

- Technology transfer mechanisms
- Government support for new technology start ups & Funding of new technology firms

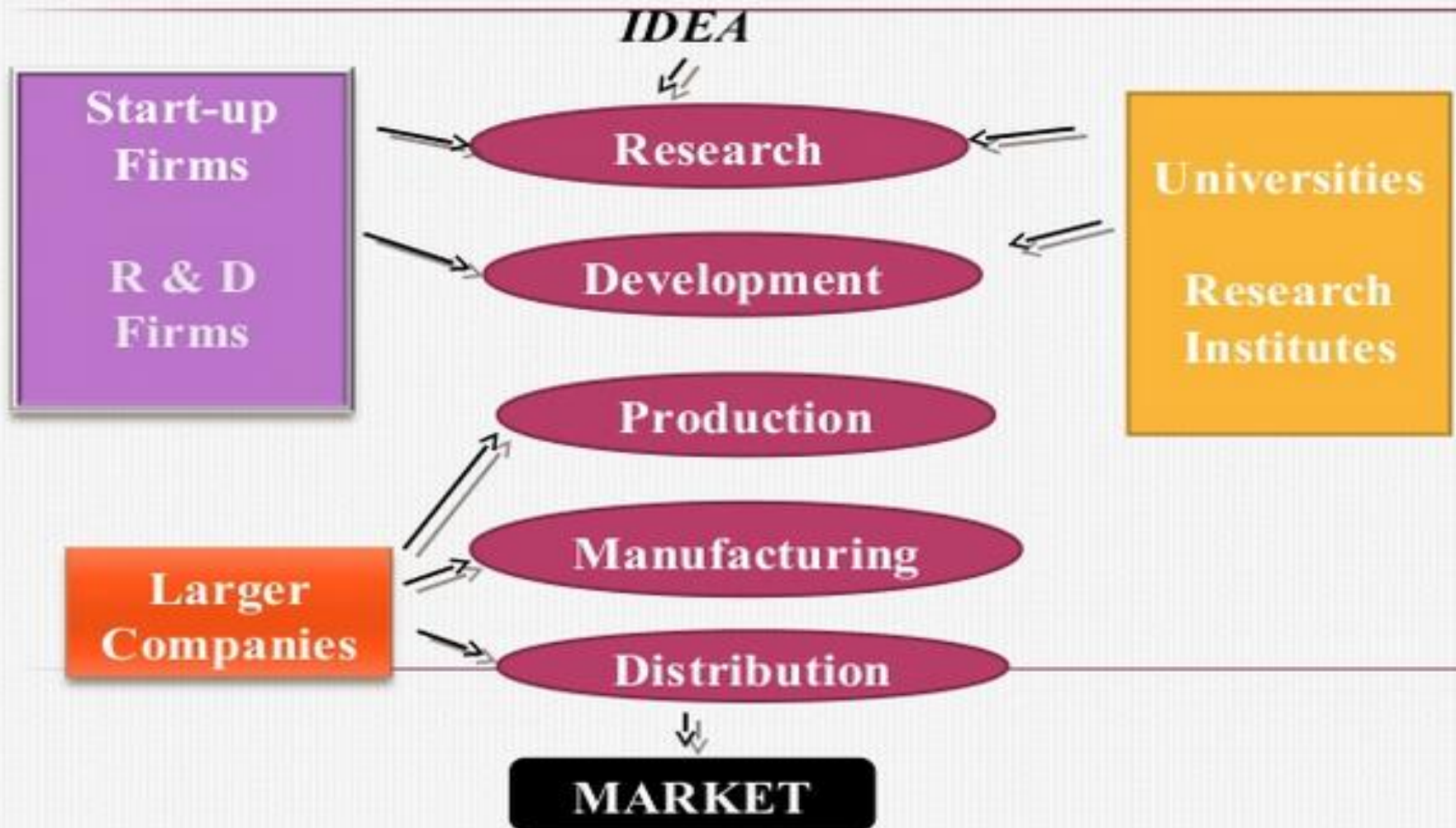
# Technology transfer mechanism

- It is the process which is **mainly concerned with the transfer of technology from the research areas to the “Production and Quality Assurance” environment**
- Technology can be acquired in two ways:-  
**develop it or purchase it.**
- Purchase of technology can be said as technology transfer.

# Technology transfer process



# Technology transfer agents



# Categories of technology transfer

CATEGORY	DESCRIPTION	EXAMPLE
Horizontal technology transfer	Near maturity technology may shift between countries	Licensing
Vertical technology transfer	From R & D organization to a firm	Nano technology
International technology transfer	Transfer across national boundaries	From industrialized countries to developing countries
Regional technology transfer	From one to another region of the country	Andhra Pradesh to Punjab
Cross industry technology transfer	From one industrial sector to another	Space program to commercial application
Inter-firm technology transfer	From one firm to another	Machine tool manufacturing firm to a producing furniture firm
Intra-firm technology transfer	Within a firm from one location to another	Mumbai factory to factory at chennai.

# Government support for new technology start ups & Funding of new technology firms

- Consider this. Close to 4,400 technology startups exist in India and the number is expected to reach over **12,000 by 2021**.
- **India is also at third place** behind US and Britain in terms of the number of startups.
- India has its own billion dollar club to boast about.
- This includes startups like Flipkart, Snapdeal, Ola, InMobi, Hike, MuSigma, Paytm, Zomato, and Quikr.
- With the next \$100 Mn funding raise, fintech startup MobiKwik too looks to join the unicorn club.(over \$1 billion)

# 10 Most Viable Start-Up Schemes

## 1) MUDRA The Micro Units Development and Refinance Agency

- provide funds to **micro and small enterprises**
- **No collateral** is required to avail this loan.
- Applicable for **manufacturing, trading, and even allied agricultural services.**
- 3 modules, Shishu (loan up to 50,000), Kishor (Loan between 50,000 and 5 lakh) and Tarun (Loan between 5 lakh and 10 lakh).

## 2) NABARD – The National Bank for Agriculture And Rural Development

- primarily aimed towards providing credit benefits to agriculture as well as other cottage and village industries.
- Also provides finance to lending institutions in villages.
- **Schemes for food processing plants and integrated rural development,**
- **Its Dairy Entrepreneurship Development scheme offers up to 90% of the project cost (minimum 10 lakhs to maximum 150 lakhs) to budding entrepreneurs.**

# 10 Most Viable Start-Up Schemes

## 3) Credit Guarantee Scheme –Credit Guarantee Fund Trust for Micro and Small

- **provide business loans to micro and small industries, with zero collateral.**
- New and upcoming startups can avail loans at **highly subsidised interest rates** without providing any security.
- Working along with SIDBI (**Small Industries Development Bank of India**), the **government provides a maximum amount of up to 100 lakhs under this scheme**, for boosting new enterprises **as well as rehabilitating existing ones.**
- Primarily for manufacturing units, this loan can be availed in the form of **working capital or term loan.**

## 4) NewGen IEDC – NewGen Innovation and Entrepreneurship Development Centre

- Centre is applicable to industries like healthcare services, chemicals, hardware, aeronautical/defence, IT, AR/VR, construction, design, food and beverages, textiles, nanotechnology, and renewable and non-renewable energy sources, among others Also provides finance to lending institutions in villages.
- It provides a **one-time non-recurring loan of up to 25 lakhs to finance startup units**



# 10 Most Viable Start-Up Schemes

## 5) Stand Up India Scheme

- To cater to **women entrepreneurs, as well as those from SC and ST communities.**
- Ranging from **10 lakh to 100 lakh**, it is available for **Greenfield ventures** in manufacturing, trading, and service units.
- It is mandatory for every bank to lend money to at least one woman entrepreneur and one SC/ST unit per branch.
- **In case of non-individual businesses, the woman entrepreneur must hold at least a 51% stake in the unit.**
- The loan can be provided as working capital with a **maximum return period of 7 years.**

## 6) AIC –Atal Incubation Centres

- Provide grant-in-aid of **Rs. 10 Cr to every AIC.**
- Duration of the grant is a maximum of **5 years.**
- Provide financial aid and infrastructure assistance to startups in sectors like chemicals, technology hardware, healthcare & life sciences, aeronautics/aerospace & defence, agriculture, AI, AR/VR (augmented + virtual reality), automotive, telecommunication & networking, construction, design, non-renewable energy, renewable energy, green technology, fintech, Internet of Things, nanotechnology, and food & beverages, among others.
- **Conducting training and entrepreneurship workshops**, organizing inspirational programs, enabling access to necessary infrastructure, prototyping or research facilities, as well as creating a group of mentors to guide the entrepreneurs, are some of the tasks that an AIC is expected to perform

# 10 Most Viable Start-Up Schemes

## 7) CLCSS – Credit Linked Capital Subsidy Scheme

- to provide **subsidy to manufacturing units** who have **upgraded their machinery with state-of-the-art equipment.**
- To encourage manufacturing units to buy the latest equipment, and facilitate technology upgradation.
- Any SSI unit which has upgraded its machinery can apply for a **15% subsidy on a loan amount of up to 1 Cr.**

## 8) SMILE –SIDBI Make in India Soft Loan Fund for Micro, Small, and Medium Enterprises

- provides soft loans to MSME units at reasonable terms, **to meet the debt-equity ratio of a unit or to help in its growth and expansion.**
- Applicable for a maximum period of **3 years.**
- Amount disbursed varies on the category the unit falls under, **with 10% or a maximum of 20 lakhs for General category, and 15% or a maximum of 30 lakhs for SC/ST, PwD, and women**

# 10 Most Viable Start-Up Schemes

## 9) Loan for Rooftop Solar PV Power Projects – Headed by the Indian Renewable Energy Development Agency (IREDA)

- promotes renewable energy development **by providing support for solar PV projects on rooftops.**
- **Provide 70% of the project cost**, while the entrepreneur will contribute the remaining 30% of the amount.
- May **extend the loan amount to 75% of the project cost.** The loan has to be repaid in a **maximum of 9 years.**

## 10) M-SIPS – Modified Special Incentive Package Scheme

- provides **capital subsidies to manufacturing and electronic units in sectors of technology hardware**, IoT, automotive, renewable and non-renewable energy sources, nanotechnology, green technology, and aerospace and defence industries.
- There is a provision for **20% capital subsidy in SEZ**, and **25% in non-SEZ**, for business units in manufacturing and electronics

# Individual Activity

- Go to the following link and find out the best suitable start up scheme for you
- Write a short note about this scheme and reason of choosing it.
- <https://www.startupindia.gov.in/content/sih/en/government-schemes.html>