Technology licensing - Perspectives from a university technology licensing office

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19 November 2020

TECHNOLOGY TRANSFER (TT)

- **"The process of transferring scientific findings from one organization to another for the purpose of further development and commercialization."**

-Association of University Technology Managers (AUTM)-

Licensing is one of the most common ways of achieving the transfer of knowledge/technology between different parties

Applied research

Out-licensing

UNIVERSITY

Transfer of rights to use and commercialise IPRs resulting from university research via IP licensing

COMPANY

In-licensing

- Socio-economic development
- Influence local economy
- Job creation

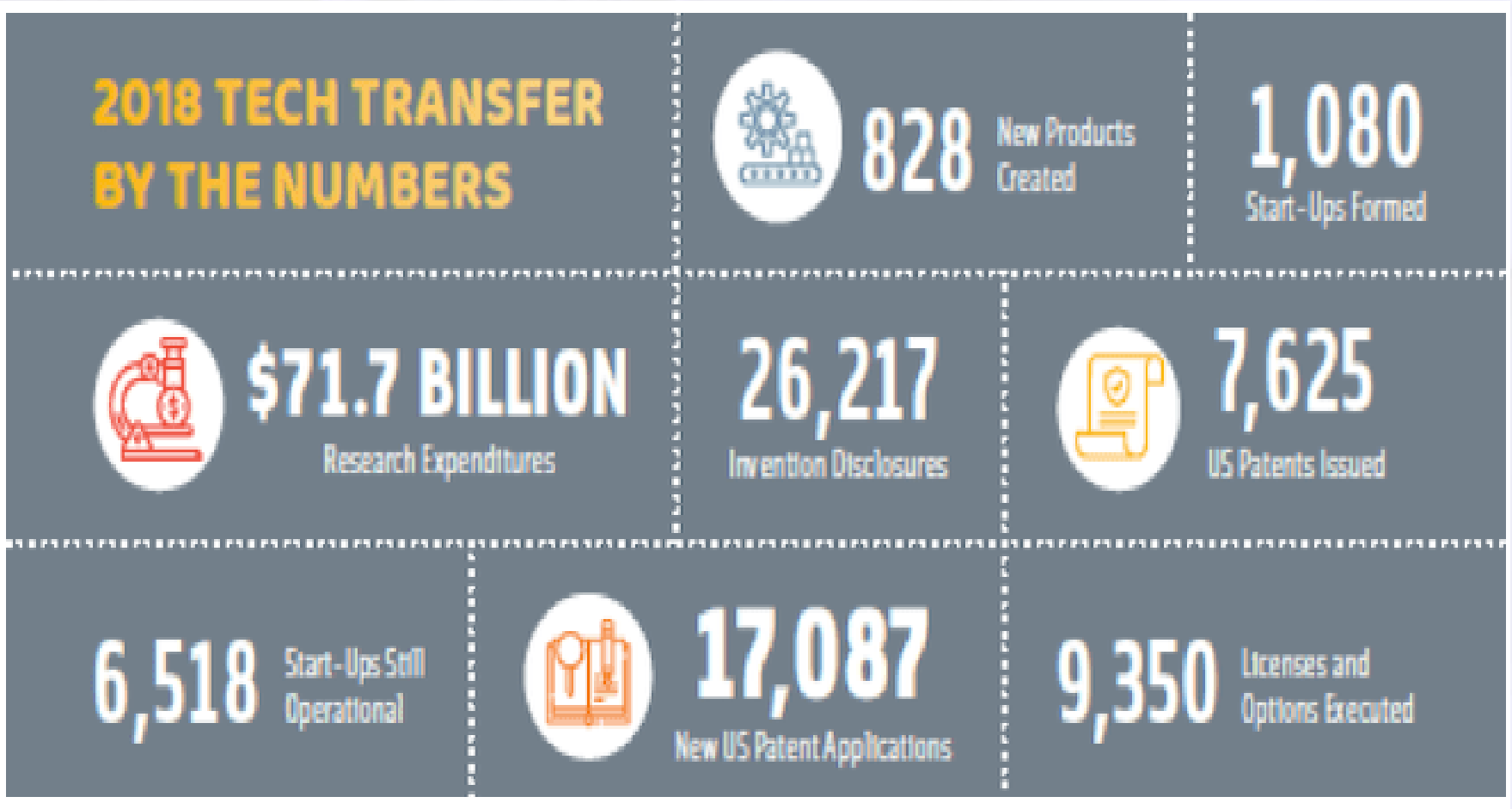
TT Vehicles:

1. Contract/ Sponsored research
2. Consultancy
3. IP protection
4. IP Licensing agreements
5. Spin-offs

- Access to leading edge scientific research, findings
- De-risk R&D cost and time
- Enhance R&D ability

TECHNOLOGY TRANSFER

- Bayh-Dole Act of 1980
- Types of licenses:
  1. Patent license
  2. Know-how transfer license
  3. Copyright license
  4. Trademark license
  5. Option license
  6. Marketing and distribution license



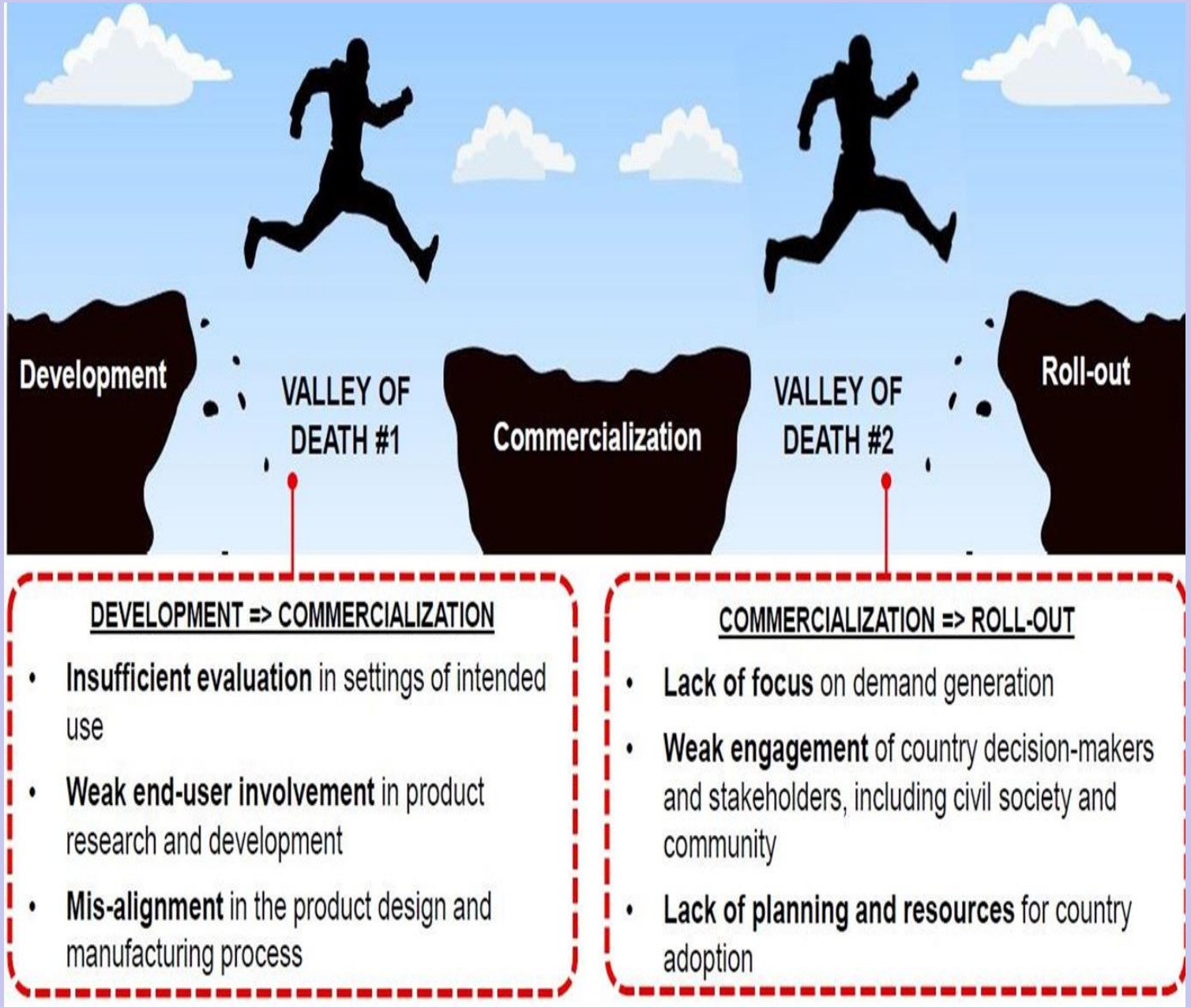
Source: This dashboard shows the metrics reported by AUTM for 2018, exhibiting the impact of technology transfer in the US.

COMMON CHALLENGES AMONG ACADEMICS

- Very research driven but not commercialise ready
- Lack market validation/ No Prototypes
- No right set of expertise/ skills to validate ideas
- Lack of information/ guidance on IP commercialisation
- Lack of industry collaboration/ networks
- Bureaucracy
- Insufficient financial resources earmarked to technology transfer by universities
- Faculty members/administrators have unrealistic expectations regarding the value of their technologies.

There is no one size fits all in tech transfer !

- Lack of funding to address finance gaps
- Not having access to appropriate facilities and incubators
- Not understanding the testing and validation process
- Difficulties encountered in obtaining regulatory certification
- Not having access to technical expertise
- Lack of awareness and support on IP protection, legal advisory, licensing, branding and marketing
- Lack of prototyping, productisation and market access support

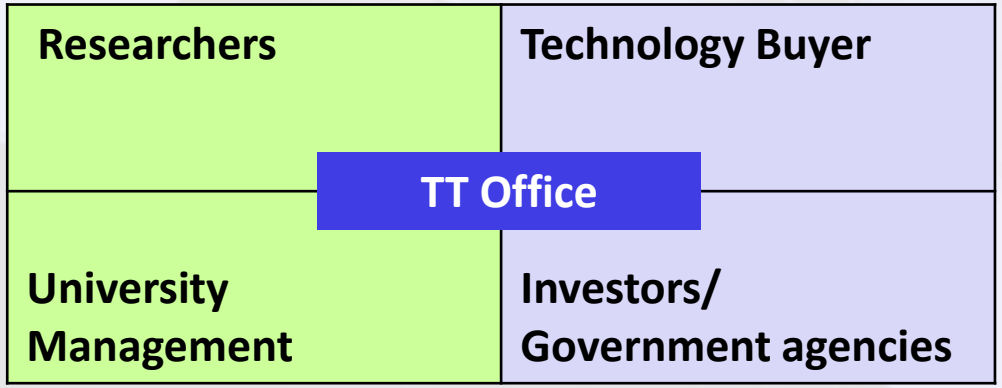


TECHNOLOGY TRANSFER OFFICE (TTO)

- A one-stop window for all the IP Commercialisation related matters of the university and should be in a position to provide the following services:

1. Create IP awareness among researchers
2. Establishing an organizational culture that fosters technology transfer
3. Technology Scouting & IP Promotion
4. Bridging the gap between invention & commercialisation
5. IP Protection & Management – To build a strong IP portfolio
6. Market Validation Programmes
7. Negotiation with prospective licensees
8. Assist academics with spin-out formations, licensing & commercialisation activities

TTOs can be a part of the university or a wholly-owned company of the university



TECHNOLOGY LICENSING

Each license should be tailored to the specific circumstances of the transaction considering such factors as the complexity of the invention, the field of use, and the overall value of the technology

I. TRL & Scope of Patent

II. IP ownership (background and foreground IP)

III. Nature/Type of IP licensing

IV. Scope of rights

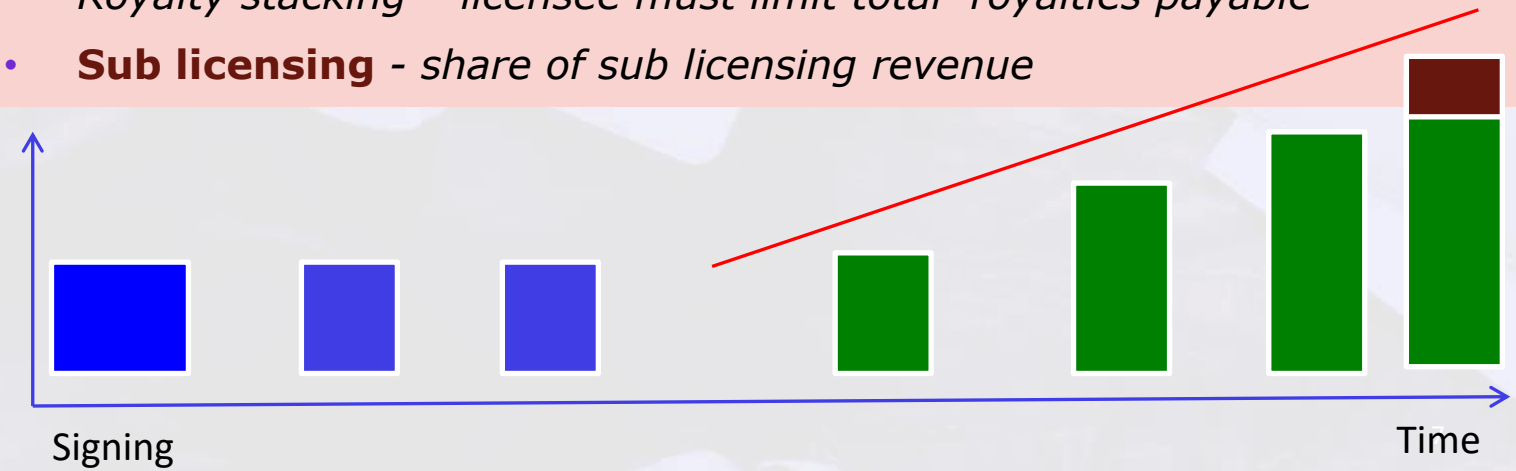
V. Territories, terms and terminations

VI. Financial terms, royalties

VII. Exclusivity

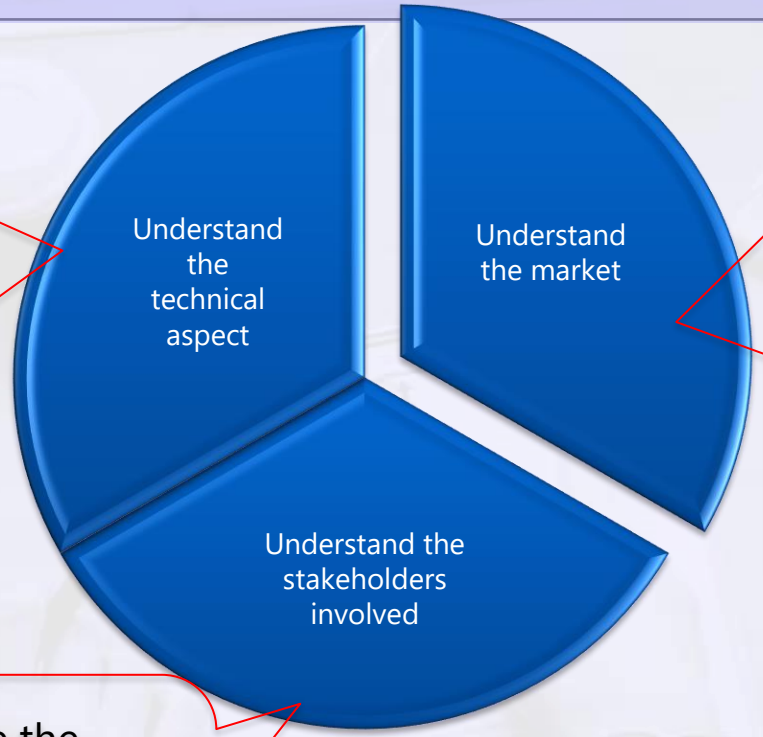
A number of financial terms can be used to share the revenues

- Licence fees - often a measure of licensees perception of risk
- Milestone payments – reflect success, potential income & risk reduction
- Royalties – income from Net Product Sales or partnering income
- **Minimum sums** – incentive to develop the technology or terminate
- *Royalty stacking – licensee must limit total royalties payable*
- **Sub licensing** - *share of sub licensing revenue*



Things to know when negotiating a license deal

- How strong is the IP
- How broad is the IP scope
- How near is the technology to the market



- How big is the market
- What is the market character
- What business model best suited for the IP

What are the expectations of the licensee and licensor and is there any common ground?

In any negotiation, preparation in terms of information gathering is normally 80% of the effort. The real face to face negotiation is just 20% of the total effort.

Every technology is different... and needs to be understood in detail

The Stanford University Story

- Of Stanford's more than 8,000 inventions, **about two-thirds of earnings come from just three (reported in 2010):**

  - Google's improved hypertext searching ($337 million),
  - DNA cloning ($255 million)
  - Functional antibodies ($229 million).

A brief statistical look at Stanford commercialisation Fiscal Year 11-12	
Disclosures received	504
Technologies that generated income	660
Licenses concluded	115
Gross royalties received	$76.7M
Technologies that generated over $100K	36
Income generated from liquidated equity	$1.2M

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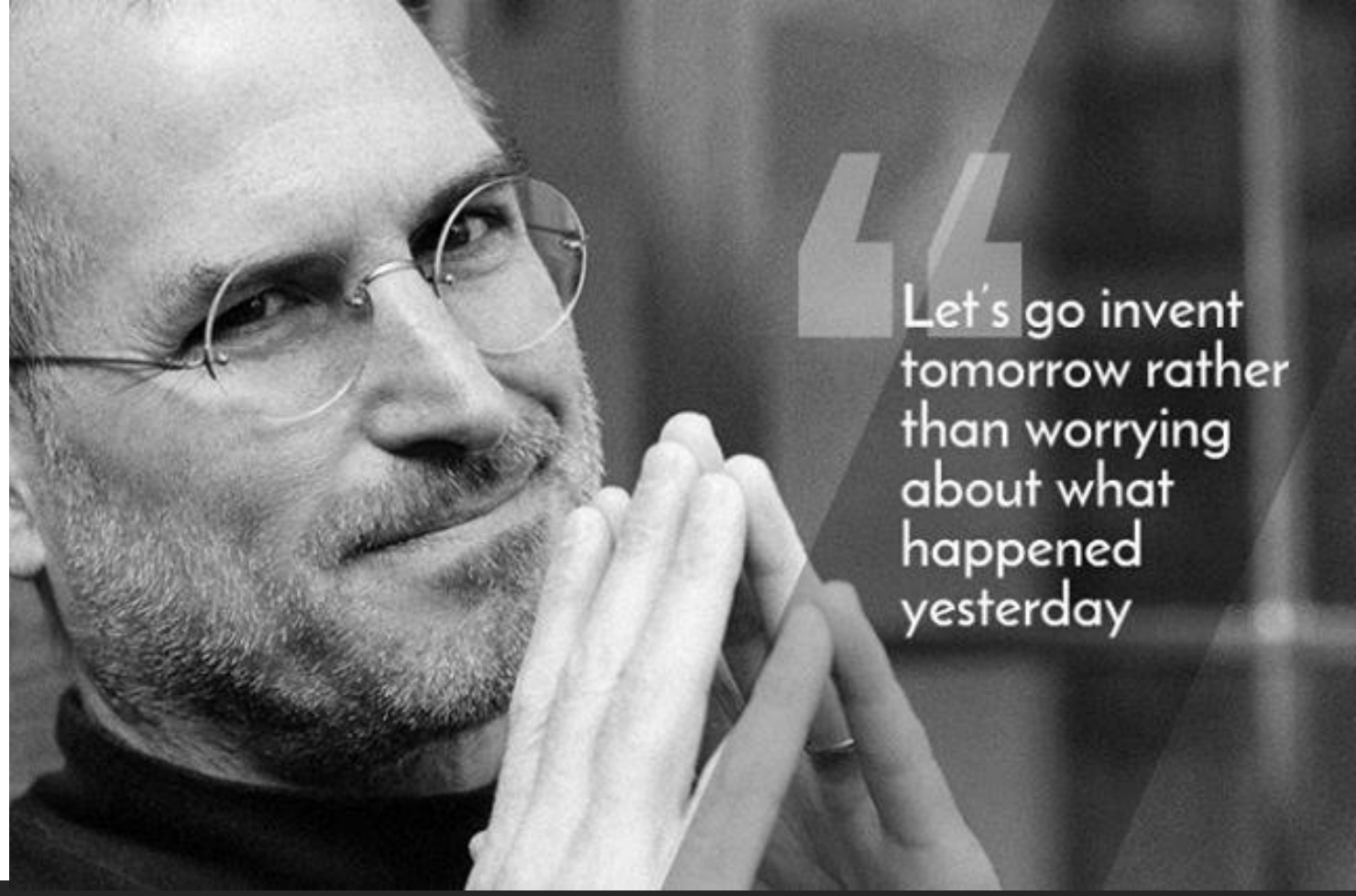

Thank You!