

Waterstof Industrie Cluster: Minutes meeting 14/03/2024 @ Bosal, Lummen

Agenda:

- 10.00-10.10 : Welcome by Bosal
10.10-10.40 : New WIC members presentations
10.40-11.05 : Keynote speaker Abhinand Chandrasekar, Future Proof Shipping, first inland barges on H2
11.05-11.25 : Keynote speaker Adwin Martens, WIC Roadmap Flanders
11.25-11.40 : News from cluster members
11.40-11.50 : WIC news
11.50-12.00 : Break
12.00-13.00 : Bosal activities & factory tour

New members since last meeting

Festp, VITO, Nelissen, TES-H2, Solhyd, Loyens&Loeff, Brabantse Ontwikkelingsmaatschappij (BOM), Zinq, Kioz.

Presentation new members:

- **Klinger Belgium** : Thomas Verkinderen
 - Supplier of valves, couplings and gasket technology
 - Also supply of 'solutions', dedicated skid building
- **CZAV mobility Group**: Robbert Meeuwse
 - **CZAV Brandstoffen**: Wholesale of fuels
 - **AgriSneltank**: operation of fuelling station in Zeeland, North Brabant and South Holland
 - **AgriSnellaad**: Charge Point Operator of 900 (semi) public charging stations. Number increasing rapidly
- **H2V**: Patrick Van Bortel
 - Subsidiary of the French industrial group SAMFI-INVEST
 - Production of green H2: design, build & operation of plants > 100-200 MW
 - Ongoing projects in France, expanding to other countries a.o. Belgium
- **Amadys**: Roel Michaux
 - Provides passive equipment for telecom & energy sector
 - Direct contribution within the current hydrogen economy is in projects involving the distribution and storage of hydrogen.
- **Van Moer**: Kobe Van Doorselaere
 - Transport operator: trucks & trailers, barges, port logistics, warehousing
 - Looking for decarbonising operations and application of hydrogen in their vehicles/barges and onsite supply of hydrogen at logistic hubs.

Transport Keynote: Abhinand Chandrasekar, Future Proof Shipping, first inland barges on H2

- Two H2 barges are developed by Future Proof Shipping: H2barge 1 is already sailing between Rotterdam and Meerhout and H2barge2 (in development) will sail between Rotterdam and Duisburg.
- The first barge has a fuel cell of about 800kW; the second barge has a larger fuel cell of 1200kW. H2 consumption has been reduced in this second barge.
- The barges use swappable containers for the supply of hydrogen
- Two more vessels are in development (FPS Rhijn and FPS IJssel)
- Also short sea application is being looked at
- Key factor for success is a user that is prepared to pay extra for green transport (in this case Nike)
- Application of ETS in short sea market will make H2 competitive.

Keynote: Adwin Martens, WIC Roadmap for Flanders

- Building on the first WIC roadmap of 2021, an update has been developed by WaterstofNet
- An overview of all realisations/legislative updates etc..? is given since 2021
- Implementation trajectories for production, import infrastructure and end-use are proposed

News from cluster members:

Agfa: Nick Valckx

Recent announcements of ETS-IF funding of new production line and renewed collaboration on zircon membranes with VITO. Agfa is also collaborating with the UAntwerp (ELCAT) and is participating in several EU projects.

News from WIC/WN

- WIC fair on June 6, OMC Turnhout, 10.00-16.00:
 - Each exhibitor will have a small table and an electricity connection for laptop
 - Submission form will be sent; deadline **before 01/05/24**
- New podcast episode available:
 - Waterstof: het hele verhaal
 - Aflevering 10: Europees Waterstofbeleid
 - Guest: Diederik Samsom
- Hydrogen academy:
 - New: NL-Eindhoven 27/05/24 to 01/07/24, 6 Monday evenings
 - Belgium 23/09/24 till 04/11/24, 6 Monday evenings
- An inventory of H2 training options in Belgium is made by WN, this will be available on the WN and the BHC website from April 1
- An interactive map, similar to what already exists for the NL, with all BE hydrogen projects,, will be available on the WN and BHC website from May 1.
- The Flemish research catalogue is updated and is available on the WN website
- WaterstofNet will be present with a booth on the Hannover Messe (with FIT) and on the World Hydrogen Summit in Rotterdam (as BHC).

- Events for 2024:
 - WIC fair June 6
 - WIC meetings 19/09/24 TNO Eindhoven tbc
 - WIC conference Oct 24, 2024, Dockx Brussels
 - WIC meeting 05/12/24, BASF/Air Liquide Antwerp
- The WIC membership fee will be increased from 5000€ (original fee in 2016) to 5500€ , as a index adjustment.

Visit of Bosal factory hall.

Present in the meeting (in person)

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| Tim | Theunis | Actemium |
| Nick | Valckx | Agfa |
| Philippe | Engels | Air Liquide |
| Roel | Michaux | Amadys |
| Wouter | Everaerts | APK Group-Sicim |
| Thomas | Collet | Atlas Copco |
| Rutger | Leenknecht | BASF |
| Bernard | Imschoot | Besix |
| Koen | Pauwels | BIP - Elneo |
| Danny | Vancoppenolle | Bureau Veritas |
| Tony | Vanswijgenhoven | Covess |
| Robbert | Meeuwse | CZAV |
| Vincent | Fourneaux | Emerson |
| Erwin | Theys | Eneria |
| Guy | Verkoeyen | Exion Hydrogen |
| Patrick | Van Bortel | H2V Industry |
| Axel | Puystiens | Hima |
| Stephaan | Maes | Intertec |
| Peter | Gysen | Intertek |
| Thomas | Verkinderen | Klinger Belgium |
| David | Dierickx | Klinger Belgium |
| Matthias | Koopmans | Loyens & Loeff Advocaten |
| Koen | Panis | Loyens & Loeff Advocaten |
| Paul | Sino | Nelissen Steenfabrieken |
| Burt | Nelissen | Nelissen Steenfabrieken |
| Steven | Keyzer | OCAS |
| Nick | Carmans | P&V Panels |
| Kurt | De Lannoye | Parker Hannifin |
| Hans | Wolters | Parker Hannifin |
| Koen | Van Den Brande | Polders Investeringsfonds |
| Peter | Breejen | RWE |
| Piet | Van der Biest | Siemens, Siemens Energy |
| David | Gay | Sirris |
| Marc | Van der Linden | Sodeco Valves |
| Jan | Rongé | Solhyd |
| Amedee | Somers | Somarine |
| Jochen | Reynaert | Somarine |
| Geert | Wouters | Stahl - Electromach |
| Fedrik | Vancraeynest | Sweco |
| Stefaan | Janssens | Tialoc |
| Sven | Goethals | Tractebel |
| Wim | Van Rhijn | TransFurans Chemicals (TFC) |
| Gerrit | Groen | Tree Energy Solutions (TES) |
| Anja | De Jonghe | TÜV Austria Belgium |

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| Manly | Callewaert | UGent |
| Christophe | Carrié | Umicore |
| Alain | Ristori | Umicore |
| Kobe | Van Doorselaere | Van Moer Logistics |
| Wim | Thewissen | Vandersanden |
| Hans | Lormans | Vandersanden |
| Ruud | Bouwman | VDL Bus & Coach |
| Alizé | De Vroey | Virya Energy |
| Isabel | François | WaterstofNet |
| Tom | Verlinden | WaterstofNet |
| Stefan | Van Laer | WaterstofNet |
| Liesbet | Vanhoof | WaterstofNet |
| Adwin | Martens | WaterstofNet |
| Bert | De Colvenaer | WaterstofNet |
| Els | Van Bouwel | WaterstofNet |
| Stijn | Meel | WaterstofNet |
| Wolfgang | Brys | WaterstofNet |

Online participants

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|-------------------|-----------------|
| Mathias Goris | Luyckx |
| Stefaan Janssens | Tialoc |
| Philippe Alboort | ArcelorMittal |
| Suzy Valgaeren | Air Products |
| Marcel Meeus | Umicore |
| Jan Rongé | Solhyd |
| Luc Haesaerts | Haesaerts/Altra |
| Pascal Janssen | Parker |
| Arjan Missinne | Sweco Belgium |
| Joke Bauwens | ArcelorMittal |
| Niels Tobback | Messer |
| Dirk De Keulenaer | Messer |