

**JOINT CIBE AND CSTP FORUM ON
BUSINESS PERFORMANCE AND INTELLECTUAL ASSETS**

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RAPPORTEUR'S SUMMARY¹

Background

1. Intellectual assets are increasingly seen as an important determinant of business performance. Effective exploitation of knowledge, whether embodied in patents, human capital, or organisational structures, appears to drive innovation, boost productivity and improve prospects for economic growth. Better measurement of intellectual assets is a key element of their management and can provide financial markets and investors with more accurate information about firms, large and small. Internationally comparable valuation approaches remain elusive, but a number of governments and individual firms have taken steps to develop innovative approaches to valuing, managing and reporting intellectual assets. Better understanding of the merits of these approaches and of the links between intellectual assets and business performance will be important to future policy development.

2. The Forum on “Business Performance and Intellectual Assets” was jointly organised by the OECD Committee for Industry and Business Environment (CIBE) and the Committee for Scientific and Technological Policy (CSTP) to advance understanding of and policy making related to intellectual assets. It was designed to contribute to OECD work on value creation and intellectual assets, as well as to work on intellectual property rights (IPRs), innovation and diffusion of knowledge. In order to provide first-hand knowledge of the contribution of intellectual assets to business performance, effective means of managing intellectual assets to extract value, and the role of governments in encouraging good practice, the Forum brought together more than 100 participants from industry, government and science, including delegates of CIBE and CSTP, business executives and intellectual property managers, consultants, accountants and academic experts in intellectual assets management.

3. This report summarises the discussions at the Forum. After providing a general synthesis of the main conclusions of the event, it offers short summaries of the presentations and discussions during each of the four Forum sessions. The first, ‘Intellectual Assets and Economic Performance’, introduced the concept of intellectual assets and assessed evidence of their contribution to economic performance. The second addressed the challenges related to the ‘Measurement and Management of Intellectual Assets’, drawing on

1. This summary has been prepared by the Workshop Rapporteur, Kay Alwert, of the Fraunhofer Institute for Production Systems and Design Technology, Division Corporate Management, Germany, in consultation with the OECD Secretariat.

the experience of academic and practicing experts in the field of accounting. The third session ‘Business Perspectives on Valuation and Exploitation of Intellectual Assets’, presented the practices of three leading firms in managing and reporting their intellectual assets, in particular their intellectual property (IP). The fourth and final session turned to the role of the government and focused on ‘Policies to Enhance Exploitation of Intellectual Assets’.

Main conclusions

4. Several general conclusions emerged from the Forum. Participants highlighted the growing importance of intellectual assets – such as human capital, technological know-how, intellectual property rights, and organisational and relational capital – to business performance and value creation at the firm level and the macroeconomic level. They noted, however, that current measurement practices for intellectual assets at firm and country level are not satisfactory: existing rules governing corporate financial disclosures do not adequately capture investments in intellectual assets and, hence, miss a growing component of the value of firms. Several countries have recently developed guidelines to assist companies in reporting such information voluntarily, but not all stakeholders are convinced of the need for such disclosure, nor of the utility of the various approaches used.

5. There is general agreement that better and more consistent disclosure of information related to intellectual assets across OECD countries would improve decision making in business management and government policy, as well as facilitate the operation of financial and technology markets. Forum participants encouraged OECD to undertake further work in this area to better define the kind of information and indicators that would be relevant to investors and business managers. This work would involve further analysis of the interrelationships between intellectual assets and economic performance. Based on such work, relevant authorities could co-operate to develop internationally acceptable guidelines for the disclosure of relevant information related to intellectual assets.

6. Additional key points resulting from the Forum are summarised below:

- **Intellectual assets are an increasingly important driver of economic performance.** Forum participants noted that intellectual assets account for a growing share of business investment and of the market value of firms. The basis of value creation within firms and economies is changing from manufacturing to service-oriented activities, in which resources and products are mainly based on knowledge. Increasing competition and rapid changes in a globalised business environment call for the ability to innovate fast and make the best possible use of intellectual assets. Innovation involves the use and exploitation of intellectual assets.
- **Several types of intellectual assets are important.** Participants indicated that the most relevant intellectual assets within firms are those related to technology and knowledge creation (*e.g.* IPRs), human resources (*e.g.* competence, and experience), as well as those related to organisational capital, which enables the efficient use of knowledge and people. Intellectual assets related to technology creation, especially patents, are of special interest because they are easier to identify and exchange than other intellectual assets and often serve as currency in technology transfer agreements between companies.
- **Existing financial reporting mechanisms do not adequately address intellectual assets and therefore the real value of organisations.** At present, accounting rules require firms to treat investments in intellectual assets as an expense (*e.g.* training costs and most R&D costs). Most corporate reports and financial disclosures contain limited information on intellectual assets and therefore do not reflect the real value of a company, due in part to

challenges in property accounting for such investments and developing relevant, reliable indicators. The current gap between traditional accounting and the real value of firms is reflected in the rise of market value compared to the book value of companies.

- **Lack of sufficient and appropriate information on intellectual assets has adverse economic consequences.** At the firm level the lack of information on intellectual assets can lead to inappropriate corporate strategies and mismanagement of internal resources. At the national level it can lead to increased volatility of stock markets and misallocation of capital as investors attempt to evaluate opportunities and risks without adequate information. Lack of information can also impede development of technology markets as firms have difficulty identifying available technologies and partners with whom to share technology. There is evidence that improved information on intellectual assets can lead to better decisions by financial analysts, investors, policy makers and managers.
- **Additional analysis of the economic impact of intellectual assets is needed.** Forum participants agreed that better understanding is needed of the relations among different types of intellectual assets, business performance and economic development. Analysing the use of intellectual assets, as well as management and reporting practices at the firm level is important to identify the types of information that matter most to markets, managers and policy makers and to analyse the comparability, quality and accessibility of these data. Accounting standards bodies recognise that intellectual capital is an important contributor to corporate value, but additional analytical work is needed to identify measurable, reliable and relevant indicators to be included in intellectual assets reporting and disclosures.
- **Quantitative and qualitative information is needed to evaluate intellectual assets.** Financial valuation of intellectual assets remains difficult and may be neither sufficient nor appropriate for the evaluation of all intellectual assets. Indicator-based frameworks, which are most commonly used within organisations, should include both quantitative and qualitative measures to be meaningful when dealing with intellectual assets. Qualitative analysis of an organisation's ability to use and manage intellectual assets is crucial to evaluating opportunities and risks in their future development. As one speaker noted, *"It isn't sufficient to say that a company has intellectual assets, it is much more important to ascertain what a company does with those assets."* Quantitative and qualitative indicators, as well as contextual information about the management and strategy of an organisation, seem to be the right way to provide information on intellectual assets and their use within organisations.
- **Efforts are needed to develop greater international consensus.** Interest in intellectual asset reporting is high on the policy agendas of many OECD countries, and several governments (e.g., Denmark, Germany, Japan) have already achieved considerable success in working with industry to develop national guidelines. The European Commission has also launched several studies on the topic, and the United States has also shown renewed interest in intellectual asset reporting. As financial markets and business processes become more globalised, the need for greater international comparability among disclosure guidelines increases. The practical experience gained at the national level provides a sound basis from which to proceed with future harmonisation. As several participants noted, much work has been done, and the time has come to reach agreements and take action to find consensus.
- **The OECD can play a valuable role.** Participants indicated that the OECD could take a leading role in advancing work on intellectual assets by strengthening the analytical underpinnings of such work and helping to achieve greater commonality across disclosure guidelines. Several participants suggested that the OECD take a lead role in co-ordinating a

consortium of relevant authorities working in this field, such as organisations involved in financial reporting rules (e.g. IASB, FASB, US Securities and Exchange Commission), experienced experts in intellectual asset management and reporting (from countries with applied guidelines), and practitioners in reporting on intellectual assets (experienced organisations). This work would build upon the experience to-date to identify good practices and identify the kinds of information that could be incorporated into corporate reports. Some participants suggested that reporting templates could be developed that might take into account industry-specific needs and practices.

Opening session

7. **Nobuo Tanaka**, Director of the OECD Directorate for Science Technology and Industry (DSTI), opened the Forum by welcoming participants and explaining the link between this event and the activities of the Committee for Industry and Business Environment (CIBE) and the Committee for Scientific and Technological Policy (CSTP). Mr. Tanaka emphasised the critical importance of innovation and intellectual assets in the economies across the OECD, and indicated that new OECD work in this area could play an important role in stimulating policy making and public discussion regarding intellectual assets. The platform the OECD provides supports discussion about the future challenges in this field, as well as the sharing of country experiences. Mr. Tanaka noted that previous OECD work has explored issues of intellectual capital management, intellectual property management, innovation, and human capital and could serve as the basis for future discussion. The time has come to reach the next level and discuss the issue on a broader basis, involving policy makers, practitioners and scientific experts. Mr. Tanaka emphasised that the Forum is a great opportunity for policy makers to get first hand information on the current state of discussion on these issues, as well as on the level of practical applications regarding intellectual asset management at the firm level and policy making at the country level.

Session 1: Intellectual assets and economic performance

8. The session addressed the questions related to the definition of intellectual assets and their contribution to performance at firm, industry and country level. **Professor Stefano Zambon** from the University of Ferrara (Italy) gave an overview of intellectual asset management and its historical development. He noted that the most successful approaches in management studies in the last 15 years dealt directly or indirectly with intangibles. Growing interest in this field has evolved partly out of the change in the basis of value creation in firms, which is increasingly based on intangibles, like strategy, research, marketing and know-how. Hence, he contended, the main determinants of growth at firm and country level are intangible assets. The economic importance of intangibles derives from evidence that they provide an advantage for value creation within firms, but there is still uncertainty about the effect of intangible investments, especially due to the time lag between investment and economic outcome. This uncertainty contributes to the fact that most accounting standards require that expenditures on intangible assets (particularly those that are generated internally) be expensed.

9. According to Professor Zambon, improper treatment of intangibles leads to unmeasured intangible inputs and outputs in the economy, which has negative effects at multiple levels. At the firm level, lack of information about intangibles can lead to bad investment decisions, information asymmetry and incomplete management information systems, all of which can lead to poor management and strategic decision making. At the industry level, lack of information can result in the misallocation of resources within and between industries. At the capital market level, it would be linked to the under- or over-valuation of companies, leading to misallocation of resources and high volatility of stock prices. Finally, at

the national level, incomplete accounting of intellectual assets might lead to policy making based on an imperfect set of indicators, which may result in badly informed policy decisions.

10. Professor Zambon reported that multiple initiatives have been initiated to overcome the challenges in the field of intangibles. Some of the most important initiatives to date include: *i*) 1999 international conference in Amsterdam organised by the OECD and the Dutch and Danish governments; *ii*) 2000 European Commission High Level Expert Group on the Intangible Economy; *iii*) 2001-2003 Research projects Prism and Meritum/E*Know-net funded by the European Commission; *iv*) 2002 International Conference in Madrid organized by the Autonomous University of Madrid, the Spanish Government, the OECD and the European Commission; *v*) 2003 European Commission study on the measurement of intangible assets and associated reporting practices, which gives insight into the current state of development of research and policy regarding the measurement of intangible assets.² The Commission report concludes that while there are many definitions and classifications, there seems to be a consensus within the guidelines on intellectual capital statements. To compare the degree of disclosure practice within companies the Italian Association of Financial Analysts (AIAF), in co-operation with the University of Ferrara, developed a framework to rank the level of disclosure on intangibles.³

11. Professor Zambon also outlined some implications for policy. He recommended better measurement of intangibles at both the firm and economy level, but emphasised the firm level because good firm-level indicators can contribute to better indicators at the macroeconomic level. He therefore suggested that policy aim to develop and promote a new, integrated, reliable and verifiable company disclosure system based on intangibles. To assure this, convergence between existing methods and reports is needed, such as a standardised set of intangibles indicators serving as the least common information denominator. Therefore, Professor Zambon indicated that it is important to look for synergies in the efforts of organisations like the OECD, the European Commission, the United States government and the Japanese government. It is also necessary to provide incentives for firms to adopt reporting systems based on intangibles, as well as to use and reveal that information. Furthermore, Professor Zambone suggested that it is important to favour the emergence of a generally agreed taxonomy and definition of intangibles, as well as to encourage voluntary experimentation and exchange of best practices (*e.g.* the intellectual capital reporting guidelines). Additional policy recommendations are to induce information system providers to improve the collection of data on intangibles and to promote the gathering of the reported information on intangibles in a systematic and coherent way. Professor Zambon concluded by emphasising that there is no need to develop additional approaches to intellectual asset reporting, but there is an urgent need for convergence among existing ones.

12. **Jonathan Low**, from Predictiv, LLC (United States) addressed the importance of intangible assets as an invisible advantage for firms and illustrated why investors care or should care about these intangibles. He introduced a model that considers intangibles related to three areas: *i*) management capabilities (leadership, strategy execution, communication and transparency), *ii*) relationships (brand equity, reputation, alliances and networks) and *iii*) organisational capabilities (technology and processes, human capital, workplace organisation and culture, innovation, intellectual property, and adaptability). Some of the main insights from the application of this model are that a company's non-financial performance plays a critical role in how the company is valued, and that non-financial performance accounts for 35% of institutional investors' valuation. Mr. Low's work indicates that the more analysts rely on non-financial performance indicators, the more accurate are their earnings forecasts. A set of non-financial drivers that analysts rely on consist of elements like strategy execution, management credibility, quality of strategy, innovativeness, ability to attract and retain talented people, market position,

2. Available at http://europa.eu.int/comm/enterprise/services/business_related_services/papers_brs.htm

3. The University of Ferrara is organising an international conference on Intangible Assets and Intellectual Capital in October 2005.

management experience, quality of executive compensation, quality of major processes and research leadership.

13. Measurement problems are key to the intellectual asset management and exploitation. A survey carried out by Mr. Low shows that corporate performance measurement systems are inadequate for intangibles management: 81% of respondents stated that their performance measurement systems are not well aligned with their corporate strategies. To improve performance, the gap between the recognised importance of a value driver and the quality of its measurement has to be reduced. Mr. Low also introduced an example of a reputation model, which correlates components of an intangible driver like reputation value (*e.g.* advertising, customer satisfaction, price, service quality *etc.*) with performance measures (*e.g.* price tolerance, customer retention, market share *etc.*). A firm's score on each intangible driver is calculated by the combination of weights and quality of the components and correlated with corresponding performance indicators.

14. Brand is also an important intellectual asset. A brand valuation carried out by Mr. Low and published in *Forbes* magazine⁴ rated the biggest corporate brands. For this study Predictiv used an econometric model to analyse the relationship between financial metrics like sales, earnings growth and R&D spending, on the one hand, and market value on the other. The contribution that four important intangible assets (reputation, innovation, management and human capital) make to a company's market value is deemed to be its corporate brand value. The brand evaluation showed amongst others the top 25 US corporate brand values, as well as the ranking of each company in the four categories above.

15. **Jürgen Rosted** from the Ministry of Economic and Business Affairs (Denmark) and Chair of the OECD Committee for Industry and Business Environment, emphasised that defining intellectual assets is still a broad issue involving internal and external aspects. Internal aspects focus more on intellectual asset management, while external aspects focus more on the communication of these assets to the market. Mr. Rosted pointed out that there is a strong need to involve more people in the discussion about these issues in order to foster common understanding. It is therefore essential that someone take the initiative and organise this in a co-ordinated way. Furthermore it is important to find out what the real drivers in a new economy are, and how intellectual assets contribute to the performance at the firm, industry and country level. To organise a process which is able to provide answers to such difficult questions, Mr. Rosted provided the example of Denmark and described how ten years ago the government worked out answers about how to enable the formation of clusters by initiating a dialog between government, industry and experts. Mr. Rosted closed his remarks by emphasising the fact that it is still very difficult to convince the financial community about the need for indicators of intellectual assets. Hence, he recommended starting by including information on intellectual assets not within financial reports but as an annex as disclosed information.

16. During the general discussion **Mr. Andy Reinhardt**, (*Business Week*) Forum Chair, raised two main questions: *i*) If the market value of a company is a starting point to quantify intellectual assets, is the speculation of market participants a problem? and *ii*) Are there still some companies where manufacturing is the strategic question and not the management of intellectual assets?

17. **Professor Zambon** responded that the volatility of stock prices is driven by information, and speculation is an indication of missing information. With regard to the second question, Prof. Zambon replied that intangibles, such as knowledge, are embedded in every machine and every plant. This embedded knowledge and the outside bundle of intellectual assets (people, processes, *etc.*) that make the machine work are as important as the machine itself; however, there are still businesses where traditional production factors play a major role.

4. *Forbes* magazine April 2004 within the series "Beyond the balance sheet".

18. Forum participants made several additional observations about intellectual assets. Several indicated that work in risk management can contribute to advances in the field of intellectual assets. Others noted that it is not only companies that are providing information about intellectual assets; universities and public research centres do also. Especially in Austria many universities and research organisations have worked out intellectual capital reports. The Austrian Research Center Seibersdorf⁵ was mentioned as one of the best practice examples. Finally, the participants agreed that it is important to co-ordinate future activities related to intellectual assets among OECD countries. It was pointed out that in the current situation it is more important to create consistency within single activities in this field than to gather more data.

Session 2: Measurement and management of intellectual assets

19. The second session mainly addressed the question of the key challenges related to measuring and reporting intellectual assets and progress made in developing and implementing effective approaches. **Professor Baruch Lev** from the Stern School of Business at New York University (United States) started by pointing out that in recent years little real progress has been made in the acceptance of intellectual assets. There has been no progress in building awareness of this important issue within the financial community or among standards bodies in the United States. He emphasised that now it is very important to fully understand this lack of progress and to find out what to do to solve this problem.

20. During his presentation, Professor Lev made it clear that not all the challenges to measuring and reporting intellectual assets are of the same nature. There are real challenges, self-interested challenges and bogus challenges etc.:

- *Real challenges* include the fact that many intangibles, particularly those related to organisational capital, are enablers of other resources and cannot be measured on a stand-alone basis, without considering their relationships with other intangible assets. Another real challenge is that future prospects of certain intangibles, such as early-stage patents, or new Internet sites, are highly uncertain and render output measures and values largely unreliable. Internal (managerial) information systems of most business enterprises, based on the expense mentality, are incapable of providing relevant information on intangibles and the general apathy of capital markets concerning information which is not directly linked to earnings, cash flows, or stock prices is also a real challenge.
- *Self-interested challenges* are those related to the managers' reluctance to commit to the disclosure of information that may have negative implications and their reluctance to disclose and recognise information about uncertain assets that may increase litigation exposure and investor backlash. They further include accountants' reluctance to provide information on uncertain, non-tradable assets and the lack of leadership – or even intellectual curiosity – of the major national and international stock exchange regulators and accounting standard-setters concerning the measurement, valuation and disclosure of intangibles.
- *Bogus challenges* include claims that disclosure of intangibles involves confidential, competitively-harmful information. According to Professor Lev there is no important information relevant to intellectual asset disclosures that competitors do not already have. Another bogus challenge is that the valuation of intangibles is impossible and that investors already have all the information they need. Even if it is not possible to value all intangibles this is not a reason for not giving or using any further information. There is no need to get a

5. See <http://www.arcs.ac.at/publik/fulltext/wissensbilanz>

firm's own estimates of the value of its intellectual assets, what is needed is to disclose enough basic information on them for others to be able to value them if they need to.

21. Professor Lev then pointed out what needs to be done to improve the situation: *i*) identify and disseminate convincing evidence of the harmful social and private consequences of the current deficit of information about intangible assets, such as the misallocation and waste of resources and the inability to detect managerial failures; *ii*) define useful intangibles-related information modes, where various actions are possible, ranging from a mentality change, to a systematic linkage between inputs and outputs, to the definition of criteria of measures and indicators; and *iii*) create an environment conducive to the disclosure of such information. For the latter, Professor Lev advised the creation of a consortium of authoritative bodies to develop general and sector-specific best practices for measuring and disclosing intangibles-relevant information. Furthermore, he suggested removing litigation-related concerns of managers by strengthening safe-harbour rules on disclosure and linking corporate disclosure efforts with those in charge of national accounts data. The most difficult challenge, he emphasised, is to generate capital markets' demand for intangibles-related information. Prof. Lev concluded by stressing the need to build an internationally agreed template for the disclosure of information about intellectual assets through the creation of a working consortium of all the authorities and committees working in this field.

22. **Alison Thomas** from PricewaterhouseCoopers (United Kingdom), presented a model of the resources of the 21st century business which describes tangible goods (physical assets where ownership is clear and enforceable), intangible goods (rights that can be bought, sold, stocked and readily traded – and can be, more or less, protected), intangible competence (non-price factors of competitive advantage) and latent capabilities (potentially unique competition factors that are within the firm's capability), as well as the relationship between them. The model, which was a result of the European Commission PRISM project,⁶ also showed that most intangibles can not be measured in financial terms. If the scope of current financial reporting is visualised within this model it can be seen that it provides just a very small range of information about the past and tangibles of an organisation.

23. Therefore Ms. Thomas introduced the “ValueReporting” framework of PricewaterhouseCoopers, which tries to overcome the deficit of the PRISM project model and gives a good orientation for assessing the value reporting of companies. This framework consists of the following four main perspectives: *i*) market overview (regulatory environment, macro environment, competitive environment); *ii*) strategy and structure (goals and objectives, organisational design, governance, risk framework); *iii*) managing for value (financial assets, physical assets, customers, people, innovation, brands and intellectual assets, supply chain); and *iv*) performance (environmental, social and ethical, operating, economic). The latest study on Value Reporting in global companies undertaken by PwC⁷ identified many best practice examples in value reporting. To show the current practice in value reporting, Ms. Thomas introduced some examples of its practical implementation within firms. These companies give additional information about some of their intangible assets such as brand valuation, development projects, innovation processes and resource deployment or the overall strategy implementation and intellectual capital management process.

24. To demonstrate the effect of additional information about intellectual assets on analysts, Ms. Thomas described an experiment PricewaterhouseCoopers carried out as part of its latest study, where two groups of analysts were asked to analyse a company, give forecasts on the revenue and give a sell or buy recommendation about the stock. One group received full information about the company, including their intellectual capital statement; the other received just standard financial information. A significant difference in its estimation of the company resulted. While the group with the reduced amount of information was rather inconsistent in their estimations and pessimistic on the future development of the

6. See also http://www.euintangibles.net/index_html

7. See <http://www.pwc.com/Extweb/service.nsf/docid/823BA0E6E0E3E22680256D4900365C77>

company, the group with the full set of information was more consistent in their opinion and optimistic about the future. The result of the experiment showed that additional information about the intellectual assets of a company can have a strong influence on analysts' estimations and help reduce uncertainties.

25. To conclude, Ms. Thomas emphasised the challenges that lie ahead in this area and which comprise the comparability, quality and accessibility of the available data.

26. Before the general discussion, **Ronald MacKay**, from the European Commission, provided a brief update on work within the European Commission on intellectual assets, including the paper "The competitiveness of business-related services and their contribution to the performance of European enterprises".⁸ In this paper the European Commission for the first time makes a policy recommendation about reporting on intangible assets. The European Commission emphasises that reliable information about intangible assets is needed, both at the level of enterprises as well as at the level of policy development in order to avoid inefficient resource allocation. Service enterprises are particularly exposed to this problem since they are almost entirely based on intangible assets. The paper explicitly appreciates the progress made in gaining practical experience in the use of various voluntary guidelines for reporting on intellectual capital and other forms of intangible assets, however, it also makes clear that to guarantee long-term value of these activities, a convergence of taxonomies is needed.

27. In the new policy the Commission intends to address this important issue to overcome the present lack of reliable information about the intangible assets of companies. This would be complementary to, but separate from, ongoing developments in the fields of accounting rules and corporate governance. The Commission also felt it is necessary to make the linkage to other established forms of corporate reporting to reduce the burden of providing more and more data for statistical purposes. Mr. MacKay reported that the discussions on how to follow this up in practical terms are taking place in the European Forum on Business Related Services⁹ which will present a concrete action plan by mid-2005. The main point, he concluded, is not to emphasise that we have already done a lot of work in this area, but that we now have a clear policy mandate for future activities relating to improved reporting on intangibles and intellectual capital.

28. The discussant **Fred Gault** from Statistics Canada and Chair of the OECD Working Party of National Experts on Science and Technology Indicators, raised three questions in his summary of the presentations: *i*) are we moving towards standardization, and should the OECD lead this process? *ii*) are we ready for the next steps? and *iii*) how far should we go in collecting and disclosing information about intellectual assets, and what exactly is the value of this information? The general discussion focused on three main issues: *i*) the importance of disclosed information on intellectual assets for markets; *ii*) the possibility to use this information on a national level; and *iii*) the reliability of such information.

29. Participants agreed that disclosed information about intellectual assets is important to reduce the information asymmetry between external stakeholders and organisations, even if there is no demand for this kind of information from the analysts and investors side. Indicator-based frameworks with additional contextual information about the company seem to be the right way to provide this information, although there are still no proven causal relations between the measures of the models and the business performance of companies.

8. Ref. No. (COM (2003) 747):

available at http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0747en01.pdf

9. For further details see:

http://europa.eu.int/comm/enterprise/services/business_related_services/index_forum.htm

30. It was also indicated that the need to find measures at the firm level is important as a first step towards the measurement of performance at the national level where the degree of comparability and the possibility to aggregate firm-level indicators have to be considered. Therefore a common framework is needed. Some efforts to work out taxonomies have been made and a consensus on sector-specific measures seems to be possible, although some company-specific measures may still remain.

31. Participants also agreed that reliability of the financial valuation of intellectual property such as patents is difficult, especially in the early stage of patents where an estimation of the future income of a patent seems to be highly speculative. Therefore it is not sufficient to have financial valuation methods, the valuation needs also to be feasible and reliable. A solution could be to clearly distinguish between input-related and output-related measures.

Session 3: Business perspectives on valuation and exploitation of intellectual assets

32. This session addressed two main questions: How do businesses value their intellectual assets, including their intellectual property? How is the management of intellectual assets changing to extract greater value?

33. **Michael Fischer** from Siemens Schweiz AG (Switzerland), described activity in the Intellectual Property Department at Siemens, which handles approximately 8 000 invention reports per year and has about 50 000 patent families in force. Siemens also has a number of patent cross licence agreements in place with important competitors and new cross license agreements currently under negotiation. To enhance the exploitation of cross licence agreements, Siemens aims at a systematic investigation of cross licensing opportunities for all business fields.

34. Siemens uses licensing as both a carrot and a stick, creating opportunities and asserting its patent rights. As relates to carrot-licensing, Siemens offered about 70 patents or patent portfolios to interested parties in 2003. Siemens also offers patent portfolios and/or technologies via a virtual technology marketplace called yet2.com.¹⁰ The platform is focused on bringing buyers and sellers of technologies together. However, many companies are reluctant to make offers on patents, and not much venture capital for investments is available. Many offers relate to abandoned patents and/or technologies. Therefore the main goals of Siemens in this field are to check the opportunities for licensing via Internet, by increasing the number of offered technologies (in the case of failure Siemens will probably stop their activity on the Internet platform) and to offer more active patents and/or technologies for non-core applications.

35. Fischer noted problems with proving infringement, of asserting the validity and scope of the patents and the reluctance of business units to license their patents and to provide resources for infringement investigations. His main objectives in this area are closer co-operation with the business units to increase licensing activities and the formation of teams for the exploitation of patents in certain fields; the systematic search for golden nuggets and the increase of identified patents on standards.

36. In general, Siemens' royalty income and royalty expenditures are balanced or slightly positive. In the fiscal year there was a turnaround, so the goals of Siemens are to improve its balance, increase the number of patent professionals available for licensing projects, increase the number of newly started licensing projects and shorten the negotiation period to less than the current 11.5 months.

37. **David Kaefer** from Microsoft Corporation (United States) gave an overview of intellectual capital management activities at Microsoft Corporation and the new philosophy of Microsoft, which is

10. <http://www.yet2.com/app/about/about/aboutus>

moving away from tightly held trade secrets towards more co-operation, strategic alliances and a more open information policy. The new intellectual property strategy at Microsoft reflects a shift from a mix of trade secrets and copyrights to the general willingness to license its intellectual property in response to increasing demand for greater openness and transparency from software in today's Internet era – which encompasses an increasing number of patents – to other companies and organisations. This means that the company is open to transactions that transfer technical know how in the form of protocols, specifications and documentation as well as transactions that provide rights to Microsoft's trademark, copyright and patent portfolios.

38. According to Mr. Kaefer it is not sufficient to say that a company has intellectual assets, it is much more important to ascertain what a company does with those assets. Therefore valuation and management must be based not only on quantitative measures, but also on qualitative analysis of company's asset management strategy. Microsoft uses both approaches. The main intellectual assets measured quantitatively are:

- *Employee assets*: Microsoft's most important asset is measured by attracting and retaining skilled employees, therefore the company frequently measures retention rates for management and front-line engineers.
- *Brand value*: Microsoft seeks to understand the performance of its brands through brand awareness and brand "attributes".
- *Piracy*: Piracy rates are used to determine the loss of financial opportunities resulting from illegal copying of software products and to identify future growth markets.

39. To assess the value of patents or patent portfolios, Microsoft uses three quantitative measures: patent quality, patent utilisation and licensing revenue/expenditure. Mr. Kaefer emphasised that although Microsoft invests more in R&D than almost any other company in the world (roughly USD 7 billion in fiscal year 2005) the company is not one of the top ten patent holders. This reflects a corporate culture where patent quality is valued above patent quantity. Quality ratings such as the one in the publication from *MIT Technology Review*¹¹ show that the quality of Microsoft's patent portfolio is rated as one of the highest in their industry.¹² Microsoft's patent utilisation focuses heavily on product categories in which Microsoft competes. Nearly all patents relate to core. Only 3% of Microsoft's patents relate to research that is not directly focused on current or future product plans. The licensing revenues and expenditures of Microsoft are characterised by strong activities to license-in assets from other companies. In the fiscal year 2004 Microsoft licensed-in over USD 1 billion worth of patents and other intellectual property. The ability as a company to manage inward licensing costs efficiently and offset those costs with out-bound licensing is an important success metric for the Intellectual Property and Licensing group of Microsoft.

40. Mr. Kaefer highlighted qualitative measures used by Microsoft to assess the value of its patent portfolio, such as freedom of action, interoperability and product promotion and standard creation. The first two are reached through a large number of cross-licensing arrangements with important partners, where open access to one another's innovations makes it easier for all to create robust new technologies and assure interoperability. Standardisation promotes the long-term strategy of Microsoft. Therefore Microsoft uses its ability to play a thought-leadership role in standardisation processes and to influence the creation and adoption of new technology standards like XML.

11. See also <http://www.technologyreview.com/scorecards/index.asp>

12. <http://www.technologyreview.com/scorecards/index.asp>

41. Mr. Kaefer closed his presentation by emphasising the critical role of intellectual assets within the new economy. He made clear that it is not just important to license intellectual property but above all to manage it. Analysing the use of intellectual assets and the quantitative and qualitative results can help to build greater understanding of the role intellectual assets play in our global economy.

42. **Yasuhiro Takeda** from Bridgestone Corporation (Japan) described Bridgestone's IP management vision, which is reflected in the following statement: "We will continue to strengthen our corporate structure with a management strategy having three interrelated components: business strategy, R&D strategy and IP strategy." This "strategic trinity" comprises the following IP activities within Bridgestone: *i*) strategic filing, prosecution and enforcement of patents; *ii*) a unified management system of IP within the global group; and *iii*) the capability for dispute resolution. Bridgestone owns approximately 11 000 patents, design patents, trademarks, domain names and other forms of intellectual property. It is attempting to improve its patent selection processes so that a larger share of the patents it files (and which are published 18 months later) result in registered/granted patents. In the future, Bridgestone will link its IP strategy to its R&D and business strategies, with the aim of enhancing its corporate value through protection, utilisation and reinvestment in IP.

43. R&D activity at Bridgestone involves not only the classical tyre sector but also diversified products (making use of material technology and matching it with diversified customer needs) and new technologies (applying basic technologies relating to tyres and diversified semiconductor devices). Bridgestone's basic patent policy differentiates among products and seeks to preserve profits by maintaining their superiority and competitiveness. In the tyre market Bridgestone aims to preserve its top position by exclusively working on strategic technologies and cross-licensing activities to secure the freedom of operation within its R&D activities. Bridgestone utilises its patents in a variety of ways on diversified products or new technologies. To improve the cost effectiveness of its intellectual property management, Bridgestone will undertake patent utilisation investigations annually, and abandons unnecessary rights where necessary. Utilisation rates for patents in tyres and diversified products are between 62% and 68%, compared to less than 30% for new technologies.

44. Currently, IP management at Bridgestone is multi-layered. The intellectual property department reports to the Vice President of research, development and intellectual property, but the President also considers IP issues. As described by Mr. Takeda, Bridgestone has implemented a "Unified Management System for Intellectual Property Rights" that co-ordinates IP management between Bridgestone Japan and other Bridgestone Group companies. The IP department within Bridgestone Japan acts as a central point for collecting and disseminating IP information from various Bridgestone Group companies. Technologies are licensed from Bridgestone Japan to group companies, with royalties flowing back to Japan. Risk management is incorporated into Bridgestone's dealing with products and IPR of third parties. The strategy is to conduct periodical searches and engage in cross licensing to ensure that R&D is correctly oriented. Mr. Takeda emphasised that Bridgestone is currently not involved in any disputes, such as intellectual property infringement, which may seriously affect their business operation.

45. In 2003 Bridgestone joined the METI (Ministry of Economy, Trade and Industry, Japan) study group for an IP report and worked out an IP Report in 2004. One main reason to join the project was the expectation that the capital market will review this kind of information. Currently, numerous companies report on their intellectual property using IP reports, while some companies include IP-related information in their annual reports. Bridgestone has also prepared an IP report based on the guidelines developed by the group.

46. The discussant **Theo Roelandt** of the Ministry of Economic Affairs (the Netherlands) and Chair of the OECD Working Party on Innovation and Technology Policy, recalled that Siemens and Microsoft were two companies represented in the Forum that had just entered into a major cross-licensing agreement.

He emphasised the importance of bringing such practical experience into discussions such as these and using these business perspectives on IP management to keep in touch with “the ground”. Mr. Roelandt pointed out that intellectual capital significantly contributes to the business performance of companies and it is important for economic development. Therefore it is important to communicate information on this important issue. Some financial standard bodies already recommend disclosing information about intellectual property such as patents and some companies like Bridgestone already follow this recommendation. Further, Mr. Roelandt pointed out that it is important to learn more about the problems of licensing and the valuation of patent portfolios, as well as how to distinguish between useful and less useful patents. That issue is of special interest in regard to the huge amount of innovations generated within universities which are still not sufficiently exploited. Thus an important question is whether universities can learn from businesses to manage and to commercialise their intellectual property.

47. During the general discussion, **Andy Reinhardt** focused on three main questions: *i*) How can intellectual property be evaluated? *ii*) What are the benefits and what are the efforts of license activities; and *iii*) What role do universities play regarding the development and exploitation of intellectual assets?

48. It was indicated that cross licensing activities and the necessary evaluation of IP are difficult especially because agreements about IP do not focus only on patents but also on the knowledge and technologies around them. In technical fields the question of whether a technology is of value for a company is often a technical one that can be clarified by talking to engineers. A broader evaluation is often a more serious challenge. As noted by Mr. Fischer there are at least three important criteria for such an evaluation: *i*) Is it possible to design around this technology; *ii*) Is the technology and intellectual property attractive to the competitors and *iii*) Is there an improvement of patent infringement?

49. To point out the importance of cross license activities it was made clear by Mr. Fischer that with today’s complex technology it often takes considerable effort to develop a new technology and it is nearly impossible for a single company to lead a whole technological sector by itself. Therefore it is important for the companies to form alliances with the main players in a specific technical field, otherwise they may run into serious patent problems or into serious interoperability problems between the different technologies necessary to fulfil market demand. Patents serve as a kind of currency within the negotiation of cross license agreements. To play a major role in the negotiation on such an agreement it is important to have one’s own patents. For this reason it is not a waste of resources to manage and license patents. These efforts are necessary to play an important role in a technical field.

50. A second justification for the efforts spent on IP is patent litigation, which entails significant risk for companies. To prevent such litigations it is necessary to achieve agreements before they evolve. Therefore it is important to identify partners for possible cross license agreements and to negotiate such agreements. A direct benefit is the saving of resources and costs by preventing litigation.

51. As several business representatives noted, companies are typically reluctant to disclose information about the content of their cross license agreements. Detailed information about the strengths and weaknesses of companies’ patent portfolios and their strategic business expectations appear within such agreements. The disclosure of this kind of information in public could hinder license agreements because one of the main requirements of such negotiations is confidence. Nevertheless, it could be important to disclose information about important cross license agreements and the freedom of development such licenses allow.

52. Concerning the role of universities in exploiting their intellectual assets, it was indicated that in the United States there is already a strong focus within universities on the commercialisation of intellectual property. There are numerous success stories of companies like Hewlett Packard that were born out of universities and brought new insights and ideas to business. To foster such developments, participants

agreed that it is important to assure incentive processes that encourage university researchers to bring their ideas and innovations to the private sector and to commercialise them. Companies increasingly use co-operation with universities to support their R&D activities. Siemens for example uses the R&D capacity of universities to “outsource” some of its own R&D. The company sees universities as partners within their R&D activities, where both sides profit from the co-operation: universities have the chance to be part of the development of new technologies and to graduate students within actual fields of scientific application. To clarify the intellectual property rights special contracts are worked out, where IP rights can be transferred to the company. Normally, the cost for such developments is higher than the cost for contract research where the rights on the inventions remain at the university.

Session 4: Policies to enhance exploitation of intellectual assets

53. This session addressed mainly two questions: *i*) What steps can governments take to enhance firms’ performance through creation and exploitation of intellectual assets? *ii*) How effective have initial efforts been?

54. **Birgit Kjølby** from the Danish Ministry of Science, Technology and Innovation, described the motivation, development and impact of the “Danish Guideline for Intellectual Capital Statement”. The initial intent was to help firms develop their intangibles/intellectual capital (IC) and to systematically account for it. In the form of a two-part project, the intellectual capital statement was tested until 2003 in about 100 companies and public organisations. At the end of the first phase the Danish Guideline was released containing the results of 17 companies. At the end of the second phase, the documents “Intellectual Capital Statements – The New Guideline”¹³ and “Analysing Intellectual Capital Statements”¹⁴ were published.

55. The guidelines enable companies to assess, use and develop their intellectual capital within a proven framework. “Analysing Intellectual Capital Statements” was developed to help market participants and investors to read, understand and evaluate intellectual capital statements. Until the end of the project the guidelines were disseminated to companies outside the group developing them and also to companies outside Denmark. Ms. Kjølby indicated that the integration of intellectual capital statements in financial accounts is still a future perspective.

56. **Takayuki Sumita**, from Japan’s Ministry of Economy, Trade and Industry (METI), presented the METI “Reference Guideline for Intellectual Property Information Disclosure”¹⁵ and the motivation to develop it. He emphasised the inadequacy of the excessive attention to financial profitability which just looks at the current outcome of a company not realising that this information does not assure its future success. He pointed out that investment in intellectual assets is a social responsibility investment because it fosters economic sustainability. The relationship between intellectual assets and corporate social responsibility is the interface between company and society.

57. During recent years the METI has elaborated a number of studies on intellectual assets leading to the formulation of the “Reference Guideline for Intellectual Property Information Disclosure” in 2004. The project involved all stakeholders and worked out the elements of proper intellectual property information disclosure. Many companies joined the project and worked out their own IP information disclosure to find

13. Available at http://www.videnskabsministeriet.dk/cgi-bin/doc-show.cgi?doc_id=138091&leftmenu=PUBLIKATIONER

14. Available at http://www.videnskabsministeriet.dk/fsk/publ/2003/analyse_uk/analyse_uk.pdf

15. Available at <http://www.meti.go.jp/english/information/downloadfiles/cIPP0403e.pdf>

out how the market and the companies will respond. An example of the typical elements of an Intellectual Property Information Disclosure is: *i)* Core Technologies and Business Models; *ii)* R&D Segment and Business Strategy Orientation; *iii)* R&D Segment and Intellectual Property Overview; *iv)* Analysis of Marketability and Market Advantages of Technologies; *v)* Organisation of R&D and Intellectual Property, R&D Alliances; *vi)* Intellectual Property Acquisition and Management, Trade Secret Management, Policies on Technology Drain Prevention; *vii)* Significance of the Licensing Activities to the Company's Business; *viii)* Significance of the Patent Portfolio to the Company's Business; *ix)* Policies on Intellectual Property Portfolio, *x)* Information on Risk Management.

58. Mr. Sumita also described the challenges related to future deliberation. The first challenge is the uniqueness of the disclosed information vs. the aim of comparability of IP reports. Each company has its own philosophy/logic in value creation. To measure this it is best to have some special indicators. But this uniqueness leads to the difficulty in comparing companies for analysts, investors or stakeholders. The only way to overcome this problem is to use not only one single index, but a set of indicators and to give up the dream that comparability can be realised to the extent that anyone can easily compare companies through their disclosed information.

59. The second challenge is that confidential information about the origin of corporate value is needed to properly account on IP in an information disclosure (*e.g.* trade secrets). To solve this problem it is important, that the IP reports are written from a stakeholder's point of view and that they explain the value model and strategy of a company as well as the reason why some information is not included.

60. The vision behind the project is that if more companies report about their IP, a certain number of standardised and individual indices will be used which give insight into cause and effect relationships between indices and corporate value. Furthermore the second element provided by such a report, the corporate philosophy/strategy and qualitative explanation of causal relationships between the philosophy and the disclosed index, makes it possible to understand successful strategies.

61. Another important question is how stakeholders analyse information about intellectual properties. Mr. Sumita presented four possible ways: *i)* Is the corporate philosophy sympathetic for them? *ii)* Is the disclosed information satisfactory to explain the performance of the company? *iii)* Can they expect some positive future performance based on the disclosed index? *iv)* How do they assess the performance of the company when comparing the strategies and index of competing companies?

62. Mr. Sumita finally described the roles of policy makers which he divided into basic roles and specific roles. The basic roles are to link between stakeholders who need more information on intangibles and to analyse intangibles as an alternative to financial information. The specific roles are to find logical paths between corporate value and high informative indices commonly used to explain corporate value; to develop the disclosure method, encourage their use and finally to institutionalise the method when people become accustomed to this kind of information.

63. The discussant **Jacques Serris** from the French Ministry of Research and New Technologies and Chair of the OECD Committee for Scientific and Technological Policy, emphasised that more and more organisations are beginning to disclose information about their intellectual assets. However, he noted, it is important to be cautious about the potential for the future success and economic return of those assets. He pointed out that there are at least two ways to look at intellectual assets: *i)* the past situation and development of the company; and *ii)* information about risks for the future.

64. Mr. Serris indicated that France is currently working on a rating system which may resolve some of the problems in this field, especially for small and medium-sized companies which are not in the spotlight. For such companies it is difficult to explain their value without having an independent system

which attests their value to the stakeholders. Such a system could alleviate some of the problems such firms have in evaluating their own intellectual assets and provide valuable, credible information to investors.

65. Mr. Serris further noted that public institutions should play an important role in the management of intellectual assets. Businesses should not be left on their own, because it is also in the public interest to assure the dissemination of and access to new technologies. Therefore any IP difficulty should be the concern of the community as a whole. He also indicated the advantages of using innovative solutions such as intellectual property pools to reduce the complexity within the current patent and license situation. It is for example quite difficult for a company to negotiate all intellectual property rights necessary in the field of UMTS (Universal Mobile Telecommunications System).

66. The general discussion, **Andy Reinhardt** focused mainly on three issues: *i*) What is the impact of an enhanced intellectual assets management on economies as a whole? *ii*) How can one address the main criticisms regarding intellectual assets? *iii*) What are the current trends in this field, and what role should the OECD play within the further development?

67. The question of how intellectual assets influence whole economies was seen as being of particular importance for OECD economies that are in transition from manufacturing to service-based economies that are increasingly reliant on intellectual assets. Participants suggested that the rapid progress of some emerging economies, such as China, has heightened the importance of better understanding the role of intellectual assets in business and economic performance and the role of disclosure in improving resource allocation and stimulating financial markets.

68. Participants agreed that there are no serious arguments against further development of the disclosure practices for intellectual assets. It is important to provide information about intellectual assets and to understand the interdependency between economic development and intellectual assets (also in regard to job markets). As difficult conditions on capital markets and the volatility of stock prices show, there is a need for better information, even if there is not an active demand on the part of firm managers or financial analysts. Forum participants further agreed that lack of progress in advancing disclosure is not the result of a lack of good methods to evaluate intellectual assets; on the contrary they contended that there are a number of acceptable methods. The difficulty is achieve general agreement on a common approach.

69. Participants welcomed the many developments with intellectual asset disclosure guidelines but also agreed that there is the need to define an action plan on this important issue, which may also include guidelines on intellectual assets. A consortium comprising international organisations, academic, public and private stakeholders could be a next step to establish a common approach to the disclosure of information about intellectual assets. It was mentioned that the US authorities and official bodies such as SEC and FASB are currently more interested in the reporting on intellectual assets and should be included in such efforts. Participants recommended that the OECD play an important role in initiating the next steps.

Closing session

70. **Kay Alwert** from Division Corporate Management at the Fraunhofer Institute for Production Systems and Design Technology (Germany) provided a short summary of the main points of the day's discussions. He emphasised the future importance of intellectual assets in a global knowledge society and pointed out that in a more and more knowledge-intensive world of increasing competition and rapid changes, the ability to make the best possible use of intellectual assets to enhance business performance is crucial for all kinds of organisations. Mr. Alwert further reported on the "Wissensbilanz"¹⁶ project recently

16. See www.akwissensbilanz.org

presented by the German Ministry for Economics and Labour. Within an international consortium with experts in the field of intellectual capital management from Sweden, Austria, Denmark, the Netherlands and Germany, the project consortium prototyped 14 Intellectual Capital Statements in German small and medium-sized enterprises (SMEs). The chosen companies had been selected from different branches and regions in order to show the benefits of intellectual capital management and reporting and to demonstrate the possibility to implement it in an SME and German-specific context. The main result is the German guideline for Intellectual Capital Statements which enables organisations to build up their own IC Management and Reporting System. The guideline is available on the Web pages of the German Ministry for Economics and Labour.¹⁷ The next step will be a roll-out to reach a critical mass of organisations and to intensify the effort to harmonise IC Statements.

17. Available at <http://www.bmwi.de/Navigation/root, did=41128, render=renderPrint.html>

ANNEX
JOINT CIBE AND CSTP FORUM ON
BUSINESS PERFORMANCE AND INTELLECTUAL ASSETS
Wednesday 6 October 2004

AGENDA

9:30-9:45 OPENING SESSION

Welcome by OECD: **Nobuo Tanaka**, Director of DSTI

Opening remarks by Forum chair: **Andy Reinhardt**, *Business Week*

9:45-10:55 SESSION ONE: INTELLECTUAL ASSETS AND ECONOMIC
PERFORMANCE

What are intellectual assets and what does the evidence indicate about their contribution to performance at the firm, industry and country level?

- **Stefano Zambon**, University of Ferrara, Italy
- **Jonathan Low**, Predictiv, LLC, United States

Discussant: **Jürgen Rosted**, Ministry of Economic and Business Affairs, Denmark; and Chair, OECD Committee on Industry and Business Environment

General Discussion

10:55-11:20 Coffee break

11:20-12:30 SESSION TWO: MEASUREMENT AND MANAGEMENT OF INTELLECTUAL
ASSETS

What are the key challenges in measuring and reporting intellectual assets, what progress has been made in developing and implementing effective approaches?

- **Baruch Lev**, Stern School of Business, New York University
- **Alison Thomas**, PricewaterhouseCoopers, United Kingdom

Discussant: **Fred Gault**, Statistics Canada; and Chair, OECD Working Party of National Experts on Science and Technology Indicators

General Discussion

12:30-14:30 Lunch

14:30-16:00 **SESSION THREE: BUSINESS PERSPECTIVES ON VALUATION AND EXPLOITATION OF INTELLECTUAL ASSETS**
How do businesses value their intellectual assets, including their intellectual property? How is the management of intellectual assets changing to extract greater value?

- **Michael Fischer**, Siemens Schweiz AG, Switzerland
- **David Kaefer**, Microsoft Corp., USA
- **Yasuhiro Takeda**, Bridgestone Corp., Japan

Discussant: **Theo Roelandt**, Ministry of Economic Affairs, The Netherlands and Chair, OECD Working Party on Innovation and Technology Policy

General Discussion

16:00-16:20 *Coffee Break*

16:20-17:50 **SESSION FOUR: POLICIES TO ENHANCE EXPLOITATION OF INTELLECTUAL ASSETS**
What steps can governments take to enhance firms' performance through creation and exploitation of intellectual assets? How effective have initial efforts been?

- **Birgit Kjølby**, Ministry of Science and Technology and Innovation, Denmark
- **Takayuki Sumita**, Ministry of Economy, Trade and Industry, Japan

Discussant: **Jacques Serris**, Ministry of Research and New Technologies, France; and Chair, OECD Committee for Scientific and Technological Policy

General discussion

17:50-18:00 **CLOSING SESSION**

- *Rapporteur's summary:* **Kay Alwert**, Fraunhofer IPK, Germany
- *Adjournment:* **Andy Reinhardt**, *Business Week*

OECD FORUM ON BUSINESS PERFORMANCE AND INTELLECTUAL ASSETS

6 OCTOBER 2004

BIOGRAPHICAL INFORMATION OF SPEAKERS

Kay Alwert (*Forum Rapporteur*) is a Senior Researcher at the Competence Center Knowledge Management at the Fraunhofer Institute for Production Systems and Design Technology (IPK) in Berlin, Germany. He has a degree in Civil Engineering from the Technical University of Karlsruhe (1997). Since then he worked as project manager and since 2000 additionally as a consultant and researcher in corporate management. In 2001 Kay Alwert joined the Corporate Management division at Fraunhofer IPK as a Senior Researcher. He is responsible for the research area of intellectual capital management, valuation and reporting. During the last few years he has implemented Intellectual Capital and knowledge management solutions in divers public and private organisations. He was a co-founder of the German “Intellectual Capital Statement Project Group” (AK-WB) and within an international consortium jointly responsible for the guideline “Intellectual Capital Statement – Made in Germany”.

Michael Fischer is Head of Siemens IP activities at Siemens Schweiz AG in Zurich, Switzerland, a position he has held since Spring 2000. Besides dealing with Siemens Schweiz AG’s businesses (telecommunication, transportation systems, medical systems, logistics) his group has broad co-operation with the complete Siemens IP family and contributes to Siemens IP goals. His career started in 1992 with Siemens AG in Erlangen where he became a patent professional dealing with the power generation business. In mid-1995 he changed over to the Electrolux-Group (AEG, Electrolux, Zanussi, Husquarna, etc.) and dealt with all IPR matters related to household and outdoor appliances. Dr. Fischer studied physics at the University of Münster and was awarded a doctoral degree in electro-technical engineering at the technical university of Aachen. He has passed the European and German patent attorney examinations and is registered with the EPO, the German Patent Office and the OHIM in Alicante. In Switzerland, he is a member of the board of the Swiss group of AIPPI and the Swissmem (Swiss electro-technical and machinery industry association) board for intellectual property.

David Kaefer is Director of Business Development for Microsoft Intellectual Property & Licensing. Mr. Kaefer is responsible for the development and marketing of out-bound intellectual property licensing programs for Microsoft. In his six years at the company, Mr. Kaefer has frequently played a central role in rethinking key assumptions about how the company makes its intellectual property assets available through licensing for Microsoft partners, customers and competitors. In 2003, Mr. Kaefer led a company-wide effort to craft an intellectual property licensing policy that articulates Microsoft’s commitment to opening its intellectual property portfolio for licensing on commercially reasonable terms. His other notable accomplishments include launching the Microsoft Shared Source initiative, a set of programs that makes source code for popular products available to third parties, and the launch of Microsoft’s Office XML Schema licensing program, which provides companies with the opportunity to build applications that interoperate in rich, new ways with documents created in Microsoft Office. Mr. Kaefer has a background in business development, corporate communications and government affairs. He is a graduate of the University of Virginia, earning a bachelor of arts degrees in economics and international affairs.

Birgit Kjølby is Head of the Analysis and Policy Development Division at the Danish Ministry of Science, Technology and Innovation. She has more than 20 years' experience at the Ministry of Business and Industry, Ministry of Business Policy Coordination, Ministry of Industry and Ministry of Labour. Throughout her career, Mrs. Kjølby has specialised in innovation and industrial policy. She has been involved in a number of large development programmes in industrial policy, entrepreneurship, technology transfer and related fields. She has considerable experience in comparative studies, identifying positions of strength within Danish industries, and in conjunction with Danish industries has developed policies to strengthen the framework for Danish clusters. Mrs. Kjølby has lectured widely and published a number of articles in her field. She holds a master's degree in political economics from the University of Copenhagen and an MBA in executive business administration from the Scandinavian International Management Institute.

Baruch Lev is the Philip Bardes Professor of Accounting and Finance at New York University's Stern School of Business and director of the Vincent C. Ross Institute for Accounting Research and the Project for Research on Intangibles. He earned his MBA and PhD degrees from the University of Chicago and served on the faculties of the University of Chicago, University of California-Berkeley (jointly at the business and law schools) and Tel Aviv University (where he was dean of the business school). He is a permanent visitor at the *Ecole Nationale des Ponts and Chaussées* (Paris) and City University Business School (London). Professor Lev's research spans three books and about 75 research studies published in the leading accounting, finance and economic journals. This research concerns the optimal use of information in investment decisions; business valuation issues; corporate governance; and intangible investments (intellectual capital), in particular, the measurement, valuation and reporting issues concerning intangible investments. In recognition of this research, Professor Lev has been awarded numerous prizes and an honorary doctorate. Professor Lev's professional experience includes public accounting (auditing), investment banking, board membership, and numerous consulting engagements in the areas of corporate valuation, intellectual property, utility regulation, securities disputes and corporate governance issues. He lectures internationally and conducts executive seminars on finance, accounting and intellectual capital issues, working closely with such institutions as the Securities and Exchange Commission, the Financial Accounting Standards Board, OECD, the European Union, and the Brookings Institution. He was elected by *Accounting Today* (27 September 1999) to the Top 100 Most Influential People in the profession – those who “are changing the way in which the profession does business,” and re-elected on 8 October 2000 to the year 2000 list of the 100 “most influential people.”

Jonathan Low is a Partner in Predictiv, LLC, a consulting firm specialising in the valuation of intangibles such as intellectual capital, brand, reputation, leadership and alliances. He has directed four major research reports on the role of intangibles in the global economy (*Measures that Matter, Success Factors in the IPO Transformation Process, Decisions that Matter, The Value Creation Index*). He is the co-author of *Invisible Advantage*, a book published by Perseus Press in 2002. His work has appeared in *The Wall Street Journal, The New York Times, Forbes, Business Week* and other publications. He has presented his findings to the US Securities and Exchange Commission, the OECD and the Federal Reserve Bank of New York. He has worked with corporate clients of all sizes in North America and Europe. Jon served as Deputy Assistant Secretary for Work and Technology Policy at the US Department of Labor from 1993-1996. In that position, he served on the SEC's Steering Committee on the Future of Accounting and Financial Reporting and represented the United States at the inaugural OECD Conference on Corporate Governance. Subsequently, Jon served as Co-Chair for Strategic and Organizational Issues of The Brookings Institution's Task Force on Understanding Intangible Sources of Value, and Advisor to the European Commission-sponsored research consortium E*Know-Net. He is a graduate of Dartmouth College and Yale University's School of Management.

Andy Reinhardt (*Forum Chair*) is a Senior Correspondent in the Paris office of *BusinessWeek* magazine, where he covers European technology. He joined the magazine in 1996, working in its San Francisco office, where he wrote cover stories on Intel, Cisco, Boeing, and the inner workings of Silicon Valley, as well as news and feature articles about AMD, 3Com, National Semiconductor, Novell, and many other subjects. He relocated to Paris in early 2001, and has since focused on telecom, wireless, and the Internet in Europe. His most recent cover story concerned the growing challenges faced by the world's fixed-line phone companies. Reinhardt has also written on mobile phones in Africa, nearshoring in Eastern Europe, software patents, the EU's antitrust case against Microsoft, and the arrival of 3G mobile services. His corporate coverage includes Alcatel, Ericsson, France Telecom, Nokia, Philips Electronics, SAP, and STMicroelectronics.

Takayuki Sumita is Director of the Office for Intellectual Property Policy, Ministry of Economy, Trade and Industry (METI). He graduated from Tokyo University with a BA degree in law in 1985, and received a Master of Science degree in foreign service from Georgetown University in 1993. Mr. Sumita joined MITI (former METI) in 1985, took part in the amendment of the patent law in the Japan Patent Office from 1985-1987, and engaged in drafting the TRIPs Agreement on computer software and mask work from 1989-1991. After working in the Environment Agency, Industrial Policy Bureau and Energy Agency, Mr. Sumita served as director for Economic Partnership and FTA from 2001 to 2004. He moved to his current position to advance policies related to intellectual property and intellectual assets, including those to create a mechanism to measure and evaluate corporate value based on intellectual assets, those to improve protection of IPRs, and those to tackle infringement of IPRs.

Yasuhiro Takeda is General Manager of the Intellectual Property Department of Bridgestone Corporation. He studied Nuclear Physics at Hiroshima University and joined Bridgestone Corporation in 1975, where he was assigned to the Intellectual Property Department. He was initially engaged with IP matters related to diversified products and new technology. Between 1986 and 1988, he attended training courses in British and German Patent law firms. Afterward he was engaged with IP matters related to the tyre business, which underwent significant globalisation as a result of the acquisition of Firestone Company (United States). During the course of his professional career, he has been engaged in each and every aspect of Bridgestone's business, including prosecution, licensing, and litigation, both in Japan and abroad.

Alison Thomas joined PricewaterhouseCooper's ValueReporting team in September 2000 as Director of Global Research. In this role she aims to further the profession's understanding of the relationship between corporate reporting and economic returns. She brings to PricewaterhouseCoopers a depth of expertise in corporate reporting that spans the practical (as the former director of Global Research at Baring Asset Management) to the theoretical (as a management fellow at St Catherine's College, Oxford). She has published numerous academic articles, contributes regularly to business journals and is a contributor to the recently published *Questions of Value* (Ed Andrew Black, Prentice Hall) and the *Global Corporate Governance Guide* (Globe White Page Ltd). She has also acted as an advisor to a number of international working parties, including the EU's Prism project on intangible assets, the UK's Operating and Financial Review Working Party, the Extended Business Reporting Working Group of the AICPA, Tomorrow's Company's Research Committee and Manchester Business School's Advisory Council.

Stefano Zambon is a Professor of Accounting and Business Economics at the Faculty of Economics of the University of Ferrara, Italy. He received his BSc from the University of Venice and his MSc and PhD from the London School of Economics. He held visiting positions at Warwick Business School and London Business School; ESCP, HEC, and CNAM in Paris; and the Universities of Reading, Melbourne, Sydney, New South Wales, Boston, and Metz. He has been a member of the Executive Committee of the European Accounting Association (1998-2003) and is currently a member of the editorial boards of the *European Accounting Review*, *Comptabilité-Contrôle-Audit*, and the *International Journal of Accounting* (associate editor). He has published several books and articles in international journals in the field of international and comparative accounting, accounting history, management and reporting of intangibles, social and sustainability accounting. He was co-editor (with Baruch Lev) of the special issue of the *European Accounting Review* on intangibles and intellectual capital (vol. 12/4, December 2003). In 2000 he was appointed a member of the High Level Expert Group on the Intangible Economy of the European Commission (DG Enterprise). He served as co-ordinator of the official study for DG Enterprise on “The measurement of intangible assets and associated reporting practices” (April 2003), which included as institutional partners the Stern School of Business at New York University, the University of Melbourne, and the University of Ferrara (lead partner).
