Environmental Materials Information Technology (EMIT) Consortium
Minutes of Steering Committee Meeting

Hosted by: Emerson at Battelle Headquarters, Columbus Ohio
3-5 October, 2012

ATTENDANCE

Members

Boeing	Peter Mezey, Sue Baker, Joy Fitzpatrick
Eurocopter	Cyrielle Gendre
Emerson	Bob Rivett, Amy Neal
Granta Design Limited	David Cebon, Will Martin, Kim Marshall, Jamie O'Hare, Arthur Fairfull, Julien Paillard, Dale Delgado
Honeywell	Mark Bohley (EMIT Chair)
NASA Marshall Space Flight Center	Dennis Griffin, Ben Henrie
Rolls Royce	Andy Clifton

Apologies

ARL	Wayne Ziegler
Astrium Satellites	Ian McNair
Lockheed Martin	Colin McMillan
National Physical Laboratory (NPL)	Graham Sims
Thales	Graham Goring

SUMMARY OF ACTIONS

Minute	Item	Responsible
2.2	Review the 'Green passport for Marine specific and add it to the RSDB if appropriate	Granta
5.2	Review geopolitical risk indicators for conflict materials	Granta
6.3(vii)	Rearrange 'legislation and lists' table tree	Granta
7.3 (iii)	Update 'product vision' slides to reflect user roles rather than 'department'	Granta
8.5	Investigate possibilities for incorporating future supply and supply-chain disruption in critical materials module	Granta & Emerson
9.5(i)	In-future, EMIT should vote on Product Analytics functionality, whereas the MDMC should vote on CAE functionality	Granta
9.5(ii)	Sue Baker requested that Granta 'cross-report': MDMC votes on integration reported to EMIT and vice-versa.	Granta
10.4(v)	Iit would be good if EMIT members would demonstrate aspects of their systems at future meetings <Added to presentation template - DC>	Granta, All
13.3(i)	Granta will circulate the spreadsheet of substitute coatings TRLs again and requests that members provide feedback on this information by the end of October	Granta, All
13.3(ii)	The Cathy Phillips Indicator will be deployed as a substance list, with a new name. It would be useful to test the performance of the indicator against recent REACH SVHC introductions	Granta
13.3(ii)	Boeing (Sue Baker) also has a predictive list methodology for other legislation. It would be useful to convene a Webex to discuss the various indicators	Granta
13.3(vi)	Granta and Boeing to review the process for updating version-controlled specifications that may be updated by customers.	Granta, Boeing
13.8	It would be best if Granta could supply standard parts as an integral part of the database or have a standard policy for user updating, but there may be licensing issues. It may be useful to have a separate breakout activity to solve the specification issue.	Granta
15.1(i)	UCD E-AR-11 should be removed from the voting list until the pre-requisite use cases have been implemented	Granta

15.1(i)	In future UCDs should identify the software configurations needed	Granta
15.2(i)	Configurable reports for MI Viewer need to be on the main feature voting list for MI 7	Granta
15.2(ii)	UCD I-MS-02 should be divided into 3, to reflect the three main use cases	Granta
15.2(ii)	Hold a Webex to demonstrate Optimize and Substitute tools in MI Viewer, prior to the prioritization vote	Granta
16.6	Add standard electrical components to the data projects voting list	Granta
16.7	In future, all EMIT data projects should be added to the voting list (eg critical materials and eco audit data), not just restricted substances projects	Granta
16.7(iii)	in future, the voting sheets should provide space for members to add some comments on their reasons for choosing their top three voting items	Granta, NPL
17.3	It would be useful to have a regular slot for discussion of other related activities, for example, member's involvement in AIA, ASD, ADS, etc. This should be added to the Agenda or to the member presentation template. <Done: Added to the member presentation template by DC>	Granta
20.1	It was agreed to organize a Webex to discuss the possibility of inviting a set of supply-chain companies to an open EMIT workshop. Sue Baker agreed to lead the discussion. It may be possible to arrange this workshop to be the first day of the next EMIT meeting	Granta, Boeing (SB)
20.2	It would be useful to invite Standards Developers: eg SAE, UL, EPA, DSPO (Defence Standardization Program Office - DoD MIL Specs to the following EMIT meeting. Joy Fitzpatrick would be willing to help facilitate this	Granta, Boeing (JF)

MINUTES DAY 1 (WEDNESDAY 3 OCTOBER, 2012)

1   Introductions

1.1   Bob Rivett welcomed the Consortium to Battelle.

1.2   Mark Bohley took the Chair.

1.3   The Agenda was reviewed. There were no changes.

2   Minutes of the last meeting

2.1   The minutes of the meeting held in Cambridge on 19-21 March 2012, were approved.

2.2   The action items from the minutes of March 2012 were reviewed. All items were completed apart from action 24.3 ' Granta to review the 'Green passport for Marine specific - action...' This still needs to be completed   (ACTION: Granta)

3   Aims and Objectives, Software Development Process

3.1   David Cebon reviewed the software development process and schedule. Granta MI 6.0 will be released in the next two months. It includes software development directed specifically at restricted substances management and reporting, critical materials and Eco Audit. MI 7.0 is about to begin development. There will be an opportunity to discuss some of its features at this meeting. Planning for MI Version 8.0 has begun.

3.2   An important action from the last meeting was Minute 25.2 'Generate an overall solution roadmap for members to review and comment at the next meeting.' This has been done and will form a key focus for the work of this meeting.

3.3   Key aims of this meeting are:

(i)   Integrate:

- Overall solution roadmap
- Workflows to maximize benefits to all user groups

      (ii)   'Demo' MI 6.0 (Release Q4, 2012):

- Reference data: Restricted substances, critical materials, surface treatment specifications
- 'Gateway' software connections

      (iii)   'Preview' functionality for MI 7.0 (Release Q4, 2013)

- Re-prioritize the main workflows.

      (iv)   'Review' functionality for MI 8.0 (Release Q4, 2014)

- Discuss new UCDs for features prioritized by the 'down-selection' vote last May, prior to a further vote after this meeting.

4   Member Report Eurocopter

4.1   Cyrielle Gendre presented a report on Granta MI activities in the environmental area at Eurocopter.

4.2   Eurocopter's main need is to develop a more durable tool for environmental impact. Eurocopter's 'Substance tracker' was first built in 2008 using Excel. Eurocopter started a replacement project with Granta in 2010. The tool will be used by the Laboratory of Materials and Processes to ensure compliance with environmental regulations and make greener helicopters.

4.3   Since the last meeting the new substance tracker has been installed. It is currently being populated, with an aim to deploy it to the engineering community by the end of this year.

4.4   Future developments to substance tracker:

      (i)   Extension of environmental impact detection - eg to corrosion protection, water tightness, thermal isolation
      (ii)   Extension of detection scope to standard components

4.5   Life cycle assessment

      (i)   Eurocopter is developing its own 'light' LCA system for M&P technologies using MI: Eco Audit
      (ii)   The aim is to reduce environmental impacts of parts through M&P decision during design

4.6   Obsolescence: Eurocopter's approach to obsolescence risk is to prioritize cases according to technical difficulty and deadlines. Key risks are hazardous substances, business risk and critical materials.

5   MI 6.0 Demonstration

5.1   Jamie O'Hare introduced the work on critical materials in MI6.0. There are a number of sources of potential supply disruption for certain elements - particularly rare earths, Platinum group metals, etc. These include scarcity due to physical depletion and political factors. The materials identified as most 'at risk' by the EU are mainly sourced from China, Brazil and Africa. Granta has developed a methodology for identifying supply risk of key elements and materials. This has been implemented in the critical materials data module and can be used for BoM analysis.

5.2   Kim presented the critical materials data module. It contains a table of elements, with various risk indicators. These include:

      (i)   Abundance in the earth's crust
      (ii)   Sourcing and geopolitical risk, based on the Herfindahl Hirschmann Index (HHI)

(iii)   Environmental country risk, based on an HHI
(iv)   Assessment of price volatility over the past 5 years.
(v)   Conflict material risk, based on Dodd-Frank act
(vi)   Monopoly of supply (HHI)

The elements are connected to materials using a similar structure to connection of restricted substances to materials in the RSDB and their risk indicators are rolled-up for each material into a worst-case value. The BOM generator can be used to generate a BoM report by: (i) elements contained in a specific part (summary and details); (ii) parts containing specific elements. Kim demonstrated a materials criticality report, which contains a roll-up for the entire BoM and a part-by-part summary of materials criticality risk. There are 2 formats for the reports: by element (i.e. which parts contain element X?) and by material (i.e. which elements does Part Y contain?).

Ben Henrie raised the issue that the conflict materials risk depends on the quantity of the substance that comes from the high risk country. If most of the material comes from a low-risk country, then the risk level should be classified as 'low' Kim will reassess this data and methodology.   (ACTION: Granta)

5.3   Will Martin demonstrated the incorporation of surface treatment specs (STS) into the MI restricted substances module. He demonstrated the new specification records. Each coating record contains a number of attributes like coating thickness, as well as restricted substances content and links to substrate materials on which the coating can be used. Surface treatment specs can be assigned to parts by designers within the Gateway tool. The REACH dashboard has been updated to include STSs. There are a number of new and updated reports. REACH reports and other substances reports have been extended to incorporate these specs. Will demonstrated some of the reporting functionality.

Sue Baker asked whether the tool supports 'recursive' specs - ie one spec that refers to another. Will noted that the tool does not yet do this, but future versions will do so. Joy Fitzpatrick noted that there may be some commercial sensitivity over use of specifications from the standards developers.   (NOTE Granta)

5.4   Will discussed BoM analysis from outside of CAD and PLM and the workflows involved. Much of the work to date has been spent transforming BoMs from one system to another, using XSLT transforms, including material ID translations. Will demonstrated this tool working in Excel.

6   Member Report - Boeing

6.1   Sue Baker and Peter Mezey presented recent activities on Chemical information management at Boeing. Key drivers are increasing rate of chemical restrictions and potential business risks. Boeing product design is complex - there are many active programs, millions of parts, multiple design systems, internal and external specs and an infinite combination of possible chemicals.

6.2   Boeing have performed two proof-of-concept projects using Granta MI.

(i)   Phase 1 was concerned with traversing the database links structure. Spec-to-spec relations are complex.

(ii)   Phase 2 was concerned with automated bulk loading of large amounts of data. A number of software performance issues were encountered, particularly due to tabular links and versioned folders. There are some reporting issues caused by large amounts of data - hundreds of thousands of records. Also problems building trees with very large numbers of records, and the low speed of importing tabular attributes. Generating custom reports is too difficult. Customer-modifications of data have caused the quarterly data update process to fail.

(iii)   Phase 3 is in progress. Production system for all programs. The main goal is to upload substances, MSDSs as well as specs, documents, and standards as well as ad-hoc lists. An important aim is to use the system to predict future risk.

6.3   Desired Improvements: (NOTE: Granta)

(i)   Improved bulk loading of data
(ii)   Improved ad-hoc and custom reporting of any data loaded into the database
(iii)   Generate BoM reporting at a specified date in the past.
(iv)   Identification of chemicals with NOCAS families
(v)   Complete the proposed standard part reporting, based on calculations
(vi)   Link Granta MI data between databases to allow linkage with metals, composites and other information
(vii)   Further organization of legislation and lists. Sue gave some specific proposals of ways to organize the tree structure in the 'legislation and lists' table, including organization by country in folders, and organization of US regulations by major departments or agencies.

(ACTION: Granta)

(viii) Efficient connection to BoMs so that REACH reporting can be done by the Programs.

MINUTES DAY 2 (THURSDAY 4 OCTOBER, 2012)

7   Overall Architecture and Use Cases

7.1   David Cebon presented Granta's overall product vision for environmental software, mapped onto the new product development process. There will be three main tools:

(i)   Conceptual product design tool
(ii)   Materials Gateways in CAD/CAE/PLM
(iii)   BoM Analyser tool

It is possible that (i) and (ii) may use the same software platform.

Sue Baker commented that 70% of the work Boeing does on restricted substances is not in the design phase, but the Sustainment area. The future vision is focused on the design area, but perhaps we should add a phase 5 to include sustainment and maintenance.   (NOTE: Granta)

Ben Henrie/Dennis Griffin noted that NASA would use the BoM analyser across all stages, but not in CAD   (NOTE: Granta)

7.2   Will Martin reviewed the main functions and tools needed by the various user roles.

7.3   Product Stewards:

(i)   Key functions

- Set overall environmental strategy
- Assess risks
- Deliver compliance
- Mitigate risks

(ii)   Software Tools

- Specify mix of data modules
- Report against corporate objectives
- Run ad-hoc queries on database

- Analysis of BoMs
- Analysis of materials, specifications
- Control selection by design teams
- Review regulatory status of BoMs
- Workflow tracking, supplier data collection

(iii)   Discussion:

- In Honeywell, the product stewardship group (5 people across aerospace) owns supplier data collection. Product Stewardship has a managerial and influencing role over the other functions... but the work is done by other groups, eg M&P. It may be useful to present this data in terms: RACI: 'Responsible, Accountable, Consult, Inform'.
- In Eurocopter, M&P does these functions.
- In Boeing, individual Programs perform these functions following different processes.
- Emerson: It is more important to capture the tasks than the titles of the operators. The tasks will be divided out among the various roles in each company. So there is not a clear correlation between the role (Product Steward) and their 'persona'.
- The members agreed to review these slides overnight and bring forward any further items tomorrow.   (ACTION: All)
- Granta to change the slides to be 'role-based' rather than 'department-based'
                                                                                                              (ACTION: Granta)

7.4   Chemical Data Managers

(i)   Key functions

- Day-to-day maintenance of database
- Respond to customer requests to report on BoMs

(ii)   Software Tools

- Tools for database maintenance
- Supplier Portal to capture data efficiently from suppliers

- Database schema management to handle all types of data
- Data from 3rd party sources
- Gateway in PLM to support analyses
- Tools to analyze BoMs where no Gateway exists

(iii)   Discussion:

- In many organizations, these functions will be performed by M&P
- In Emerson, the quality and verification of CAS-based data input into a portal is a problem.

7.5   M&P Department

(i)   Key functions

- Support substance phase-outs

(ii)   Software Tools

- Material substitution tools

- UI to find specs impacted by particular substances/materials
- UI to track progress in finding and qualifying alternatives
- Searchable specialist datasets – e.g. coatings
- M&P Selection can be influenced /controlled in line with Product Stewardship strategy
- M&P Optimization

    (iii)   Discussion:

- In many organizations, these functions will be performed by M&P
- Most Emerson divisions don't have specific M&P departments.. these functions would be performed by members of design teams.

7.6   Design Teams

    (i)   Deliver product stewardship strategy in everyday engineering workflows

    (ii)   Software Tools

- Gateway in CAD/PLM to support design for compliance use cases
- Reports/analysis to support Gate Assessments
- Simple interface for searching for approved specs and materials
- Bring-in carry-over parts from previous designs
- Qualification / Workflow tracking

7.7   Engineering

    (i)   Key functions

- Manage substance phase-outs on production parts
- Assess new parts prior to start of production / compliance
- Qualify modified parts

    (ii)   Software Tools

- UI to check compliance / risk assessment of production parts
- UI to check status of substitution projects
- Access data on new parts that have been approved by Responsible Manager

7.8   MI Admin

    (i)   Key functions

- Setup database schema, configured to individual requirements
- Configure integrations
- User management and permissions
- Apply data and system updates

    (ii)   Software Tools

- Standard MI Admin tools

7.9   Will reviewed the main groupings of functionality needed in the future overall architecture. These fitted into 5 categories:

    (i)   Enhance underlying data model
    (ii)   Tools for database creation and maintenance

      (iii)   UI for BoM analysis in non-Gateway environment
      (iv)   Supplier Portal
      (v)   Workflow tracking UI

8   Member Presentation - Emerson

8.1   Bob Rivett gave a report on activities at Emerson. Emerson works across many industry sectors and is looking to use EMIT tools corporate-wide. There are many substance regulations world-wide and many special substance requirements from customers. Emerson tends not to have a specialist M&P group, so the substance issues have to be handled at the level of the design team.

8.2   Emerson's approach:

      (i)   For legacy products, they are using a BoM check using TeamCentre Compliance module, based on full substance disclosure. They are using a triage approach to prioritize the data gathering strategy. (Emerson have just finished this activity for rare earths).

      (ii)   For new products, the approach is 'design for compliance': compliance planning, strategic materials, eco-design, material restrictions, etc. They are using a risk-based approach, based on full materials disclosure.

8.3   Emerson is considering substances out to 2020, when they expect to have approx 3500 substances under consideration. Their 'suspect list' consists of four categories:

- 'active' (currently subject to restriction),
- 'anticipated' (in the process of becoming active and have a high possibility of being active in the next 2-3 years),
- 'possible' (predicted to be active by 2020),
- 'interpretive' (very specific conditions on use, e.g. Annex 17).

8.4   Bob presented a vision of the tools required for various functions in the new product development process. Innovation in materials selection is a key driver for competitiveness.

8.5   For strategic (critical) materials, Emerson is looking forward at future supply and supply-chain disruption, for materials planning purposes. This could be added to the MI Critical Materials module. Granta and Emerson to consult on how best to do this.   (ACTION: Granta, Emerson)

8.6   Bob described where the Granta tools fit into Emerson's new product development process. There are currently modules for preferred materials and preferred suppliers, by geography for specific commodities. There are also Metals equivalency, conflict materials, eco-audit, restricted substances, etc.

8.7   Gateway-type integration for designers will satisfy their requirements.   The system needs to be configurable so that the necessary tools can be delivered to the relevant users.   (NOTE: Granta)

8.8   In future, eco design legislation (especially ErP) will impact Emerson more than all other substances legislation combined, because it will dictate all aspects of product design and manufacture. Eco Design drives product development to a 'best-cost producer' model.

8.9   Current position with Eco-Audit:

      (i)   Rolled out in early 2012
      (ii)   Training offered to staff on a regular basis
      (iii)   There is interest but not much traction yet

(iv)   The user interface is too difficult because of the Excel Report Generator.

9   CAD/CAE/PLM Integration

9.1   Arthur Fairfull presented current developments in Integrating MI with host CAD/CAE/PLM systems. Five Gateway products have been released: Pro/Engineer (V1.4 released July 2012); Siemens NX (V1.1 released August 2012); Abaqus CAE (V1.1 released August 2012), Autodesk Inventor (V1); ANSYS Workbench, including integration with the Ansys Simulation Workflow management tool (V1.0 first release Sept 2012).

9.2   Improvements in the last year:

       (i)   A number of new features have been added to the Gateway to synchronize it with MI v5.0.

       (ii)   New functionality has been added:

- XML report generation
- Text attributes populated when materials are assigned (eg for printing notes on drawings)
- Assignment of surface treatment specifications.

       (iii)   A number of new features have been added on security and configuration:

- Integrated Windows Authentication
- Centralized Gateway configuration
- Modularization of functionality and dashboard reports
- Enhanced REACH options
- BoM dashboard and report.

9.3   Roadmap/architectural drivers

       (i)   Support for as many host systems as practical - for customer requirements
       (ii)   Maximize re-use of common code
       (iii)   Keep abreast of changes to MI
       (iv)   Enable modularity

9.4   Planned over the next 12 months

       (i)   Stay in synch with Granta MI updates and Service Layer changes.
       (ii)   Platform support - updates and additional CAD/CAE hosts, including creation and integration with CATIA V5.
       (iii)   Adding PLM: Work has started on development of a Materials Gateway for Teamcentre. This will be delivered over two releases. There is a strong need to work with Granta Customers to check and verify the use cases.

9.5   Guidance from EMIT and MDMC voting

       (i)   Arthur reviewed the MI 8.0 MSDP voting results by the MDMC and EMIT consortia. The MDMC prioritized CAE applications whereas the EMIT Consortium is more strongly focused on product Analytics. Arthur proposed that in-future, EMIT votes on Product Analytics functionality, whereas the MDMC should vote on CAE functionality. This division of the voting list was agreed.   (ACTION: Granta)

       (ii)   Sue Baker requested that Granta 'cross-report': MDMC votes on integration reported to EMIT and vice-versa.   (ACTION: Granta)

(iii)   Arthur asked whether the right stakeholders from each company for CAD and PLM are represented on the EMIT consortium.

9.6   Integration UCD I-AN-02: 'Find all parts/components that use a particular material'. Mark Bohley considers that this functionality should be provided by the PDM/PLM system. Having a CATIA interface would make this more 'sellable' for Boeing. NASA already has a 'where-used' materials list. It is important functionality that the Granta tools should have. NASA would like this function to operate at the level of specific material codes.

10 Member Presentation - Honeywell

10.1   Mark Bohley presented activities at Honeywell. The main aims of the installation is to have a common location for material data with ease of access for all aerospace users across the corporation and to interface with other engineering tools

10.2   Honeywell has a number of tools in the restricted substances area:

(i)   Engineering Spec Matrix (ESM) - part-to-spec data for legacy parts
(ii)   Specification Index - 'supercedure' data on specs
(iii)   Web notes - design-fixed notes for common materials and processes (looking to import these into Teamcenter notes).
(iv)   Environmental compliance tool: spec to chemistry data (a 'homegrown' tool that needs a permanent home)
(v)   Granta MI... This is currently a stand-alone system. The full potential can only be realized through linking with other systems. The use of fallback links to Granta's M&P data is of interest.

10.3   Material spec callouts: Each material spec can have multiple Honeywell spec numbers, sometimes several different versions at a given Honeywell site. A single translation table is needed.

10.4   EMIT Influence:

(i)   Honeywell would most like to support:

• Specs
• Data Loading
• Linking the various databases for information searches.

(ii)   How will they help?

• BoM Analysis, Impact assessments, where-used
• Consolidation of home-grown tools

(iii)   Why do you use the software? Material property data - pull system

(iv)   What do you get from EMIT? Ideas on what others are doing; LCA/Eco-Audit visions.

(v)   The members agreed that it would be good if EMIT members would demonstrate aspects of their systems at future meetings. <Added to presentation template - DC>

(ACTION: Granta, All)

11 Member Presentation NASA

11.1 Ben Henrie gave a member presentation for NASA. MAPTIS 'Material and Process Technical Information System': single point source for materials information for NASA manned space flight - shuttle, space station, etc. It is particularly used for risk mitigation: toxicity, out-gassing, etc.

11.2 Maptis reads RSDB information directly through a web-services call. Ben Demonstrated this feature live.

11.3 Important Issues:

      (i)   Need legislation tailored more to aerospace and the ability to make minor rating changes.

      (ii)   Need the ability to push tabular material data into MI through Web Services.

(NOTE: Granta)

12 Eco Audit MI 6.0 demo and MSDP review

12.1 Jamie O'Hare gave a brief update on developments on Eco Audit.

12.2 Developments in MI v6.0

      (i)   Eco Audit in Pro/E Gateway v1.4
      (ii)   Phase 1 of plan for integrated Eco Audit and Restricted Substances reporting
      (iii)   Phase 1 of a plan for PLM BoM reporting
      (iv)   Development of critical materials module and reports.

12.3 Jamie Presented the Eco Audit dashboard operating in Gateway v1.4 for Pro/Engineer.

12.4 Future plans for Eco Audit

      (i)   New interface for handling BoMs
      (ii)   Phase 2 of plan for integrating Eco Audit and Restricted Substances reporting
      (iii)   Access complementary environmental data from the Ecoinvent database, particularly for additional environmental indicators - water, eutrofication, soil acidification etc.

12.5 Jamie presented a discussion of the new ISO14006 standard. ISO 14001 requires companies to identify environmental performance of products through life but does not specify methods or tools. The new ISO14006 standard links together the design process with management systems and environmental considerations, and so helps manufacturers to satisfy their DfE requirements for ISO14001.

12.6 The meeting divided into two groups to discuss eco design in New Product Development.

12.7 The two groups reported-back the results of their NPD process discussions.

13 Restricted Substances Database Roadmap and Demo

13.1 Will Martin gave an overview of progress with the Restricted Substances Database Roadmap.

13.2 Release 2.0 Details

      (i)   Where-used data was generated for SIN 2.0
      (ii)   UI Patch
      (iii)   Revised Database schema

13.3 MI6.0 Database plan review. Will discussed progress on various projects:

(i) E-D-25 'Add TRLs for coating substitutes by application. Data was compiled by Rowan Technology for each coating, with TRLs for coatings substitutes divided into three applications: Fasteners, Electrical connectors and steel components. The data was circulated to members in a spreadsheet in May. Granta will circulate the spreadsheet again and requests that members provide feedback on this information by the end of October.
(ACTION: Granta, All)

(ii) E-D-17 'Generate REACH SVHC Prediction Indicator ('Cathy Phillips Indicator')' Release 2.1 has built the indicator using new information:

- The ETUC (European Trade Union Confederation), CLP and SIN list
- High production volume flag (from ESIS, European chemical Substances Information System)
- Information about wide dispersive use (from EChA)

The Cathy Phillips Indicator will be deployed as a substance list, with a new name. It would be useful to test the performance of the indicator against recent REACH SVHC introductions.
(ACTION: Granta)

Boeing (Sue Baker) also has a predictive list methodology for other legislation. It would be useful to convene a Webex to discuss the various indicators.   (ACTION: Granta)

(iii) The database now contains 83 legislations and 6767 individual substances

(iv) Coatings table (included in release 2.1, end August 2012). Now contains oil and gas coatings. It has 144 records; with density added to support surface treatment specifications.   Will showed that 57 coatings of the 144 in the database are impacted by REACH.

(v) Data Updater. Difficulties with the DU file generation and application with extensive schema changes for the 2.1 release delayed both 2.0 and 2.1 releases to end of August. Internal procedures and software improvements have been identified to improve the performance of the Data Updater in MI6.0.

(vi) Peter Mezey mentioned that there an issue updating substance records in cases where customers have added their own *version-controlled* substance records, which become duplicates on application of an update. Granta has developed a system and workflow for this and discussed with Boeing. Granta to work through this with Boeing. Peter pointed out that a method for merging MILSPECs would also be useful when Granta starts to add standard MILSPECs to the data module   (ACTION: Granta)

(vii) Two more releases are planned for this year: v2.2 at the end of October, and v2.3 at the end of December.

13.4   Ongoing work on items from the EMIT Vote 24/4/2012:

- E-D-24: 'Generate a risk metric to quantify the lack of substitutes for an obsolete or potentially obsolete substance or element.'
- E-D-21: 'Generate risk metric for communication/declaration failure in supply chain
- E-D-16 'Generate a flag to indicate if supply chain fails to register a key substance'.

(i) Short and medium term measures to be added ASAP
(ii) Medium to long term: research projects with Cambridge University to investigate the risk of undocumented change, etc.

13.5   Contents of Release 2.2 (end October): Legislation updates: TSCA, REACH, incl where-used data

13.6   Contents of Release 2.3 (end December): Substance groups and NoCAS, TRLs for coatings

13.7   Release 3.1 (end March 2013): MIL Specs for coatings, Extend organic paints, REACH registration type.

13.8   There is a potential conflict between standard industry specs input by Granta and input by individual companies. There is also an issue of parts calling out both standard industry specs and in-house specs. It would be best if Granta could supply standard parts as an integral part of the database or have a standard policy for user updating, but there may be licensing issues. It may be useful to have a separate breakout activity to solve the specification issue.   (ACTION: Granta)

14 Member Report Rolls-Royce.

14.1   Andy Clifton presented recent activities at Rolls-Royce.

14.2   UK ADS Group (Aerospace, Defense and Security Industry Group) is sponsoring an Engineering Doctorate to develop standardized metrics and measurement methodologies for aerospace and defense companies: CO_2, access to primary resources, emissions to air, energy use, water use, waste and recyclability/remanufacture.

14.3   REACH Management:

      (i)   The requirements for an internal tool called 'MORSE' for gathering data and providing automated management capabilities are being finalized.

      (ii)   Support for E-MR-O5 'REACH Article 7(2)' is a critical requirement.

14.4   The SAMULET project will end in Dec 2012. It has been building eco design tools to build bridges between risk owners and risk 'understanders'. It translates environmental impacts into impacts on business objectives. SAMULET focuses on restricted substances, eco audit and critical materials.

14.5   Rolls-Royce is starting a Global Chemicals Management Engineering Doctorate, with University of Surrey. The aim is to develop a framework to support management of chemicals in a global environment.

14.6   The US Frank Dodd Act (Section 1502): - affects 4 minerals supplied by DRC and surrounding countries. It covers ores of Niobium, Tantalum, Tin and Gold. To qualify, these have to be added intentionally added to products – i.e. cannot be in 'trace' quantities. RR will have to comply because of reporting obligations to customers. Although RR has good knowledge of the source of conflict materials in in-house products, determining materials sources for bought-in components is challenging. Companies need the ability to provide reports on Frank Dodd materials by March 2014.

MINUTES DAY 3 (FRIDAY 5 OCTOBER, 2012)

15 MI8.0 MSDP UCDs

15.1   New UCDs for Major Software Development Projects in MI8.0 and beyond were discussed.

      (i)   E-AR-11 'Identify business critical substances and preparations'. It was noted that this use case requires two other features to be completed: E-ER-02 'Design for Risk Reduction' and E-D-25 'Add TRLs for coating substitutes by application'. Therefore this item should be removed from the voting list until the pre-requisite use cases have been implementd.
      (ACTION: Granta)

> Sue Baker requested that the UCDs identify the software configurations needed for each UCD.
> (ACTION: Granta)

(ii) E-MR-05a 'Reach article 7(2) notification' Amy Neal suggested that workflow step (iv) is done before step (ii) (or maybe we could have the option to do in either order) (NOTE: Granta)

(iii) E-ME-01 'Environmental check list' It was thought desirable to provide a 'list of lists' functionality and to be able to de-select legislations from a long list when setting this up, rather than building the list from scratch each time. (NOTE: Granta)

15.2 New UCDs for Major Software Development Projects in the Materials Gateway were discussed.

(i) I-AN-01 ' Build your own report and dashboard' Boeing would like 'Materials Authority' users to be able to build ad-hoc reports - mainly in MI Viewer. On the whole these are tabular reports, not graphical. Configurable reports for MI Viewer need to be on the main feature voting list for MI 7 (Action: Granta)

(ii) I-MS-02 **'**Structured guidance on selecting materials in Gateway' Honeywell would like to make sure that it is possible to search across different tables and databases in Gateway. (NOTE: Granta).

It was agreed to divide this UCD into three separate ones for the three main use models prior to the prioritization vote. (ACTION: Granta)

It would be helpful to hold a Webex to demonstrate the Optimize and Substitute tools in MI:Viewer prior to the prioritization vote. (ACTION: Granta)

(iii) I-AN-04 'Compare multiple BoMs'

16 Voting Process

16.1 David Cebon and Will Martin reviewed the three voting lists

16.2 MI 7.0: A new voting list has been generated from the main workflows discussed during the 'Overall Architecture' discussion yesterday (Item 7 above).

16.3 The normal MSDP prioritization vote will take place for MI8.0. However this will be indicative only, because the exact priorities will depend on the results of the work achieved in MI7.0

16.4 The new data projects have been added to the data projects voting list. These are

(i) Add REACH Registration type
(ii) Extend organic paints in the coatings database
(iii) Extend 'Where Used Data' in Materials Universe to adhesives
(iv) Add MIL Specs for Coatings

16.5 The Integration projects voting list was reviewed. This will be divided into two lists - one for CAE and one for product analytics. In future, EMIT members will only vote on the BoM Analytics functionality for Gateway. (See item 9.5 above)

16.6 Boeing requested that standard electrical components are added to the data projects list. This could be added as a new project or as a second phase of the standards components project (ACTION: Granta)

16.7 Further voting issues:

(i)   It was agreed that in future, other EMIT data projects are added to the voting list (eg critical materials and eco audit data), not just restricted substances projects.   (ACTION: Granta)

(ii)   The voting process was discussed and it was agreed to continue with the current prioritization strategy - ie the vote to be '5, 4, 3, 2, 1' or equivalent, depending on the number of voting items.

(iii)   It was agreed that in future, the voting sheets should provide space for members to add some comments on their reasons for choosing their top three voting items (ACTION: Granta, NPL)

17 Review of Meeting

17.1 Members commented that the second day of the meeting is always long and it is difficult to maintain concentration. Having break-out discussion is a helpful way to divide-up the meetings. We should do more of these.   (NOTE: Granta)

17.2 Members agreed that the update on ISO 14006 from Granta was helpful.

17.3 It would be useful to have a regular slot for discussion of other related activities, for example, member's involvement in AIA, ASD, ADS, etc. This should be added to the Agenda or to the member presentation template. <Done: Added to the member presentation template by DC>   (ACTION: Granta)

18 New Members

The members were invited to suggest other organizations who may be interested in joining the Consortium.

19 Chair for 2012-2013

Cyrielle Gendre from Eurocopter was unanimously voted to be EMIT Chair for 2012-2013.

20 Other Business

20.1 Interest was expressed in inviting a diverse group of suppliers (material producers: 3M, Dow, Dupont, etc or electronics manufacturers, Jabil, etc) to an open EMIT workshop and ask them to present, their views and activities in this area. It was agreed to organize a Webex to discuss this. Sue Baker agreed to lead the discussion. It may be possible to arrange this workshop to be the first day of the next EMIT meeting   (ACTION: Granta, Boeing (SB))

20.2 A similar approach was suggested for Standards Developers: eg SAE, UL, EPA, DSPO (Defence Standardization Program Office - DoD MIL Specs) - etc This could be arranged for the following meeting. Joy Fitzpatrick would be willing to help facilitate this.   (ACTION: Granta, Boeing (JF))

21 Future Meetings

21.1 Cyrielle Gendre of Eurocopter offered to host the next meeting at Eurocopter's offices in Marseille, France. Provisional dates are 14-15 March, 2013.

21.2 Boeing offered to host the following meeting, at a location to be decided, with provisional dates: 25-27 Sept 2013

DC, KM
9 October, 2012