

CHICAGO
APRIL 2019

"Winds of change
are blowing"

**“ We are going to live in a constantly
changing environment”**

“ Welfare and Social Cohesion”

“ Need to deepen new approaches”

“About the needs of people”

Progress

**Human
Development**

**Economic
Development**

**Sustainable
Growth**

Quality of Life

Welfare

Economic growth

Progress

Competitiveness

Social Cohesion

Productivity

Competitiveness

Social welfare

Social welfare

**“ Towards a new outlook on
competitiveness”**

**“ To address the competitiveness from
the perspective of people”**

**“ Competitiveness not to be an end in
itself”**

**“ But a capacity at the service of
welfare”**

COMPETITIVENESS

From a perspective of productivity

To a perspective based on the human dimension

**Education, health, social cohesion, sustainability and
innovation capacity**

“ Sustainable Human Development”

“Progress is not to improve what it is, but to move towards what it is going to be”

The Human Factor

A smart systems world

Quick technological evolution

Advanced skills

The importance of talent

The concept of employability

**The employability is
evolving towards a
professionalism much
more complex**

**Working life will be
held in an environment
more complex and less
predictable**

**Professional success
will depend on the
profile of the person
and its capacity to
adapt at any time**



2020

**INTEGRATED
TRAINING**

**APPLIED
INNOVATION**

**PERSONAL AND
PROFESSIONAL
ENTREPRENEURSHIP**

Internationalization

**Cultural, scientific and
technological component**

Professional component

**High qualification and
specialization**

Values 4.0

Values 4.0

Emotion

Feelings

Commitment

Intuition

Imagination

**Capacity of
Improvisation**

5th Basque VET Plan

SMART
VOCATIONAL
EDUCATION

SUSTAINABLE
VOCATIONAL
EDUCATION



EUSKADI
LANBIDE HEZIKETA

2023

INTEGRATING
VOCATIONAL
EDUCATION

SOLIDARITY
VOCATIONAL
EDUCATION

“SMART VOCATIONAL TRAINING”

SMART VOCATIONAL EDUCATION

4.0
ENVIRONMENTS

NEW
ORGANIZATION



SMART SYSTEMS

DIGITALISATION
CONNECTIVITY

HIGH
PERFORMANCE
TRAINING

**4.0
INDUSTRY**

**SMART
WORKSHOPS**

**3D
INDUSTRIAL
PRINTING**



SMART STORES

**CYBER-
SECURITY**

**ADVANCED
ROBOTICS**

**4.0
HEALTH**

**BIO
INFORMATICS
BIGDATA**

**DIGITAL
HEALTH
4.0 DEVICES**



**SMART HEALTH
STORES**

**BIO FOOD
TECHNOLOGY**

**BIO
PRINTING
COMPATIBLE
MATERIALS**

4.0 SERVICES

**DIGITISED
PERSONAL
PICTURE**

**SMART
SPACES**



**MICRO
SMART
IRRIGATION**

**PRECISION
AGRICULTURE
FARMING**

**REMOTE
SENDING
VIA
SATELLITE
&
DRONES**

**SMART
SYSTEMS**

**SMART
HOUSES**

**ADVANCED
SENSOR SYSTEM**



**AUTONOMOUS
VEHICLES**

**MIXED &
VIRTUAL REALITY**

**INTERNET
OF
THINGS
(IoT)**

ENVIRONMENTS
4.0

4.0
INDUSTRY



4.0
SERVICES

4.0
HEALTH

**HIGH
PERFORMANCE
TRAINING**



**METHODOLOGIES
LEARNING AND
SPACES**

**WORK-LINKED
DUAL VET**

**SPECIALIZATION
PROGRAMS**

**“STEAM”
INITIATIVES &
ACTIONS**



INFORMATION

“ST” FIELDS

**PROJECTS
IMPLEMENTATION
“STEAM” FIELDS**

ANALYSIS

“STE” FIELDS

**CREATIVITY &
4.0 VALUES**

“A” FIELD

PROTOTYPE

“STEM” FIELDS

EMPLOYABILITY

GENERAL VET

86,1%

Fp

EUSKADI
LANBIDE HEZIKETA

2018

DUAL VET

96,2%

20%

Students in
DUAL VET



Manufacture	28%
Maintenance	28%
Electronics	21%

**HIGH
PERFORMANCE
TRAINING**

2018

52
VET
CENTRES

279
TRAINING CYCLES

1953
TEACHERS
TRAINING

2.506
TEACHERS
TRAINED

6.975
STUDENTS

APPLIED
INNOVATION
WITH SMEs

2018

2.100
COMPANIES BY
2018

103
TEACHERS

35
CENTRES

ENTREPRENEURSHIP

+ 15.000
STUDENTS
ENTREPRENEURSHIP
CULTURE

2018

256
PLANS
87
COMPANIES SET UP

856
COMPANIES SET UP
DURING THE LAST
12 YEARS
72%
SUCCESS

Intelligent System in the Basque Vocational Training

Answers to new objectives

Uses new methods

Introduces new organizational models

The Innovation Factor

**COMPETITIVE
INNOVATION**



TECHNOLOGY

COOPERATION

KNOWLEDGE

Incremental innovation

Disruptive innovation

Intuitive innovation

INTUITIVE INNOVATION

TO OBSERVE
DIFFERENT
ENVIRENMENTS

TO EVALUATE
THE RESULTS

TO MONITOR
ENVIRONMENTAL
CHANGES

TO IMPLEMENT
&
APPLY

TO IMAGINE
SOLUTIONS

TO DECIDE
THE BEST
OPTION



The Intelligence Factor

**ENVIRONMENTS
4.0**

**SMART
VOCATIONAL
TRAINING**

**NEW
ORGANIZATION**



**DIGITALISATION
CONNECTIVITY**

SMART SYSTEMS

**ARTIFICIAL
INTELLIGENCE**

**HIGH
PERFORMANCE
TRAINING**

The Technology Factor

TECHNOLOGY & SMART SYSTEMS

ADDITIVE
MANUFACTURING
ROBOTICS

ADDITIVE
MANUFACTURING
3D PRINTING

VIRTUAL
REALITY

INTERNET OF
THINGS

NEW
MATERIALS

COMPLEX
METAL PIECES

INDUSTRY

AUGMENTED
REALITY

SMART
HOUSES

CARBON FIBER

ARTIFICIAL
VISION

HEALTH

MERGED REALITY

SMART
SYSTEMS

COLLABORATIVE
INDUSTRIAL
ROBOTICS

GASTRONOMY

VIDEOGAMES

CONNECTIVITY

TEXTILE

WELFARE

TECHNOLOGY & SMART SYSTEMS

DRONES

AIR

SUBMARINE

THERMOGRAFY

PHOTOGRAMMETRY

SMART
STORES 4.0

AUTOMATED
WAREHOUSE

AUTOMATED
OPERATIONAL

CONNECTIVITY

DISTRIBUTION
CODIFICATION
REGISTRATION
THROUGH DIGITAL IMAGE

SMART
WORKSHOPS 4.0

ADVANCED
MANUFACTURING

INTEGRATED
MANAGEMENT

CONNECTED
WORKSHOP

ROBOTICS

CYBER-SECURITY

The Sustainable Factor

BIOSCIENCES & SUSTAINABLE DEVELOPMENT

BIOECONOMY

AGRO-ALIMENTARY

NATURAL
ENVIRONMENT

MARINE
ENVIRONMENT

SMART
BUILDING

BIM

IoT

SUSTAINABLE
BUILDING

BIOMATERIALS

HEALTH

HEALTHY
AGEING

ENVIRONMENTAL
SUSTAINABILITY

BIOSCIENCES

BIOTECHNOLOGY

CIRCULAR
ECONOMY

PRODUCTION

PROCESSING

PRODUCTION
CONSUMPTION

REUTILIZATION

The Supportive Vocational Factor

Supportive Vocational



**COMPETENCIAS
4.0**

**CATÁLOGO
MODULAR**

**ITINERARIOS
INTEGRADOS
APRENDIZAJE**

**UNIDADES Y
ELEMENTOS DE
COMPETENCIA**

VOCATIONAL TRAINING CERTIFICATE

General Competence

Units of competence

Elements of competence

Learning outcomes

“VET Smart Centres 4.0”

Capacity to adapt

Capacity to react

Capacity to anticipate

Capacity to disrupt

STRATEGY

INNOVATION

VET Centres 4.0

OPERATION

COMPLEXITY MANAGEMENT



INNOVATION ROUTINES



COMPETITIVE INTELLIGENCE

65

VET CENTRES

3

NETWORKS

52

VET CENTRES

5

NETWORKS

2.060

TEACHERS

1.816

TEACHERS

NEW RESPONSABILITIES

**Drivers for advanced
learnings**

**Drivers for connectivity
and digitisation**

Satisfaction managers

Smart systems experts

**Change
strategists**

**BigData
Specialists**

NEW TEAMS

STRATEGY

INNOVATION

PLANNING

INTELLIGENCE

GUIDANCE

LEARNING

SATISFACTION

MENTORING

NEW SPACES

IDEAS

MOTIVATION

HIGH PERFORMANCE

DEBATE

SMART

INTERACTIVE

VIRTUAL REALITY

IMMERSIVE

STEAM

TKNIKA

Areas

TECHNOLOGICAL INNOVATION
&
SMART SYSTEMS

APPLIED INNOVATION
IN
STRATEGIC FIELDS

BIOSCIENCES

BIOECONOMY
&
SUSTAINABILITY

COMPLEXITY
MANAGEMENT

BIG DATA &
TECHNOLOGY APPLIED TO
THE INFORMATION

ENTREPRENEURSHIP

INTERNATIONALIZATION

BASQUE INSTITUTE FOR FUTURE LEARNING

IDENTIFIES AND
ANALYSES
TRENDS
OBSERVATORY

ESTABLISHES
NEW PROFILES
OF FUTURE
LEARNINGS

DEVELOP ES
A CURRICULUM
ACCORDING TO
FUTURE NEEDS

CREATES A BASE
FOR CURRENT
DECISION MAKING
FOR THE FUTURE

NEW
FUTURE SKILLS
FOR CHANGE

ESTABLISHES
TRANING NEEDES

ESTABLISHES
PROCEDURES
UNDER FUTURE
PRIORITIES

OF EMERGING
AND UNKNOWN
SECTORS

PUBLISHES
GUIDEBOOKS AND
MANUALS FOR
TEACHERS

BASQUE INSTITUTE FOR FUTURE LEARNING

Areas

**RESEARCH ON FUTURE SKILLS,
SPECIALIZATIONS AND
HIGH QUALIFICATION**

**EMERGING VOCATIONAL PROFILE
AND MEANINGFUL LEARNING
MODELLING**

**TALENT
VERIFICATION AND ACREDITATION**

BASQUE INSTITUTE OF TALENT

TALENT MAP	LEARNING METHODOLOGY	CREATIVITY	THINKING & INTELLIGENCE
WHAT DOES IT INTEGRATE	COLABORATIVE LEARNING	VIDEOGAMES	CONSTRUCTIVE THINKING
COMPETENCE	LEARNING SPACES	ANIMATION 3D	CREATIVE THINKING
TALENT	STEAM STRATEGY	ENTREPRENEURSHIP	GENERATING INTELLIGENCE
GENIUS	VALUES 4.0	CREATIVE INDUSTRY	EXECUTIVE INTELLIGENCE

BASQUE INSTITUTO OF TALENT

Areas

**APPLIED RESEARCH ON LEARNING
METHODOLOGIES**

**ADVANCED LEARNING
IMPLEMENTATION**

**TRANSFER AND COLLABORATIVE
NETWORKS**

OBSERVATORY

**SPECIALIZATION
PROGRAMS**

**NEW
FUTURE SKILLS
FOR CHANGE**

**VOCATIONAL
EDUCATION
QUALIFICATIONS
UPDATE**

**RECOGNITION
OF
TALENT**

**FUTURE
LEARNING
DESIGN**

BASQUE INSTITUTE OF TALENT

TALENT MAP

**LEARNING
SPACES**

**TEACHERS'
TRAINING**

**LEARNING
METHODOLOGIES**

CREATIVITY

**THINKING
&
INTELLIGENCE**

TRANSFORMATIONS

1995 Management model

1997 I Basque Plan on VET

2004 II Basque Plan on VET

2010 III Basque Plan on VET

2013 Strategic Agenda

2014 IV Basque Plan on VET

2018 Basque Law on VET

2019 V Basque Plan on VET