



Patents & Cleantech

ACC Washington – October 1, 2020

Lynel Barrow, Graeme Herring, and Roch Ripley



Agenda

Introduction

Graeme Herring, Terramera

Planning research, and capturing and educating on IP

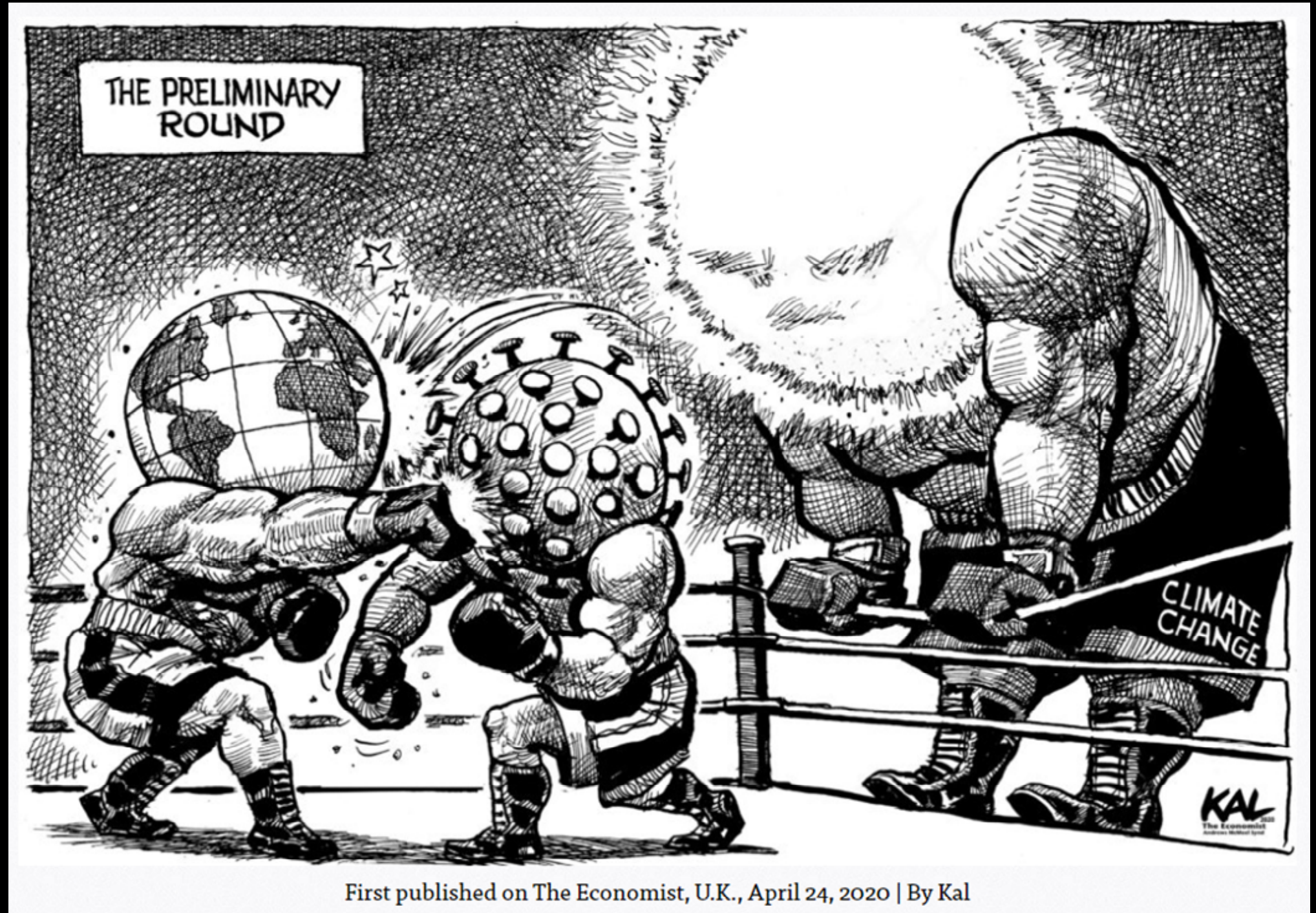
Roch Ripley, Gowling WLG

Drafting and international filing

Lynel Barrow, Terramera

Commercialization and filling the “gaps”

Introduction



Introduction

Correlation between patenting and successful, innovative firms

General US filing trend: peak ~2011, still higher than late 2000's

Canadian opportunity: importance of cleantech to Canadian federal and BC provincial governments

Introduction

Tangible products

Export oriented

High capital costs



TECHNOLOGY FOR CLEAN FOOD

Building a Global IP Portfolio in
Cleantech:
An In-House Perspective

OUR VISION

A world with *affordable*,
clean food for everyone.

HOW? Get to **organic parity** by making natural, plant-based inputs more effective than current synthetic chemicals.

WE CAN DO THAT: By combining **10x green chemistry** technology with **plant intelligence**, machine learning and artificial intelligence to sustainably increase crop quality and farm yields.

Terramera's Actigate™ Targeted
Performance technology improves the
delivery of active ingredients
directly into target cells



Big Disruptive Technology Platform for Clean Food

1



Reduces
synthetics required

2



Makes organic
inputs competitive

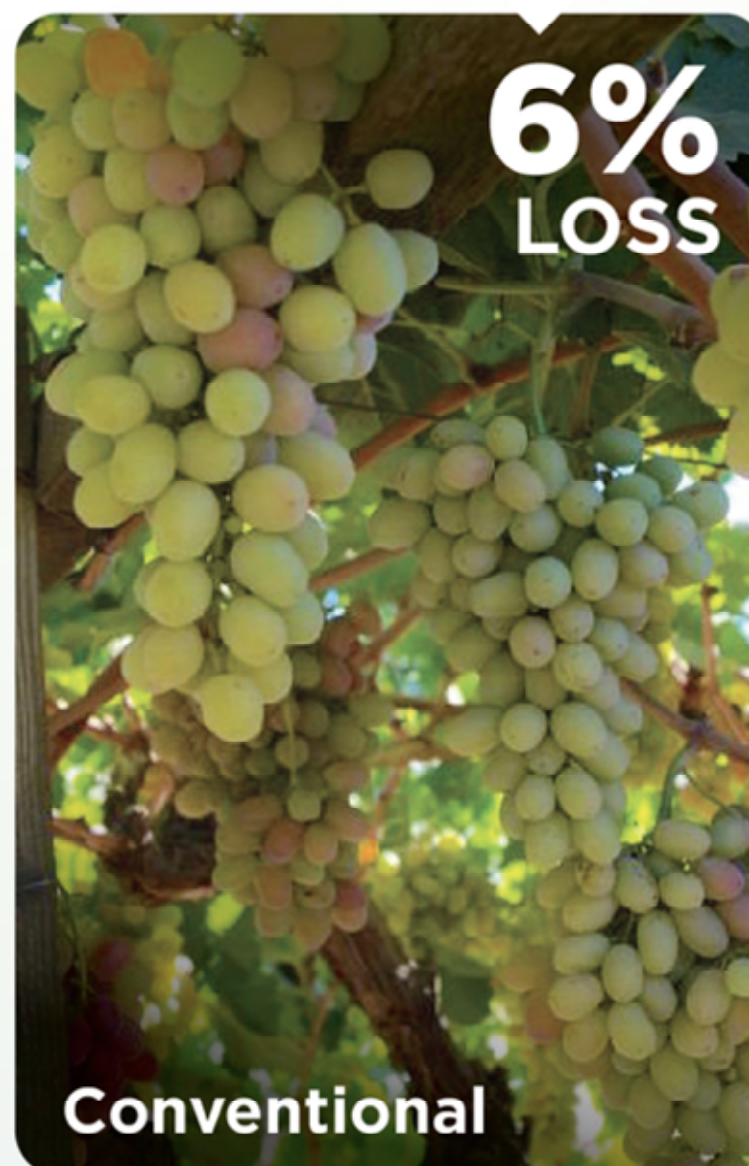
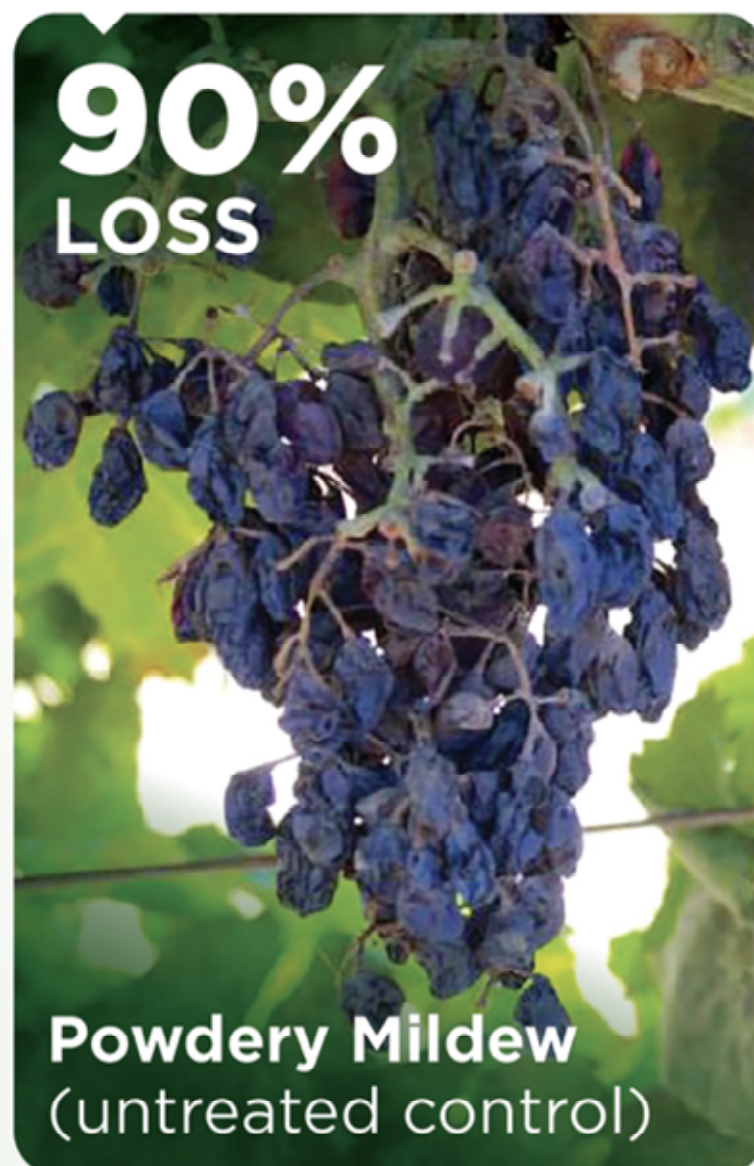
3



AI/Machine Learning to
Optimize products, dose,
timing and yields

Terramera Actigate™ enables crops to be

better **protected**, higher **quality** & greater **yield**



**+70%
YIELD**

All images pictured are red grapes **from same vineyard & same day**



Terramera's IP Strategy in a Nutshell

Maximize the economic and societal value of our R&D by building our IP portfolio to enable technology development, global licensing and product commercialization

Maximizing the Value of our IP

- *Planning Research with IP Generation in Mind*
- *Capturing All Potential IP Generated Company-Wide*
- *Protecting Our IP by Educating our Team*

Planning Research with IP Generation in Mind

- *Evaluate IP Landscape to understand where deep IP can be developed, not just to evaluate competition*
- *Plan scope of research and data generated to support establishing foothold in IP space as well as technology/product development*

Capturing All Potential IP Company-Wide

- *Idea Disclosure System*
 - *K.I.S.S. - make it as easy as possible to submit/solicit a new idea disclosure*
 - *Ideas come from across the company – so engagement / education must be company-wide too*
- *Invention Disclosure Queue*
 - *Prioritization of Idea Disclosures to allocate IP and development resources*
 - *Establish initial enablement data needed to provisional patent application*

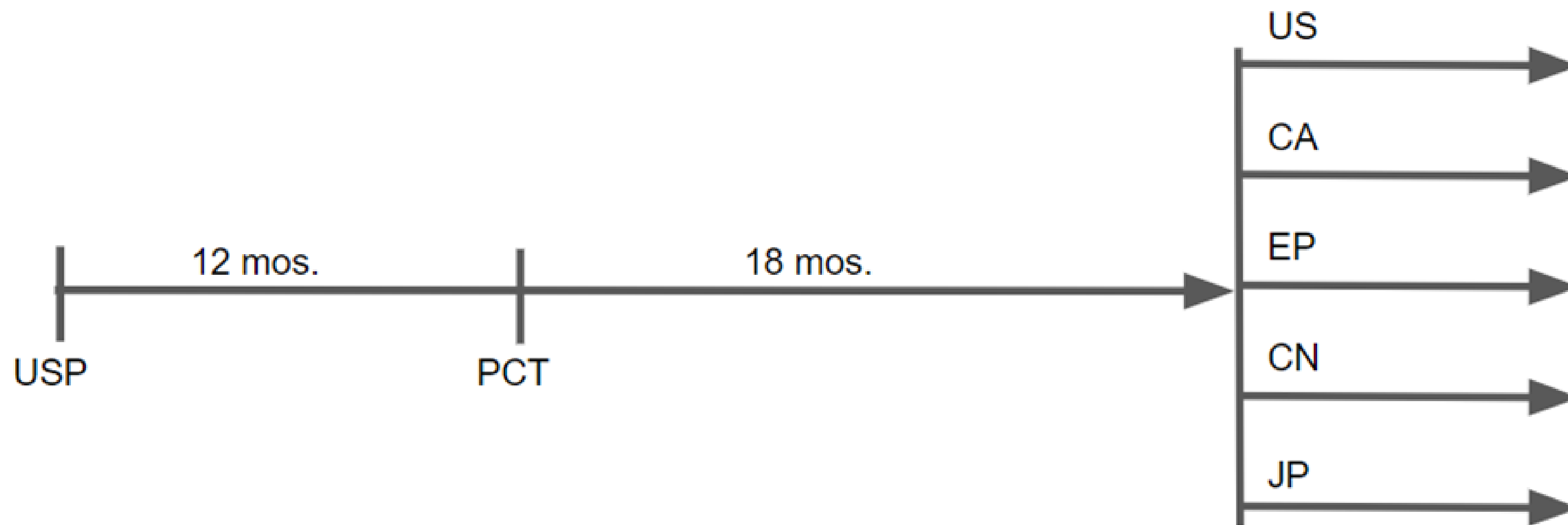
Protecting our IP by Educating our Team

- *Regular education for new and old employees – everyone needs to know who to contact about IP*
- *Emphasis on understanding what our IP is and why protection matters - patent, trade secret and brands*
- *Incorporating NDA and MTA procedures in all outward facing areas; consistent TM use in communications*

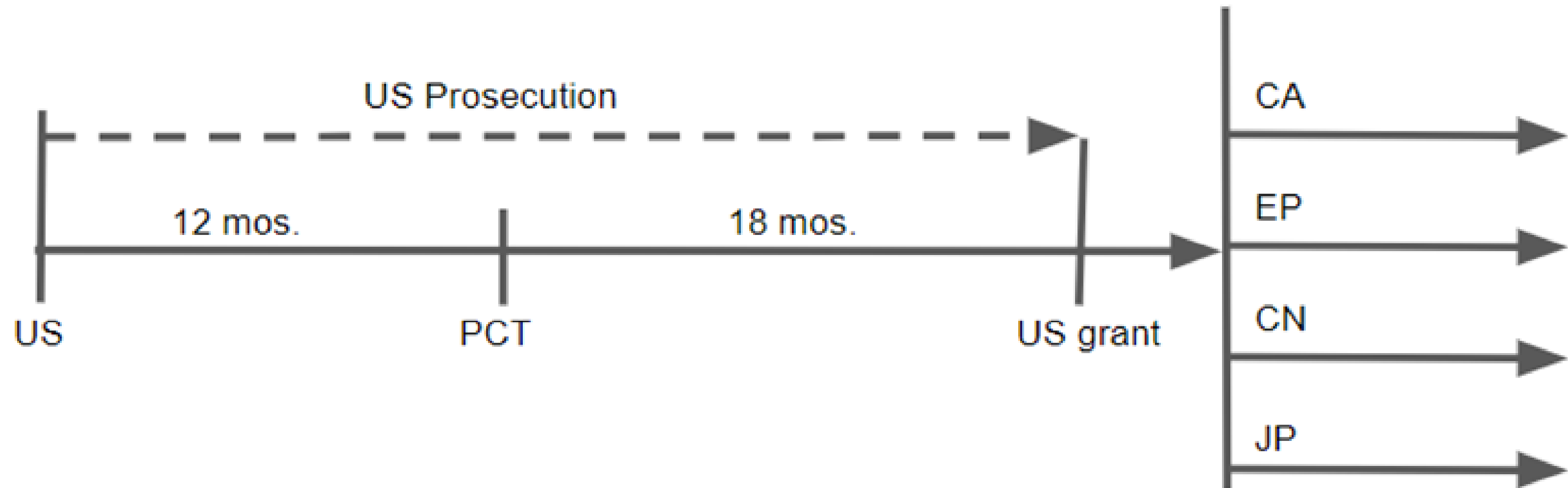
Building a Patent Portfolio to Support Global Commercialization and Licensing

- *Filing Initial Patent Applications as early as possible*
- *File US Provisional Applications as soon as supporting data available*
- *Disciplined Additional Enablement over Priority Year*
- *Plan data generation to systematically enable as broadly as possible for PCT filing by 1-year priority deadline*
- *Design your International Patent Filing Strategy to suit your technology/markets*

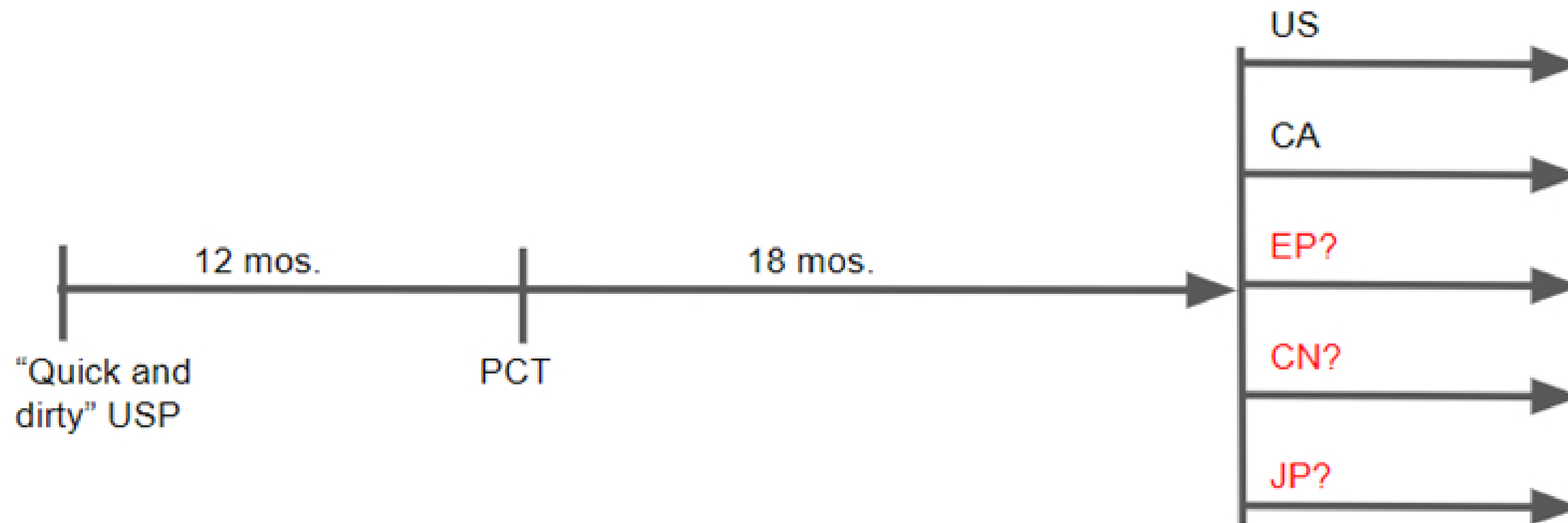
Drafting and Filing



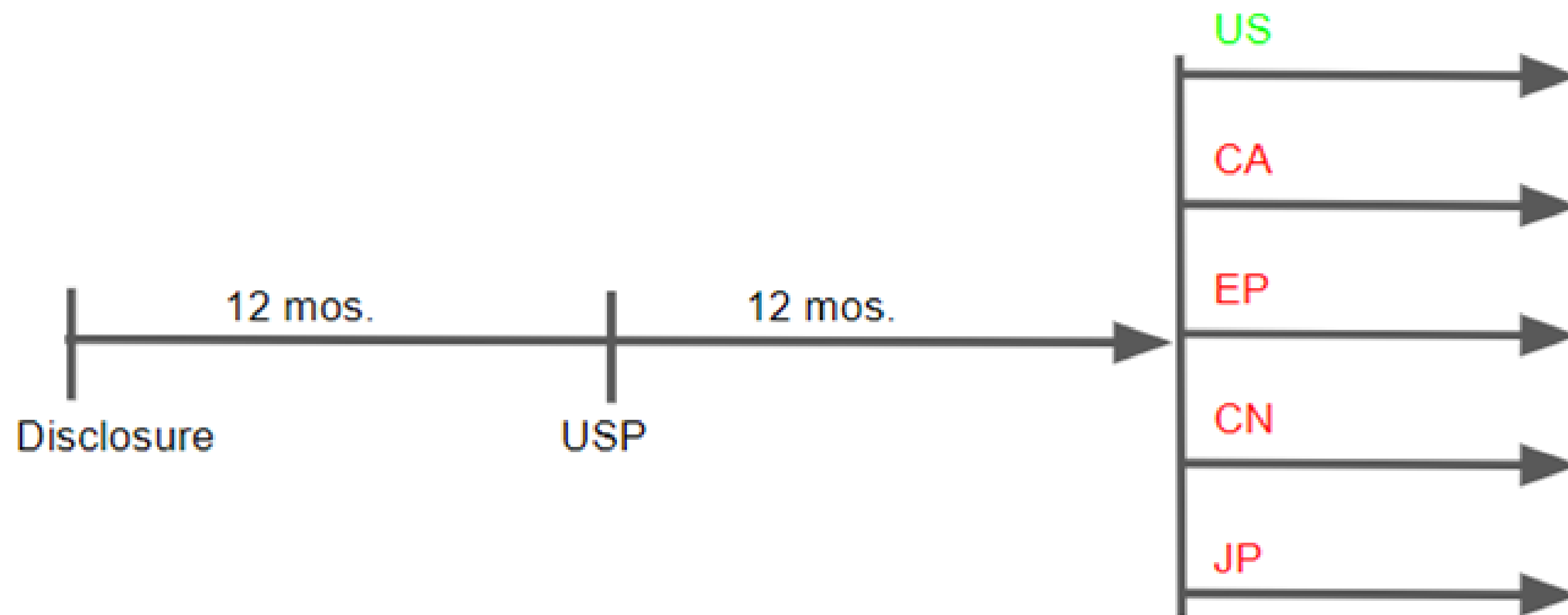
Drafting and Filing



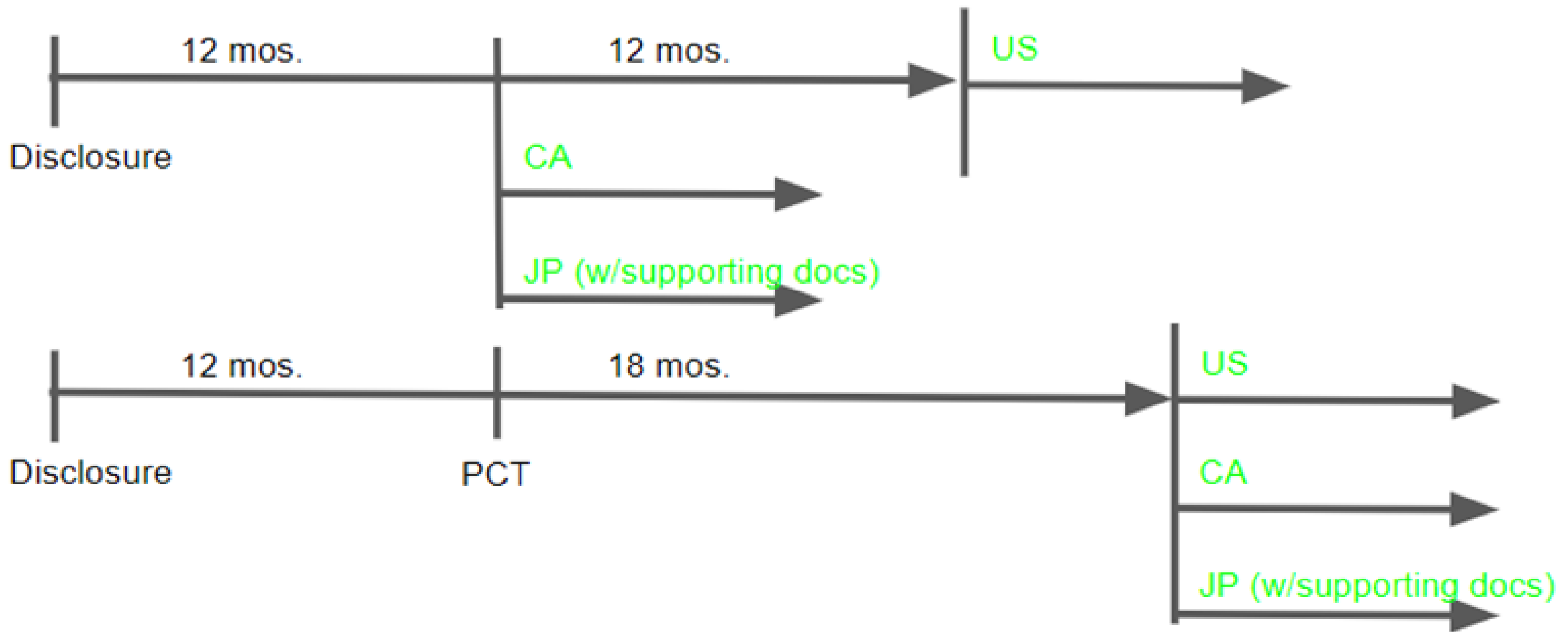
Drafting and Filing



Drafting and Filing



Drafting and Filing



How in-house lawyers can provide value to business partners when it comes to IP

1. Protect IP that isn't captured by your patents

Get to know the people in R&D and who are involved in product development

Ask a lot of questions and listen for things that signal to you that IP is being developed, such as “we spent a lot of time figuring this out” or “solving an issue”

Make sure your employees are trained regarding when to sign NDAs as they work with outside organizations

Treat unpatented “know-how” and trade secrets as valuable IP and ensure the company has policies in place to protect this IP

Good IP lawyers do
more than draft
Deals – they help
structure them

2. Exploit

Assist the business with structuring deals, and in particular – always think about how to exploit the IP to create revenue

Technology lawyers consider the whole bundle of rights and figure out how to create value for all of it – don't forget to include "know-how" and other technology rights

Work with the business to understand the value, IP valuations can be tricky and licensing can be complex

Consider structuring a license as a technology license rather than a pure patent license as you can collect royalties for territories where you might not have patent coverage – but your license can still be global

Spend time on the grant clause –think through the rights you will license, is the license perpetual, irrevocable, sub-licensable, transferable. What about improvements – who owns them; what if joint IP is created?

Rembrandts in the Attic

- IP assets can be the most valuable assets that your company has – protect them! Having an IP strategy can be the most important thing you assist your company with
- Remember IP has as much value as you assign to it, if you give it away – it's worthless; if you protect it properly it could be worth a fortune

WITHOUT PATENTS THE FUTURE OF
YOUR COMPANY COULD BE OWNED BY
SOMEONE ELSE - Rembrandts in the Attic

Conclusion

Integrate your IP strategy through your whole organization to maximize value

Keep in mind international filing considerations early on in the patenting process

Have a robust IP strategy that considers but it not limited to patents

Questions?



Roch Ripley

Partner

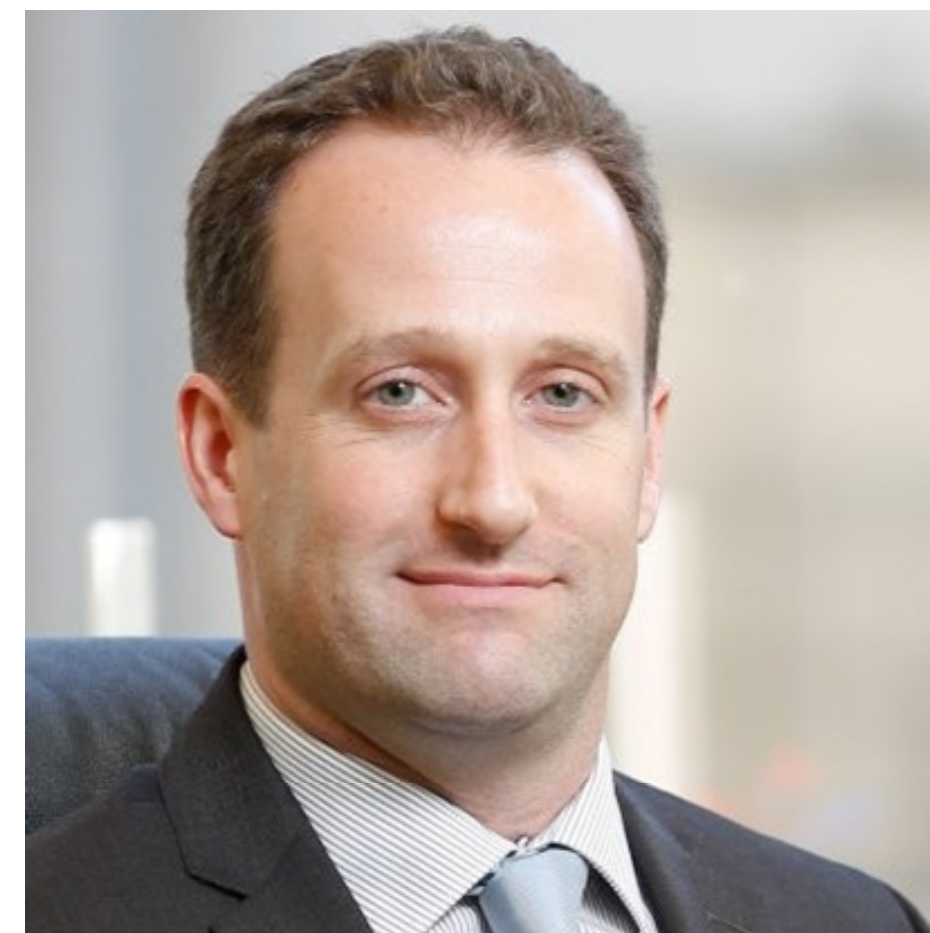
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