DDI Alliance Meeting
Monday, May 28, 2018, 08:30-17:00
Webster Library, Concordia University
Room LB-362 -- Map

Agenda -- Meeting of Members				
Time	**Subject**	**Detail**	**Lead**	**Purpose**
08:30-09:00	Light Breakfast	Available in LB-361		
09:00-09:05	Welcome		Steve	Introductions
09:05-09:20	State of the Alliance 2018		Steve	Update on last year's work
09:20-09:30	Alliance Budget	Financial Report	Jared	
09:30-10:00	Working Group Reports	-Marketing & Partnerships -Training -Technical Committee	Barry Amber Wendy	
10:00-10:15	Coffee break	Available in LB-361		
10:15-12:25	DDI Strategic Plan	Detailed discussion with the membership -What are the immediate needs? What are long-term needs? -Details of the plan Online feedback from membership	Steve	Get input and feedback
12:25-12:30	Proposed Date for Next Meeting		Steve	Agree on best day to meet
12:30-13:30	Lunch	Available in LB-361		

Agenda -- Meeting of Scientific Board				
Time	**Subject**	**Detail**	**Lead**	**Purpose**
13:30-14:30	DDI Strategic Plan	-Continuation of discussion, with focus on the longer-term sections of the plan -Prioritizing and resourcing the plan	Steve	
14:30-15:15	Scientific Board direction and goals for the year	- Improving infrastructure around all DDI specifications -Specific activities for the Alliance (e.g. URN resolution, query / exchange protocol, validation tools, use cases,and best practices)	Chair	Set goals for what to accomplish
15:15-15:30	Coffee break	Available in LB-361		
15:30-16:15	Moving Forward program	-Overview of the DDI 4 timeline -Update on past reviews -Future direction on DDI 4, and additional views like codebook	Steve Wendy Achim	In-depth discussion of DDI4 development
16:15-16:20	Administrative matters	-Nominations for the Vice-chair position	Achim	
16:20-16:45	Global Research Digital Infrastructure	-Report on related initiatives (SDMX and GSIM) -Dagstuhl workshop on interdisciplinary metadata usage	Achim	Update group on progress

18:30 - Informal DDI group dinner at 3 Brasseurs (1356 Saint-Catherine St W, Montreal, QC H3G 1P6)

DDI Alliance

Strategic Plan 2018-2022

Draft for comment - 15 May 2018

Introduction

As the DDI Alliance moves into the next phase of its development, there are some overarching priorities that the Alliance needs to address. Framed broadly, these priorities fall into three core areas: the DDI community, the Alliance as an organisation, and the set of DDI standards and work products that the Alliance maintains.

The strategic plan is developed along the following lines to address these broad priorities:

1. Community and outreach: how do we engage with the DDI community and understand the community's needs?
2. Organisational needs: what structures and systems does the Alliance need in order to meet those needs, and how will it maintain those structures and systems in the long term?
3. Standards: what products does the Alliance provide and maintain, and how do those products meet the needs of the Alliance and the broader community

The DDI Alliance budget and work program, to be developed subsequent to the acceptance of the Strategic Plan, are then intended to align with these strategic priorities. This will include the need to identify resources (including money, time and in-kind contributions), and responsibilities (e.g. party/organization/team) for each part of the strategic plan. Similarly, the resource constraints within the Alliance will by necessity limit the extent to which we can achieve the goals set out in this Plan.

Working principles

The specific strategic activities proposed in the plan have been established with the following principles in mind:

1) Don’t leave anyone behind--no dead end with any prior DDI track
2) Lower barriers to entry/use
3) Respond primarily to user demands/requests
4) Market, market, market
5) Simpler is always better
6) Let user requests drive development

Strategic Priority Area One: The DDI User Community

PROBLEM STATEMENT:

The DDI community is driven by volunteers and the standard's success is directly related to its ability to attract, develop, and retain individuals willing to contribute their time and efforts. Users in the DDI context can be understood as both the formal members of the Alliance, but also more broadly other agencies, archives, statistical agencies, software developers, data providers, and related entities. These users can have complementary but also sometimes conflicting needs to be addressed by the Alliance and by its standards and work products.

By extension of this idea, understanding the community and its needs is probably the most important thing DDI can do to ensure its future. Doing so is likely to activate a virtuous cycle of growing membership, use, tools, and usability of the standard.

By enabling better interaction and engagement with the community, the Alliance is able to better understanding the needs that the Alliance products are supporting. In doing so, better engagement with the members and the broader community of users should also enable additional resources to become available to the Alliance for contributions to community efforts. The core concerns to address in Strategic Actions in this area focus on understanding and support of the needs of the DDI user community and membership, and the expansion and extension of the user community into related areas and disciplines[a].

STRATEGIC ACTIONS:

1. Engagement with Global Digital Research Infrastructure.

Now is the time to make the successes of DDI specifications more widely known in the community making up global digital research infrastructure. This global community has focused on building infrastructure to support interdisciplinary research on today's big science topics. The interoperability of metadata for discovery and access to research data is an essential component of these national and international infrastructure developments. DDI specifications can play an integrating role in making social, economic, and behavioural data available to emerging interdisciplinary research endeavours. This strategic direction identifies three actions in which the DDI Alliance can increase its engagement with Global Digital Research Infrastructure.

a. Develop best practices to map and translate DDI for DataCite, schema.org and other key metadata repository services.
b. Engage with RDA IG's and WG's, CODATA, and Force 11 to advance DDI's integration into the larger digital research infrastructure framework.
c. Increase communications with other metadata standards setting organisations for discipline-specific research data types.
d. Fostering usage of DDI with other metadata specifications. Promoting cross-domain usage of DDI (therefore identifying suitable parts of DDI for this purpose)

2. Solving Common Problems with Current DDI Users.[b]

   Periodically, DDI Alliance faces the criticism that its products are unknown to researchers even though the Alliance is working to solve common problems confronted in research and is often engaged with current DDI users in finding solutions. Three actions are proposed to strengthen the working relationship of the DDI Alliance with current DDI users and to create new possibilities to engage with researchers who are not yet familiar with the Alliance even though in need of metadata solutions in their research.

   e. Prepare guidelines to assist end users in their choice of DDI specification
   f. Create validation tools and profiles to support interoperable DDI metadata across tools and organisations
   g. Assist software developers of DDI tools through a gap analysis on needed tools, guidelines for software usability, training, and support letters to funders

3. User group development program

   Recognising that there are often similar sets of needs among categories of DDI users, there is an interest in establishing user communities within the broader Alliance. This action proposed establishing an initial user group among national statistical organisations - major data producers for whom the documentation, discovery, and interoperability of their data are vital to their operations. Over the years, the DDI Alliance has worked with some NSO's to integrate DDI specifications with their implementation of the Generic Statistical Information Model and the Generic Statistical Business Process Model. The DDI Alliance and NSO community share common goals to establish and maintain high quality metadata standards for social, economic, and behaviour data. This strategic direction proposes three actions to strengthen the relationship between NSOs

and the DDI Alliance and to communicate the benefits of such partnerships with other data communities.

h. Create an NSO advisory committee[c][d]
i. Promote successful DDI uses by NSOs
j. Use NSO outreach model to establish similar groups within other user communities

Strategic Priority Area Two: The DDI Alliance as an Organisation

The Alliance has a broadening set of both members and user needs, bringing with it new requirements for the standards and outreach that we do. One impact of this broadening reach is the need to become more "professional"[e][f][g] in the way the Alliance operates. This professionalisation includes the maintenance and development of our core organisational infrastructure (such as websites, marketing and project management). At the same time, we want to retain the core volunteer culture that formed the foundation of the Alliance, and continues to drive the participation of many members and participants in the Alliance. We are facing a period of volunteer and staff renewal, requiring the need to expand our core development base and volunteer community.

1. Generational Renewal
    a. Recruit the next generation of knowledgeable and skilled core technical development team
        i. Who is actively engaged in this now? What are their organizations? What is the committee membership? Does it have a rotation? A leadership? Can we set up a schedule with a rotation of membership and leadership, with the leader of the committee responsible for identifying and planning for new leadership and new membership, say every two years?[h][i][j]
    b. Expand skilled marketing team that is connected to relevant communities[k] (archives, software producers, data producers, statistical agencies, individual researchers, other standards)
        i. ~~Who is actively engaged in this now? What are their organizations? What is the committee membership? Does it have a rotation? A leadership? Can we set up a schedule with a rotation of membership and leadership, with the leader of the committee responsible for identifying and planning for new leadership and new membership, say every two years?~~

   c. Renew active and engaged membership at the institutional level in the DDI community (strengthening the commitment)
      i. How many institutions do we have now? Can we show graph of membership over time?

2. Training: Enabling trainers to do what they need to do
   a. Recruit much needed human resources to offer multifaceted DDI training.
      i. Develop a role for a membership appointed DDI Alliance designated “Trainer”
         1. The official DDI Trainer will work with the DDI Alliance Training Working Group and offer dedicated support for training in all formats and types; as needed and in close collaboration with the various WGs and Executive Board requirements for at least a 1-year period.
         2. DDI Trainer will provide support for in-person training at conferences, workshops, seminars, as requested and funding permits.
   b. Build-up online training presence to expand current offering of training.
      i. Extend the current offering of online training materials to support self-driven, passive training through online and web-based training delivery
      ii. Develop web-based video tutorials such as “What is DDI?” , “How to get started with DDI?”, “Building reusable questionnaires with DDI”, etc.
   c. Support new trainers and users with easy-to-understand and reusable tools for DDI Training
      i. Develop reusable checklists for getting started with DDI
      ii. Develop and maintain a listing of organizational DDI user profiles, licensed openly for reuse
      iii. Develop, gather and share reusable training materials (e.g. training toolkits for different audiences and use cases)

3. Business Structure
   a. Establish a periodic review of organizational structure
   b. Develop a sustainable business model for the Alliance
   c. Develop an organizational succession plan for the Alliance

Priority area Three: Standards and Work Products

PROBLEM STATEMENT:

The DDI Alliance currently maintains two lines of the DDI standard (DDI-C and DDI-L), with a third line in development. This is complemented by a set of controlled vocabularies, registry services and related products, which serve to support the needs of the wide range of users in the DDI Community. Strategic actions on DDI Standards are intended to provide orientation on which standards and work products to develop and maintain, and why. There is need to be able to maintain the existing standards to ensure that we can continue to support small scale users such as academic libraries and research centres, while continuing to develop the new line of DDI4 model-based standards[l] and associated work products to support the expanding user base in communities such as statistical agencies and data producers.

STRATEGIC ACTIONS:

1. Maintaining multiple lines of specifications[m] and controlled vocabularies
    a. Offering stable specifications and controlled vocabularies (reference Work Products)
    b. Enable DDI specs to adapt to changes in information technologies[n] and bindings (XML, RDF, Schema, …)
    c. Production testing/validation for quality assurance
    d. Improve documentation/examples/best practices guidelines
2. Introduce validation tools, testing support, and profiles/views for users for the purpose of interoperability
    a. Test cases, test bed, test harness
    b. Rules for validation/reporting
3. Working DDI infrastructure: a network of resource-based ... (Achim to add)
4. Registries-repositories
    a. Specify DDI's vision of building DDI into Common Data Element registries (Strategic Plan & Vision)
    b. Identify ways for establishing registries for supporting existing legacy DDI metadata[o]
    c. Develop standard query and exchange protocols/interfaces

[a]Perhaps "into areas and/or disciplines that offer synergies for DDI"? A bit more focused on relationships whereby DDI can benefit, rather than just outreach to common areas of data management and documentation...because those areas happen to be similar. A subtle but important distinction.

Also part of this thought, especially below in 1a-1d: how do we determine what are fruitful relationships to pursue? How do we avoid dead-end collaborations, or ones in which the cost/benefit ratio is not in DDI's favor?

[b]A fundamental conundrum that needs to be acknowledged is the difficulty in knowing who uses DDI. As an open standard, users can just use DDI and we might never know about it. I believe I mentioned this in last week's call.
Before we can solve "current DDI Users" problems, we first need to identify them, we need a better handle on the size and composition of our customers.

It may also help to get a handle on our audience characteristics by classifying or categorizing our audience by scope or extent of use? E.g., NSO's concerns should probably be given considerably more weight than an individual researcher's?

[c]An advisory committee is ambitious. NSOs would expect active guidance. Can the DDI Alliance this really provide with the background of small resources and that NSOs are very experienced organizations in their field

[d]This again might not be the ideal wording - an advisory committee has a significant function that may be more than we intend

[e]Is there a better term to use here?

[f]Seems appropriate considering you are juxtaposing it with the volunteerism ethic currently driving many DDI operations.

[g]experts?

[h]Do we need to remove these substatements??

[i]Useful detailed questions and suggestions.

[j]We should replace with answers :).

[k]The Alliance would do well to consider a salaried marketing position that would be dedicated to nurturing organizational-level outreach and increasing awareness of DDI. Volunteer efforts, as worthy as they are, just don't have the legs or chops to accomplish meaningful development along these lines. DDI really needs someone who can move the needle.

[l]Since it's inception DDI 4/Model-Based/etc was always framed as a continuation of the DDI-Lifecycle line. Has this changed, and if so where is the documentation announcing that change?

[m]During the discussion on this topic, the question arose about the sustainability of maintaining multiple specifications. I believe that the hope is that DDI-Model will allow us to express specifications for DDI-Codebook and DDI-Lifecycle.

I believe that 3b is related to this point.

[n]Could we build in a regular external review of our technologies to ensure we're up to date?

[o]could re3data.org be such a registry?

DDI Alliance Scientific Board
May 2018, Montreal

Scientific Board direction and goals for the year

- Improving Infrastructure around all DDI Specifications
- Ongoing work on DDI 4

Proposal: Improving Infrastructure around all DDI Specifications I

- Improving guiding documents on how to use DDI
- Improving exchange of metadata between programs and institutions
- Improving reuse of metadata across studies and institutions
- Supporting metadata repositories, portals, and registries
- Establishing a process to receive and review critique and ideas for improvements from members and user community.

Proposal: Improving Infrastructure around all DDI Specifications II

- Best practices on when to use which specification (and which part), guide along use cases
- Improving portability of DDI metadata, interoperability of DDI systems
  - Criteria of portability and interoperability, validation tools
  - DDI Profiles / Views for specific use cases / specific perspectives
  - Description of the workflow in integrating above items
- DDI URN resolution enables web-based reuse of metadata, i.e. persistent identifier to URL of DDI item
- Standardized query/exchange protocol enables reuse of DDI items stored in local and remote repositories, common data element registries
- ***Question: Are important topics missing?***

Reuse of Metadata: Repository and Registry

- Repository
  - … stores digital objects, i.e. DDI items (DDI instances or fragments of instances)
  - … uses persistence identifiers (DDI URNs) for DDI items which are assigned in the process of the creation of the metadata
  - DDI items contain references to related metadata in this repository or else where
- Registry
  - … is a catalogue on digital objects, i.e. catalogue on DDI items stored in local and remote repositories
- Registry of Common Data Elements
  - Metadata definitions (like Concept, RepresentedVariable, Question) are stored and maintained in a controlled method
  - … assigns persistent identifiers to the metadata definitions
  - … needs input from providers of common data elements who maintain these
  - … borrows ideas from ISO 11179
- ***Question: How important is reuse of metadata?***

Moving Forward program

- Current status
  - Prototype
- Future direction

Advantages of DDI 4
(*not everything realized yet*)

- Large parts are not specific to social science domain
- UML model
  - *Easier approach*
  - Easier relationship to other specifications
  - Easier maintenance
- *Coverage of DDI 2/3*, strong relationship to GSIM

DDI 4 Prototype (middle of 2018)

- This preliminary version is not intended for production but will provide an opportunity to test and provide feedback on how the DDI 4 model describes and documents some basic research material, such as a dataset, an instrument, and a codebook. A specific list of possible use cases will be made available to review and apply once the prototype is released.

DDI 4 Prototype Release Project Management Group (PMG)

- Jared Lyle (Executive Director)
- Joachim Wackerow (Chair, Scientific Board)
- Steve McEachern (Chair, Executive Board)
- Wendy Thomas (Chair, Technical Committee)
- Kelly Chatain (Project Manager)

Uses Cases from the the Prototype: 11 Views (1 of 3)

View	Description
DataDescriptionView	Use the DataDescriptionView to describe a collection of LogicalRecords by themselves or along with their PhysicalRecordSegments in a Study and/or a StudySeries…
SamplingView	The SamplingView covers the methodology and process for drawing a sample from a designated sample frame….
DataManagementView	The DataManagementView aims to account for the ingestion and production of new data types (registry data, health data, big data, spell data, event data, etc.) and both legacy and new data management services that give shape to these data types in the course of the data lifecycle…
DataCaptureInstrumentView	The purpose of the DDI4 Data Capture Instrument View is to describe the processes of developing and collect data from a questionnaire instrument, as well as to describe the capture or acquiring of measurements from various sources, like databases, registries, administrative data, bio-medical devices, environmental sensors and/or any other

Uses Cases from the the Prototype: 11 Views (2 of 3)

View	Description
DescriptiveCodebookView	The DescriptiveCodebookView is intended to provide a structure for the information needed to understand and make intelligent use of a set of data without other communication from the person or organization producing the data…
StatisticalClassificationView	The StatisticalClassificationView brings together the structures need to record, organize, manage, and index Statistical Classifications…
StructuredGeographyView	The purpose of Geographic Classification in DDI is to express relationships over time and space that are currently only available in geographic shape files…
CustomMetadataView	The DDI 4 CustomMetadataView allows for the definition of a set of keys and their interrelationships.
ControlledVocabularyView	The ControlledVocabularyView is intended to allow for the structured description of a vocabulary in DDI 4…

Uses Cases from the the Prototype: 11 Views (3 of 3)

View	Description
ConceptualContentView	The ConceptualContentView supports discovery and management of conceptual concept structures (other than statistical classifications)….
AgentRegistryView	The Agent Registry View supports the creation of a listing of Agents (Organization, Individual, Machine) for the purpose of maintenance and reuse…

Moving Forward Design Principles I

1. **Interoperability and Standards** – The model is optimized to facilitate interoperability with other relevant standards.
2. **Simplicity** – The model is as simple as possible and easily understandable by different stakeholders.
3. **User Driven** – User perspectives inform the model to ensure that it meets the needs of the international DDI user community.
4. **Terminology** – The model uses clear terminology and when possible, uses existing terms and definitions.
5. **Iterative Development** – The model is developed iteratively, bringing in a range of views from the user community.
6. **Documentation** – The model includes and is supplemented by robust and accessible documentation.
7. **Lifecycle Orientation** – The model supports the full research data lifecycle and the statistical production process, facilitating replication and the scientific method.

Moving Forward Design Principles II

8. **Reuse and Exchange** – The model supports the reuse, exchange, and sharing of data and metadata within and among institutions.
9. **Modularity** – The model is modular and these modules can be used independently.
10. **Stability** – The model is stable and new versions are developed in a controlled manner.
11. **Extensibility** – The model has a common core and is extensible.
12. **Tool Independence** – The model is not dependent on any specific IT setting or tool.
13. **Innovation** – The model supports both current and new ways of documenting, producing, and using data and leverages modern technologies.
14. **Actionable Metadata** – The model provides actionable metadata that can be used to drive production and data collection processes.

Moving Forward Design Principles III

Additional lower-level principles have surfaced during initial DDI model development:

- **Remodeling Discouraged** – The model leverages existing structures in the specification whenever possible to avoid inefficiencies.
- **Objects Represent Actual Things** – The model includes objects that are functional and are used.
- **Separation of Logical and Physical** – The model supports a distinction between logical and physical representations.
- **Names are Mutable** – The model contains names and labels that may change to encourage accessibility.
- **Common Expressions** – The model will only have features that reflect the common expressive capabilities of supported syntaxes/technologies (e.g., no multiple inheritances)

DDI 4: Suggested Criteria for Success

- Modular model realized in simple UML
- Multiple bindings/representations, especially XML and RDF
- Effective approach from the perspective of a specific use case
- Coverage of DDI 2.5 and 3.2
- Alignement with other relevant standards: GSIM, DCAT, PROV-O, BPMN

Development of DDI Specifications

- Middle-term goal: one specification which can be used for different use cases and for different requirements
- Investment in software and workflow makes more sense
- Clear usage guides and migration paths for users
- Avoid development of multiple tracks.
  - DDI Alliance can only afford development of one specification track. DDI Alliance has not the resources to do substantial work on two tracks.

Limitations of DDI 3.2 / 2.5

- No model
- No other representations than XML Schema, especially no OWL/RDF
- Hard to maintain and to expand
- Complex for users (3.2)

DDI 4 Sprints

• Dagstuhl	2012/10	
• Dagstuhl	2013/10	
• Paris Sprint	2013/12	
• Dagstuhl	2014/10	
• London	2014/12	
• Vancouver	2014/3	
• Toronto	2014/5	
• Dagstuhl	2015/10	Interoperability
• Copenhagen	2015/11	
• Minneapolis	2015/5	
• Dagstuhl	2016/10	Interoperability
• Dagstuhl	2016/10	
• Köln	2016/12	
• Edmonton	2016/4	
• Norway	2016/5	
• Dagstuhl	2017/10	
• Dagstuhl	2017/10	
• Lawrence	2017/5	
• Washington	2018/4	

Global Research Digital Infrastructure (selected topics)

- related initiatives
  - SDMX
  - GSIM / GSBPM
  - DCAT
- Dagstuhl workshop “Interoperability of Metadata Standards in Cross-Domain Science, Health, and Social Science Applications”
- ***Question: Which other areas / groups are important?***

SDMX VTL (Validation and Transformation Language)

- “The purpose of VTL is to allow a formal and standard definition of algorithms to validate statistical data and calculate derived data. VTL is designed as a language relatively independent of the details of SDMX, DDI and GSIM.”
- ***Question: Is VTL of special interest for DDI or is it just one other way of data transformation language***

GSIM / GSBPM

- GSIM
  - Heterogenous adaption of GSIM
  - NSOs tend to trust their own systems, big NSO have their own systems
  - Ongoing LIM work but it is specific to certain parts of GSIM
- GSBPM is widely adopted as a capability building and planning tool

DCAT (Data Catalog Vocabulary)

- "W3C vocabulary for dataset catalogs and repositories was first published in 2014 and is now being enhanced and updated in response to experience. It is widely used as a lingua franca or transfer model for dataset metadata." (revised draft in May 2018).
  - European Commission's DCAT-AP [DCAT-AP]
  - Healthcare and Life Sciences Community Profile [HCLS-Dataset]
  - Data Tag Suite [DATS]
- ***Question: Are DCAT and DDI study-level information well aligned?***
  Background: DCAT and DDI 4 RDF could be used together

Dagstuhl Workshop

- **Interoperability of Metadata Standards in Cross-Domain Science, Health, and Social Science Applications.**
- Together with people from CODATA (International Science Council (ISC) - ICSU/ISSC)
- The goal of the workshop is a better understanding of how metadata specifications can be aligned to support cross-discipline (or cross domain) data integration and analysis, with a consideration of standards from the social, health and environmental sciences, along with generic all-purpose metadata standards. It will do so with specific reference on the one hand to the standards and initiatives mentioned below and on the other hand to specific case studies in infectious disease, disaster risk and resilient cities.
- ***Question: Can DDI 4 be attractive for other domains?***

Bylaws: Scientific Board - The scientific and technical body of the Alliance

- Contribute to the substantive content of DDI standards and semantic products and approve major version revisions.
- Evaluate technical proposals through the Alliance standards review process.
- Undertake research and testing concerning proposals for DDI standards and semantic products.
- Develop and promulgate best practices for use of DDI standards and semantic products.
- Assess progress and barriers to progress.
- Suggest future directions and activities for the Alliance

Resources of the DDI Alliance

- In-kind contributions of member institutions and volunteering work of user community
  - Members of working groups (most of them have regular conference calls)
  - Participants of sprints
- Annual membership fees (revenue approx. 100,000 USD in 2017)

DDI Timeline

- 1995 1st meeting
- 2000 DDI V1 (DTD)
- 2003 DDI V2 (DTD), DDI Alliance founded
- 2008 DDI V3.0 (XML Schema)
- 2009 DDI V3.1 (XML Schema)
- 2011 Controlled Vocabularies (first set)
- 2012 DDI 2.5 (XML Schema)
- 2014 DDI 3.2 (XML Schema)
- 2015 DDI 4 (model-driven, development draft)
- 2018 DDI 4 (prototype, model, XML Schema, OWL/RDF)

Who are the Users of DDI?

Large variety of type and size of organization

- Members
  - 21 Archives/Libraries
  - 7 Data Production
  - 8 National Statistical Organizations
  - 10 Other
- Organizations represented at DDI user conferences

DDI Alliance – Collaborative Culture (external review 2011)

“The culture is characterised by an extraordinary level of trust and collaboration that was clearly evident throughout this review. This is one of the Alliance’s greatest assets going forward and has had no small part in its success to date. The candour and openness we encountered whether in group or one-on-one discussion is, in our experience, rarely observed and even more rarely consistently realized.”