

# Inventive Activity in the Technology Industry

John Weresh

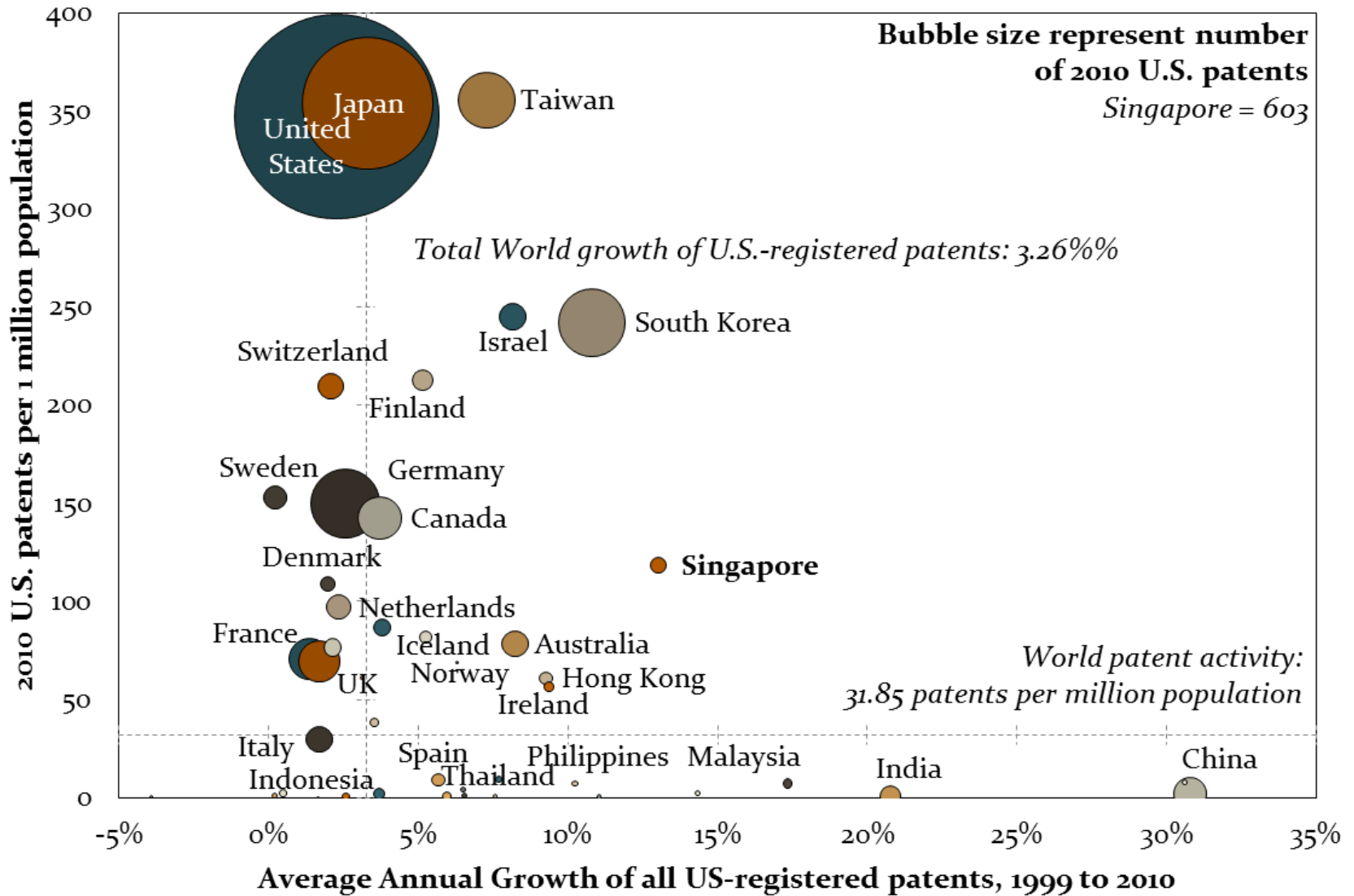
General Manager, Worldwide Patent Operations

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# “Brazil Takes Off”

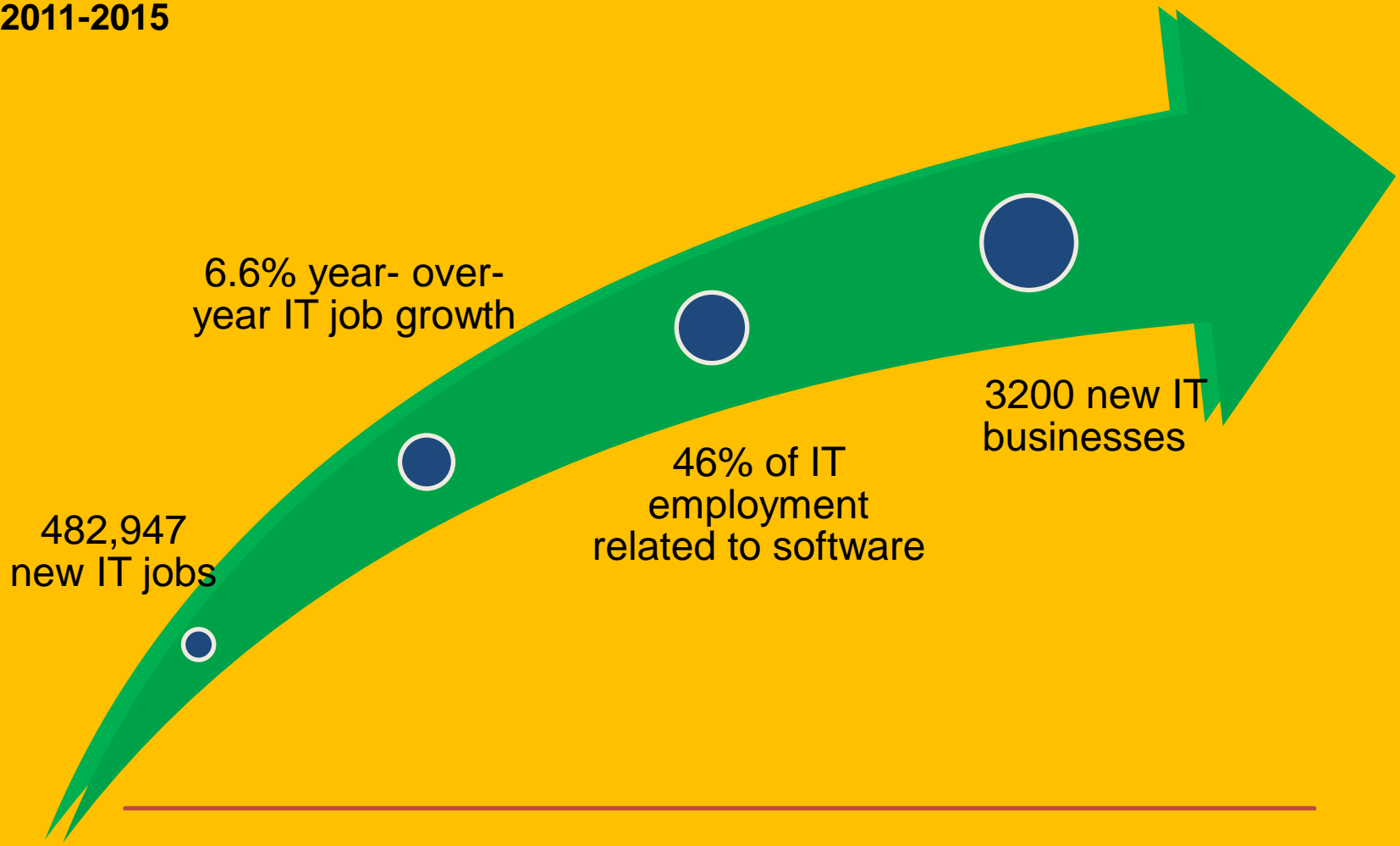


# Science Performance: Utility Patents in the US



# IP, Innovation, and Brazil's Economy

2011-2015



# Software Business Models

- “Direct monetization” model – investments in research and development monetized through sale or licensing
- “Indirect monetization” model – investments in software are monetized through sales of hardware and services, or through advertising



# The Comingled Code

**Open Source  
and Economic  
Development**

**JOSH LERNER AND MARK SCHANKERMAN**

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Use of proprietary and open source software, by country (percentage of respondents)

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Users operating with:

Only proprietary

Only open source

Both proprietary  
and open source

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*Aggregate*

**67.3**

**5.9**

**26.8**

*Country*

**Brazil**

51.0

12.9

36.1

Chile

73.5

1.9

24.6

China

79.2

6.9

13.9

France

66.0

8.8

25.2

Greece

72.3

0.0

27.7

India

62.7

2.5

34.8

**Israel**

**79.6**

**3.2**

**17.2**

**Kenya**

**47.7**

**12.3**

**40.0**

Mexico

65.4

8.3

26.3

Poland

67.5

6.4

27.1

**Russia**

**46.1**

**12.8**

**41.1**

**South Africa**

**80.0**

**1.9**

**18.1**

Singapore

87.7

1.9

10.4

Thailand

74.2

9.0

16.8

Turkey

56.1

0.0

43.9

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Preferred regulatory regime (users), by country(percent of firms giving top rank)

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	Open source	Proprietary	<b>Complete freedom to choose</b>
<b>Brazil</b>	24	15	<b>61</b>
Chile	4	24	<b>72</b>
China	21	26	<b>53</b>
France	16	14	<b>69</b>
Greece	4	27	<b>69</b>
India	19	51	<b>30</b>
Israel	23	31	<b>46</b>
Kenya	41	15	<b>43</b>
Mexico	19	32	<b>49</b>
Poland	12	38	<b>50</b>
Russia	13	16	<b>71</b>
South Africa	13	35	<b>52</b>
Singapore	13	39	<b>48</b>
Thailand	24	64	<b>13</b>
Turkey	22	38	<b>39</b>

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# Government Policy

- Dominant preference of users and developers is for regime of 'freedom to choose,' favoring neither PS nor OSS. Holds for all countries, and user/developer profiles
  - Given this, the strong presumption should be for a neutral policy toward how software is licensed, developed and procured, unless compelling externality arguments exist for supporting either PS or OSS
- Procurement role: government should play an adaptive strategy using TCO as criterion. Justification for a leadership role is very context specific, and should be limited in scope. Serious dangers of 'picking winners'
  - Key is to adopt policies to promote effective competition between PS and OSS.
    1. Competition policy to prevent network abuse
    2. Policies to preserve maximum open standards consistent with incentives for innovation in standards

# Currencies of Innovation

- Indirect Model (Open-Source Software)
  - OSS license provides clarity and trust
    - If you contribute, it shall be shared by all
- Direct Model (Proprietary Software):
  - Patents define legal protection of shared contributions
    - If you contribute, it is shared in accordance with the terms of a license or collaboration agreement
  - Typically, no one company holds all of the pieces of innovation in its hands
    - Companies must come together to develop new products and services
    - License agreements provide clarity and trust
  - Especially important for SMEs, which may be based around one or a few great ideas
- Open source and commercial software models can and do intersect, for example arrangement between Microsoft and Novell:
  - Customers want the best from both models, and for seamless integration (e.g., Banco do Brasil's use of SUSE Linux Enterprise sold by Microsoft)
  - Patents can provide a bridge between proprietary software and open source software through tools, training and IP peace of mind and support for customers seeking an enterprise-class open source platform
- Patents on computer-implemented inventions (CII) do not foreclose open source business models.

# Cross-Platform Cloud Services

Microsoft

CS2C 中标软件

## 享云端 互操作 同发展

暨微软(中国)与中标软件有限公司云计算互操作合作签约仪式  
Microsoft & CS2C Collaboration in China

中文 | English

"This collaboration [with China Standard Software Company] can actually help us build a model to do similar collaborations in other emerging economies."

**Sandy Gupta**  
Open Solutions Group GM  
Microsoft

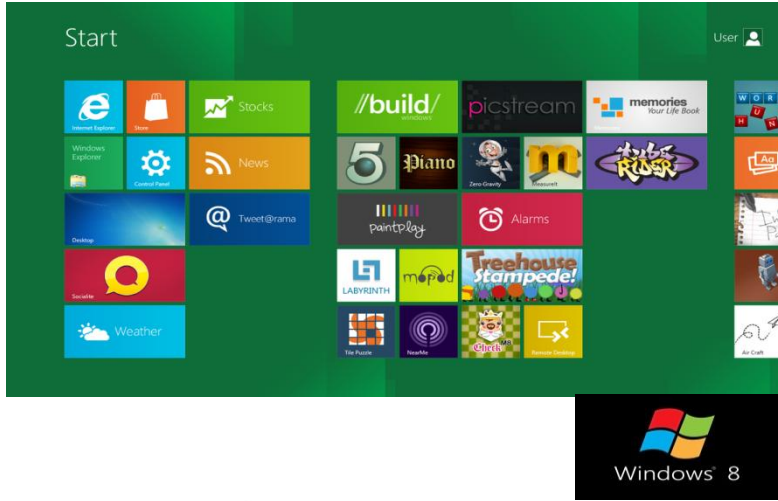


"We are seizing the important opportunity to collaborate with Microsoft to deliver comprehensive, flexible, cloud-based solutions that will serve as a platform for business growth."

**Tao Guo**  
Vice President  
China Standard Software Co.

To promote innovation and open collaboration within the technology industry in Brazil, it is important to provide patent protection on computer-implemented inventions

# Microsoft Innovation



**KINECT**  
for XBOX 360





# Shared Value of Microsoft's Innovation in Brazil

Together these employees account for 50% of Brazil's IT-related employment in 2011

Brazilian IT-using organizations employ another 424,000 IT professionals who work with Microsoft software or related products

8,000 local companies in Brazil's Microsoft Partner Network employ approx. 256,500 people

For every 1 BRL Microsoft earned in Brazil 2011, Brazilian companies in the Microsoft Partner Network made 10.67 BRL

# Empowering Brazilian Startups



**MONUMENTA**  
Comunicação e Marketing Digital

**AGÊNCIA  
CASES  
FOLLOW  
CLIENTES  
PESSOAS**

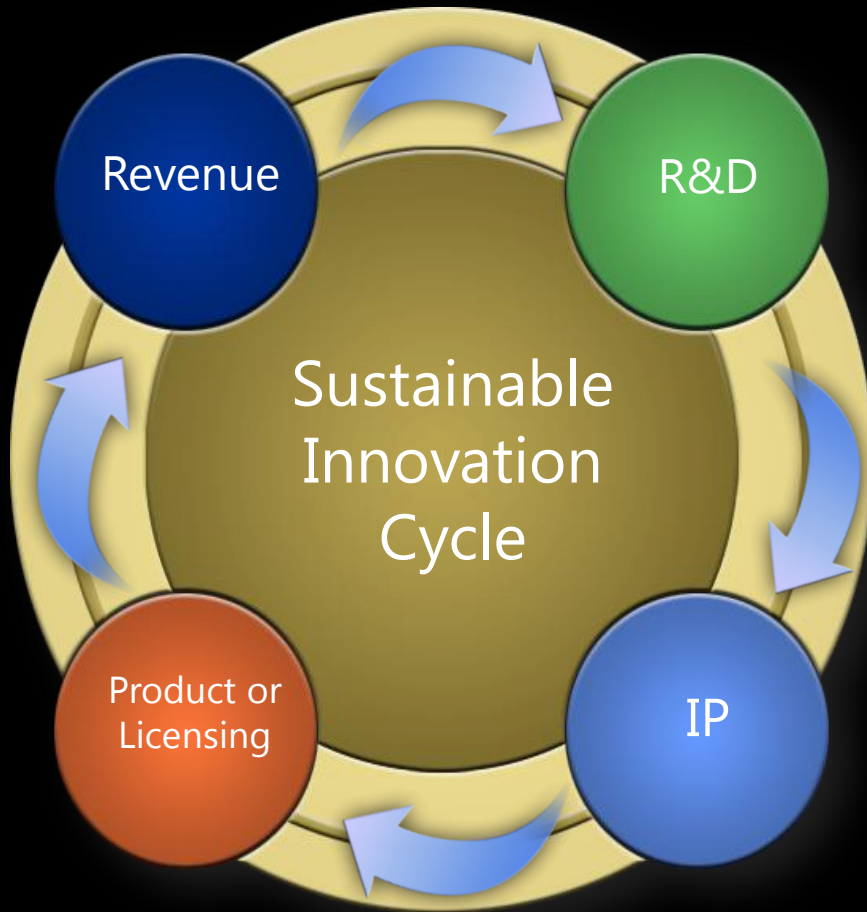
UMA AGÊNCIA QUE TEM MISSÃO

UMA AGÊNCIA QUE TEM CONCEITO NO NOME

Como fazer o estande de um banco, em uma feira de livros, chamar mais atenção



# Effective Patent Protection



- Strengthens incentives to innovate
- Encourages broader commercialization
- Creates beneficial alternative to trade secret protection
- Creates foundation for business relationships and collaboration
- Allows successful innovators to recoup investments in R&D



# Status of Patent Protection in the Technology Industry

- NOT patentable in Brazil under Article 10?
  - Discoveries, scientific theories and mathematical methods
  - Purely abstract concepts
  - Commercial, accounting, financial, educational, advertising, random selection and inspection plans, principles or methods
  - Literary, architectural, artistic and scientific works or any aesthetic creation
  - Computer programs *per se*
  - Presentation of information
  - Rules of games
  - Operating or surgical techniques and methods, as well as therapeutic or diagnostic methods for application to human or animal bodies
  - And all or part of a natural living human being and biological matter found in nature or isolated therefrom, including the genomes or germplasms of any natural being and natural biological processes

# What is Patentable?

- INPI draft guidelines
  - A technical solution to a problem NOT found in the excluded areas
  - Typically appropriate for there to be limitations relevant to a prohibited area, but only so long as the claims are directed to the technical solution to a problem NOT found in the excluded areas (exception is in area of diagnoses)
- Current practice
  - Case study:
    - Facts
    - Prosecution history
    - Precedent cited
    - Disposition by INPI

Brazil's recognition of the patentability of computer-implemented inventions, especially if clarified by final adoption of INPI's draft guidelines, provides an effective incentive to companies in the technology industry to invest in innovation and collaboration in Brazil

# *Microsoft*<sup>®</sup>