

Inventing, Patenting & Technology Commercialization

in Practice:

Some Insights for the “Indian Bayh Dole Act”



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Goals of this talk

- Insights on how inventing, patenting and technology commercialization happens in practice: Current flows
- Implications of the “Indian Bayh Dole Act” for research organizations/ funded entities: Mapping on current flows
- Lessons, conclusions, suggestions

Talk duration: 20 min

US and India: Differences

- Different context before Bayh Dole Act
 - Agencies owned all rights
 - Non-exclusive licensing
 - Long history of inventing, patenting etc
 - Act of getting the innovation out of govt clutches
- Different innovation and production systems
 - No equivalent of CSIR (largest producer of IP in the country)
 - US government stays out of civilian industries
 - Public and government sector companies
- Different times and era
 - Globalization; Difficult to define “Indian” company
 - “Open Innovation” systems
 - Open source
 - Network programs/ PPP/ NMITLI etc
 - Incubation companies, IP aggregators

“Indian Bayh Dole Act”: Stated goals

Statement of objects and reasons

- Promote culture of innovation in the country
- Increase awareness about IP
- Promote/encourage IP creation and innovation in publicly funded R&D
- Promote/ encourage IP protection in publicly funded R&D
 - Obligations on research organization
 - Obligation on researchers
- Promote/ improve utilization of IP in publicly funded R&D
- Facilitate the raising of financial resources by leveraging IP.
- Access to innovations for stakeholders (read, “Indian” companies)

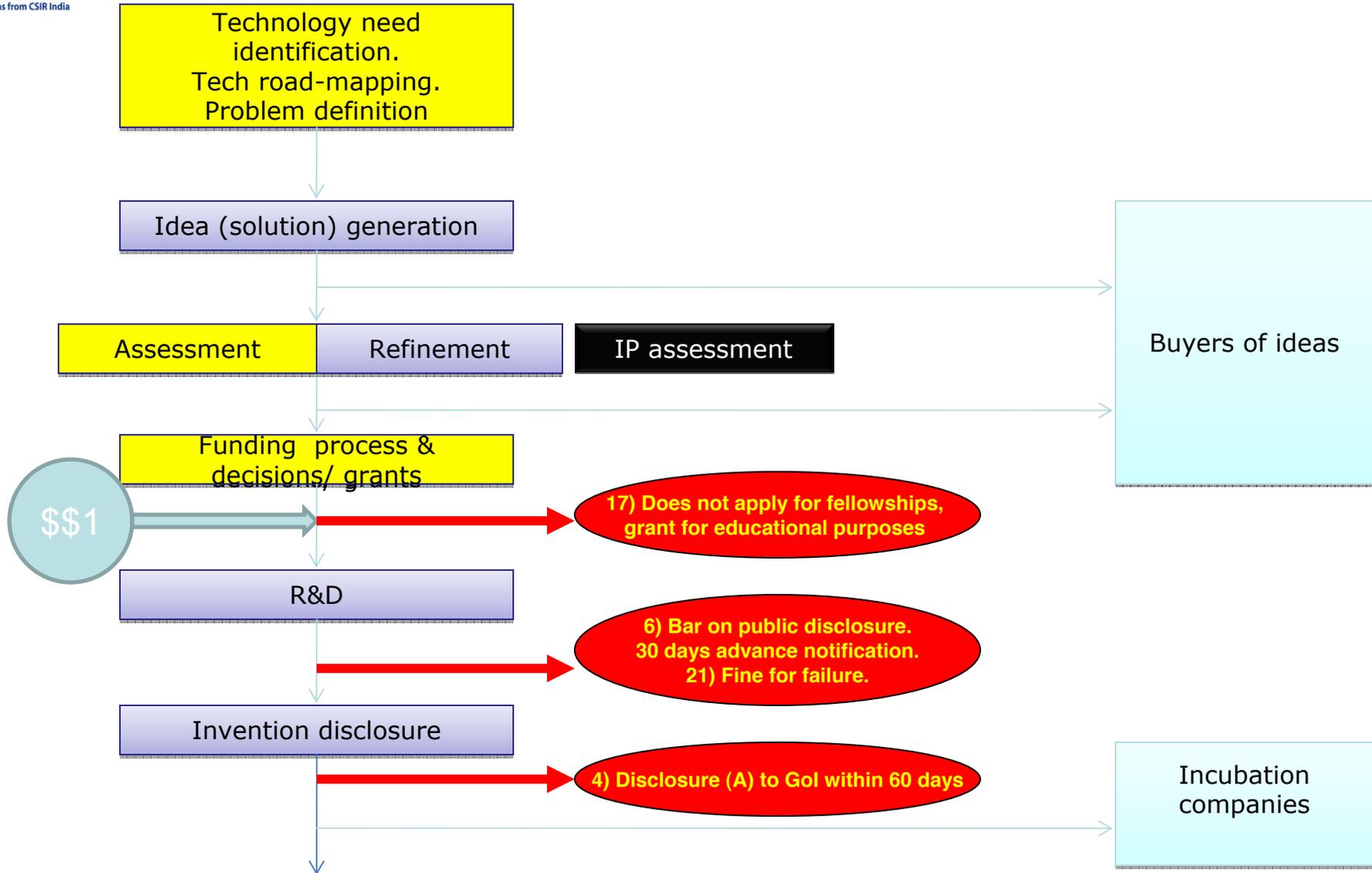


An idealized flow

Mapping of clauses on the flow



Technology commercialization: Ideation stage

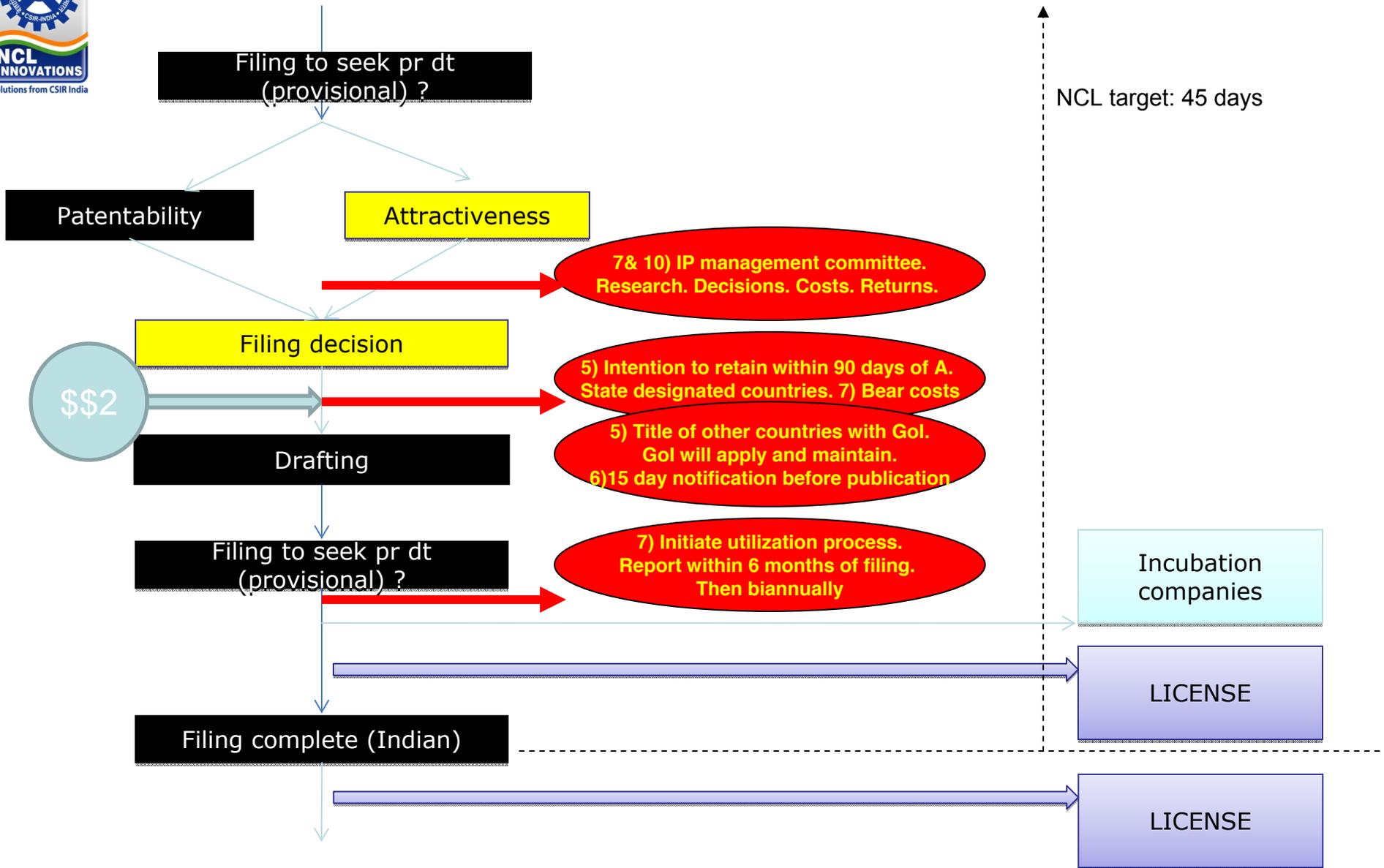


Observations & Lessons

- How will the scientist decide whether they have created IP or not? Probably, will have to send all manuscripts, posters etc for screening to avoid penalties.
- Who will take the decision? Do we have the capabilities and HR strength for this? Will the IPM committee have time to review so many disclosures? Will the committee be a source of delays?
- How will the government track and monitor publication by the IP creator without disclosure?
- Will it be a case of the least hassles/ obligations/ paperwork for somebody who never creates an invention/ IP? So are we encouraging or discouraging inventors?
 - Syndrome: “I never care for patents. You have to do extra work to draft and file patents. Then you have to spend time on rebuttals. Then some babu harasses me about utilization and annual reports.”



Technology commercialization: Protection stage



NCL target: 45 days

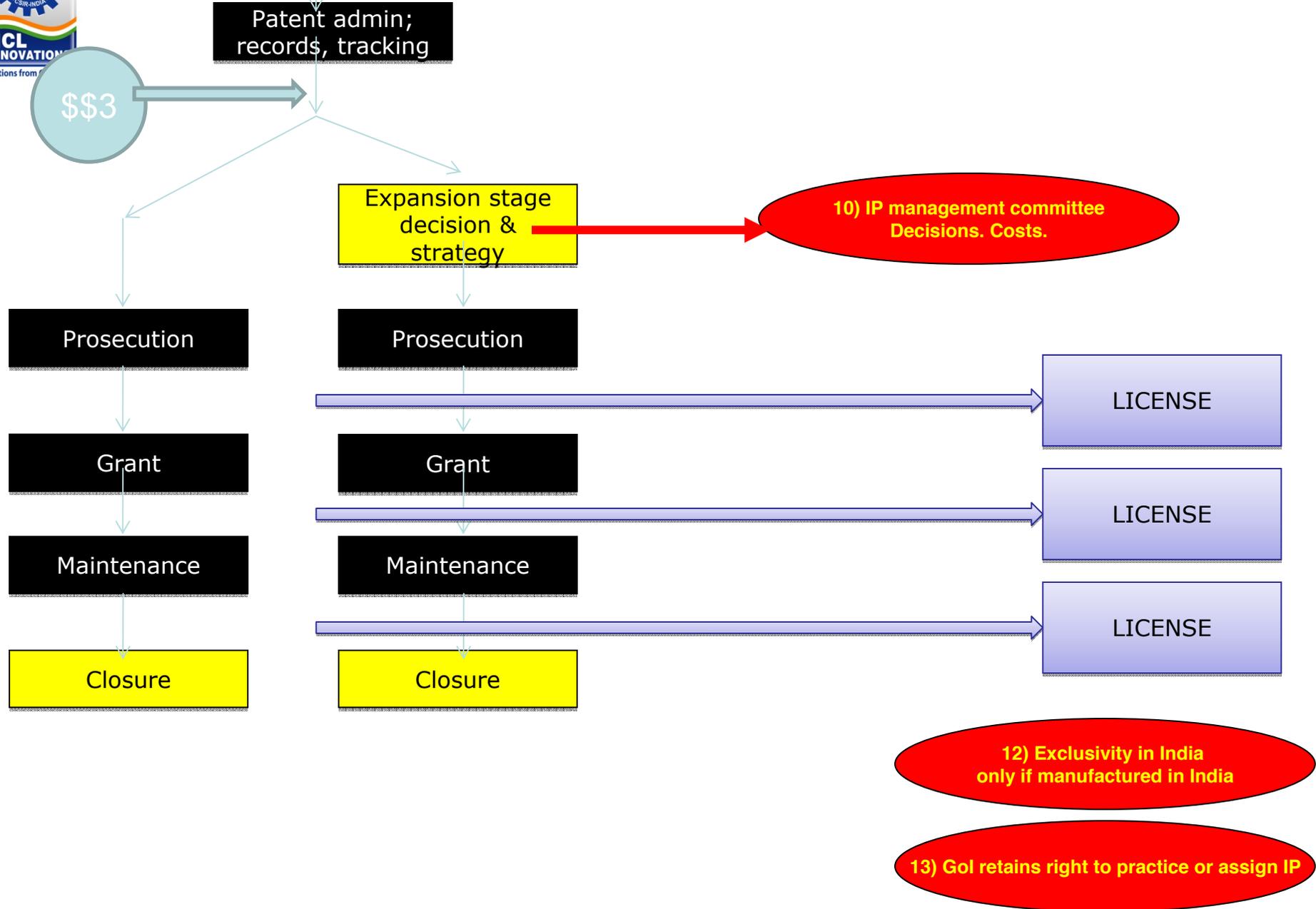
Incubation companies

LICENSE

LICENSE



Technology commercialization: IP expansion

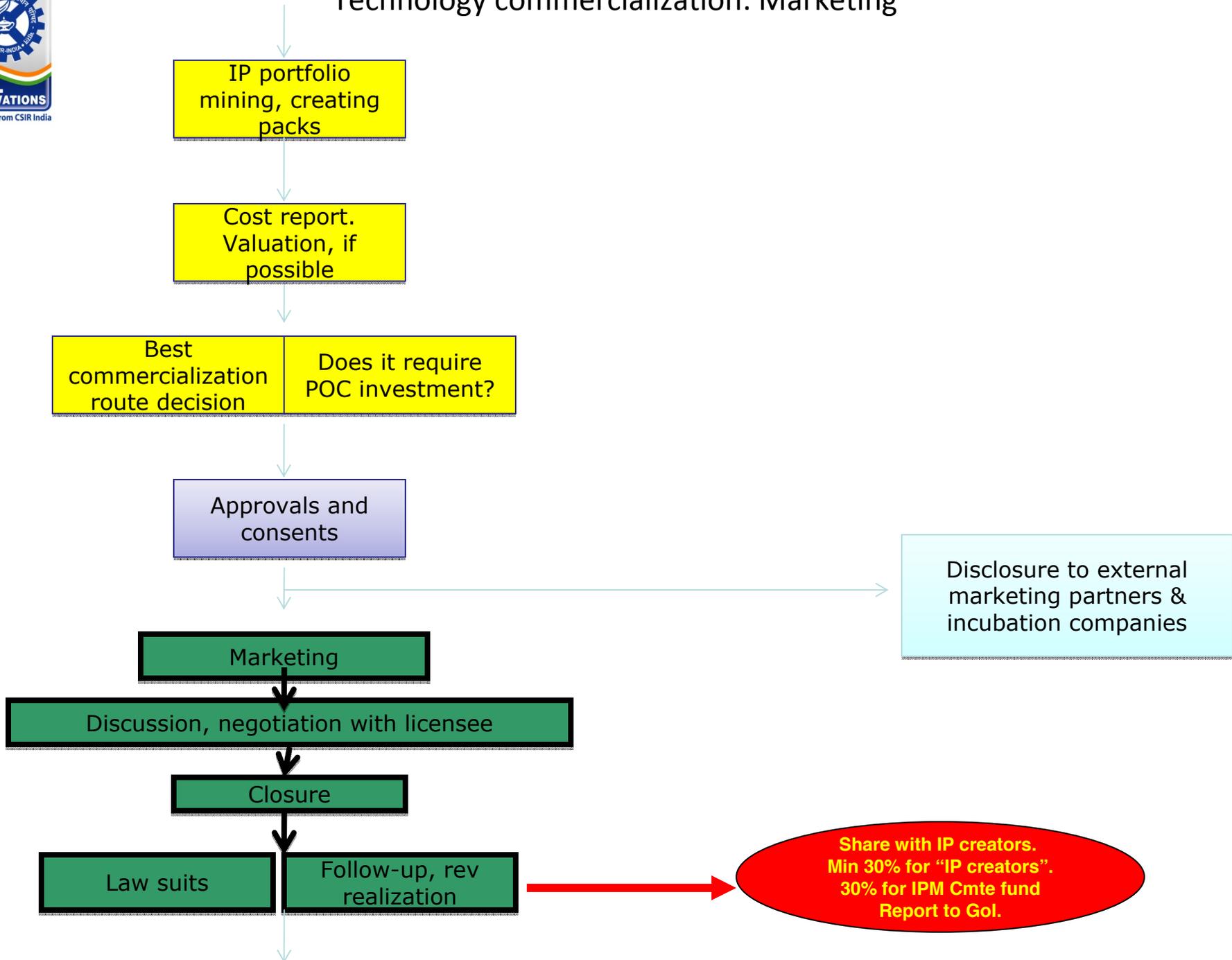


Observations & Lessons

- NCL observation – Committees do not have time to review and study each case. Source of delays and ad hoc decisions. Full time staff required for sitting in meetings with inventors, outlining inventions, taking decisions. Some background research and drafting etc can be outsourced. Implications -
 - Where is the expertise in India?
 - Will institutions be able to bear the costs?
- IP is filed for reasons beyond immediate utilization – there are many reasons (often strategic) for “attractiveness”
- Patents do not always create a source of competitive advantage. When you know it is not going to help commercialization or may even be a barrier to commercialization, then what should you do?
- Decision on countries to file is sometimes best delayed as much as possible to delay costs and create data for better decisions. Sometimes, you may want to delay decision to enter national phase until 30 months. Has the author of the bill thought that through?
- There are very few TTOs in the world who can even recoup their costs. The vision of a self-sustaining IPMC fund is unrealistic.
- Exclusivity in India only if manufactured in India – acceptable compromise. But remember that every additional “string” will reduce value of the IP. So every “string” needs to be evaluated against costs.
 - “Grey areas” cases: Start-up licenses know-how from NCL. Develops products and then realizes that viable place to manufacture is Africa due to availability of raw materials but Indian is the largest market. Then what?
- Lot of paperwork and reporting to Gol. Considerable time sink for TTOs. TTOs will gradually lose managerial talent to administrative staff.

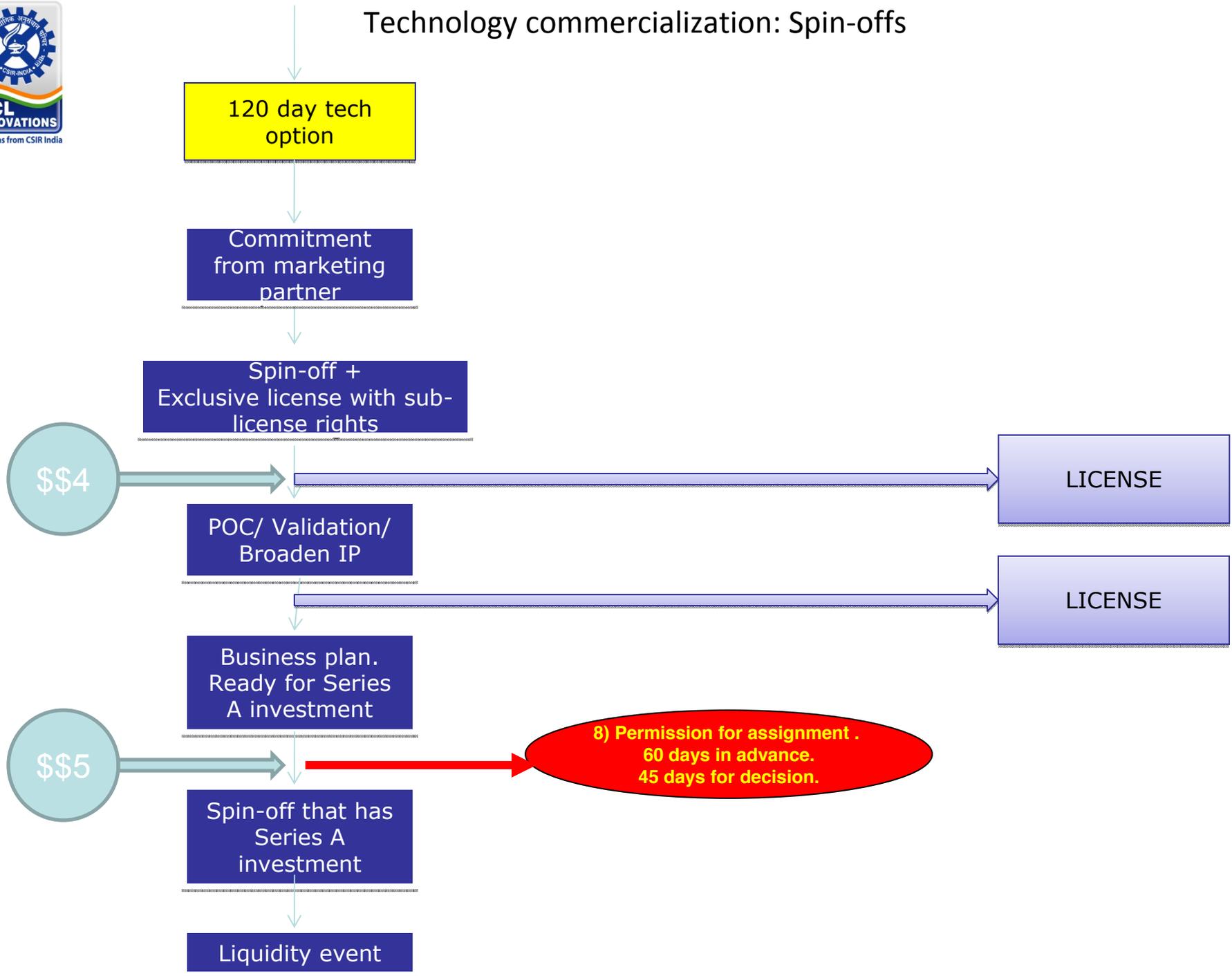


Technology commercialization: Marketing





Technology commercialization: Spin-offs



Observations & Lessons

- Bill does not anticipate new models of commercialization including spin-offs, partnership with incubation companies/ incubators, PPPs etc.
 - Sometimes you need to build-in “assignment” at a later date right upfront. (In such cases, will we add one more layer of complexity by seeking approval on licensing agreements from the government.)
 - Typically, professional investors in start-ups require “assignment” before investing. So earlier investors need that assurance well in advance.
 - What happens in networked programs like say, NMITLI programs? Typically, licensors prefer to deal with lesser number of IP owners.
 - Will the added complexity and delays, encourage institutions to try new models for value creation?
- Sharing with IP creators: Who are the IP creators? Inventors ? Other contributors? What may be licensed can include contributions of inventors and others? So TTOs need to develop mechanisms to deal with such complications.



Conclusions

- The bill in the current form may actually work against innovation.
 - The bill makes public funding most attractive for projects with no anticipated IP.
 - Speed and quick decisions are essential for higher productivity. Paperwork and penalties will only decrease efficiencies.
 - The bill increases administrative burdens of TTOs. Will it attract good technology managers or only administrative staff? Without good technology managers, will the value creation increase?
- The bill leads to creation of unnecessary paperwork. Assumes greater wisdom/ better intentions at the agencies as opposed to recipient institutes.

Suggestions

- Agency can have a one-time approval (single window – CPSMS?) of a recipient institute's IP management policies, systems, control mechanisms and financial management mechanisms before awarding grants. Offer minimum standards document and guidelines. Offer incentives and grants to build TTOs and investment coffers for IP filing.
- Annual (1-time) disclosure & reporting. Fast track (& larger funds to) those following ideals. Black-list those who do not.
- Vest the title to recipient as a default option. Govt can retain option to utilize IP in extra-ordinary circumstances.
- Trust the wisdom of the organization in not filing in countries where it does not see value. Should Govt be spending on filings in locations where recipient is not interested?
- Only clauses needed: Vesting, One –time qualification for recipients at single window, annual (one-time, online, like Interagency Edison) disclosure and reporting, preference for national industry (12), Govt right to IP (13).
- Needs fresh thinking. Try to anticipate more scenarios in India context in 2009.



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