



Technology Commercialization

“How it works in ETRI”

Apr. 11, 2019

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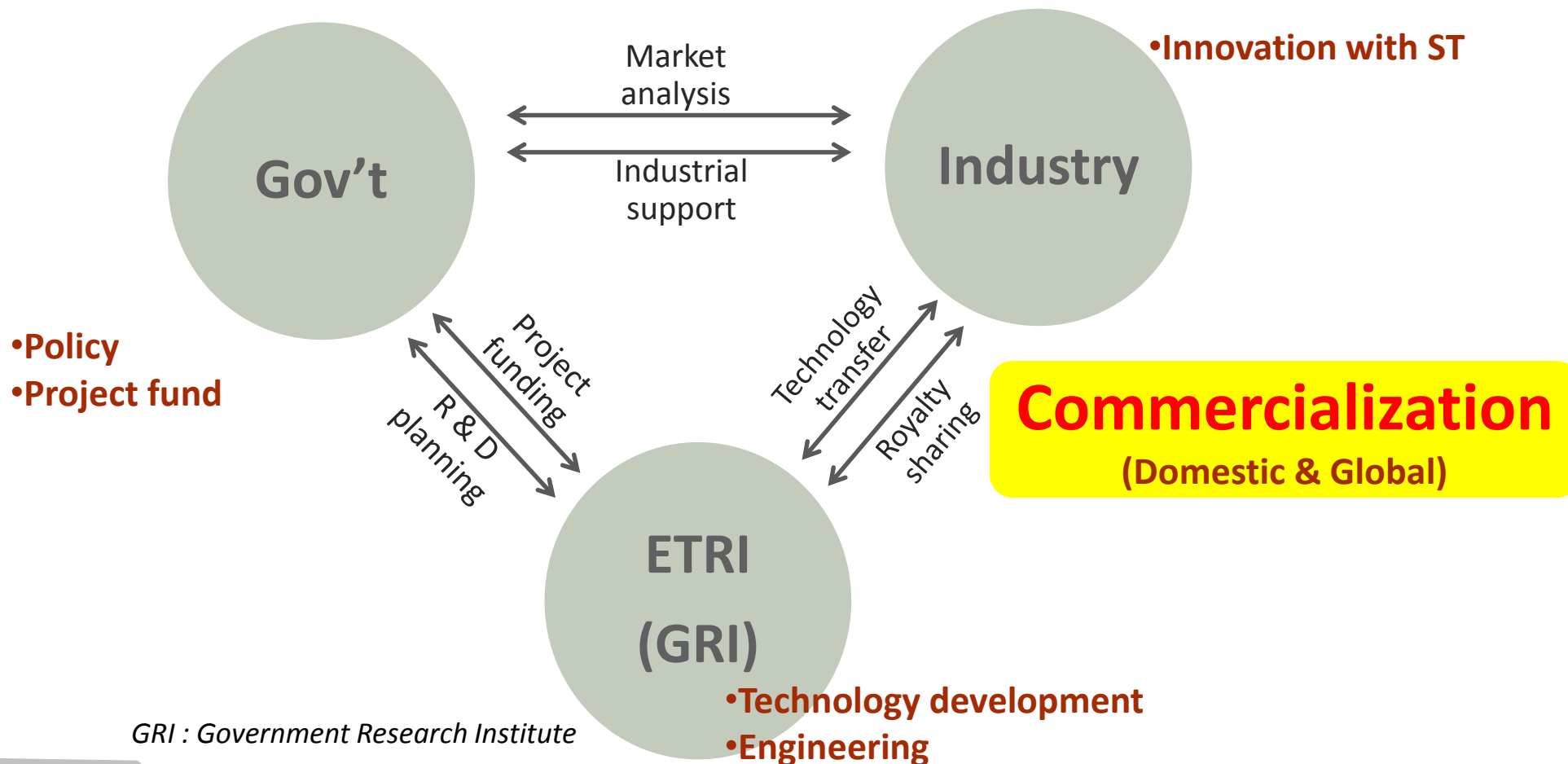
Executive Director of R&D Commercialization Department



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R&D Eco-cycle and STI

Yearly, Over 200 technologies transferred for commercialization



ETRI Technology Portfolio

SW.ContentsTechnology

- Big-Data
- Embedded System
- VR/AR Technology
- Artificial Intelligence
- U-Health/Lifecare
- Autonomous Driving
- Supercomputing
- Intelligent Robotics
- Autonomous Driving
- Intelligent mail distribution

Hyper Connected Technology & 5G mobile communication

- 4G 5G mobile communications
- High-Speed wireless communications
- Smart GRID, Smart Farm
- Internet-Based Converged Network
- Information Security
- Optical Network
- Hyper-connected Future Tech.
- IoT, Smart Factory

Broadcasting & Media Technology

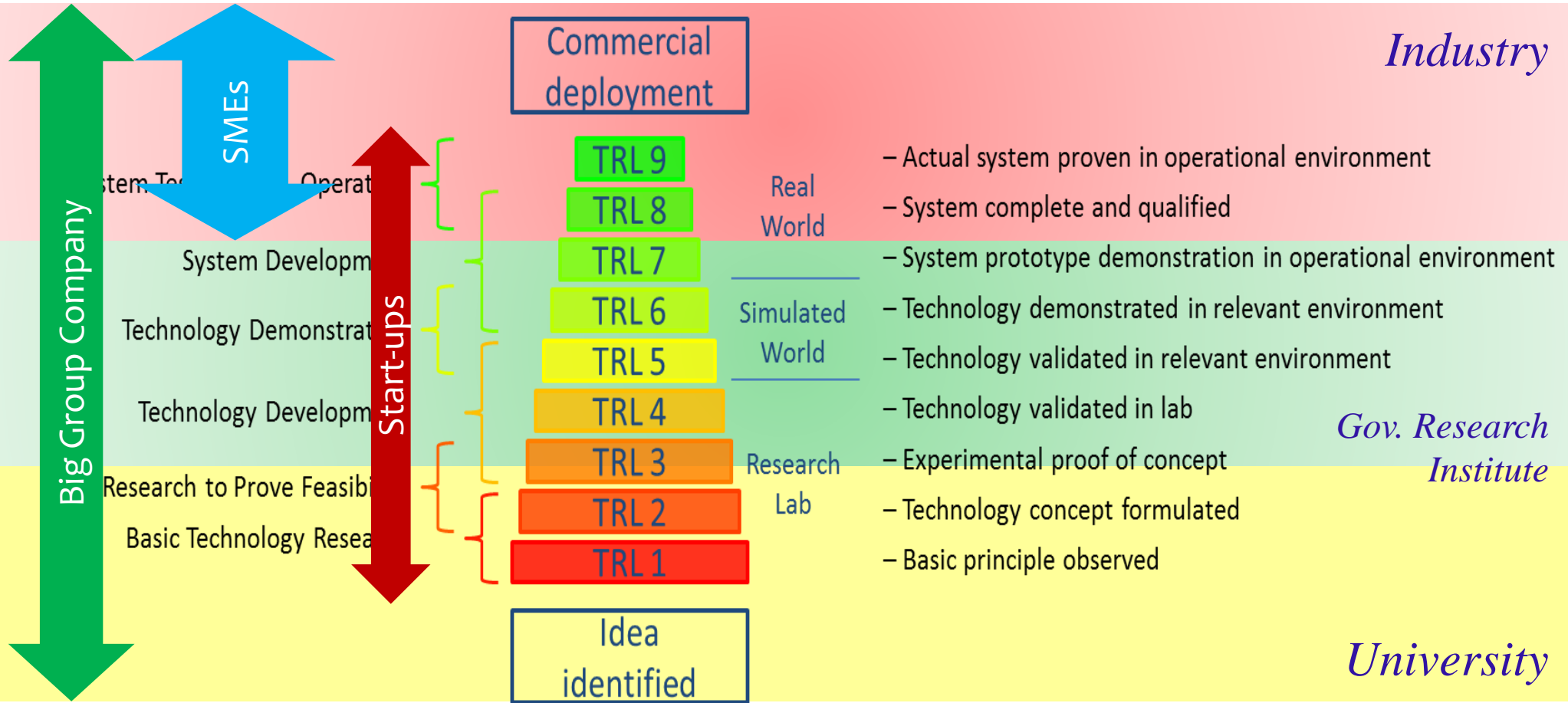
- Ultra-realistic media (3D TV, UHD TV, panorama, AR broadcasting and holography)
- Smart Screen, Smart TV, Smart Convergence Media, Smart Mobile Broadcasting
- Satellite tower, Payload navigation, VSAT, Ground Station
- Frequency Sharing, Electromagnetic Environment

ICT Materials & Components Technology

- OLED Lighting
- Power Semiconductor Device
- MEMS sensors
- Solar cells
- THz Photonics
- Nano Convergence Sensor
- Optical Internet Components
- RF Convergence Components
- Graphene Electronics

TRL Portfolio

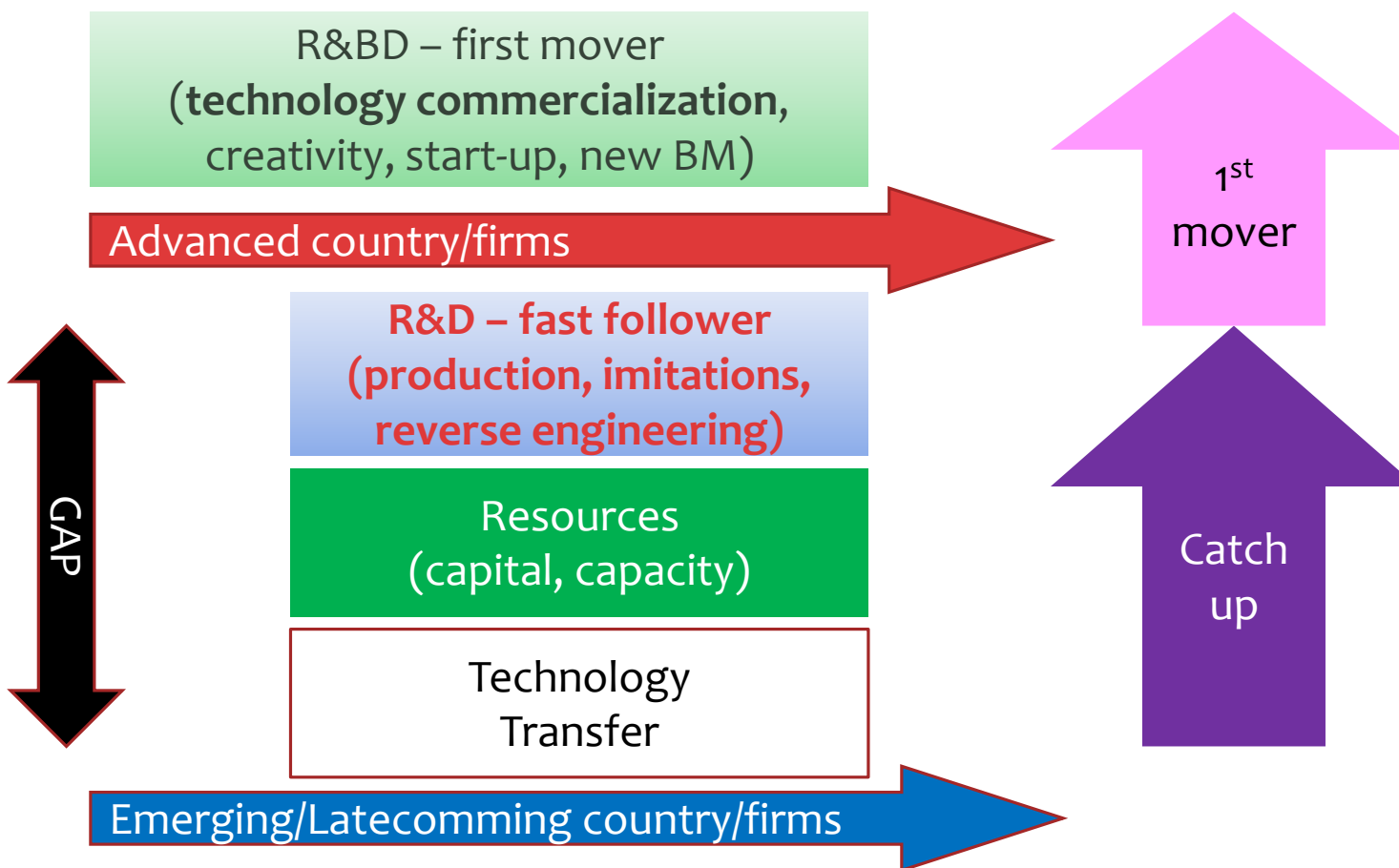
▶ TRL: Technology Readiness Level



<http://www.odobreno.si/en/9-secrets-of-top-5-sme-instrument-beneficiaries/>



Innovations and Catching-up





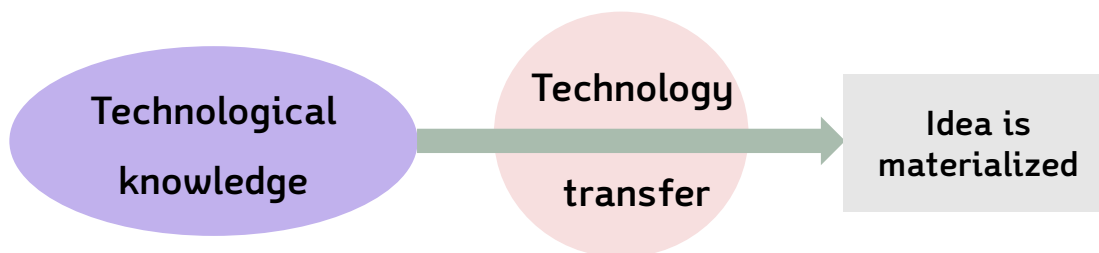
Open and Closed Innovation



The centrality of the discovery process and economic knowledge

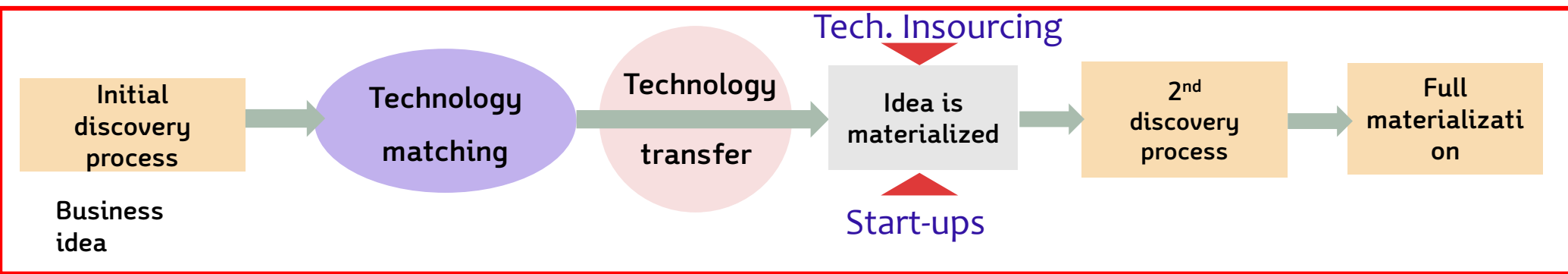
Technology push
Fast follower

Closed



Market driver
First mover

OPEN





Technology Commercialization



Zooming in market demand technology

Setup Business Model

**Technology
Transfer/
Licensing**

Startups

**Spin-off/
Joint
Ventures**

**Incubating/
Accelerating**

Globalization of ETRI Technologies

ETRI Technology Transfer

- ▶ ≙ 2,000 IT and IT Convergence Technologies
 - ▶ IP, Engineering/Analysis Doc., Algorithm, Know-How, Etc.
- ▶ Domestic or Foreign Companies for Commercialization (non-excl., at a cost)

ETRI Tech-Transfer Web(<https://itec.re.kr>) or ETRI Tech-Transfer Mobile App.



ETRI Patent Licensing

- ▶ ≙ 18,000(last 5 yrs.) Patents available for licensing
- ▶ License Patents to Domestic or Foreign Industries
 - ▶ Exploit Necessary Technologies (at a Cost)

Search ETRI Patent After logging-in <http://www.etri.re.kr>

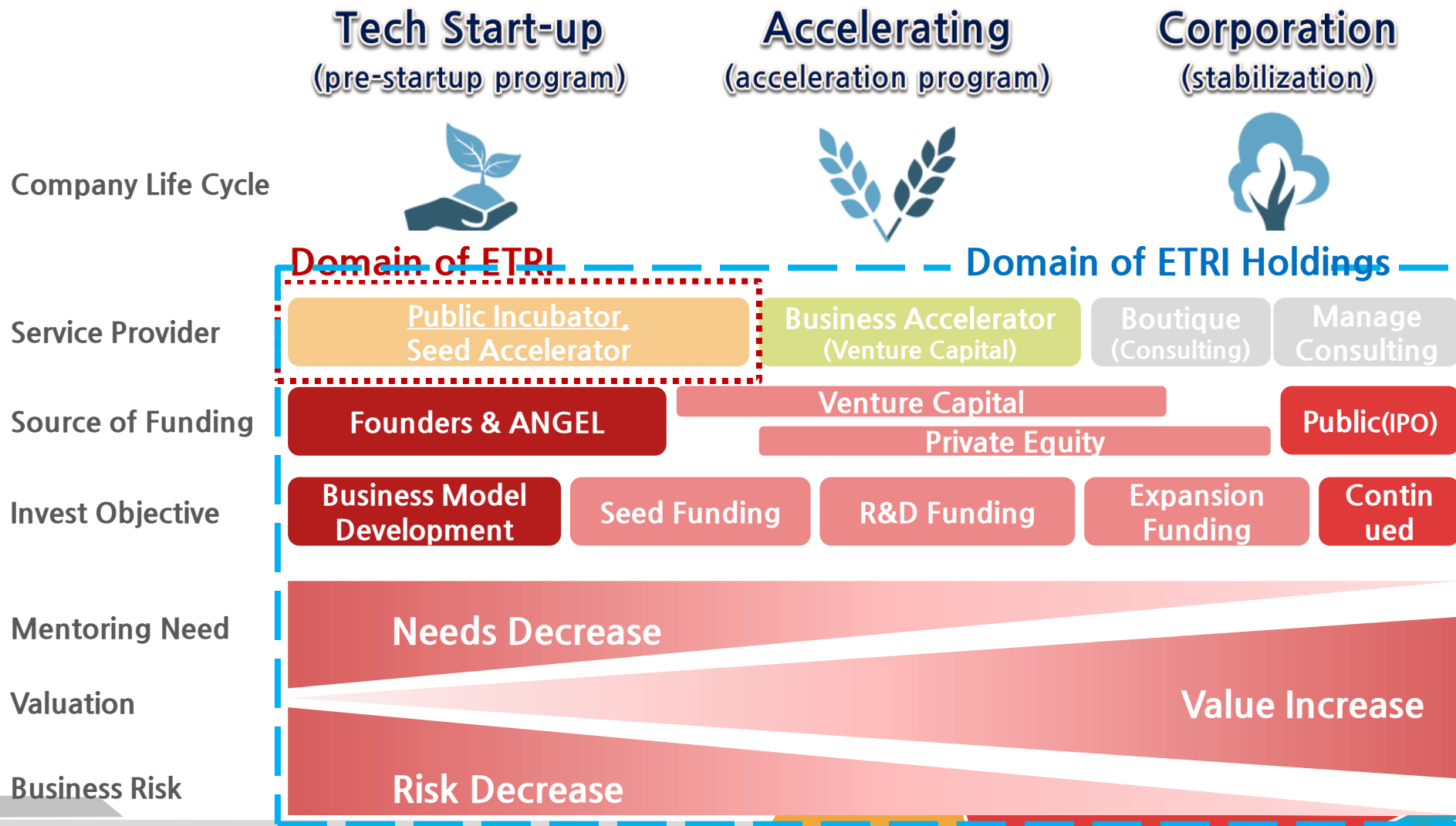
The screenshot shows the ETRI Patent Search and Licensing website interface. The interface is in Korean and features a search bar, a navigation menu, and a search results table. A red box highlights the search bar and the search results table. A red arrow points from the search bar to the search results table. The search results table lists patent numbers, titles, and dates.

번호	출원명칭	출원일	등록일
24779	다시문 용량성을 부호화 하는 방법 및 장치	2007-05-04	2014-12-30
24778	통합 프로세서 기반 폐기 라벨 저장 방법 및 장치	2007-05-09	2014-02-26
24777	방송 서비스 방법 및 그 장치	2007-08-31	2014-02-10
24776	다중통신 시스템에서의 라디오 기판의 자원 요청 방법	2007-03-08	2014-01-16
24775	단방향 계층간 상호 동작 제어 방법 및 그 장치	2007-01-16	2014-01-13
24774	스케줄링 메커니즘을 이용한 시그널링 방법 및 그 장치	2007-01-04	2014-01-13
24773	무선 통신 환경에서의 유계 코어 네트워크 방법	2007-11-07	2014-01-13
24772	화상회의 제어 및 데이터 송수신 방법 및 장치	2007-10-09	2014-01-13

ETRI가 보유한 특허를 실시하거나 양도 받기를 희망하는 기업은 검색 서비스를 이용하시기 바랍니다



Start-up & Scale-up Platform

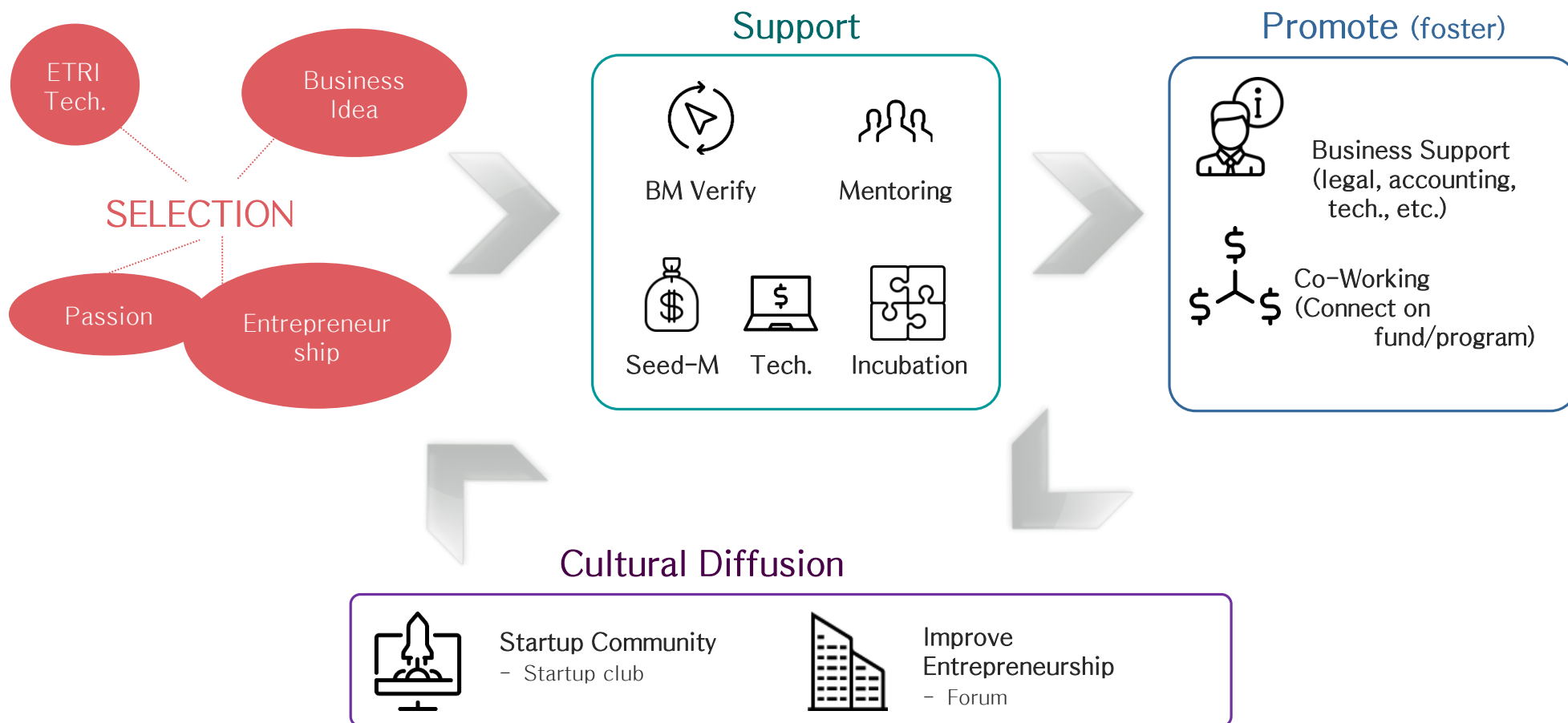




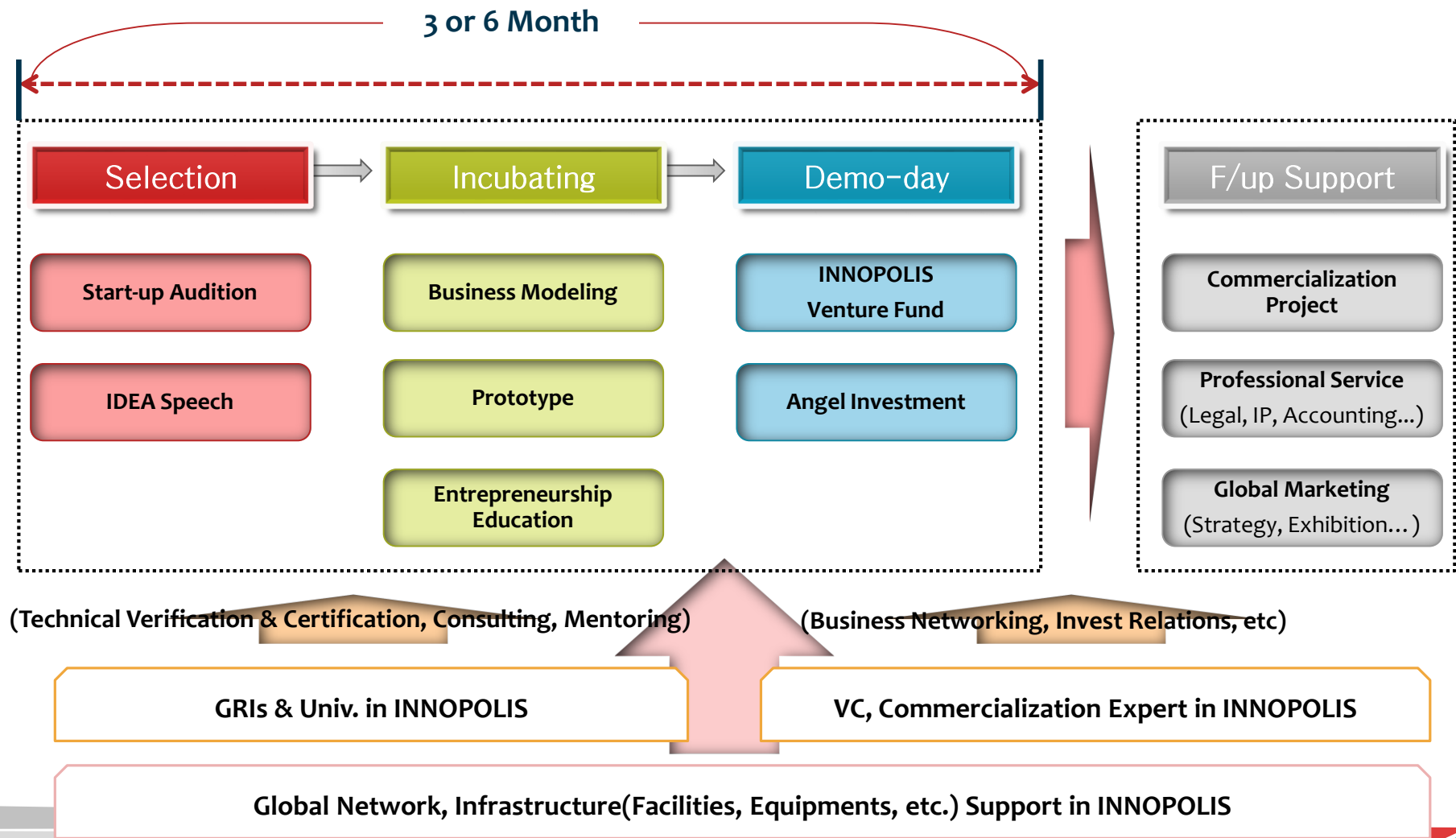
Start-up & Scale-up Platform



ETRI STARTUP Support Program (for Entrepreneur who uses ETRI tech.)



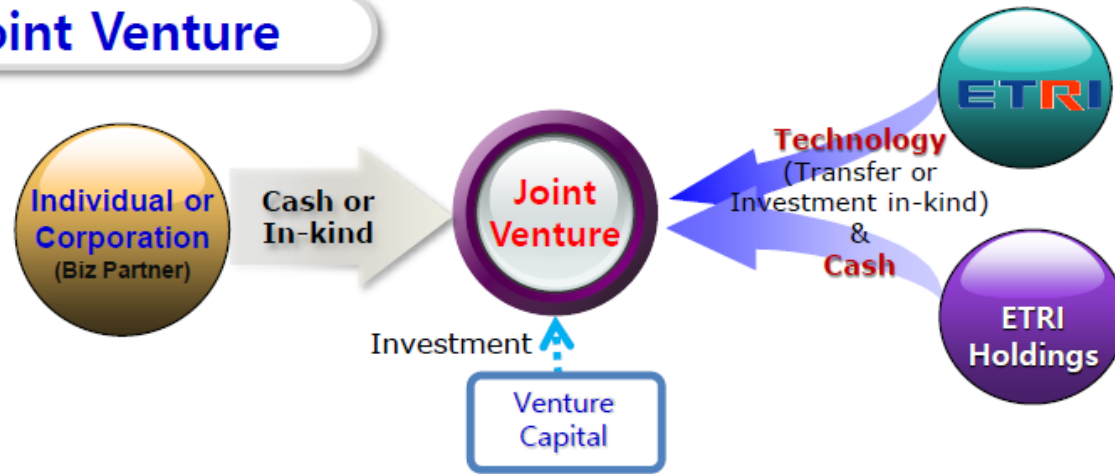
Start-up & Scale-up Platform



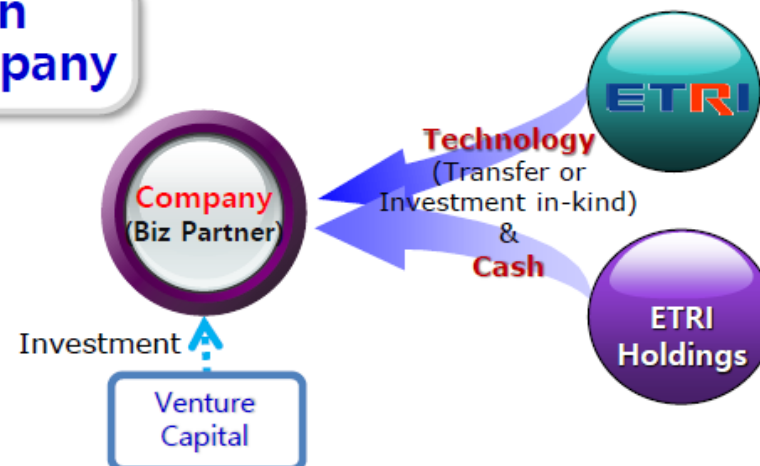
ETRI Holdings Spin-Off

ETRI Holdings has two types of investment model based-on technology commercialization.

Joint Venture

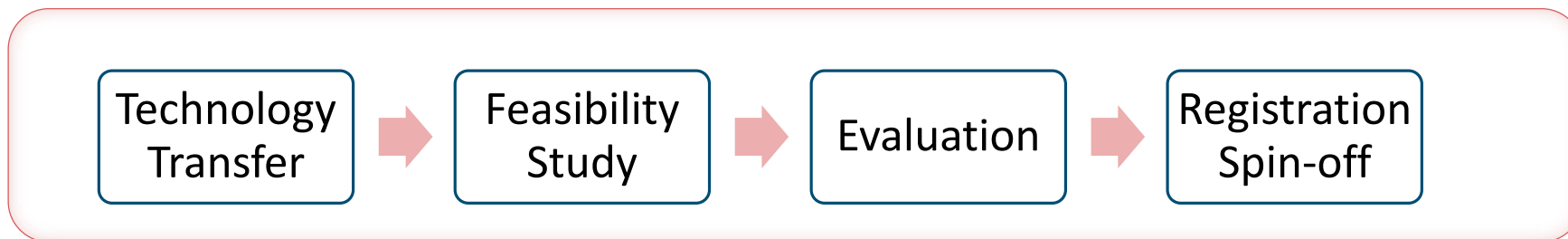


Investment in an Existing Company



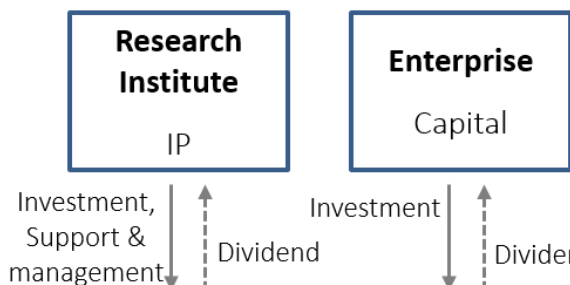
ETRI Holdings Spin-Off

Procedure of Establishment



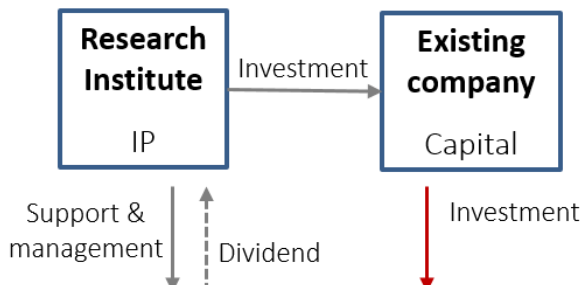
Establishment Types

Type 1



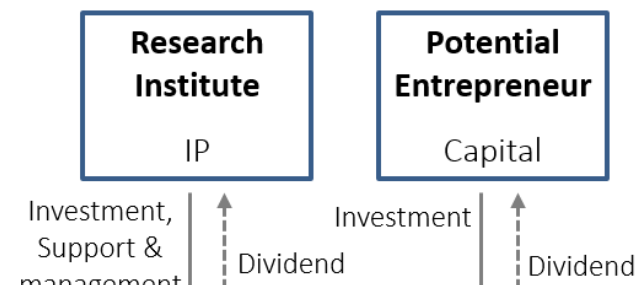
Research Institute Spin-off

Type 2



Research Institute Spin-off

Type 3



Research Institute Spin-off

Research Institute Spin-off

ETRI Holdings

Definition

Research Institute Spin-off refers to an enterprise established by a legally qualified body (public research institute, industry-academe cooperation technology holding company, etc.) within an INNOPOLIS to commercialize its technology. It shall be registered according to the Special R&D Zone Act.

Conditions

The institute or the company, individually or jointly, shall own over 20% of the capital of the research institute spin-off company and establish it within a INNOPOLIS to commercialize the technology transferred from a public research institute.

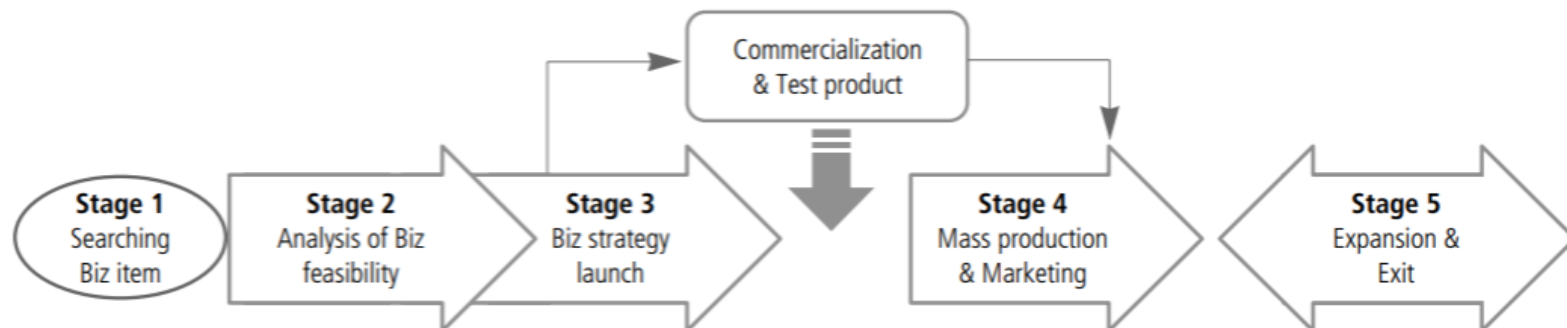
※ INNOPOLIS: Daedeok, Gwangju, Daegu, Busan, Jeonbuk

Research Institute Spin-off

ETRI Holdings

Benefits

- ❖ Tax
 - National taxes: income tax and cooperate tax exemptions (100 % exemption for 3 years and 50 % reduction for the next 2 years)
 - Local taxes: acquisition and property tax exemptions (100 % exemption for 7 years and 50 % reduction for the next 3 years)
- ❖ Business Support
 - support for linkage with the target business
 - support for consulting and financing



Tech. Commercialization Division

R&D Commercialization

- Commercialization Strategy
- R&BD Cooperation
- Start-up Incubation

SMEs Cooperation

- R&D Manpower Support
- R&D Equipment Support
- Tech. Commercialization Support

Intellectual Property Management

- Technology Transfer Management
- Intellectual Property Management
- Intellectual Property Business



SUMMARY

ETRI | **Technology Innovator**

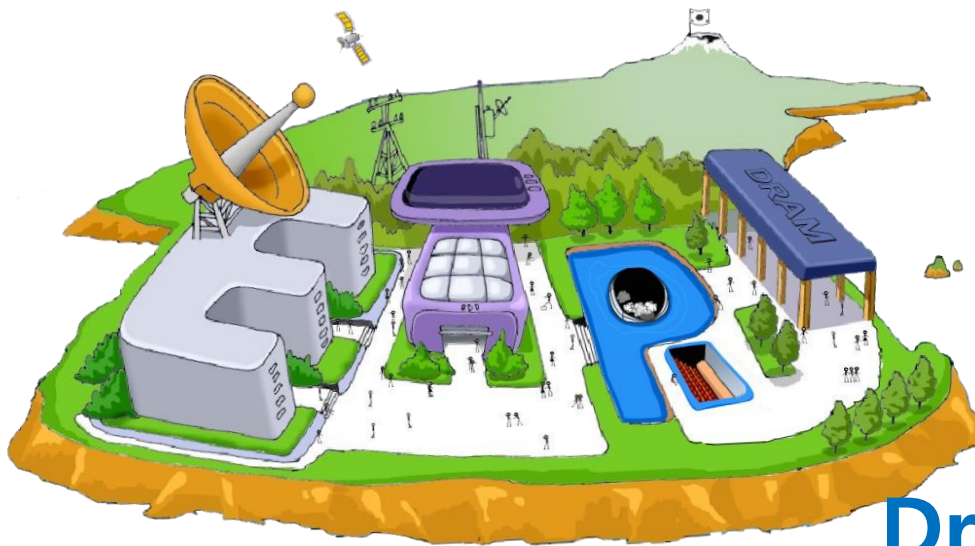
Securing core original technology to lead a new ICT paradigm

ETRI | **Technology Provider** to Industry

Expanding growth support for SMEs to foster competitive business including Globalization

Q&A

<https://www.etri.re.kr/40th/eng/index.html>



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