APPLIED NANOPARTICLES Monthly Anaerobic Digestion Newsletter

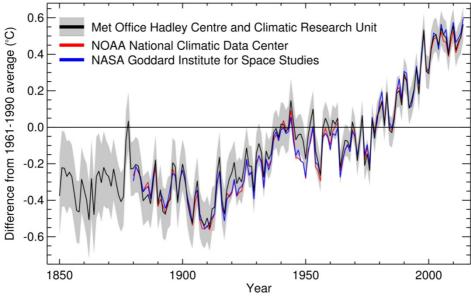
February 2015 Compilation & Overview



"Now Is The Time To End The Age Of Fossil Fuels"

February 2, 2015. Warming Trend Continues in 2014. The World Meteorological Organization (WMO) has ranked 2014 as the hottest year on record. "The overall warming trend is more important than the ranking of an individual year," said WMO Secretary-General Michel Jarraud. "Analysis of the datasets indicates that 2014 was nominally the warmest on record, although there is very little difference between the three hottest years," said Mr Jarraud. "Fourteen of the fifteen hottest years have all been this century. We expect global warming to continue, given that rising levels of greenhouse gases in the atmosphere and the increasing heat content of the oceans are committing us to a warmer future," he said.

Global average temperature anomaly (1850-2014)



January 30, 2015. <u>Cheap Oil Burns \$390 Billion Hole in Investors' Pockets</u> by Asjylyn Loder and Elizabeth Dexheimer, Bloomberg. "Investors have a message for suffering U.S. oil drillers: We feel your pain. They've pumped more than \$1.4 trillion into the oil and gas industry the past five years as oil prices averaged more than \$91 a barrel. The cash infusion helped push U.S. crude production to the highest in more than 30 years, according to data compiled by Bloomberg. Now that oil prices have fallen below \$46, any euphoria over cheaper energy will be tempered by losses that are starting to show up in investment funds, retirement accounts and bank balance sheets (...) **The crash caught investors and lenders by surprise**."

January 30, 2015. The Renewable Energy Embraced by Traditional Fossil Fuel Industries: Renewable Natural Gas By Edward Dodge, Breaking Energy. "The Canadian Gas Association, a leading industry trade group, issued a report in December 2014 promoting renewable natural gas in Canada. Titled, "Renewable Natural Gas Technology Roadmap for Canada," the report offers very aggressive support for biomethane production as a means to both reduce waste and greenhouse gases while developing an underutilized renewable resource. According the CGA's report, there is an estimated 1,300 billion cubic feet of RNG supply potential available in Canada, which is equal to 50% of Canada's 2012 natural gas consumption (...) It is worth noting that renewable natural gas is a rare example of a traditional fossil fuel industry embracing renewable energy."

January 20, 2015. WFES 2015: Renewable Power Costs Plunge – Many Sources Cheaper than Fossil Fuels By Dan Howis Lauritsen, State of Green. "The cost of generating power from renewable energy sources has reached parity or dropped below the cost of fossil fuels for many technologies in many parts of the world. This according to a new report from the International Renewable Energy Agency (IRENA), revealed in conjunction with the 2015 World Future Energy Summit in Abu Dhabi. For 1.3 billion people worldwide without electricity, renewables are the cheapest source of energy. Renewables also offer massive gains in cost and security for islands and other isolated areas reliant on diesel. Thanks in large part to the clear business case for renewables, a record high of 120 gigawatts of renewable energy was added to the global energy mix in 2013, with similar additions forecast for 2014. Renewable energy accounted for 22% of global electricity generation and 19% of total final energy consumption in 2013. "Now is the time for a step-change in deployment for renewables. It has never been cheaper to avoid dangerous climate change. create jobs, reduce fuel import bills and future-proof our energy system with renewables. This requires public acknowledgement of the low price of renewables, an end to subsidies for fossil fuels, and regulations and infrastructure to support the global energy transition," said Mr. Amin, Director-General of IRENA. As of 2013, world fossil fuel subsidies totaled \$550 billion, four times the amount devoted to clean energy (estimated at USD 120 billion in 2013) according to the International Energy Agency."

February 3, 2015. Coal carbon capture could increase future climate risks, study finds by Simon Evans, The Carbon Brief. "Coal-fired power stations should be replaced by low-carbon energy sources rather than retrofitted with carbon capture and storage (CCS), according to new research from the University of Oxford. The study dents the idea that coal can be compatible with climate action as long as it uses CCS. It says finite CCS capacity should be held in reserve in case negative emissions technologies are needed to return dangerous greenhouse gas concentrations to a safe level after 2050."



February 3, 2015. **Peak carbon before peak oil** by Rineesh Bansal and Stuart Kirk, **Deutsche Bank Konzept.** "Forecasting is always a challenge – many believe impossible. At least rationalising the past, while not always straightforward, is easier. For example, the oil price's biggest annual fall in a generation – a halving in 2008 – was justifiable in hindsight given the global economic meltdown. It is strange, therefore, that no one seems to have anything clever to say about last year's 45 per cent oil price rout – the second worst annual decline in 30 years. Perhaps the

experts are embarrassed they did not predict it. To be fair the usual reasons for a collapse in oil do not seem to apply. Hence, more radical hypotheses must be explored. One is presented here: the weather is to blame (...) If the currently agreed climate change targets are to be met with any reasonable certainty, over half the proven fossil fuel reserves would have to stay where they are —underground (...) While oil has seen volatility in the past, its defining characteristic of being a supply-constrained scarce commodity has remained unchanged. If the world takes its climate change commitments seriously, then the dynamics of oil will be altered beyond recognition. Oil will become constrained by the level of demand allowed under CO2 emission limits and this will have implications for the behaviour of countries, companies and consumers alike. Perhaps last year's fall was the first rumbling of this upcoming profound change."

February 3, 2015. The UK Solid and Gaseous Biomass Carbon Calculator. "The UK Biomass and Biogas Carbon Calculator is developed for calculating carbon intensity and greenhouse gas (GHG) saving of solid biomass and biogas used for electricity and heat generation. The UK Biomass & Biogas Carbon Calculator incorporates the calculation methodology set out in the Renewable Energy Directive, taking account of the recommendations set out by the European Commission in their report on sustainability requirements for solid and gaseous biomass. The tool is designed to assist in calculating the final GHG emission saving that should be reported to Ofgem. User Guide."

February 14, 2015. Global Divestment Day. "The Fossil Free campaign, which has spearheaded the movement to divest from fossil fuels since it began in 2012, will hold a Global Divestment Day spanning six continents on February 13-14. Global Divestment Day will celebrate the incredible growth and increasingly international reach of the fossil fuel divestment movement. By 2014, 180 institutions had divested citing climate or carbon risk as their motivation. There are now over 500 active divestment campaigns underway at universities, cities, churches, banks, pension funds and other institutions. "The divestment movement is already making a huge impact," said May Boeve, Executive Director of 350.org, one of the organisations supporting the divestment effort. "In just two years, this campaign has grown from a few universities to hundreds of institutions around the world. Together, we've succeeded in challenging the social license of the fossil fuels industry,



and begun to chip away at their political power. Global Divestment Day will celebrate this success, and help launch a new chapter of this growing movement." The divestment campaign highlights aconflict that most politicians are reluctant to address. If the world is to avoid catastrophic global warming, most known fossil fuel resources need to stay in the ground. As world leaders plan to gather in Paris later this year to attempt once again to secure a global deal to address the climate crisis, divestment provides the means to take back power from the fossil fuel industry and deliver a mandate for bold climate leadership before it's too late. "On Global Divestment Day we will be sending a clear message to the world: now is the time to end the age of fossil fuels," said Payal Parekh, Global Managing Director for 350.org. "Instead of funding the problem, we need to start funding solutions in the form of clean, renewable sources of energy. This is the only real solution to overcoming the climate crisis" On February 13-14 worldwide actions will include: individuals closing their accounts with banks and pension funds investing in climate chaos: university students holding flash-mobs, vigils, sit-ins and rallies calling upon their endowments to invest in a liveable future, faith leaders and people living on the frontline of climate change will band together to urge their communities to divest from climate destruction. In the financial capitals, people will gather for colourful rallies calling on investors to break up with the fossil fuel industry and sever their ties once and for all. Hundreds of events are now planned worldwide for Global Divestment Day in 48 countries spanning 6 continents."

February 23, 2015. Las Asociaciones Europea y Española de la biomasa reclaman una tasa de CO2 aprovechando la caída del precio del petróleo. "La comunidad internacional cuenta con muy pocas ocasiones como esta para avanzar de forma conjunta en la lucha contra las emisiones causadas por los combustibles fósiles y el calentamiento global (...) Todos los usuarios de productos derivados del petróleo en todo el mundo percibirán el abaratamiento del combustible con que rellenan sus vehículos. Esto nos da una oportunidad única para introducir y aumentar las cuotas e impuestos sobre las emisiones de CO2 en todos los países sin causar agobio a los ciudadanos. Representa también la oportunidad de suprimir los subsidios a los combustibles fósiles en los países donde los precios del combustible están garantizados por el gobierno"

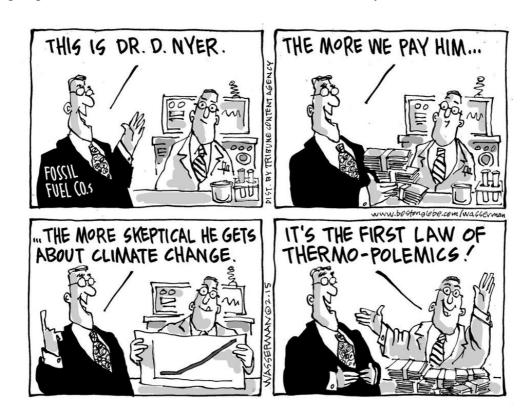
February 16, 2015. Financiación climática con los Proyectos Clima: ganan 9,7€ por cada tonelada de emisión de CO2 que evitan. Ejemplo: Alianza para construir nueve plantas de biogás entre España y República Dominicana por Javier Rico, Energías Renovables. "Aczia Biogás, ingeniería dedicada a la ejecución, operación y mantenimiento de plantas de biogás, y Orus Renovables han creado la sociedad A2A Energía y Medio Ambiente para el desarrollo y construcción de cinco instalaciones en España y cuatro en República Dominicana. Recientemente, Aczia Biogás consiguió incluir un proyecto programático (abarca varias instalaciones de reducción de emisiones) dentro de los Proyectos Clima en el que podrán entrar todas las plantas españolas. No obstante, las primeras que entrarán en funcionamiento serán las del país caribeño. Las de España está previsto que se repartan entre Cataluña, Aragón, Andalucía, Castilla-La Mancha y Murcia. Estas plantas españolas podrán entrar en el proyecto programático que Aczia presentó a la última convocatoria de los Proyectos Clima y que fue aprobado por el Consejo Rector del Fondo de Carbono para una Economía Sostenible (FES-CO2) ["Los promotores de estas iniciativas destinadas a la reducción de emisiones de CO2 podrán a partir de ahora realizar el seguimiento de las reducciones de sus proyectos, una vez éstos inicien su puesta en marcha, con vistas a contabilizar y verificar las reducciones que alcancen para su posterior compra por el Fondo"]. "A comienzos de este mes firmamos con Susana Magro (directora de la Oficina Española de Cambio Climático) el compromiso de reducción de 300.000 toneladas de gases de efecto invernadero hasta 2021, que nos permitirá cubrirlo con las plantas ya previstas y con alguna instalación más que incorporaremos antes de tres años", explica a Energías Renovables Bernardino Albiol, consejero delegado de Aczia y A2A."



The Responsible Research And Innovation In This Context

February 23, 2015. <u>First RRI Tools Newsletter</u>. "Here you will get to know the latest news on the RRI Tools project, the interesting events related to responsible research and innovation, and how to join the RRI Toolkit community."

February 21, 2015. Work of prominent climate change denier was funded by energy industry by Suzan Goldenberg, The Guardian. "A prominent academic and climate change denier's work was funded almost entirely by the energy industry, receiving more than \$1.2m from companies, lobby groups and oil billionaires over more than a decade, newly released documents show"



February 16, 2015. Hilary Sutcliffe challenges #RRI: "Why I've ditched Responsible Innovation for Principles for Sustainable Innovation." "(...) More recently the term Responsible Research and Innovation has been coined. It is currently very much focused on the research agenda of the European Commission's Horizon2020 research programme, though some member states, like the UK, Netherlands and Germany are leading the way in the development of consultation initiatives or frameworks for Responsible Research and Innovation for their own publicly funded research. But there is little in these programmes which focuses on the innovation end of Responsible Research and Innovation. Nothing to help business and society come to a common understanding on the direction and delivery of innovation and the expectations on business in terms of how that may be achieved sensitively, effectively and safely."

February 13, 2015. How does a socially convulsed Greece consider the options given by #RRI? Looking back at the first RRI Tools workshop in Greece by Aliki Giannakopoulou, RRI Tools. "Greece is in a middle of austerity measures, with an extremely small amount of money devoted to research, with issues that stretch from bureaucracy to a very centralized decision-making system and a political instability. In this exceptionally difficult time though, citizens are getting organized, researchers are opening their doors to the public, startups open and municipalities are creating new opportunities for innovators and entrepreneurs. In this climate of change, responsible research and innovation is seen as a very useful tool, a logical next step for the stakeholders, a potential solution to a number of issues."

January 22, 2015. Open science: Preaching what I practice by Alan Winfield, Robohub. "Open science isn't one thing – it is a set of practices that range from making sure your papers are openly accessible (which is relatively easy), to open notebook science, which makes the process open – and not just the results. Open notebook science is, of course, much more demanding. I was very pleased to be invited to Science, Innovation and Society: Achieving Responsible Research and Innovation. In my short introduction during the open science panel I suggested three levels of open science"

The Biogas Digesters Are Complex Biochemical Reactors

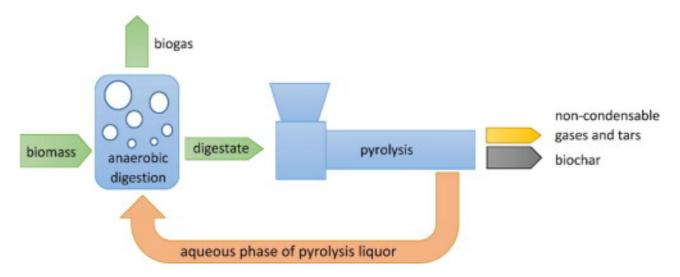
February 24, 2015 Confronting the Fear of a Biogas Digester Turning Sour, posted by Sam Bright, Anaerobic Digestion News. "There is a danger that unless the biogas industry airs its past errors in public, the anaerobic digestion industry will be set back by lack of understanding of the nature of the problems that can occur if biogas plants are not continually monitored and well run. It is perfectly natural for a young industry, such as this to want to move forward and not talk about past mistakes, but on the other hand it is only by understanding the past that repeating past errors can be avoided. For that reason, in this article we will discuss that most unpleasant outcome of poor or inexperienced biogas plant operation, which is known as a digester turning sour. What is actually meant by this term, when a biogas reactor is allowed to diverge sufficiently from its target pH, and intended alkalinity concentration for the methanogens (methanogenic organisms) to be killed (in effect poisoned), and other unwanted organisms to thrive. Significant quantities of dangerous hydrogen sulphide are likely to be produced in such circumstances."

context=

July 2008. Inhibition of anaerobic digestion process: A review. "This review provides a detailed summary of the research conducted on the inhibition of anaerobic processes. The inhibitors commonly present in anaerobic digesters include ammonia, sulfide, light metal ions, heavy metals, and organics. Due to the difference in anaerobic inocula, waste composition, and experimental methods and conditions, literature results on inhibition caused by specific toxicants vary widely. Co-digestion with other waste, adaptation of microorganisms to inhibitory substances, and incorporation of methods to remove or counteract toxicants before anaerobic digestion can significantly improve the waste treatment efficiency."

February 17, 2015. **Biogas for green chemistry - Fabrizio Sibilla**, Scientific Staff, Nova Institut DE (video). **The biogas refinery introduces a new use of biogas**, i.e. the production of raw materials with high added value. This allows companies to improve the plant's profitability, as well as to generate materials, such as biodegradable plastics.

February 17, 2015. From waste to value: Capabilities of biogas-producing microorganisms are underestimated. Researchers at the Leibniz Institute for Agricultural Engineering in Potsdam, Germany, have shown that anaerobic microorganisms can use complex organic pollutants for biogas production. Phenols, furans, aldehydes and ketones, which are frequently found in liquid by-products of thermochemical conversion of biomass, can easily and efficiently be degraded into bio-methane. This provides the basis for an efficient and sustainable integration of carbonization processes such as pyrolysis and hydrothermal carbonization (HTC) into bio-refinery concepts. The results have now been published in the renowned scientific journal "Bioresource Technology" [Hübner, T., Mumme, J. (2015): Integration of pyrolysis and anaerobic digestion - use of aqueous liquor from digestate pyrolysis for biogas production. Bioresource Technology]



February 4, 2015. ¿Qué usos energéticos tienen los lodos procedentes de una EDAR? Investigan los usos energéticos a partir de los lodos procedentes de la EDAR de La Cartuja. "En una 1a etapa, Socamex estudiará el potencial de producción de metano mediante la realización de ensayos de laboratorio BMP (Biochemical Methane Potential), con distintas relaciones de fango primario y fango secundario para la determinación de una serie de características del sustrato. En una segunda etapa Socamex llevará a cabo la operación en vía seca en un digestor piloto, ubicado en el Centro de Innovación Tecnológica para el tratamiento de los residuos 'Alfonso Maíllo' con los lodos de la EDAR de la Cartuja y teniendo en cuenta los resultados obtenidos en los ensayos de BMP"

February 4, 2015. Un nuevo laboratorio sitúa a Zaragoza como referente en el tratamiento de residuo. "Entre las líneas de investigación que se mantienen en este centro de innovación tecnológica, llamado "Alfonso Maíllo" (CIAM), están la biometanización, el tratamiento de olores, el compostaje, el pretratamiento, la valorización energética o los productos para nuevos mercados. El objetivo de estos proyectos, según Pablo Bernal, responsable de la planta, es reducir los residuos, así como obtener el máximo rendimiento de ellos (...) López Piñol, presidente de Urbaser, ha destacado también que su empresa también gestiona la recogida de residuos en ciudades como Madrid, París o Santiago de Chile, que está presente en 15 países, que se encuentra entre las diez primeras del mundo en su sector y es líder mundial en la técnica de digestión anaeróbica. Además, ha señalado que aquí el biogás se transforma en energía eléctrica, pero que en otras ciudades ya se limpia y se convierte en gas natural para cualquier uso"El CIAM pretende ser un centro de referencia a nivel internacional mediante la colaboración público-privada entre Administraciones, clientes, universidades y centros tecnológicos.

Digestate, Nutrients And Health

February 23, 2015. Recycling of nutrients is the key to saving the Earth. "Leakages of nutrients necessary for food production – especially nitrogen and phosphorus – cause severe eutrophication to the Earth's aquatic ecosystems and promote climate change. However, this threat also hides an opportunity. An enhancement of the nutrient economy creates new business models and enables developing recycling technology into an export (...) "Combining the production of biogas and fortified recycled nutrients is one of the key technologies for a sustainable nutrient economy. It is officially a matter of waste processing, but one in which organogenic raw material is processed into recycled nutrients used for fertilisation and into raw material for humus and biogas"

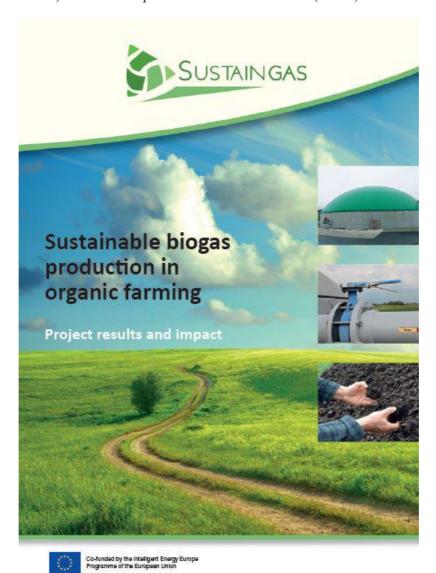
February 25, 2015. Trattamento dei rifiuti organici: il position paper dei Medici per l'Ambiente. L'Associazione Medici per l'Ambiente – ISDE Italia ha diffuso un position paper che riporta la posizione dell'associazione circa il trattamento della frazione organica dei rifiuti urbani FORSU, tema sensibile e delicato, non solo nell'ottica dello smaltimento dei rifiuti in generale, ma anche per le pratiche ricadute che comporta lo smaltimento di questa quota, che, con il suo 35% circa, rappresenta, tra l'altro, la quota parte di maggiore rilevanza dei rifiuti urbani (...)

Tutte le modalità di trattamento biologico della FORSU sono comunque da preferire allo smaltimento in discarica o all'incenerimento. Sia il compostaggio che la digestione anaerobica possono tuttavia presentare criticità ambientali e sanitarie legate alla qualità del materiale in ingresso che, qualora non adeguata (in particolare per la presenza di batteri patogeni, elevate concentrazioni di metalli pesanti e composti organici tossici), può produrre contaminazione del suolo e della catena alimentare ed emissioni inquinanti in atmosfera. Questo si riduce drasticamente con la raccolta differenziata (in particolare porta a porta)."

January 21, 2015. Transferable antibiotic resistance plasmids from biogas plant digestates. "Manure is known to contain residues of antibiotics administered to farm animals as well as bacteria carrying antibiotic resistance genes (ARGs). These genes are often located on mobile genetic elements. In biogas plants (BGPs), organic substrates such as manure and plant material are mixed and fermented in order to provide energy, and resulting digestates are used for soil fertilization. The fate of plasmid carrying bacteria from manure during the fermentation process is unknown (...) Our study showed that BGP digestates are a potential source of transferable antibiotic resistance plasmids, and in particular the broad host range IncP-1 ϵ plasmids might contribute to the spread of ARGs when digestates are used as fertilizer"

February 16, 2015. Las depuradoras de aguas residuales urbanas provocan la resistencia de algunas bacterias a los antibióticos. Un estudio en el río Támesis [Thames study: rivers can be a source antibiotic resistance] ha permitido observar poblaciones de bacterias resistentes a los antibióticos, especialmente cerca de depuradoras de aguas residuales, que serían responsables de al menos la mitad del aumento de la resistencia observado (...) La resistencia antimicrobiana es una de las mayores amenazas para la salud humana (...) las mejoras en nuestros procesos de tratamiento podrían ser cruciales para reducir la prevalencia de bacterias resistentes en el medio ambiente (...) el estudio también ha demostrado que los diferentes tipos de plantas de tratamiento de aguas residuales liberan cantidades diferentes de bacterias resistentes. La profesora Wellington explica que elaboraron "un modelo basado en datos que mostraba que había una gran diferencia entre las plantas de lodos activados secundarios y las de lodos terciarios, puesto que estas últimas disminuían por 100 los niveles de resistencia (...) "Nuestra investigación ha arrojado más luz sobre los vínculos entre los contaminantes ambientales y la resistencia a los antibióticos. Nos ha permitido descubrir una asociación entre varios compuestos -como el zinc, el fósforo y el silicio- y dicha resistencia. Creemos que las bacterias que han desarrollado capacidad para sobrevivir en ambientes ricos en metales también pueden poseer mecanismos de resistencia a los antibióticos, lo que indica la complejidad de este problema global".

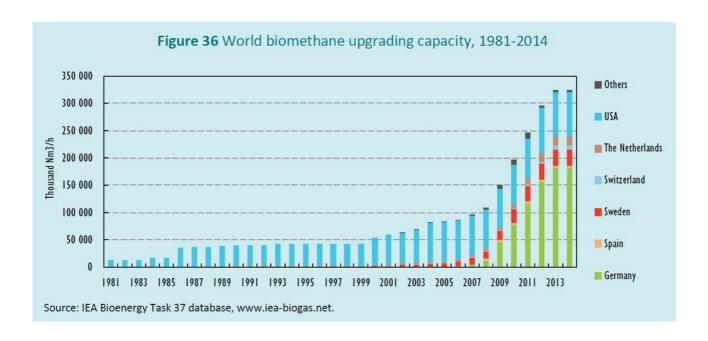
February 11, 2015. <u>Italian PDO (Protected Designation of Origin) products are assumedly put in danger by digestate. How much of this is really true?</u> "An initial study conducted by the Animal Product Research Centre (CRPA) showed that the presence of silage increased the number of spores and therefore the possibility of compromising the quality of the dairy product. However, subsequent studies have not confirmed this hypothesis. Lorella Rossi from the CRPA (Animal Product Research Centre) is here to explain to us the outcomes." (video)



January 2015. Sustainable biogas production in organic farming. Sustaingas project results and impact. "Many organic farmers seem reluctant to invest in biogas production. The barriers to its uptake include economic, ecological considerations as well as problems of acceptance. Organic farming can be defined as a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs that have adverse effects. On organic farms, the operation of biogas plants must be part of a holistic approach where the plant itself is not the main focus, but rather the whole farm. The choice of substrate to be fed into the plant is crucial to its sustainability. Agricultural waste and catch crops, both produced on the farm, represent high-potential and low-cost options. They have a positive effect on the environment and enjoy a high level of acceptance, as there is no conflict between food/feed and fuel. Meanwhile, using biogas slurry on the fields increases the quality and yields of crops. For organic farms to combine on-farm cycle management with a biogas plant is an ideal strategy, as it provides fertiliser and improves soil quality while bringing tangible economic advantages."

Biogas for Vehicles

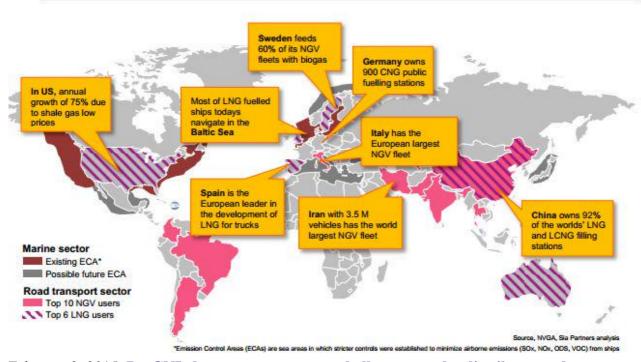
February 24, 2015. Biometano, si parte: "nel 2020 coprirà il 20% dei consumi del trasporto a metano" Alessandro Codegoni, QualEnergia. "Dopo la pubblicazione dell'attesa, per 18 mesi, delibera c'è ottimismo per la nascita di una solida filiera tutta nazionale del metano rinnovabile. Le opportunità più interessanti nell'autotrazione: il 75% dei mezzi a metano d'Europa è in Italia e il biometano può contribuire agli obiettivi UE sulle rinnovabili nei trasporti. Ne parliamo con Stefano Bozzetto del CIB (...) "Una volta dimostrato che questo funziona in Italia, potremo esportare esperienza e tecnologia in altri paesi che hanno molta autotrazione a metano, come Turchia, Argentina, Pakistan, Cina. Ma non basta, oggi si parla essenzialmente di automobili alimentate con metano compresso in bombole. Ma il vero futuro è il metano liquefatto, o GNL. La sua alta densità di energia consente di mandare avanti camion, autobus, trattori, persino navi, cioè tutti quei trasporti che non potranno mai diventare elettrici. La Lidl, per esempio, ha già una flotta di camion a GNL e la CNH-New Holland, sta portando avanti un progetto per la fattoria energeticamente indipendente, dove tutte le sue macchine agricole funzionino a GNL autoprodotto dall'agricoltore. Quindi il passaggio da biogas a biometano è solo il primo passo, il successivo sarà il bioGNL, che aprirà un nuovo, enorme, mercato oggi accaparrato dai prodotti petroliferi."



February 23, 2015. <u>La filière du transport routier intègre le gaz naturel dans son plan de</u> <u>modernisation</u>. "Alors que les débats sur le projet de loi sur la transition se poursuivent, la filière du transport routier de marchandises a présenté début février son plan de modernisation. Baptisé Cap 2020, celui intègre un volet sur la lutte contre les gaz à effet de serre avec des propositions en faveur du GNV, GNL et du biogaz (...) Ci-dessous, les propositions de la filière dans le domaine :

- Accorder aux véhicules GNV/BioGNV, le statut de « véhicules écologiques » et les avantages correspondants tels ceux consentis aux véhicules électriques,
- Contenir la fiscalité sur le GNV sur une période suffisante, au-delà de 2016, pour accompagner le développement de ce carburant vertueux.
- Prendre en compte le bilan carbone avantageux du BioGNV dans la TICPE
- Favoriser, notamment par des mesures fiscales dédiées, l'utilisation de véhicules GNV/BioGNV dans les flottes professionnelles (administrations et entreprises)
- Faire bénéficier le GNV de l'exemption sectorielle telle que celle accordée sur la TICPE accordée au gazole (taxis ; transport de marchandises ; transports publics)."

Map of today's NGV development



February 2, 2015. Du GNL dans nos moteurs, un challenge pour les distributeurs de gaz naturel par Thomas Samson, Baptiste Possémé, Energies&Environnement. "Avec la mise en circulation des premiers camions Iveco « tout GNL», l'ouverture des deux premières stations GNL et l'appel d'offre du port de Dunkerque pour mettre en place une chaine de distribution de GNL, le GNL carburant a fait un grand pas en avant en 2014. Ce carburant encore méconnu du grand public permet aux véhicules lourds de répondre aux nouvelles normes environnementales tout en réduisant la facture énergétique. Aujourd'hui les solutions de motorisation GNL existent, sont maitrisées et sont même déjà commercialisées : plus de 200 camions GNL circulent en Europe, 4 bateaux GNL naviguent sur le Rhin (16 autres sont déjà annoncés) et plus de 100 navires ont été construits ou sont en construction en Europe. Mais devant l'omniprésence des infrastructures de carburants pétroliers, quelle peut être la place du GNL et comment la France peut-elle développer un réseau pour sécuriser la filière? (...) La première station de liquéfaction du biométhane suédoise a ouvert à Lidköping en août 2012. L'usine produit 60 GWh chaque année ce qui correspond aux besoins de 6 000 voitures et 200 camions permettant de réduire l'empreinte CO2 de 16 000 tonnes par an. En France, le projet pilote BioGNVAL a été lancé début 2013. Le biogaz issu de l'usine d'épuration de Valenton sera épuré et liquéfié pour être utilisé comme biocarburant."

January 16, 2015. <u>Seat mantiene su apuesta por los vehículos a gas natural</u>. "Hace poco más de un año, en diciembre de 2013, Seat firmó un acuerdo con Gas Natural Fenosa para el desarrollo de automóviles propulsados por gas natural vehicular (GNV). Hoy en día, este joven proyecto ya ha obtenido los primeros resultados: **durante 2014, la marca fabricó un total de 3.926 vehículos de GNV**, 1.914 modelos Mii, 1.612 unidades del Leon 5P y, desde mediados de mayo, 400 automóviles del Leon ST. De ellos, la marca vendió 3.493 en Europa, aunque en España sólo llegó a comercializar 93 (22 Mii y 71 Leon 5P). **Además de Seat, la marca Skoda -también del grupo Volkswagen-, fabrica un modelo Octavia propulsado por gas natural. Pero hay otras, como por ejemplo, Fiat y Mercedes-Benz, que también apuestan por esta tecnología**. Los primeros con el Punto y los segundos con vehículos de la clase B y E. Por otro lado, **actualmente existen 38 estaciones de carga de GNV en España (más otras cinco que abrirán próximamente)**, de las que 22 están gestionadas por Gas Natural Fenosa."



"Biogas Italy"

February 13, 2015. Biometano, pubblicata la delibera dell'Autorità per l'Energia. Approvate le direttive per la connessione alle reti del gas naturale e le disposizioni in materia di determinazione delle quantità di biometano ammissibili all'incentivazione. Ora il GSE (Gestore dei Servizi Energetici) ha 60 giorni di tempo per la pubblicazione delle procedure operative.

Soddisfazione degli operatori: "un buon impianto normativo, filiera interamente Made in Italy, pienamente operativa entro di aprile" (...) Secondo stime del CIB, Consorzio Italiano Biogas, l'Italia potrebbe produrre circa 670 milioni di metri cubi (Nmc) di biometano entro il 2020, contribuendo a far rispettare i dettami della direttiva europea 28 del 2009 sulle fonti rinnovabili che prevede, entro il 2020, l'obbligo per gli Stati europei di raggiungere almeno il 10% di energie rinnovabili. Entro il 2030 il settore potrebbe coprire i consumi annui di circa 1 milioni di veicoli."

February 13, 2015. Il settore nel 2020 avrà creato 25 mila posti di lavoro stabili. Biogas: il giacimento che non ha bisogno di trivelle. Nei circa 1.200 impianti usciti 2 miliardi di metri cubi. Italia terzo produttore al mondo di Paolo Virtuani; Corriere Della Sera. "I dati sono stati presentati nella due giorni (12-13 febbraio) della prima edizione di Biogas Italy a Rimini, promosso dal Consorzio italiano biogas (Cib) che raggruppa 450 aziende agricole, poco meno del 50% dei 1.200 impianti installati in Italia. Con una produzione di 7,4 mila GWh di energia elettrica nel 2013, il biogas copre già il 10% dell'energia elettrica ottenuta da fonti rinnovabili."

February 13, 2015. <u>Italia terza al mondo per il biogas. Occupati raddoppiati entro il 2020</u> di Natascia Ronchetti, Il Sole 24 Hore. "È un settore in forte espansione. In cinque anni ha mobilitato investimenti per 4,5 miliardi, creando 12mila nuovi posti di lavoro. Ed entro il 2020 è candidato a raddoppiare il numero degli occupati, portandoli a quota 25mila. Ma il futuro dello sviluppo del biogas - vale a dire di un comparto che conta 1.200 impianti in ambito agricolo e che fa dell'Italia il terzo produttore al mondo, dopo Germania e Cina - è ipotecato dalle scelte legislative."
February 13, 2015. <u>'Biogas Italy': tutti i vantaggi del biometano e dell'agricoltura di precisione</u>.

"Aperta ieri la due giorni a Rimini 'Biogas Italy', evento organizzato dal Consorzio Italiano Biogas (CIB) che promuove i vantaggi del biometano. Ne discutono i principali attori del settore del biogas, inclusi esperti provenienti dal mondo della ricerca e stakeholders istituzionali; ed esperti delle filiere agricole, industriali e dei trasporti (...) Sono stati, inoltre, analizzati i **mutamenti dei trend nel settore agricolo, con un'attenzione particolare all'agricoltura di precisione**, ampiamente riconosciuta come il driver più efficiente per un'agricoltura sostenibile. La fase evolutiva più recente in questo campo è costituita dall'impiego della telematica per collegare attrezzature, terreno e persone, trasformando così una singola macchina in un ecosistema agricolo completo"

February 13, 2015. <u>Biogas, la crescita proseguirà</u>. La fiera di settore organizzata dal Cib mette in evidenza le prospettive positive del comparto, grazie anche al ruolo del biometano. Scritto da Gianluigi Torchiani, Tekneco. «Il biogas – ha ricordato Piero Gattoni, presidente del CIB, Consorzio italiano biogas – ha consentito alle aziende italiane di tenere aperte le stalle, rafforzandone la posizione economica e contribuendo a mantenere invariate l'occupazione e la produzione alimentare tradizionale in un periodo di crisi generale»

February 12, 2015. Energia: Cib, il biogas è il grande laboratorio per il futuro. "Tutto il mondo del biogas è un grande laboratorio che sperimenta e crea i presupposti perché questa sia un'attività del futuro". Lo ha detto il vicepresidente del Cib Angelo Baronchelli, intervenendo agli Stati generali del biogas in corso a Rimini Fiera, in occasione del Biogas Italy, il primo salone dedicato al settore.

February 1, 2015. **Biogas: l'Italia è terzo produttore al mondo dopo Germania e Cina**. Franco Brizio, La Stampa. Intervista a Piero Gattoni, presidente del CIB, Consorzio Italiano Biogas. A Rimini Fiera, il 12 e 13 febbraio, produttori, ricercatori scientifici e istituzioni si incontreranno a Biogas Italy, nella prima edizione degli Stati generali del settore. Circa 1300 impianti per una potenza installata di 1000 Mwe. Entro il 2030 in Italia dovrebbero contarsi circa 2.300 impianti. "Ci siamo dati un vademecum, che abbiamo chiamato Biogas Fatto Bene: impianti proporzionati alla superficie coltivata, filiera corta, utilizzo prevalente di sottoprodotti agricoli (reflui di allevamento o residui agricoli) e colture di rotazione. Il nuovo sistema incentivante, ad ogni modo, non lascia spazio a speculatori a attribuisce all'agricoltore un ruolo centrale"

