the spread of disease. “These gaps in governance can create an avenue for extremist ideologies and conditions that foster terrorism,”** the report says. The parallels between the situation described in the government report and the situation on the ground in Syria are striking. The worst drought on record in the Middle Eastern country has created instability for farmers and threatened the food supply. At the same time, the government has struggled to hold on to power across the country in the face of militant groups and millions of Syrians have fled their homeland.”

November 14, 2015. **Paris attacks - COP21 and the war on terror** by Oliver Tickell, Ecologist. “Is it a coincidence that the terrorist outrage in Paris was committed weeks before COP21, the biggest climate conference since 2009? Perhaps, writes Oliver Tickell. But failure to reach a strong climate agreement now looks more probable. And that's an outcome that would suit ISIS - which makes \$500m a year from oil sales - together with other oil producers.”

October 14, 2015. **Isis Inc: how oil fuels the jihadi terrorists** by Erika Solomon in Beirut, Guy Chazan and Sam Jones in London, Financial Times. “Jihadis’ oil operation forces even their enemies to trade with them (...) **Oil is the black gold that funds Isis’ black flag** — it fuels its war machine, provides electricity and gives the fanatical jihadis critical leverage against their neighbours (...) Dozens of interviews with Syrian traders and oil engineers as well as western intelligence officials and oil experts reveal **a sprawling operation almost akin to a state oil company** that has grown in size and expertise despite international attempts to destroy it.”



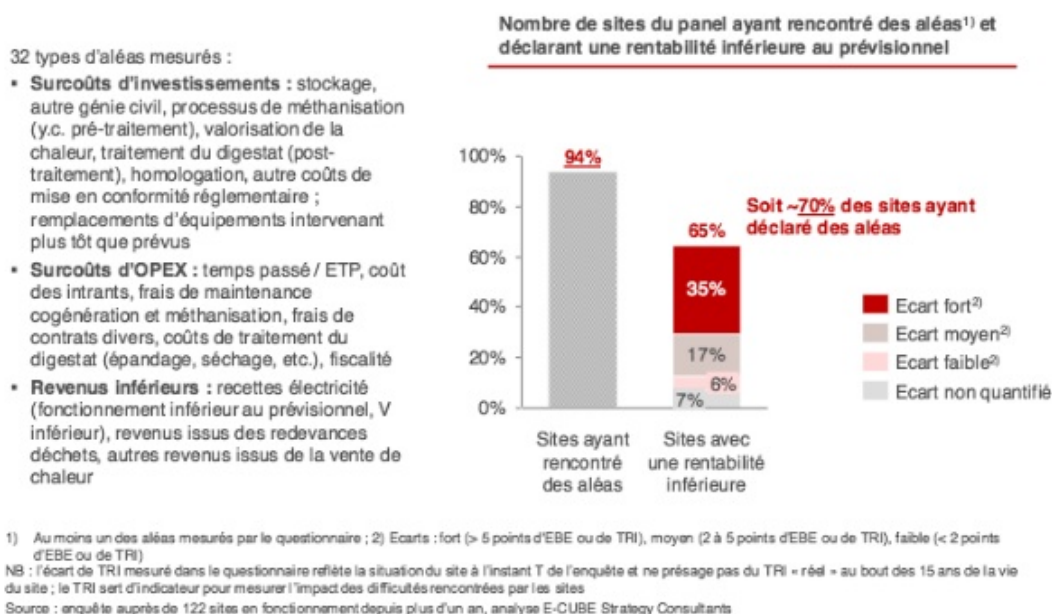


## Biogas challenges and opportunities

November 26, 2015. **Italy: The Regulatory framework for the development of biogas and advanced biofuels** by Roberto Murano, Qual Energia. “**For the first time in Europe it is then introduced a form of incentives for biofuel types of new generation, more efficient, resulting from non-food feedstocks or that enhance waste, residues and by-products.** In this context also the biomethane produced from the arrays in the decree is granted the status of advanced biofuel that can then contribute to the achievement of specific targets introduced in 2018.”

November 26, 2015. **Biogaz : les acteurs en ordre de marche pour consolider la filière.** A l’occasion d’une conférence de presse, les professionnels de la filière biogaz en France ont présenté les résultats de l’étude sur l’état des lieux de la filière conduite cette année. Ils ont mis en évidence les obstacles que rencontrent le secteur et les actions qu’ils mettent en œuvre pour débloquer les freins. Ils ont également rappelé les opportunités que représente le biogaz dans la transition

L’étude a démontré tout l’intérêt d’analyser et de capitaliser sur les aléas rencontrés par les sites en fonctionnement : en effet, 94% des sites interrogés déclarent avoir rencontré des aléas et 65% présentent une rentabilité inférieure au prévisionnel.



*Illustration 2 – La quasi-totalité des sites en fonctionnement du panel a rencontré des aléas par rapport au business plan prévisionnel*

énergétique des territoires : production d’une ressource renouvelable, réduction des émissions de gaz à effet de serre, développement de la mobilité verte, optimisation de la gestion des déchets, fourniture d’un digestat qui se substitue aux fertilisants minéraux. C’est aussi un atout pour pérenniser les filières agricoles, notamment l’élevage, et créer des emplois locaux (...) **la filière française, récente, est en phase d’apprentissage. En effet, le mix d’intrants utilisé pour approvisionner le méthaniseur étant différent de celui d’autres pays, cette phase d’apprentissage était inévitable et nécessaire pour mieux ajuster les paramètres techniques et économiques.** Néanmoins, les professionnels constatent une montée en compétence dans l’adaptation des matériels et une meilleure évaluation des charges d’exploitation. A partir de cet état des lieux, qui met en lumière les chantiers à mener pour accompagner le décollage effectif du biogaz en France, les acteurs du comité de pilotage vont poursuivre leur travail collectif

de structuration de la filière au sein du Comité National Biogaz, mis en place par Ségolène Royal en mars dernier. **Si le développement de cette énergie renouvelable exige de la part des acteurs actifs sur la chaîne de valeur un partage d'expérience et une démarche de qualité, le soutien public reste à ce jour déterminant, notamment en matière de mécanismes de soutien, de simplification et d'homogénéisation des procédures, d'intégration aux réseaux et de R&D.**”

November 26, 2015. **Etat des lieux de la filière biogaz en France. Les freins à lever pour consolider une filière prometteuse.**

November 26, 2015. **Bio-CNG: A viable solution to India's various problems** by Col. Suresh Rege, The Hans India. “On the 16th of June, 2015, the government of India officially published an amendment to the Central Motor Vehicles Rules, 1989, under sub-section (1) of the Motor Vehicles Act, 1988. The amendment is a landmark step, which will **officially recognize bio-CNG as fuel for use in public transport vehicles** (...) unlike limited natural resources like petroleum and natural gas, which are becoming dearer by the day, the potential to produce biogas, which is chiefly generated from solid wet waste, will only increase. **India will generate over 400 million tonnes of solid waste/year by 2050, up 550% from the total waste generation today.** Currently over 90% of the potential of generating biogas in the country **remains untapped due to the lack of supportive policies and infrastructure.** The potential of biogas generation in the country is 1.3 million cubic meters of biogas per day. This amount would be enough to support a major chunk of public transport in the country (...) With the dire situation in India regarding our environment policies and limited resources, biogas can be the answer we have been waiting for.”

November 25, 2015. **Delhi Government looks to turn biogas into CNG** by Sanjay Kaw, The Asian Age. “The AAP government is exploring the possibility with the Swedish government to convert biogas into CNG. **The project, a first for the city, will see biogas generated at sewage treatment plants being converted into CNG.** Swedish ambassador Harald Sandberg, who recently met Delhi chief minister Arvind Kejriwal, has reportedly offered a technology to convert biogas into CNG through sewage treatment plants. A business delegation from Sweden was also in the city for the project. City transport minister Gopal Rai and PWD minister Satyendra Jain had recently visited Sweden to study its transportation system. A senior officer said that the Delhi government was also exploring possibility to use biogas to run DTC buses in the national capital (...) **Sweden has developed the technology that converts biogas into CNG to run public transport system.** Sweden is considered a pioneer in biogas technology for heating, power generation and fuelling vehicles. **More than 40 per cent of the biogas generated in the country is used to run vehicles.**”

November 25, 2015. **USA: il digestato è la chiave per rendere l'impianto redditizio** par Patrick Serfass, Executive Director American Biogas Council (video). “Negli Stati Uniti l'industria del biogas è in fermento: **sono in fase di sviluppo nuovi prodotti e tecnologie legate al digestato ed al recupero dei nutrienti in esso contenuti. Il digestato infatti è la chiave per raggiungere la redditività economica dell'impianto in un paese come gli USA, dove non esiste uno schema incentivante condiviso da tutti gli stati.** Come e in che modo lo stanno cercando di capire le aziende, supportate dall'American Biogas Council.”

November 24, 2015. **L'ADEME démontre que le biogaz réduit les gaz à effet de serre.** “Le biogaz a déjà comme vertu le fait de recycler de la matière organique pour la transformer en méthane. Mais une récente étude de l'ADEME va pus loin et démontre qu'il participe activement à la réduction des gaz à effet de serre. De quoi confirmer tout l'attrait pour cette énergie plus verte qui décolle actuellement en France. Gaz nature "vert", biométhane, biogaz... **les différents noms de ce gaz issu de la méthanisation des déchets organiques ne manquent pas. Comme ses bénéfices d'ailleurs. Le premier est non des moindres : valoriser les boues d'épurations, les déjections ovines et bovines, les résidus d'exploitations agricoles et forestières pour les transformer en**

**méthane dans des sites et des usines spécialement conçus pour.** Du gaz qui pourra même être réinjecté directement dans le réseau de canalisations pour alimenter les bâtiments publics ou les foyers des Français. **Mais à cet excellent premier atout, l'Agence de l'environnement et de la maîtrise de l'énergie en ajoute une autre et non des moindres : il réduira significativement les émissions de gaz à effet de serre à l'horizon 2020 pour une valeur de près de 751 000 tonnes d'équivalent CO2 soit la quantité générée par approximativement 100 000 personnes en France."**

November 23, 2015. **The dramatic decline of biogas technology** by Christian Sebald, Süddeutsche Zeitung. "A few years ago was considered biogas as the miracle energy par excellence. But in the meantime, show some disadvantages: **The corn consumption is gigantic. And the energy is expensive. Once the German federal government has stopped the funding, many farmers now fear having to give up their assets (...)** With the boom worsened the criticism, because biogas also has serious weaknesses. The central: Most systems are operated with corn, corn is the biogas plant par excellence. The more plants emerged, the more corn was grown. The consequences for the soil, the water, biodiversity and the landscape are dramatic (...) Eighteen months ago, came the big blow: The grand coalition stopped the promotion of biogas plants. The boom broke off abruptly (...) The funding should cheapen the renewables over time so that it makes itself superfluous. In biogas plants it did not work out. With production costs from 15 to 22 cents per kilowatt hour of biogas power **continues to be the most expensive renewable energy.** Only electricity from offshore wind farms is likely to be even more expensive (...) **"We need quick and unbureaucratic solutions. Because it's not just about the peasants. But the energy turnaround."**

Biogas production in the IEA Bioenergy Task 37 member countries is clearly dominated by Germany with more than 10,000 biogas plants. None of the other member countries have each more than 1,000 biogas plants (see Figure 17).

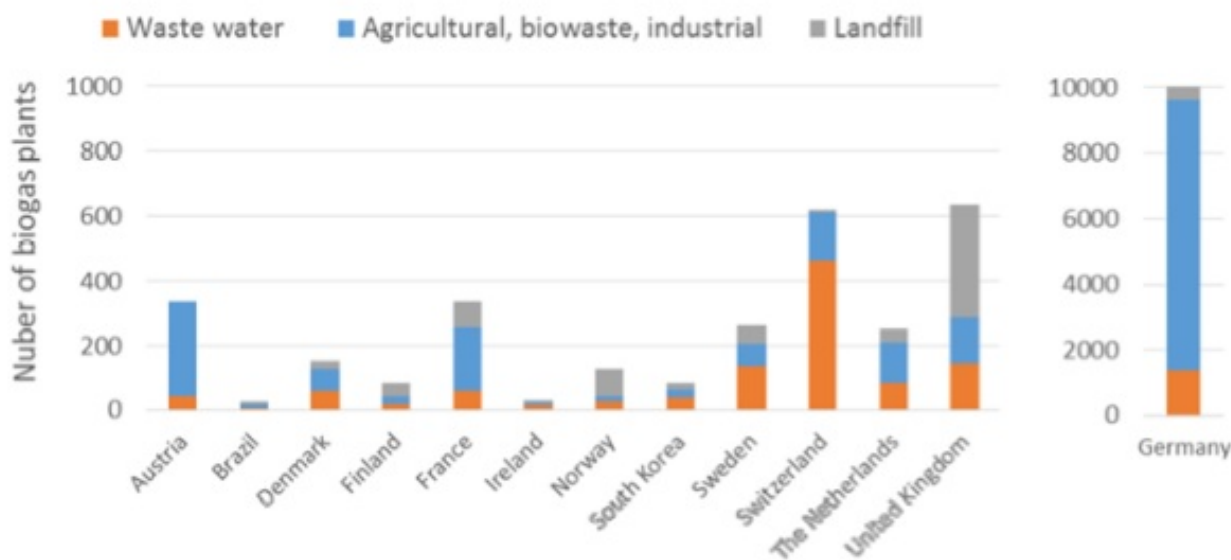


Figure 17: Biogas plants in the IEA Bioenergy Task 37 member countries.

[\*IEA Bioenergy Task 37 Country report Summary 2014\*](#)

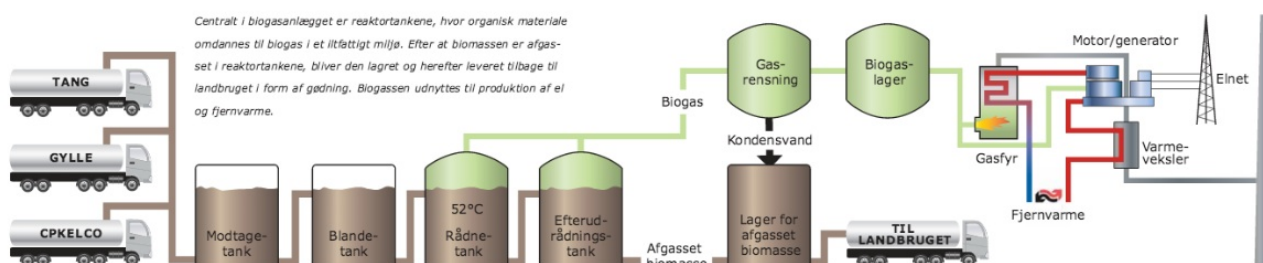
November 18, 2015. **Arranca la primera planta piloto semi-industrial que genera biogás a partir de la paja del arroz.** "Con 15.000 toneladas de paja residual se podrían producir unos 21 millones de kWh eléctricos cada año, lo que equivaldría al ahorro energético de unos 2.000 hogares. El proyecto europeo [SOSTRICE](#), en el que participa AINIA Centro Tecnológico, ha conseguido desarrollar la primera planta piloto semi-industrial que genera biogás y biofertilizantes, a partir de la



paja sobrante del cultivo de arroz. A través de la tecnología de digestión anaerobia, **este prototipo es capaz de reducir las emisiones de gases de efecto invernadero derivadas del cultivo de este cereal, ahorrar en el consumo de agua y disminuir el uso de fertilizantes**. Además, esta planta piloto, que servirá como prototipo para el desarrollo de plantas a escala industrial permite, gracias a la valorización de los subproductos generados del cultivo del arroz, mejorar su gestión en términos ambientales y económicos. El prototipo ha sido diseñado y construido por LUDAN España, también socio del proyecto.” [SOSTRICE](#), “**CO2 emissions reduction of the rice cultivation through energy valorisation of the rice straw**”, is a demonstration project that aims to reduce the greenhouse gas emissions (GHG) derived from the rice cultivation by means of a sustainable rice straw management model based on the energy valorisation of this residue by means of the anaerobic digestion and combustion technologies. The Project is being implemented in two of the areas where rice cultivation has reached considerable importance in Spain: Las Marismas del Guadalquivir (Andalusia), with about 35.000 ha, and L’Albufera (Valencia), with 15.000 ha. In both cases there is an interaction between agricultural activity and the proximity to areas of high environmental protection, such as Doñana Natural Park in Andalusia and L’Albufera Natural Park in Valencia.

November 18, 2015. **Sweden: GoBiGas about to be stopped.** “Opposition in the Gothenburg City Council today received through his motion to liquidate Göteborg Energi project GoBiGas. After the vote, the opposition won suggestions by 7 votes to sixth. **GoBiGas is about making biogas from forest waste into fuel for cars.** A more sustainable fuel than what is used today. **But the project has become too expensive according to the opposition who want to end it.** The issue will also be addressed in council but on party lines followed, and today's decision of the municipal government stands up, it means that GoBiGas not continue to develop after the experimental phase it is in now. The opposition's claim also includes that you should find a suitable way to finish the first stage of GoBiGas, experimental phase.”

November 17, 2015. **2015: 200 new biogas plants in Germany.** “Of 1,500 newly built biogas plants in 2011 to just 200 newly built facilities in 2015: **the trend of declining investment** in new building in the area of biogas has continued also in 2015 (...) A focus put the industry on the flexibility of existing plants. **Companies would increasingly specialize in plant upgrading and optimization.** Also natGAS focuses on the optimization of biogas plants. In the context of direct marketing of the electricity produced from biogas plants in the energy markets and gives the operator more secure additional revenues [sell renewable electricity directly on the market as part of a system of market incentives opposed to subsidized purchase price; to produce and sell electricity on the market when prices traded are highest. By adapting its production to the needs of the system, the operator can **maximize income from the sale of its electricity**]”



November 16, 2015. **Inaugurating an EU co-funded biogas plant in Denmark using seaweed, manure and industrial waste.** “Both the European Commission and the Danish Government gave much praise when Solrød Biogas A/S was officially inaugurated on Monday morning. On an annual basis the plant will produce approximately ten million m3 of biogas on the basis of local raw materials such as livestock manure from agriculture, seaweed from the beach and residues from the industry. **The technology with a unique composition of residues converted into energy may**

**become an international role model** (...) Lars Christian Lilleholt, Minister for Energy, Utilities and climate, described the plant as a ground-breaking contribution to the renewal of sustainable energy. The enthusiastic minister said that it is at least a quadruple egg of Columbus - and almost the parent of all eggs of Columbus. **You displace fossil fuels. You use waste products from agriculture, industry and beaches. You create a better distribution of nutrients to agricultural land. And you help removing foul-smelling seaweed from the beach."**

November 9, 2015. [Hugh Fearnley-Whittingstall rejects Morrisons' 'pathetic' wonky veg trial](#) by Adam Vaughan, The Guardian. "Supermarket's test of customer support for cosmetically imperfect vegetables fails to convince chef, whose new BBC series highlights food waste in Britain (...)" Fearnley-Whittingstall was also critical of supermarkets' increasing use of anaerobic digestion (AD), where their food waste is sent to plants to capture the gas released as it breaks down, for use as electricity. **Sainsbury's supermarkets has previously said it's the biggest user of AD in the UK.** "When we know there are hungry people, the idea of making electricity out of food when we could be feeding people, feels wrong. But actually scientifically it's the wrong thing to do, because the energy recovery from AD is pathetic, compared to the energy recovered by people eating food." He said that while AD was better than landfill and did have a place – for food scrapped off plates in the catering industry and an inevitable small amount of waste at supermarkets – **it was being used as a way to justify the overproduction of food.** "You're in a dangerous situation where overproduction of food is something that, if it suits them, big corporations can do almost with gay abandon, without fear of consequence." Sainsbury's said that **it only sent food to AD after it had exhausted other options**, such as donating it to charities or using it as an animal feed."

November 6, 2015. **Sweden: The Alliance requires long-term conditions for biofuels.** "The Alliance proposed a draft government bill "system Statement for biofuels". The Alliance's proposal aims to ensure technological neutrality and sustainability of production and use of biofuels in Sweden. The government has presented a bill to the Riksdag that greatly limits the possibility for the use and production of biofuels. The Alliance is highly critical of the government's awkwardness in question and want to see increased political action both at home and at EU level (...) **Swedish tax legislation is based principally from the carbon tax is only charged energy from fossil carbon and not imposed on renewable fuels. This is a principle that is not shared by the EU, something that the Alliance wants to change** (...) The new EU guidelines for state aid came into effect in 2014, they hamper significantly the opportunities for tax relief for biofuels produced from agricultural commodities."



November 3, 2015. **Political battle over GoBiGas in Gothenburg (Sweden).** Energy Professor: **"GoBiGas is a technical success".** "[GoBiGas](#) [world's first initiative to produce biogas from forest residues], the large and unique facility that Göteborg Energi built to produce biogas that can be used as fuel for cars, cause now battle between Gothenburg politicians. The focus on GoBiGas is a step in managing climate and environment in the future, and so far the politicians in Göteborg has been pretty unanimous about it. But now the opposition has swung and want to finish the project early

(...) We have had problems in the spring, says operations manager at GoBiGas Malin Hedenskog, but we have managed them well and the knowledge we have gained is valuable. The facility was completed in December 2013, and now nearly two years later, the operation is not yet in full swing.”

October 14, 2015. **The biogas is close to total collapse - "Emergency situation"** by Jesper Gunnarsson, Miljö Aktuellt. “The dream of the future of green gold in Sweden is about to go out. Biogas plants are bleeding financially, closed down or mothballed on a conveyor belt. The reason is primarily the national policy's inability to immediately solve the industry's acute structural problems (...) Owners of biogas cars will continue to be subsidized (...) The tax exemption has been extended for a single year for several years, and it is important for biogas survival (...) From a European perspective, **Sweden's focus on consumption aid is unique. Several other countries have instead focused on different forms of production aid**, which some professionals question whether it is even compatible with EU law (...) “Everyone is talking about Sweden developing biogas while we get this kind of punch in the face. For us it's about to win or lose,” said Anna Brynås, CEO of Swedish Biogas International. Their latest big bet is Jordberga, a unique biogas plant built and operated working closely with scientists and farmers. The goal is to **produce biogas from crops that do not compete with food production and to spread the knowledge**. With the memorandum's proposals would their customers no longer get tax exemption for gas. “**Without new crops to rot, the industry will not be able to grow**. Food waste potential is limited. If we are forced to close Jordberga we must extinguish down all other facilities as well, and we stand for a little more than a quarter of Sweden's biogas production,” said Anna Brynås.”



*First hybrid “[tram-bus](#)” deployed in Malmö in June 2014.  
Exqui.City, manufactured by Van Hool (Belgium), are hybrid (biogas-electric) tram-buses.*