

# Working together: open innovation and IP management

Open innovation is nothing new – ‘teaming’ between different companies and universities for specific projects has been common practice for years. However, such arrangements can work only if IP ownership and licensing rights are carefully managed

By **Bill Elkington**

Back in the early 1980s I worked at a sleepy little GE laboratory in upstate New York called the Electronics Laboratory or E-Lab. It was located on a GE campus called Electronics Park. For a few short decades – the 1950s, 1960s and 1970s – Electronics Park was a focal point of electronics technology development within GE. Of course, this was before the era of Jack Welch, or ‘Neutron Jack’, and GE’s retreat from the wonderful world of electronics and advanced electronics technology.

At that time, the E-Lab was about 50% commercial and 50% defence. In pursuit of our defence interests, we routinely teamed with various other companies and universities to win technology development contracts with agencies such as the Defence Advanced Research Projects Agency, Naval Research Laboratory, Rome Air Development Centre and Night Vision Laboratory. These teaming arrangements – which included proposal work, contracted technology development and demonstration work – were my first exposure to real live open innovation projects.

In the early 1980s the E-Lab was the centre in GE for advanced infrared focal plane array development, very large-

scale integration design, and monolithic microwave and millimetre-wave integrated circuit technology. However, we did not know everything and did not have all the technology we needed at our fingertips. We had to collaborate with other organisations to bring the full gestalt of necessary technology to GE products and to win military electronics technology development contracts.

So we teamed, which today is called ‘open innovation’, ‘collaborative development’ or ‘joint development’. We still team across the defence industry and still call it that here at Rockwell Collins.

At the E-Lab, we teamed with entities such as Cornell University, Varian Associates, AvanteK, M/A-Com and Hughes Aircraft Company, to name a few. Of course, some of these have disappeared or been acquired over the years.

Teaming taught us how to combine efforts into interlocking statements of work and innovative financial and business arrangements. We learned to speak about background and foreground IP with facility and how to invent and develop together, betting that we would be able to go to market with the whole product, each of us bringing forth our technologically enhanced piece.

We would cooperate to win precious technology development funding even though some of us might end up competing later on. Team members would cooperate with one another while planning to sell products and services to one another at a later date.

This is the way it is still done today. All of us cooperate in the development phase and then some of us supply to one another when the products are ready.

This is one way of thinking about and doing open innovation. There are many

*IAM is the official strategic media partner of LES (USA & Canada). As part of this wide-ranging cooperation agreement, both parties work together to provide thought leadership relating to the strategic creation of value from intellectual property. With this in mind, every issue of IAM will feature an exclusive article written by an LES member or members that focuses on an IP value creation issue. The content and authorship of the article is always agreed in advance with the IAM editorial team and is subject to the same editing process as all other articles published in the magazine. The work and the opinions of the author(s) are personal to the author(s) and do not represent those of LES or their respective employers.*

## Introducing the participants

Joining Bill Elkington in this issue's roundtable discussion are:

- **Bob Held** – vice president of intellectual asset management at TeleCommunication Systems Inc (TCS). In this role, he is responsible for the strategic management and monetisation of TCS's IP portfolio. Held has overall business responsibility for all IP activities, including capture, management, monetisation, and profit and loss. Immediately before joining TCS, he worked for Northrop Grumman Corporation, Electronic Systems Sector from 2003 to 2011 as director of the IP and strategic technology agreements business unit. Held received his BS in electrical engineering degree from Villanova University and his MBA from Drexel University's LeBow College of Business. He is a certified licensing professional and a member of the Licensing Executives Society (USA and Canada) Inc board of trustees.
- **Paul Bernal** – vice president, North America, for the Boeing Intellectual Property Licensing Company. He is responsible for licensing commercial and military data, trademarks and copyrights and trade secrets, along with patents and technologies for application in, but not limited to, aviation and space (commercial and

military), manufacturing, biotech, software and consumer products. Before his current position, Bernal held various positions in sales and marketing, after-market services, business development, innovation strategy and corporate venturing for Boeing. From 2002 to 2003 he worked as a principal in three start-ups, and from 2000 to 2002 he worked as a global account manager for Microsoft's worldwide operations division, where he managed both domestic and international client relationships in marketing, product groups, manufacturing and licensing for targeted lines of business. Bernal has a BS from Central Washington University, an MBA from Seattle University and an executive leadership certification from Massachusetts Institute of Technology's Sloan School of Management.

- **Tom Major** – vice president of IPOfferings LLC, an IP brokerage and consulting firm. He has been in the IP business for 25 years, including working at the University of Utah, AlliedSignal, Honeywell, IPValue and numerous start-up firms. Major holds a BS in chemistry, an MS in chemical engineering and an MBA. He is active in the LES and is a certified licensing professional.

other models. However, IP management plays a critical role in all of them. IP ownership and licensing rights are at the heart of making all kinds of cooperative arrangements work. Looking forward to a mature state – a state in which products and services are sold and profits are generated – is critical when it comes to making difficult decisions about ownership and licensing rights in the development phase.

A friend of mine at another company points out that parties in collaborations need to be willing to give up something – typically something potentially quite valuable – in order to make the collaboration work. The only way most of us have of doing this is to imagine a future in which we all benefit reasonably from the development work that we have done together.

For this issue's roundtable, I have selected three IP management leaders who are familiar with the key issues surrounding open innovation and especially technology collaboration. They have several interesting

things to say on the topic. Of course, what I and they have to say expresses our own personal views and not necessarily the views of our employers, our employers' customers or clients.

Bob Held works for TeleCommunication Systems, Inc (TCS) as vice president of intellectual asset management; Paul Bernal is vice president, North America, for the Boeing Intellectual Property Licensing Company; and Tom Major is vice president of IPOfferings LLC.

### What does 'open innovation' mean to you?

**Bob Held (BH):** Open innovation means the willingness to look outside one's company for the technology solutions required to meet the needs of next-generation product development.

**Paul Bernal (PB):** Exactly – as Bob has stated, it is the willingness of an internal organisation to look beyond its defined walls and to be open to ideas and concepts that can come from other organisations within the company, as well as to explore ideas and concepts that come from external sources. When an organisation is open to exploring external innovative concepts through partnering, joint ventures and collaborations, it opens a window to considering concepts from a global R&D perspective that it would not, under normal business considerations, have known existed or were available.

**Tom Major (TM):** It is the willingness to find, accept and use technology from any source. The sources can be internal development and/or licensing or acquisition from external sources. External sources can be other companies – big or small – individuals or universities. The key is the company's attitude about the source of the technology. If a company has a strong 'not invented here' (NIH) culture, then it will not adopt an open innovation strategy. Unfortunately, NIH is alive and well in industry. In fact, I recall when I was at AlliedSignal and we were discussing a competitor, the CEO said: "We should be able to beat them in the marketplace – they had to license their technology." This attitude indicated that adopting technology through open innovation was somehow second best to developing it internally.

An open innovation culture means that one is agnostic to the source of technology. As long as the technology solves a problem, a company should be indifferent to where it was developed.

**What are the benefits of open innovation?**

**BH:** There are numerous benefits. They include the ability to tap into a wealth of collective worldwide knowledge to solve problems and engineer solutions that will allow your company to grow and prosper.

**PB:** Through collaboration, open innovation allows a company to study and analyse progress in technical arenas in which it might not otherwise invest. This approach allows companies to explore a vast array of ideas with minimal investment in order to determine whether there is a technology being developed that will benefit the organisation – ideas to which it may not otherwise have access.

**TM:** A solution to a technology problem may be readily available. Instead of spending the time and investment required to develop the solution internally, it can be licensed or acquired from the outside. Sometimes this can be achieved at a lower cost than developing internally. Even without a cost saving, there is definitely a saving in the time required to use the technology, which can be very significant if time to market is important for the product being developed.

**What policies and processes should be developed to encourage and manage open innovation?**

**BH:** First and foremost, a policy for the appropriate handling of any external intellectual property offered to your company needs to be put in place. Any incoming IP offer – solicited or unsolicited – should first pass through a legal review process to protect your company from potential future claims of misappropriation of third-party intellectual property. Second, a process for firewalling the technology should be put in place. Third, a management process should be introduced for the timely and correct handling of the review of the intellectual property. Fourth, a process should be established to assure a timely response to the person or company making the offer. Finally, a reward system should be evaluated to encourage both internal and external submissions.

**PB:** An organisation must first determine what technologies it is willing to share externally and whether it will protect the intellectual property or allow it to be used without restrictions.

**TM:** The process must start with top-down agreement that a technological solution can come from any source. Once this is in place, policies and processes can then be implemented that foster the idea of open innovation. While formal policies may not be required, it is critical to have a department that is tasked with identifying technology solutions both internally and externally. This department needs to be tied to the organisation, with dotted-line responsibilities to patent and licensing attorneys in the legal department. This relationship with legal provides the skills that will be needed to procure technology from the outside through licensing or acquisition. Being a part of the chief technology officer's (CTO) area of responsibility allows for the make versus buy decision to be made at the organisation's highest level.

**Should collaborative development be an integral part of an effective open innovation strategy? If so, what are the key IP management issues in collaborative development?**

**BH:** Yes. Key issues include a clear understanding of the roles of the collaborators with respect to ownership of background, foreground and jointly developed intellectual property. Also, there should be agreement on the monetary and non-monetary (eg, equipment, buildings) contributions of the parties, agreement on the rights of both parties with respect to use of the jointly developed intellectual property moving forward and a clear understanding of which party pays for patent protection.

**PB:** I agree. There should be a clear understanding of the value of the background intellectual property that each of the parties brings to the table and how foreground intellectual property will be shared.

**TM:** Collaborative development must be a part of an effective open innovation strategy. Technology that comes from outside an organisation is most often not fully developed. A collaborative relationship with the technology provider, such as consulting or a joint venture, is the most effective method of allowing technology to be transferred from creator to user. The key IP issues in collaborative development are ownership, the coverage of patent costs if filed and usage rights.

**How do you recommend that organisations deal with the issue**



**Paul Bernal, vice president, North America, Boeing Intellectual Property Licensing Company**

“When an organisation is open to exploring external innovative concepts through partnering, joint ventures and collaborations, it opens a window to considering concepts from a global R&D perspective”



**Bob Held, vice president of intellectual asset management, TeleCommunication Systems Inc**

“The IP organisation is the management wrapper around the open innovation programme – it corrals the technical folks, the legal groups and the IP systems that make an effective open innovation programme work”

**of contamination when sharing proprietary information back and forth, when in pursuit of open innovation objectives?**

**BH:** As I mentioned earlier, a system must be put into place to firewall the third-party intellectual property so that it does not get mixed with the company’s intellectual property prior to any solidified engagement or arrangement. Some companies use third-party software and separate servers to house third-party intellectual property that is being evaluated.

**TM:** Using isolated teams to work on the sharing of information initially allows for invention creation and ownership issues to be addressed before the information is spread throughout the organisation. The isolated team members can be trained in the correct use of information in order to prevent contamination.

**How do you recommend that organisations handle ownership rights and the possible threat of joint ownership in collaborative developments?**

**BH:** I recommend discussing it at the very beginning of the engagement. If you do not get it on the table at the beginning, it will haunt you through the agreement process and afterwards.

**PB:** Only go into an open innovation relationship with intellectual property that you are willing to release out into the collaborative environment.

**TM:** I do not think you should be afraid of joint ownership, because that is the most common result of negotiations in a collaborative relationship or joint venture. You can try to negotiate something different, but most times you will end up with joint ownership. Once you have joint ownership, you need to negotiate effective usage rights. If a home run is expected from the collaborative efforts, the party with the most resources to exploit the home run should have first option to take all of the rights and possibly pay a small royalty to the other party. Most joint ownership creations are not home runs, but rather add to both companies’ patent rights in a way that is complementary and not adversarial.

**What metrics do you believe could encourage open innovation?**

**BH:** Look at the success of the ‘Connect and Develop’ programme at Procter & Gamble. A few years ago, it reported that more than 50% of all new products came from technologies sourced from its open innovation programme.

**PB:** How many products/services have been enabled through open innovation, how many jobs have been created and what has the impact on the global economy been?

**TM:** Successful projects based on internal or external development should be recognised in the same way. Recognition awards, publicity and bonuses should be used to encourage any type of success in an organisation.

**Organisationally, how is ownership for open innovation typically allocated?**

**BH:** Under the chief technology officer’s (CTO) office in collaboration with the IP office, whereby the CTO and his or her delegates are charged with creating and fostering new technologies to be used in products. The IP office needs to manage the process.

**TM:** Yes, the CTO’s organisation.

**What is the role of the IP management organisation in encouraging and implementing open innovation policy and process?**

**BH:** The role of the IP management organisation is critical for the programme’s success – without it, you will have the wild, wild west and things will get out of control. The IP organisation is the management wrapper around the open innovation programme – it corrals the technical folks, the legal groups and the IP systems that make an effective open innovation programme work. The IP organisation should contain all of the necessary skills to manage the programme – contacts in the industry, negotiation skills, agreement management skills, internal awareness of the affected parties and the processes needed to implement the programme.

**PB:** As I see it, IP organisations have the consultative role of advising their business units and R&D organisations of the benefits and potential risks of participating in open innovation. Ultimately, the decision should rest with the organisation that needs the external push to develop

**What challenges do enterprises face in achieving high levels of open innovation? Are any of these challenges specific to IP management?**

**Bob Held:** The biggest challenge is the ‘not invented here’ syndrome, followed by legal department concerns and pushback with respect to bringing in third-party intellectual property and managing it appropriately.

**Paul Bernal:** Companies are challenged by their concerns about enabling a business opportunity for a competitor through the use of their intellectual property, especially where they have otherwise failed to see the potential for value creation. The other challenge is over ownership rights in the intellectual property that is developed through open innovation and who shares in

the profits.

Collaborative, open innovation models work well when an entity knows what it is good at and what its niche is in the innovation ecosystem. This requires an honest, comprehensive benchmarking of capabilities, strengths and weaknesses.

**Tom Major:** I think the biggest challenge is having the resources to look outside the company for technology. It takes manpower and money to successfully identify external technologies. The challenge of IP management can be handled with appropriately negotiated agreements.

its technology, or that is willing to let its intellectual property go for the betterment of innovation and where it can be of greatest benefit.

**What are the key IP issues that organisations looking to implement effective open innovation programmes should focus on?**

**BH:** Key issues include:

- Firewalling the third-party intellectual property.
- Having a clear understanding of ownership of background, foreground and jointly developed intellectual property.
- Having a clear understanding of who pays for patent protection and who has what specific rights to use and monetise the resulting intellectual property.
- Developing agreements that solidify the above so that in a few years – when the author of the agreement is no longer with the organisation – someone else can pick up the agreement, clearly understand what it says and ‘live with your deal’.

**PB:** Are you ready and willing to release the intellectual property to see what wings and legs it may grow and how it may morph in creating value for the global economy at large? Is the organisation willing to accept the position that it needs help from external sources and that open innovation may be the best answer?

**Self-inflicted problems**

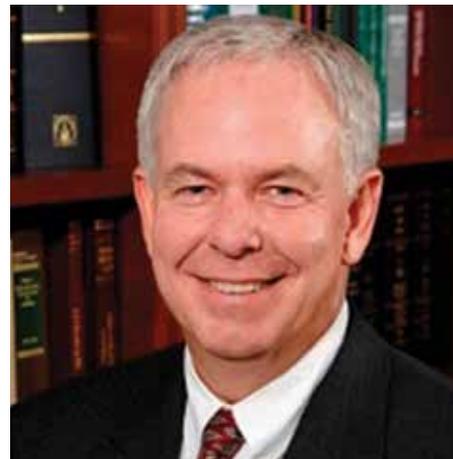
What made collaborations easier back in the days of E-Lab was that we were not working with the idea that we should make

money from our intellectual property. Certainly, that was a long-term objective, but the thinking back then was that we would make money only once we sold the resulting products and services. We had no concept of doing separate licensing transactions to make money from a collaboration partner’s sales.

The result was that we negotiated IP agreements to accommodate one another’s strategic business interests. The IP attorney’s voice was small then. There was no IP management group with a separate mandate for generating revenue. There were no conflicting financial objectives or charter issues to complicate the negotiation of collaboration agreements.

Those were the days.

When I consult my own experience and those of colleagues in other companies, I find that these days the desire on the part of one or more of the parties to use market power to impose IP terms that are not aligned with the parties’ strategic business interests can complicate the negotiation of



**Tom Major, vice president, IPOfferings LLC**

“The key IP issues in collaborative development are ownership, the coverage of patent costs if filed and usage rights”

**Action plan**



When working in the field of open innovation and specifically in the field of collaborations, IP management people might want to consider the following:

- The interest of a collaboration partner in actually collaborating is inversely proportional to the extent to which it is coerced into agreeing to an IP grab.
- Instructions to the engineers on the losing side following particularly one-sided negotiations will often be inconsistent with the IP interests of the

coercive party, potentially resulting in the losing party’s best intellectual property being left on the shelf.

- Win or lose is a paradigm that may work in the courtroom, but it may not be suitable for collaborative developments.
- The strategic product and service interests of the parties typically need to be well served in order to achieve optimal collaboration outcomes.
- In optimal collaborations, fairness will be the guiding principle of all parties.

**About the Licensing Executives Society (USA and Canada), Inc**

*Established in 1965, the Licensing Executives Society (USA and Canada), Inc (LES) is a professional society comprised of over 4,500 members engaged in the transfer, use, development and marketing of technology and intellectual property. The LES (USA and Canada) Inc membership includes a wide range of professionals, including business executives, lawyers, licensing consultants, engineers, academicians, scientists and government officials. Many large corporations, professional firms and universities comprise the LES membership.*

*LES (USA & Canada), Inc is a member society of the Licensing Executives Society International, Inc (LESI), with a worldwide membership of more than 10,000 members in 32 national societies, representing over 90 countries. For more information on LES, see [www.lesusacanada.org](http://www.lesusacanada.org).*

collaboration agreements. By this, I mean that the respect that I remember people at companies, universities and government agencies having for one another's strategic business interests back in the 1980s seems to be less in evidence today.

I think this trend has been brought about by us – by IP management people. I believe we have done this because we have found ourselves in a situation of our own making: a situation in which we are expected to maximise potential transaction value for the enterprises we serve. However, the problem is that by doing so, we may be shooting ourselves and the enterprises we serve in the foot.

The result may be collaborations that fall short of expectations because of a lack of mutuality, a lack of trust or a lack of sufficient perceived strategic benefit on the part of all participants.

I cannot prove this and I certainly cannot point to any specific examples. However, it seems to me a logical outcome of a tendency to maximise negotiating advantage when it comes to IP rights. **iam**

**Bill Elkington** is senior director, intellectual property management, Rockwell Collins Inc, and vice president of membership and member engagement on the LES USA and Canada board of trustees

Trademarks Patents Licenses Renewals Litigations Copyright  
 CIS: Russia, Ukraine, Kazakhstan and others.

**ZUYKOV & PARTNERS**

TM word search (including applications) up to 3 classes  
 CIS (Russia, Ukraine, Kazakhstan) US\$ 690  
 CIS+CN (Russia, Ukraine, Kazakhstan, China) US\$ 940

RANKED IN CHAMBERS EUROPE 2013  
 Leading Firm

One of the best 15 IP firms in Russia ПРАВО 300

**The tougher the deal, the more we enjoy it.**

Zuykov & partners  
[www.zuykov.com](http://www.zuykov.com) [info@zuykov.com](mailto:info@zuykov.com)  
 +7 495 775 16 37, Moscow, Russia