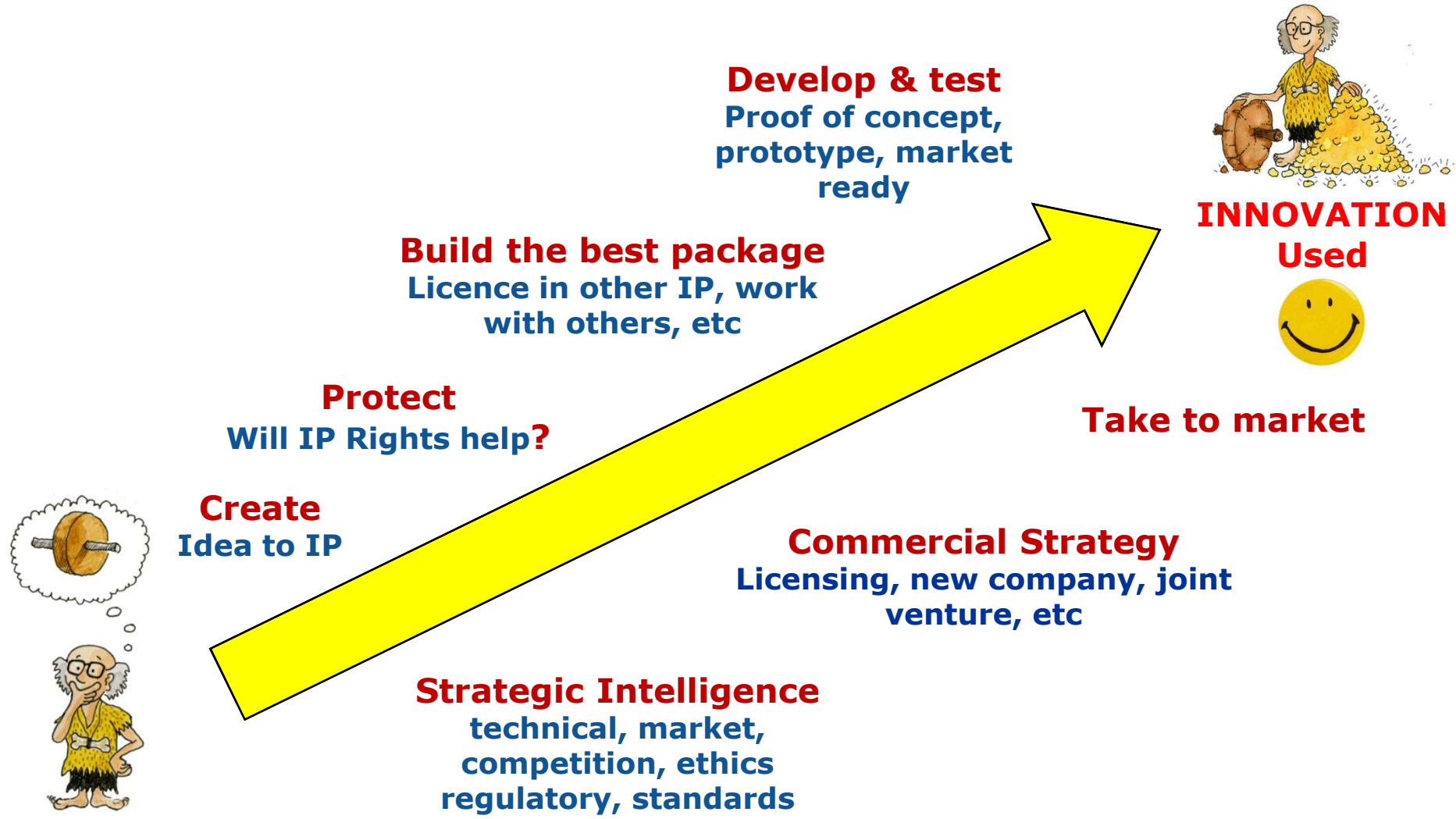


Converting innovative ideas into business

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Idea > IP > IPR > Innovation > Income

Idea to Intellectual Property

- **Until an idea becomes “tangible” it has no value and is not owned by anyone.**
- It must be **written down or built** to become something owned (i.e. property)
 - Ensure it is dated and witness to prove date of creation – until then there is a risk that someone else will claim they had the idea first
- Since it is based on an idea (intellect) it is known as **Intellectual Property**

Intellectual Property (IP)

- Products of the mind
- Products of research & experimentation
- Products of creativity
- An **asset** owned by someone
- Like physical property, intellectual property is an asset which **may have value and can be traded** (sold, bought, leased, used as collateral, or given away!)

Inventions
Software
Reports
Designs
Databases
Music
Books
Works of art
Videos
Roadmaps
etc



**The KEY assets in any
business**

Intellectual Property

An undervalued and underused asset!

We often fail to

- Recognise it
- Manage, protect or develop it
- Extract value from it
- Use it strategically for our business



Why is IP important today?

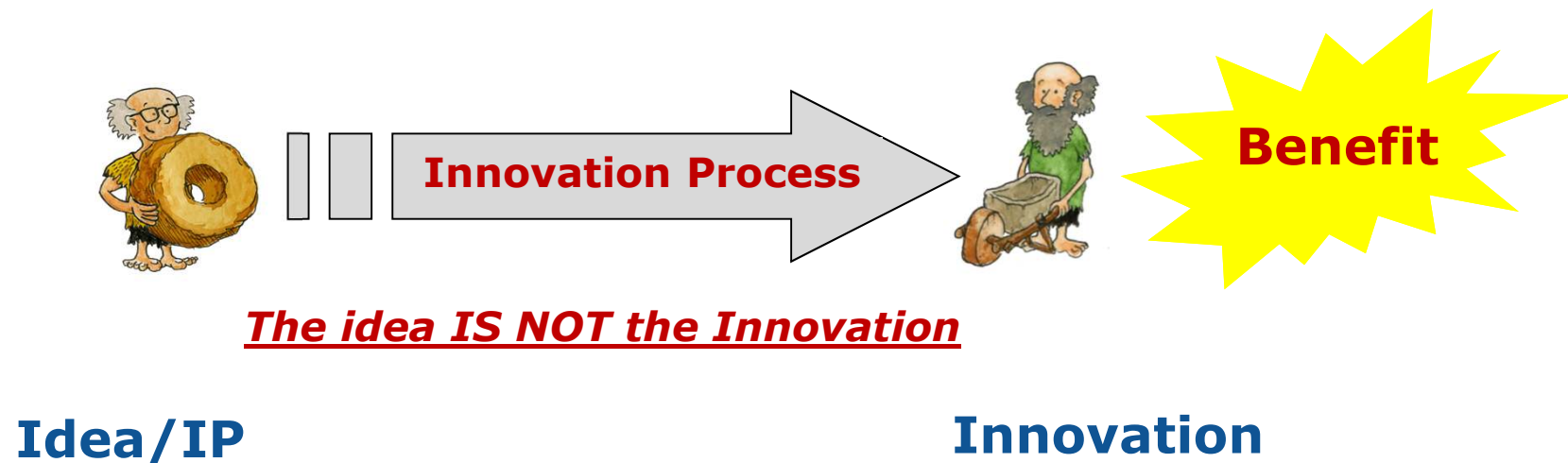
- Pre-19th Century: economies were mainly **agricultural**
- 20th Century: the primary economic commodities were **physical** - iron, steel, coal, oil, etc.
- 21st Century: the primary economic commodity is **intellectual property**
- Businesses today produce and supply **products and services**, which are **based on** the underlying **Intellectual Property**

What does this mean in practice?

- Today, physical and electronic communications mean:
 - raw materials can be sourced anywhere in the world
 - can be shipped wherever is cheapest to manufacturer
 - products can be marketed, sold and money collected worldwide
 - and shipped directly to users or distributors worldwide
- It is not the owner of the raw materials, or the manufacturing capability, or the marketing channels, but the **owner of the IP who is king!**

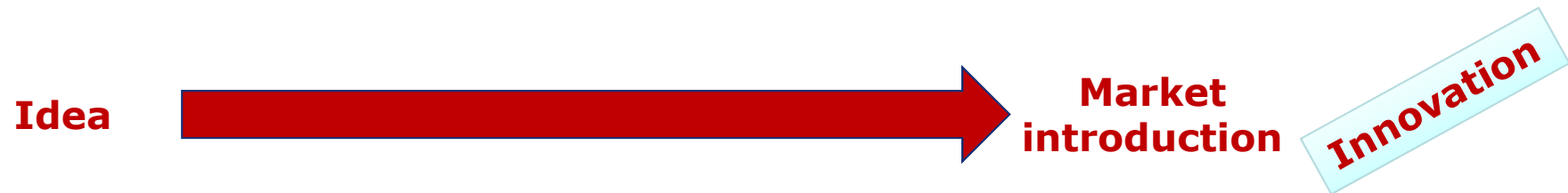
Idea to Innovation

INNOVATION: A **new** (or improved) entity (creation), which when **used** produce tangible **benefits**, satisfying needs and wants.



Innovation Process

- The process to create the innovation



Innovation Management

- The management of the process
- **NOT** like business management (which is often risk averse)
- Innovation Managers needs a **willingness to take risks**

IP to IPR

- Like physical property, states provide legal protection for different types of Intellectual Property – **Intellectual Property RIGHTS (IPR)**
- They do this to encourage innovation, and to reward the creators of the new ideas
- For some types of IP (e.g. know-how) there may be **no formal legal right**, or you may decide it is better to keep something **secret**
- How you decide to use IP Rights to build and grow a business is part of your **IP strategy**

IP to IPR (IP Rights)

- Like physical property, states provide legal protection for many types of IP

WHY?

- They do this to support help businesses develop innovations to benefit society as a whole, to reward the creators of the new ideas, and to **encouraging invention and creativity**

Intellectual Property Rights (IPR)?

WHAT'S THE DEAL?

- The state grants the owner:
 - the **legal right to prevent** others using the creation (without agreement)
 - for **commercial purposes (only)**
 - for a **limited period**
- in return for
 - **disclosing details** of the new creation
 - so **others can develop new innovations**

IP Protection is a strategic commercial decision

Intellectual Property Rights (IPR)?

**WHO
BENEFITS?**

- The state benefits by:
 - By **avoiding secrecy, enhancing innovation capacity** to stimulate further innovation, so **enriching society**
- The creator benefits by:
 - By being able to **prevent unauthorised commercial** use by others, unless they come to an agreement
- **Commercial partners benefit:**
 - From the limited monopoly, and get a **return on their investment** for making market ready and building a market.

VERY IMPORTANT

IP and IPR

The key to successful innovation

- Intellectual **Property** – key assets resulting from the idea
- Intellectual Property **Rights** – the **tools to support** commercial exploitation of the assets (IP)
- Protecting IP is an **investment not a cost**

Different Rights for Different type of IP

- **Patents** (technical inventions)
- **Copyright** (Software, Written works, Engineering drawings, Semiconductor Topologies, etc)
- **Design Rights** (functional or aesthetic)
- **Database Rights** (organising and querying and retrieving data)
- **Trade marks**
- **Plant Breeders Rights**
- **Utility Models/petty patents**
- **etc**

NOT ONLY PATENTS

- Some legal rights come into existence **automatically**
- Some need **registration**

- National rights
- Regional variations in law
- Time limited rights

- For some IP (know how) no legal rights exist, so the must be protected by Confidentiality Agreements or kept secret

Most innovations are a “bundle” of IP and IP Rights

Technical inventions
(patents)

Brands
(trademarks)

Know how
(confidentiality agreements)



Secret recipes

Trade secrets

**Promotional material,
Manufacturing software**
(copyright)

Functional & aesthetic designs
(packaging, manufacturing apparatus)
(design rights, utility models)

Ensure ALL the IP related to your idea is captured and appropriately protected

Capturing the IP is only the start!

How to be the winner?

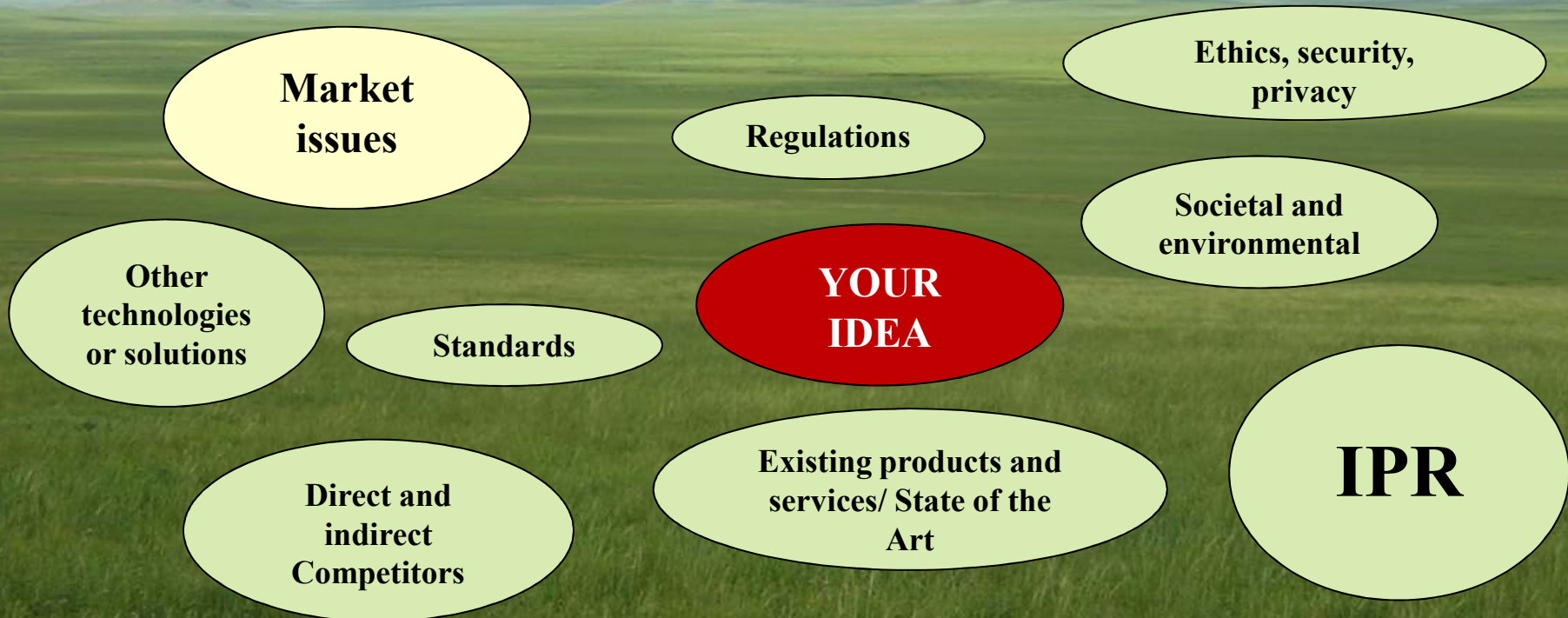


- **Creating the best innovation based on your ideas, and making market ready**
- **Developing the best commercial strategy and route to market**

Understand the landscape

Strategic Intelligence – to plan a route

Opportunities are here



Strategic Intelligence

- Analyse the landscape and data to extract **strategic intelligence** to:
 - Identify the **best opportunities**
 - Build the **best “offer” (the innovation)**
 - Choose the **best commercialisation strategy**



"How you gather, manage and use information will determine whether you win or lose"

Bill Gates (1998)

Building an innovative business is about..

- Meeting people's **needs and wants**
- **Changing the status quo**
- **Collaborating and working with others**
 - End users
 - Other inventors
 - Market and technical experts
 - Investors and partners
 - Legal and financial experts
 - Manufacturing experts
- It's a **TEAM GAME – You cannot do it alone!**

Market and Technology Intelligence

- What and where are gaps and **opportunities to meet user needs**
- How can they be **accessed**?
- Who are the direct and indirect **competitors**, both existing and new entrants to the market
- What are **their innovation and R&D activities**?
- What are their technology **strategies**
- Are there **alternative technologies/solutions** which meet the need? What are their benefits/pros and cons

IP and IPR Intelligence

- How **strong and broad is the IPR**, can it be enhanced?
- Are there overlaps with other IP and IPR?
 - Are these **potential partners/collaborators or competitors**?
- Does the **IP benefit from protection**?
 - e.g. if investment will be needed?
 - If the IP Right can be used strategically?

IP Rights as a strategic tool

- **Defend position, secure market share**
- Protect products or services
- Create barriers to entry
- Enhance competitiveness
- Avoid litigation

Defensive

Offensive

- **Generate new revenues**
- Access new technology
- Exploit new markets
- Develop partnerships and licensing relationships
- Enhance corporate value

Intelligence from Patent Data

A valuable source for strategic intelligence

- The **freely available**, data contained in registered IP (i.e. patents) can provide strategic intelligence to help:
 - Find new technologies to enhance your IP and build the best offer
 - Find opportunities and/or partners to expand into new markets or territories
 - Find strategic partners and potential end users
 - Gain competitor intelligence
 - Avoid IP Rights infringement
 - Create a company/business strategy
 - Plan a commercialisation “route map”

Patent data can be accessed freely (e.g. WIPO Patentscope), or through paid added-value providers with data analysis tools

But... no-one said it was easy!

The challenge of assessing opportunities for new ideas is to:-

> determine the demand for products and services

> that don't yet exist

> from customers who don't yet know about them

Prediction is difficult, especially when it's about the future"
Niels Bohr (Nobel Prize winner)

Everyone makes mistakes...

“The phonograph....is not of any commercial value”

Thomas Edison, c1880

“Heavier-than-air flying machines are impossible”

Professor Lord Kelvin, c 1895

“I think there is a world market for about five computers”

Tom Watson, IBM, 1943

“There is no reason for any individual to have a computer in their home”

Ken Olson, DEC, 1977



The Benefits of Hindsight

“Significant emerging technologies are easily seen after the fact, and companies are then congratulated or castigated for their decisions to pursue them or ignore them. But rarely are the winners clear at the outset”

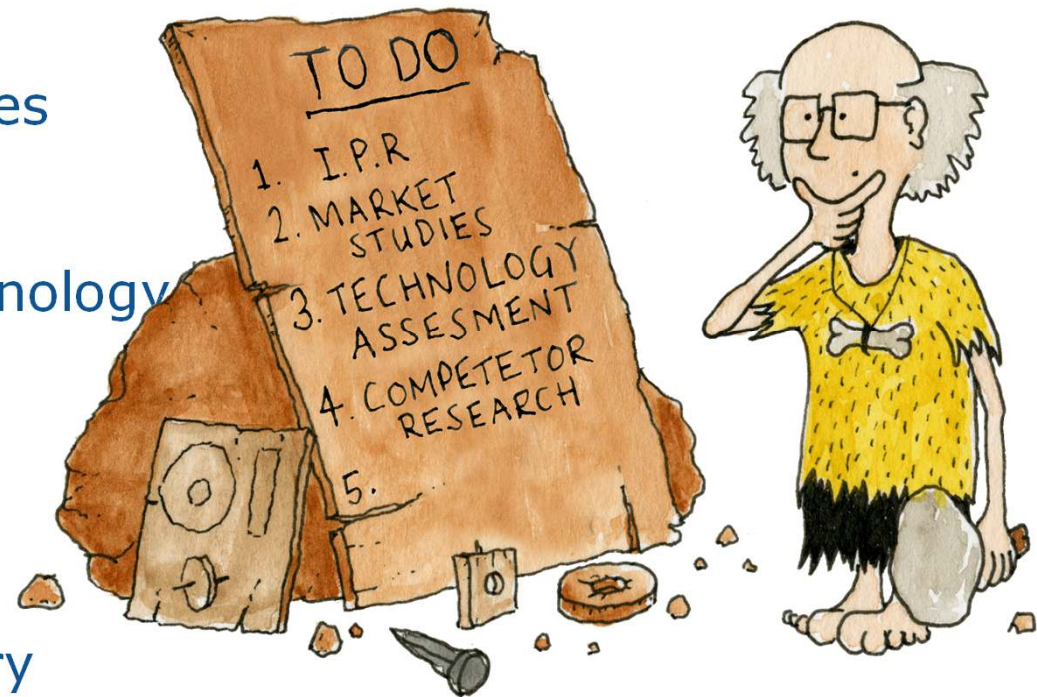
Doering and Parayre, 2000

Manage the risks

- Evaluating opportunities for new ideas is always difficult
- Picking the winners, and the best route to market is a **risky business!!**
- **Risks cannot be avoided - but they can be managed**

A structured approach and due diligence can help manage risks

1. What is the right market to attack?
2. Who are the end customers, what are their needs?
3. Size and growth
4. Competitive technologies
5. Unique selling points
6. Is complementary technology required?
7. Who are the potential Licensees?
8. Are there any regulatory or standards issues?



Using the strategic intelligence

Building the best “offer”

- What is the best “innovation package” to meet the user needs?
- Can you improve the offer through partnering, licensing in or acquisition?



working with others can enhance value and “unlock” the opportunity



Using the strategic intelligence

Are there other opportunities?

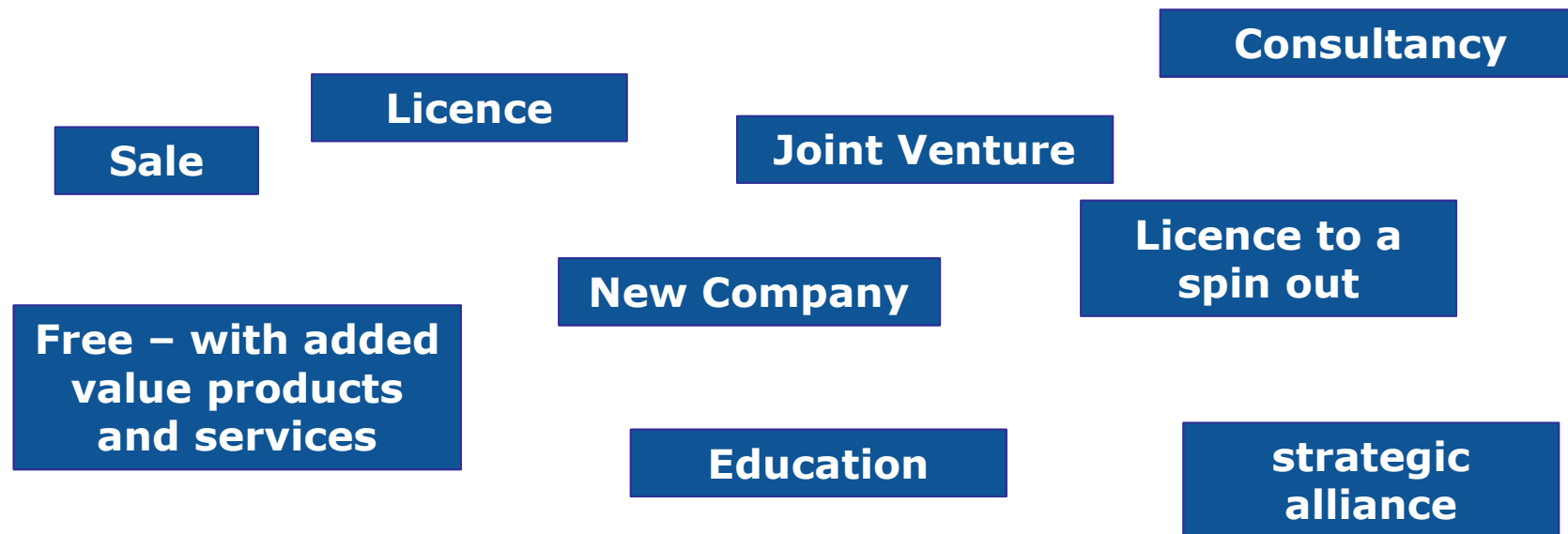
Can you **license out** your IP to expand the business, without setting up expensive manufacturing and marketing, or finding agents or distributors??

- Geographically – into **new territories?**
- For **new fields of use?**
- Into **new market sectors?**

Using the strategic intelligence

What is the best commercial strategy?

- IP is a valuable asset which, like physical property, can be used and traded – bought, sold or leased, used in JV's, or as collateral
- But, unlike physical property **there are many more ways of extracting value from your idea...**



The commercialisation roadmap

- **Where do you want to get to?**
 - What are the opportunities and target customers?
- **What needs to happen to get there?**
 - Development for target market, region or field of use
 - Standards or regulatory approvals
 - Funding/Investment required? What for, when and how?
- **What vehicle will get you there?**
 - Sale
 - Start a new company
 - Licence to an existing company
 - Joint Venture

Licence or forming a new company is the most common

License or Start-up?

- Same commercial objectives – different routes.

- **Who is in the best position to “productise” and to bring the innovation to market?**
 - Who has the market knowledge and contacts?
 - Who has the capacity for further development to make market ready?
 - Who can effectively do trials?
 - Are regulatory approvals needed?
 - etc..

License or Start-up?

- **Licensing relies on finding a licensee with:**
 - The expertise, resources and market know-how, and probably already operating in (or near) the field.
 - Can have different licensees to address different fields of use and geographical areas

- **A new company needs to acquire:**
 - A critical mass of expertise (management, financial, sales, marketing, manufacturing, technical, administrative)
 - a committed and enthusiastic team
 - Resources and finance for developing, manufacturing and marketing, which can be very large, particularly if worldwide

Licence or Start-up – how to decide?

Licence	Start-up/Spin-out
<ul style="list-style-type: none"> Established markets and suppliers 	<p><i>vs</i></p> <ul style="list-style-type: none"> New market for new suppliers
<ul style="list-style-type: none"> Evolutionary/incremental technology 	<p><i>vs</i></p> <ul style="list-style-type: none"> Revolutionary or platform technology
<ul style="list-style-type: none"> The IP fits a gap in someone else's portfolio 	<p><i>vs</i></p> <ul style="list-style-type: none"> The IP can deliver a unique, independent business advantage
<ul style="list-style-type: none"> The IP is a one-off stand-alone invention 	<p><i>vs</i></p> <ul style="list-style-type: none"> There is a pipeline of potential products
<ul style="list-style-type: none"> Low financial commitment 	<p><i>vs</i></p> <ul style="list-style-type: none"> More capital more risk
<ul style="list-style-type: none"> Can have early returns, may be small but regular 	<p><i>vs</i></p> <ul style="list-style-type: none"> Returns take longer (via IPO or trade sale) – but can be very large

Financing

3 main stages

- Financing early stage technologies to “make ready” for licence or sale
- Financing a start-up
- Financing a company for growth

Financing Innovation

Pre-seed and Seed Funding

Objectives	Sources
<ul style="list-style-type: none">• Market research• Make investment ready• Strengthen for licensing• Proof of Concept• Prototypes	<ul style="list-style-type: none">• Own funds• Friends & Family• Loans• Business Angels• Institution seed funds

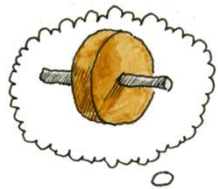
Financing Innovation

Start-up and Growth Funding

Objectives	Sources
<ul style="list-style-type: none"> • Set up company systems • Early product development (making ready for market) • PR, marketing and sales 	<ul style="list-style-type: none"> • Business Angels • Institution seed funds • Early stage venture funds • Loan
<ul style="list-style-type: none"> • To grow and/or expand business 	<ul style="list-style-type: none"> • Company profits • Loan • Venture funds

The Innovation Highway is wide

Many things to consider in parallel



Skills – legal, technical, entrepreneurial, marketing, management

Finance – POC, seed, early stage, business angels, VC, debt, etc

Support – networks, clusters, best practice, sector support, etc

Regulatory – Tax incentives, IP ownerships, Regulatory Pull

Motivations – Culture, environment, participation, competition

People – training, networking

Critical Mass – pool/share resources

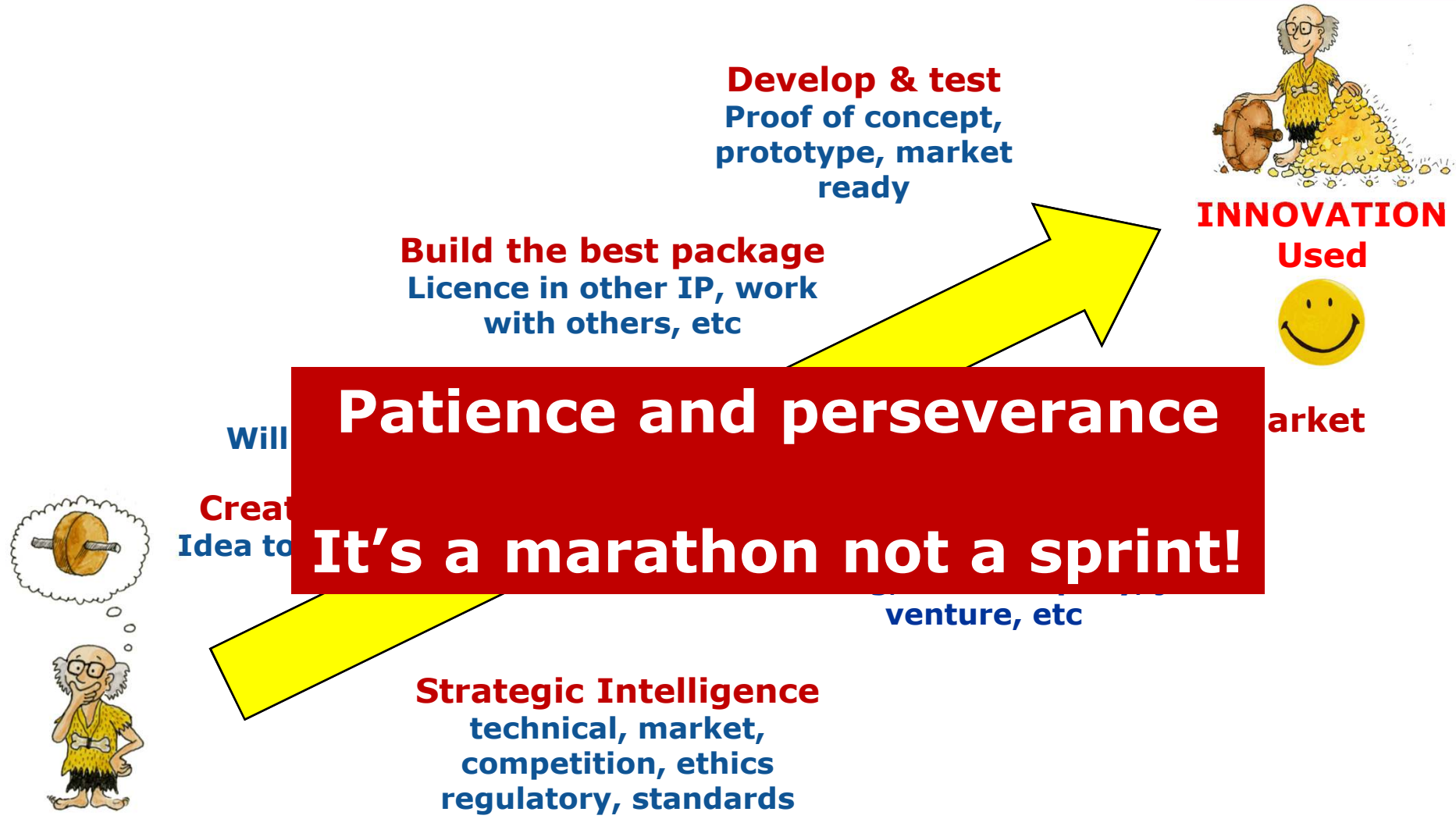


Different skills and resources needed

- IP Management skills and resources
- Commercial skills
- Legal skills
- Company Formation skills
- Management
- Marketing support
- Finance for further development
- etc

Don't try and do it all yourself!

You WILL need to work with others.



Idea > IP > IPR > Innovation > Income

..and finally

People do not buy ideas or innovations

People buy
products and **services**
that satisfy their
needs and **wants**

It is about People not Technology

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