

# VET Schools: from a traditional to a transformational role for students, enterprises and society

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ON VOCATIONAL  
EXCELLENCE

GLOBAL PARTNERSHIPS FOR  
VOCATIONAL SKILLS

SAN SEBASTIAN, BASQUE COUNTRY, SPAIN



# Traditional vs transformational role of VET

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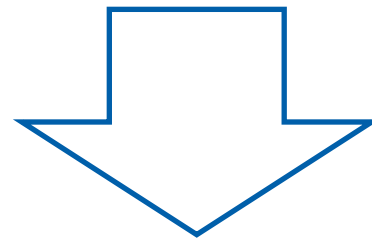
## VET for what?

**TRADITIONAL**



Teaching providers (initial VET)  
→ Strong connection to sectoral demands

Unique function/mission?



**TRANSFORMATIONAL**



More than teaching provision...

Multiple functions/objectives?

# Transformational role of VET

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## Key reasons (Navarro, 2018)

- SMEs **need for innovation** coming from outside: external but proximal agents others than universities and technology centres
- **Regionalization processes:** competitiveness is determined at the local and regional level. **Local nature of VET schools** provides them relevant and potential roles for competitiveness development.



**TRANSFORMATIONAL  
ROLE**



Multiple functions

# Transformational role of VET

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## Key external factors (Navarro, 2018)

- Local **sectoral and business structure**: the more industrial the more potential for transformational role of VET
- **Labour market institutions**: the more flexible the labour market the more potential for transformational role of VET (USA, Canada, Australia)
- **Support institutions for innovation and knowledge development**: the more institutions the less multifunctional potential
- **Public funding of VET**: schools highly dependent on public funding are more likely to look for multiple functions



**TRANSFORMATIONAL  
ROLE**



Multiple functions

# Transformational role of VET

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## Key internal factors (Navarro, 2018)

- **School based learning process**
- **Provision of higher levels of VET education** means higher capacities
- **Provision of different educational levels**
- **Funding sources:** private schools have higher **autonomy**
- **Legislation**
- **Size:** the bigger the school the higher potential for being multifunctional...
- **Background:** business association vs. group of investors...
- **Human capital:** the more industrial and research experience the more extra functions...



**TRANSFORMATIONAL  
ROLE**



Multiple functions

# Transformational role of VET

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## TRANSFORMATIONAL ROLE



### **Non traditional functions** (Navarro, 2018)

- ✓ General education: young and adult people
- ✓ Continuous education
- ✓ **Applied research/technical services**
  - Local and regional development
  - Support for SMEs
  - Improving teaching
- ✓ Entrepreneurship
- ✓ Local development strategies / knowledge structures linkage

### **Complex process:**

- No risk for main mission
- Covering regional needs
- Making teaching stronger
- Need for resources and knowledge
- Schools collaboration

US' Community colleges?

## Basic research

Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view (OECD, 2012).

### What?

**Science and Technology  
(STI model)**

### Who?

**Universities  
Research Centres**

**Closer to big  
companies needs**

# Basic vs applied research

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## **Applied research**

Original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective (OECD, 2012).

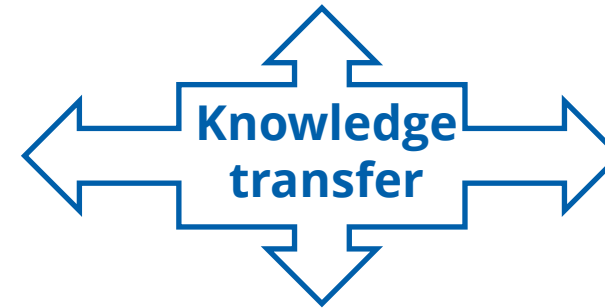
## **In VET context...**

“Solving real-world problems in industry” (Simon & Beddie, 2017)



## What?

**Create new knowledge**  
**Use existing knowledge in new and creative ways** (Simon & Breddie, 2017)  
**Learning by doing/using/interacting**  
**(DUI model)** (Navarro, 2018)  
**R+D+I**



**Promoting innovation**



## Who?

**Universities**  
**Research Centres**

**Technological centres**  
**KIBS**

**VET schools**

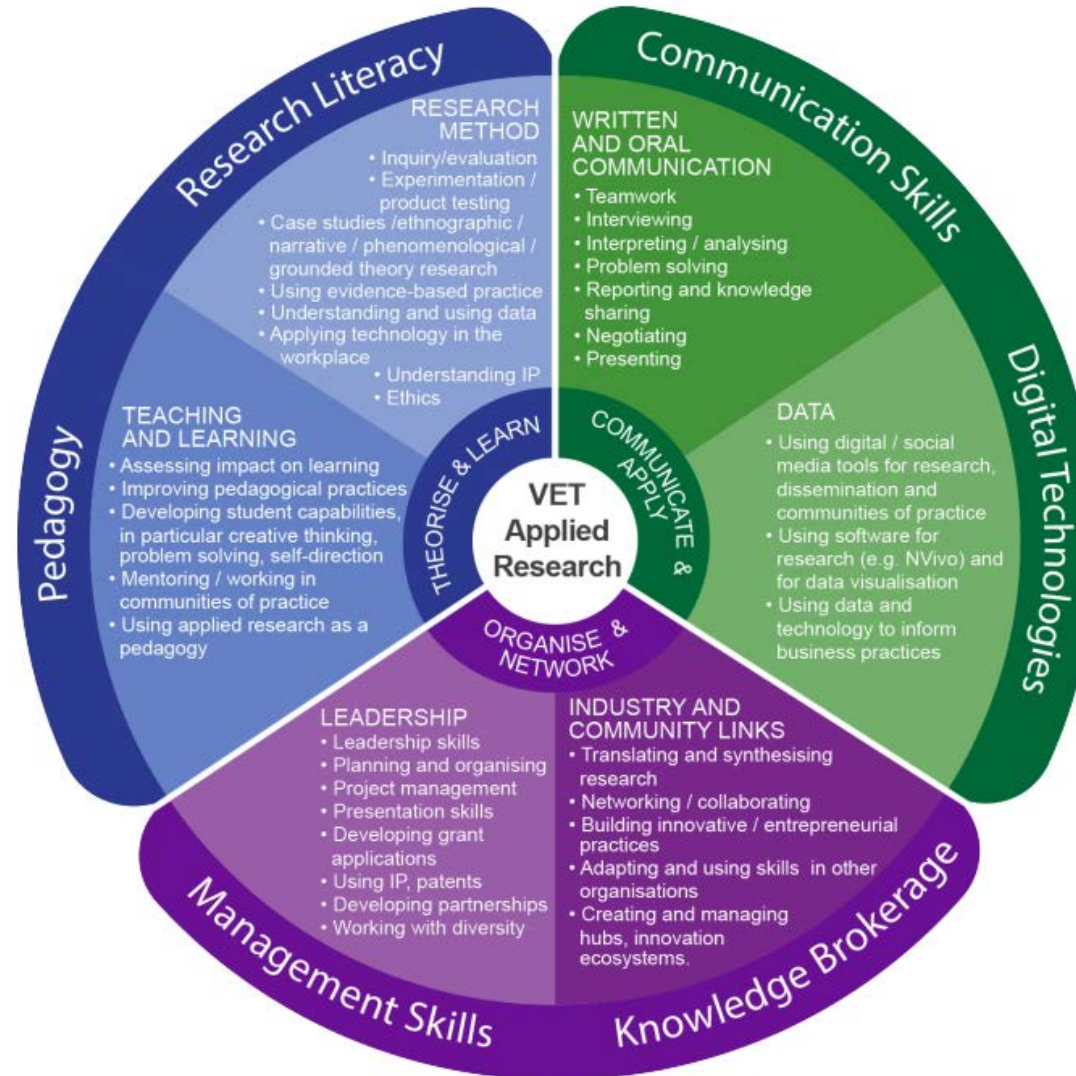
→ **Closer to SMEs needs and capacities**  
**(Navarro, 2014)**  
**Excellence in the VET field**

**Politechnic Institutes**  
**Community colleges**  
**Applied sciences universities**

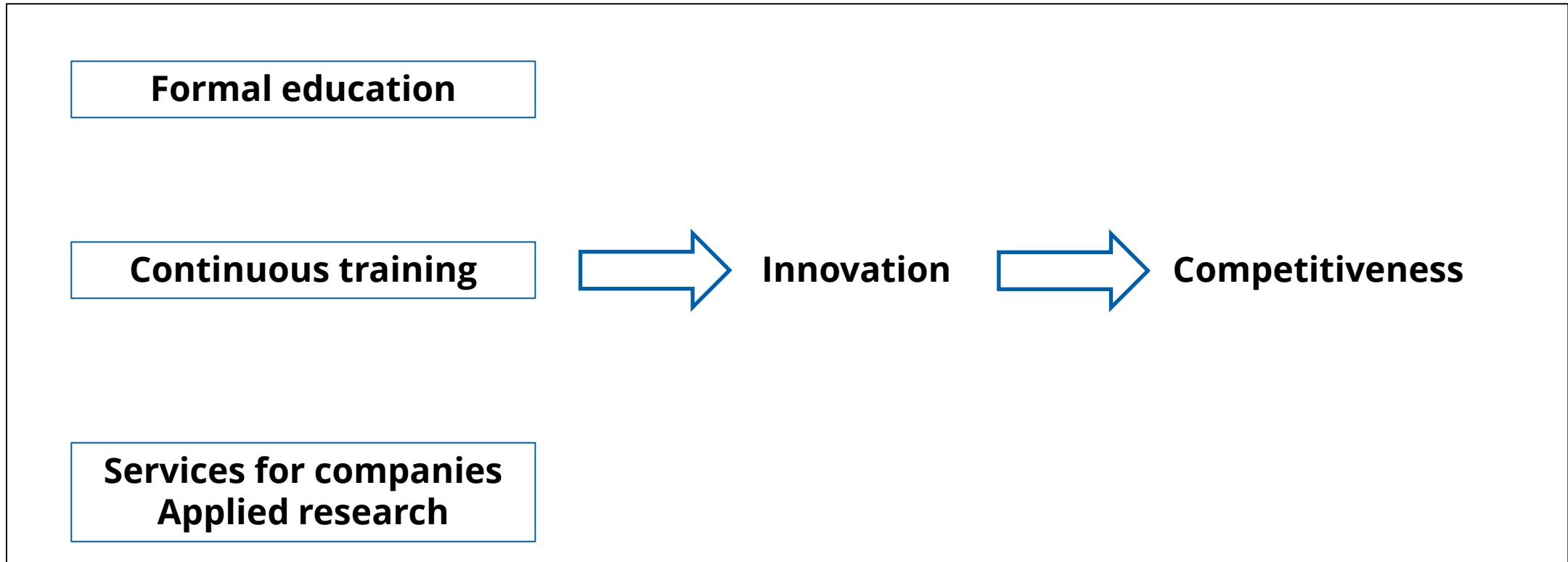


# VET Applied research: skills needed

## The VET applied research developmental framework (Simon & Breddie, 2017)



## VET: a key component of RIS as a knowledge development structure



## Applied research

→ **Solving problems**  
**(improving knowledge**  
**in VET field)**

→ **Improving Teaching on VET**



**Development of "specialist pedagogy for industry expertise" (Corbel et al. 2014 cited by Simon & Breddie, 2017)**

**Important element in building a workforce capable of innovation (Simon & Breddie, 2017)**

# Research and Applied Innovation System of Euskadi's VET

1

Smart Euskadi Specialisation Strategy, RIS3. Basque Government.

Governance policy coordination.

## RESEARCH AND APPLIED INNOVATION SYSTEM OF EUSKADI'S VET

Agents in the Basque Network of Science and Technology

International Points of Reference

Driving Companies

Joint development. Agreements

Prospective. Collaboration.

2

Network Hubs

Prioritising lines of action.

3

Innovation projects of VET centers

4

Areas of Specialisation Tknika Projects.

5

Strategic Settings Tkgune.

Innovation focused on the needs of their environment

Knowledge development in emerging sectors

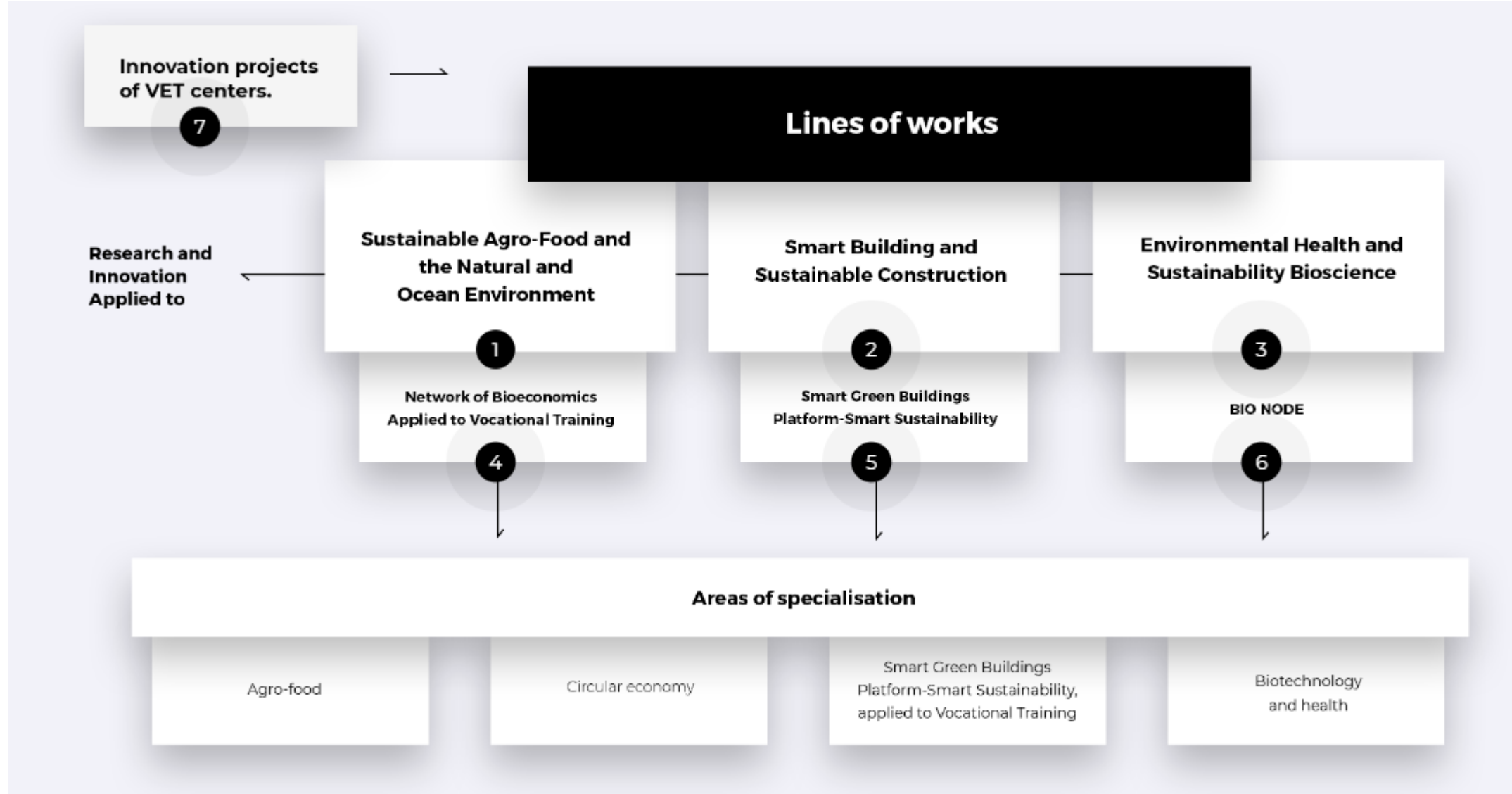
Applied innovation projects with companies

Network of VET Centres in Euskadi.

Business Network. Especially SMEs, companies in emerging sectors and the creation of new companies.

Tknika

TRANSFER OF KNOWLEDGE



## Projects



### **INTELLIGENT ADAPTED HOME**

Collaborative space for research-innovation and training in technology adaptable to users with special needs in a home

[See this project](#)



### **LANDARRAIN**

Food Innovation Laboratory

[See this project](#)



### **BIOTk LABORATORIES**

Biotechnology Laboratories

BIOTk laboratories have been launched during academic course 2019-2020. The following disciplines are developed in those laboratories: Agro-food, industrial and health biotechnology; Molecular Biology and Cell Biology.

[See this project](#)



### **BIM (Smart Green Buildings)**

Collaborative space for research-innovation and training in BIM Methodology

[See this project](#)

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**Thank you!**  
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