

The GE IP agenda

As the nature of IP creation and exploitation has changed, so has the job of the in-house IP professional. These days, at a company such as GE they are focused on a range of issues, from IA management to public policy

By **Carl Horton**

Twenty years ago, a GE IP professional focused largely on obtaining quality patents that guaranteed freedom to operate for new product releases. A successful patent strategy opened a short window of market exclusivity among a small group of our competitive peers. The competition operated mostly in Europe, Japan and the United States, with products developed by research labs in the same centralised locations. Patents and trademarks accounted for a fairly small proportion of GE's total capitalisation and the same was true for most of our manufacturing and technology peers.

Now we operate in a less isolated environment. The markets that fuelled the growth of our enterprises in the past are outpaced by the growth of the developing world. As a result, our approach to product development has transformed to match new market realities. We built research centres around the world to capitalise on the potential of emerging markets. Global teams work uninterrupted to produce new offerings. Innovation happens faster, thanks to better development and collaboration tools – not to mention the wealth of new global talent.

New competitors surface on a regular basis, many home-grown within emerging markets. This new breed of competition is not constrained by existing product

architecture or infrastructure. Such design freedom disrupts existing markets and opens new ones. Technology now advances more quickly than ever before, often improving the quality of life around the world.

Today's enterprises actively seek out local partners to execute their vision and facilitate entry into emerging markets. The most effective arrangements encourage the free flow of technology and associated know-how between partners. However, many enterprises fear that such open knowledge transfer between "partners" will inevitably create new competitors. Deploying suitable IP assets can enable local partnering by protecting enterprise investments. It naturally follows that strong IP systems are a prerequisite to facilitating technology diffusion and global innovation.

The role and benefits expected from intellectual property

The role of intellectual property in the enterprise has evolved from a simple tool to buy time against the competition towards a critical asset that needs to be managed and continuously aligned with the objectives of an evolving business. While patents continue to facilitate the ability to sell one's products and services, the function of intellectual property has transcended simple freedom to operate and limited exclusivity. Companies develop and nurture intellectual property to gain access to technology through cross-licensing, to build joint ventures and to create stable relationships with suppliers and customers. Intellectual property also produces revenue, directly and indirectly, and helps to establish and protect brand value.

Today, GE maintains a portfolio of more than 40,000 patents and almost 60,000 trademarks around the world. These are critical business assets that were remarkably robust during the recent economic crisis. At

GE, we devote a lot of time and process rigour to ensuring that our IP portfolios are tuned to each business's objectives, and that key assets within those portfolios receive special care and attention appropriate to their ability to contribute to the success of the business. We also keep a close watch on legislative and policy developments that can either enhance or impair the value of these assets.

The role of public policy

Like enterprises, governments embrace industrial and economic growth policies that leverage the innovation and IP assets of inventors and market players. Examples of these are patent reform in the United States, accelerated examination of green technology applications at the European Patent Office and US Patent and Trademark Office, and World Intellectual Property Organisation initiatives aimed at using the Patent Cooperation Treaty as a platform for work sharing among major patent offices. These improvements to the innovation infrastructure streamline prosecution of the IP assets that support commercial innovation and address global challenges such as climate change and patent backlogs. They are important priorities that we as an IP community need to strongly support.

In some cases, however, government policies are opportunistic or simply misguided, undermining normal commercial practices to create enterprises and jobs by expropriating the R&D efforts and intellectual property of others. It is these initiatives in particular that we should all be concerned about, because they threaten the IP assets that represent billions of dollars of R&D investment and product development. Among these are attempts to include in a UN climate change treaty language limiting or completely eliminating patents for "green technologies", or requiring special compulsory licensing regimes beyond what the Agreement on Trade-Related Aspects of Intellectual Property Rights already provides.

Similarly, regimes that discriminate between the IP assets of local innovators and those of foreign or multinational enterprises violate basic rules of fair international commerce and destroy economic value. These efforts reflect a lack of understanding of the need for IP rules of general applicability as an essential catalyst for technology development, utilisation and dissemination. Or perhaps they simply seek to expropriate technology assets in a manner that will greatly impair the ability of companies to justify further R&D investment in green technology. Whatever the reason, these proposals, if adopted, will result in wealth destruction for any company that

has invested in developing green technology or commercialising technology outside its "home" market. They will also destabilise the IP system generally, to the detriment of users and the ultimate beneficiaries of the system – the customers.

The simple reality is that a regime which creates certainty and which rewards investment is one in which the private sector will have the confidence and incentive to continue to invest heavily in R&D and innovation – bringing to the market solutions which can ultimately enhance the quality of the lives of our customers economically, socially and environmentally. In the absence of this certainty the tap of investment will be turned off and the innovation cycle will suffer or the funds will be diverted to those countries where such certainty exists.

For decades, the majority of the IP profession, with the notable exception of the pharmaceutical/biotechnology sector, has resisted active participation in public policy debates over the value of intellectual property. I include myself in that category. My personal view is that we enjoyed a false sense of security based on our belief that the benefits of the IP system were so self-evident that we did not need defend or justify them. However, for many in the developing world, not to mention the anti-IP activists, those benefits seem too elusive or appear too one-sided. As such, they are challenging global IP norms and opening IP questions that we thought well settled.

Unquestionably, the benefits of the patent system flow first to those who are innovators. The very purpose of the system

The value of distributed innovation

In recent years there has been a movement from the hermetic research and development (R&D) labs of the late 20th century towards a distributed innovation model that leverages the power of the Internet, allowing R&D groups in China, India, Brazil, Europe and the United States to work together seamlessly, exchanging technical information rapidly and inexpensively. Resident R&D groups also collaborate with local academic and government research labs, focusing on customer needs unique to their regions. A key learning we have derived from this model is that "glocalisation" – the traditional approach to simplifying expensive technology developed for US and European markets for emerging market customers – has reached its limits. By contrast, our R&D labs in India and China now develop cost-effective solutions,

such as healthcare diagnostic products at price points attractive to both emerging and developed country customers. Clearly, in a distributed innovation model, technology flows in many directions to the benefit of both our developed and developing country customers, suppliers and R&D partners.

As we distribute innovation geographically to better serve our global customers, we collaborate with a wider community of academics and entrepreneurs, sharing technical information more broadly and entering into technology agreements that facilitate the commercialisation of each new technology. All of these activities are predicated on the ability to create and secure IP assets around the innovations that will generate new products and services for our businesses.

Action plan

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It is truly an exciting time to be an IP professional. Never has so much been demanded of individuals in our profession. To be true global IP leaders, we must master the complexity associated with a more distributed and more open innovation system. We must also evolve beyond our traditional role as an R&D support service to become intellectual asset managers and global business partners and leaders. To do this, we need to claim our rightful role as the stewards of company IP assets and the global IP system by:

- Aligning our IP strategy to support and enhance distributed R&D and commercial development efforts in emerging markets.
- Identifying new market players and analysing their IP positions, as well as those of traditional market competitors.
- Watching legislative and policy developments that can enhance or impair the IP system or the value of company IP assets.
- Shaping legislative and policy issues that impact on the integrity of the IP system or company IP estates.
- Insisting that changes to IP systems and related regulation be empirically based and always supportive of technological progress.

was to encourage innovation by creating reward incentives for inventors in a manner that benefits all of society. In exchange for full disclosure of such inventions, essentially sharing the knowledge with the world, the inventor is awarded limited exclusivity over only that portion of the innovation that is proven to be novel and sufficiently inventive (non-obvious) to justify the grant of a patent.

What is not disclosed in the patent process is the amount of investment, in both time and money, required by innovators to achieve breakthrough inventions. Also not discussed is the number of failed attempts and blind alleys encountered by innovators along the path towards a successful discovery. I agree with Thomas Edison's statement that genius is 1% inspiration and 99% perspiration (aka, hard work and investment in human capital). These investments of time and money must be included in any calculus that looks to justify the delicate "balance" associated with the patent system.

To me, what is so compelling about the patent system is the fact that it works! We could argue all day about whether we like the current balancing of rights performed by the patent system, but we cannot ignore the successful results it has achieved. It is not mere coincidence that innovation is most active in countries where IP systems have been well established for long periods. I am not suggesting that robust IP systems are the sole cause of elevated levels of innovation. However, I also believe that one cannot ignore the systematic positive correlation between strong IP rights and innovation.

I firmly believe that we are about to see an explosion of innovation coming from the developing world. This will occur not solely as a result of foreign direct investment or increased domestic spending, but also as a result of robust IP laws at work in a free market environment. The governments in these countries seem to be placing some stock in the IP systems as a driver of innovation as they educate their citizens about the workings of the patent system while also encouraging them to make use of the system. Some go so far as to provide government subsidies toward such ends. As IP professionals, we must support efforts in developing countries to create environments that support innovation, starting with strong IP rights protection and enforcement.

The enhanced headset of today's IP professionals

The increasing complexity of the world in which we do business – from R&D to the release of new products and services, each tailored to specific markets with different

customer needs – requires more from IP professionals than has ever been asked before. We need to think globally, while being mindful that customers' requirements are shaped by geographic and economic factors. Incorporating a global perspective with a clear understanding of local conditions is critical when developing and executing an IP strategy.

IP assets are critical to the success of our companies, so we need to follow and shape political and policy developments that could stabilise or destabilise commercial markets and enhance or impair the ability of the portfolios to realise their commercial potential. There is an established community of IP detractors who desire to systematically weaken the IP infrastructure that we have so long taken for granted. We need the courage to engage with these players and explain the value of the IP system and its many contributions to innovation and consumers in developed and developing countries. IP policy development in any country or any forum should be guided by those experts who know how the system works and how best to help it succeed.

To be effective in this capacity, we must first be cognisant of developments throughout the world that would implicate IP rights in any way. And when laws are being written or policies developed, we must insist that such laws and policies be developed based on a strong empirical basis. IP laws are too complex and the effects of IP policy too far reaching to be built upon unsupported speculation or in response to mere rhetoric.

We must claim our rightful role as the stewards of the IP system. In that capacity, we must provide the relevant facts and evidence about the proper functioning of the IP system, including all the attendant risks and benefits. We must also be both creative and constructive in the development of such laws and policies, so as to address the legitimate issues and concerns behind such laws while maintaining the integrity of the IP system. Finally, we must boldly defend the IP system by relentlessly engaging with policy makers to ensure that our voice is heard, our positions understood and our advice acted upon. Only then will we have satisfied the full measure of our obligation as 21st century IP professionals. *iam*

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