GCSIPTC: A Hong Kong Platform for Trading IC-related Intellectual Property (IP) in China

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- Background information about "GCSIPTC"
 - What is "GCSIPTC"?
 - "GCSIPTC" as an International Collaboration Platform
 - "GCSIPTC" as a Hong Kong university project
- Key issues related to IP trading
 - Proper business model & framework
 - Business considerations
- A Hong Kong platform for SIP trading
- VSIA's pivotal efforts
- Experience learned
- What's next?

Background Information about "GCSIPTC"

What is "GCSIPTC"?

- "GCSIPTC" stands for "Greater China Semiconductor Intellectual Property Trading Center" as an international collaboration platform
- A MOU (1st one) signed by four parties in October 2003
 - "Cooperate in facilitating and promoting <u>the proper reuse of SIPs,</u> meeting international recognized standards and business practices"
 - "GCSIPTC can be developed into something similar to a Stock Exchange (or <u>commodity trading center</u>)"
 - "The <u>same business and legal frameworks</u> once established for SIP can be <u>applied to trading any other form of intellectual property</u> (IP)"
 - "GCSIPTC would require sophisticated integration of knowledge of technology, legal system and business environment. In case of Hong Kong, it has a creditable legal framework and a good financial and trading infrastructure to support SIP trading. Therefore, Hong Kong can be a logical place as the test bed to introduce GCSIPTC"

"GCSIPTC" as an Int'l Collaboration

- 08/2002: Initial idea discussed with Mr. CD Tam (CEO) of HKSTP
- 10/2002: 1st 4-party meeting at CASPA Tech. Innovation Conference
 CASPA (US), HKSTP (HK), CBSIA (BJ), TSOCC (TWN)
- 01/2003: 1st Group meeting of HK team on GCSIPTC
 - HKSTP, CUHK, HKUST & HKU
- 06/2003: 1st submission for HK ITC (gov't) funding application
- 10/2003: Signing of 1st "GCSIPTC" MOU at BIMS
 - Among CBSIA, HKSTP, TSOCC & CASPA
- 10/2003: Signing of "CSIG" MOU between VSIA and CBSIA at BIMS
- 11/2004: HKITC approved to fund GCSIPTC project
 - HKUST's Prof. Philip Chan was the program manager
- 02/2005: Chinese researchers joined the GCSIPTC project
 - From ZJU/863/CSIA, HIT/CSIP/CSIA and HFUT
- 08/2005: MOU for CSIA/CSIP to license VSIA's specs.
 - Among <u>VSIA</u>, CSIA and CSIP
 - Forming of CSIG (China Special Interest Group) of VSIA
- 12/2005: Signing of 2nd GCSIPTC MOU
 - FSA, CBSIA, HKSTP & CASPA
- 01/2006: 1st GCSIPTC Workshop held at HKSTP
- 06/2006: HKSTP inaugurated IP Servicing Centre
- 06/2006: 2nd GCSIPTC Workshop held at HKSTP
- 06/2006: FSA announcement of GCSIPTC MOU

"GCSIPTC" as a HK University Project

- A 18-month academic project <u>conducted at HKUST funded by Hong</u> <u>Kong government</u> to look into the technical and legal issues related to Semiconductor IP trading – <u>excluding business issues!</u>
 - Program manager: Prof. Philip Chan, Dean of Engng. School
 - Participation:
 - HKUST as the key investigator & HKSTP as the sponsor
 - Industrial supports: CASPA, CBSIA, VSI Alliance, FSA...
 - Technical support: Larry Rosenberg (VP, VSIA)
 - Legal support: HKIAC, James Hsue (PHDR partner), Novells, J. Zhou
 - Mainland researchers from ZJU/863, HIT/CSIP and HFUT
 - International liaison: AI Kwok (CASPA PRD Chapter President)
 - Status & Result:
 - Legal framework has been completed
 - Ref. license agreement, legal due diligence check-list & arbitration process
 - Technical framework has been completed
 - Deliverable check-list tied to VSIA's QIP spec. (for technical due diligence)
 - 1st phase (this Project) completed; 2nd phase to be continued?

Proper Business Model and Framework for SIP Trading

IP Trading Platform/Ecosystem

- Participants: sellers, buyers and <u>enabling 3rd parties</u>
- Value-adding <u>enabling 3rd parties to facilitate win-win outcomes</u> to both IP seller and buyer and reduce risk
 - Instead of win-lose paradigm without the 3rd parties
 - This structure is centered on risk reduction/management
- Full disclosure (similar to IPO prospectus) to <u>build trust</u> and <u>eliminate costly misunderstanding & misjudgments</u>
 - Fair <u>assessment</u> of the <u>IP value & potential</u>
 - Fair <u>assessment</u> of the <u>risk and liability</u>
 - Fair <u>comparison</u> to similar/competing IPs
 - Implementation issues for the buyer to effectively use the IP
 - Adequate supports from the seller to the buyer to realize the buyer's ROI – productization of the licensed IP for profit sharing
- All 3rd party enablers must add values in the process from start to finish for the seller and buyer to realize their respective ROI, and collaborate to nurture the ecosystem
 - <u>Legal agents</u> for buyers and licensers, <u>technical</u> assessors, IP protection <u>auditors</u>, <u>escrow agents</u>...

Guiding Principles for the Ecosystem

- Sincere win-win proposition between the trading parties
 - Full disclosure reduces risk for swift productization of licensed IP

Absolutely no conflict of interest

- Separation of roles for <u>rule setting</u> (overseer), <u>execution</u> (trading participants and enablers) and <u>arbitration</u> (arbiter)
- No mixed roles (in a case) are allowed to avoid conflict of interest
- Adequate check and balance
 - Proper balance of the interests of trading parties
 - <u>3rd party enablers</u> to check for abilities and monitor the efforts by the trading parties to honor the deal and respective obligations.
- Transparency (verification by independent 3rd parties)
 - Full disclosure for IP listing (like IPO prospectus) by the IP seller and full disclosure on IP protection capability by the IP buyer
 - All steps in the process are auditable with supporting documents by independent auditors and/or the rule setting party.
- Must add value at each process step
 - All 3rd party enablers must create values to the trading parties and ensure quality outcome of the trading

"3-branches of Government" Structure

- Separation of power
 - One oversees & sets rules
 - One conducts business & keeps it going
 - One settles disputes
- Check and balance
 - Transparency to monitor accountability
 - No dual role to avoid conflicts of interest – e.g., a referee cannot be a player of a team
 - Independent auditors



Business Considerations for IP Trading

Best Business Practices

- Up-front proper due diligence processes
- Government regulation discovery process
 - E.g., export/import controls and restrictions
- Risk assessment and management
 - Guiding technology transfer w/ proper IP protection
 - E.g., IP hardening for licensee with lesser IP protection capability
 - E.g., Trusted 3rd-party design integrator to handle sensitive IP
 - Good visibility on how the licensed IP will be used
- Technology transfer plan and milestones
 - Proactive problem-solving
 - Lining up 3rd-party enabling supports
- Escrow arrangement(s)
- Control and manage legal costs (through arbitration)
 - Within 10% of the license cost
- Cap indemnification exposure (up to the license cost!)

Risk Management

- Proper risk assessment to guide IP disclosure in accordance to licensee's IP protection capability
 - Thorough up-front risk assessment of licensee's IP protection capability with an independent 3rd-party audit
 - Based on the assessment, the <u>licenser decides</u> with all the necessary & sufficient IP for first-time success of the licensee's design to what degree item by item licensee can be entrusted – <u>enable vs. entrust</u>!
 - A trusted 3rd-party design service provider can serve as the <u>design integrator</u>, entrusted by the licenser to handle highly confidential IP above licensee's capability to protect, to incorporated the licensed IP into the licensee's design – as an option
 - A foundry partner can serve as an IP protection gatekeeper and royalty payment collector
 - Semi. IP is mostly specific to a set of foundry process & design rules

Technology Transfer

IP transfer is like organ transplant/artificial implant

- Foreign IP will be embedded into the host product like a foreign organ or an artificial device implanted into the recipient's body
- Compatibility is essential to avoid "body rejection"
- Necessary proactive due diligence process, planning and execution to ensure success
 - Pre-transaction (pre-operation)
 - Functionality (organ or device type), originality (source), quality (health), compatibility (blood type, allergy), etc.
 - The required transfer procedural review (operation planning)
 - Transaction (transplant or implant operation)
 - Transfer process and procedure (transplant the organ or implant the device)
 - Post-transaction (post-operation) lasting over 2 years
 - Field data gathering (outpatient monitoring & check-up)

A Hong Kong Platform for SIP Trading

China IC Market Situation

- Domestic market with huge demand
 - Opening to global competitions by the rules of WTO
 - China became the world's largest IC market (\$40B) in 2005
 - Domestic suppliers can only address 5% of its needs
- State of China's IC industry
 - Still in its early stage of development
 - Repatriated entrepreneurs are leading the efforts
 - Vimicro, Spreadtrum, MV Silicon, LHWT Micro., HHNEC...
 - IPR infringements is a major issue
 - "Han core" (Shanghai) incident is indicative of systematic problems!
 - Actions (#2 supplier) and SigmaTel are engaging in infringement disputes in both US and China courts
- National efforts (11th 5-year plan) to focus on "Selfdetermination" & "Innovation"

Factors Driving IP Servicing/Trading

Time-to-market

- First to market commands great profit
- Reuse of proven IP speeds up time-to-market
- Increasing complexity
 - Few companies have broad expertise
 - Need to acquire IP to handle increasing complexity
- Customer demands for complete turn-key system-level solutions
 - Close collaboration along supply-chain partners to provide the customer demanded solutions
 - Sharing/licensing IP will be the way of life

Hong Kong's Role

- Provide "Common Law" platform for IP transaction
- World recognized arbitration process (HKIAC, <u>www.hkiac.org</u>) with awards enforceable in many (~140) regions, including China & Taiwan
- Easy access to enabling third parties
- Local pool of technical and legal expertise and efficient support services
- Financial and IP Escrow Services

What's Next?

- 1st stage: building a servicing platform/ecosystem
 - <u>Quality assurance</u>: technical certification
 - <u>Authentication</u>: legal certification
 - <u>IP protection</u>: hardening, tagging, etc.
 - <u>ISO-9000 like process</u> for on-going IP protection & creation
 - IP pooling administration and agency
 - <u>Risk assessment and management</u> of technology transfer
- 2nd stage: building a trading platform/ecosystem
 - IP Agents for listing and acquisition
 - <u>Escrow</u> agents for fair transaction management
 - <u>Auditors/analysts</u> of IP valuation/intellectual asset
 - Financial institutions taking IPR as security
 - <u>Arbitration proceeding</u> for cost-effective dispute resolution



Thank You Very Much for Your Attention!