

Computer Vision Center

Imaging Knowledge



2022

Centre de Visió per Computador Edifici O

Only Center in Europe fully devoted to Computer Vision



27
YEARS



+130
STAFF



2,8 M
€/YEAR INCOME



+50
PUBLICATIONS/YEAR



+50
ONGOING PHD THESIS

The CVC



Trustees & Sponsors:

Trustees:



**Generalitat
de Catalunya**



**Universitat Autònoma
de Barcelona**

Center of:



With the support of:



**catalunya
empren**

TECNIOspring+
Iniciativa de Recerca i Innovació



Member of:



Accredited with:



Mission



RESEARCH



TECHNOLOGY
TRANSFER

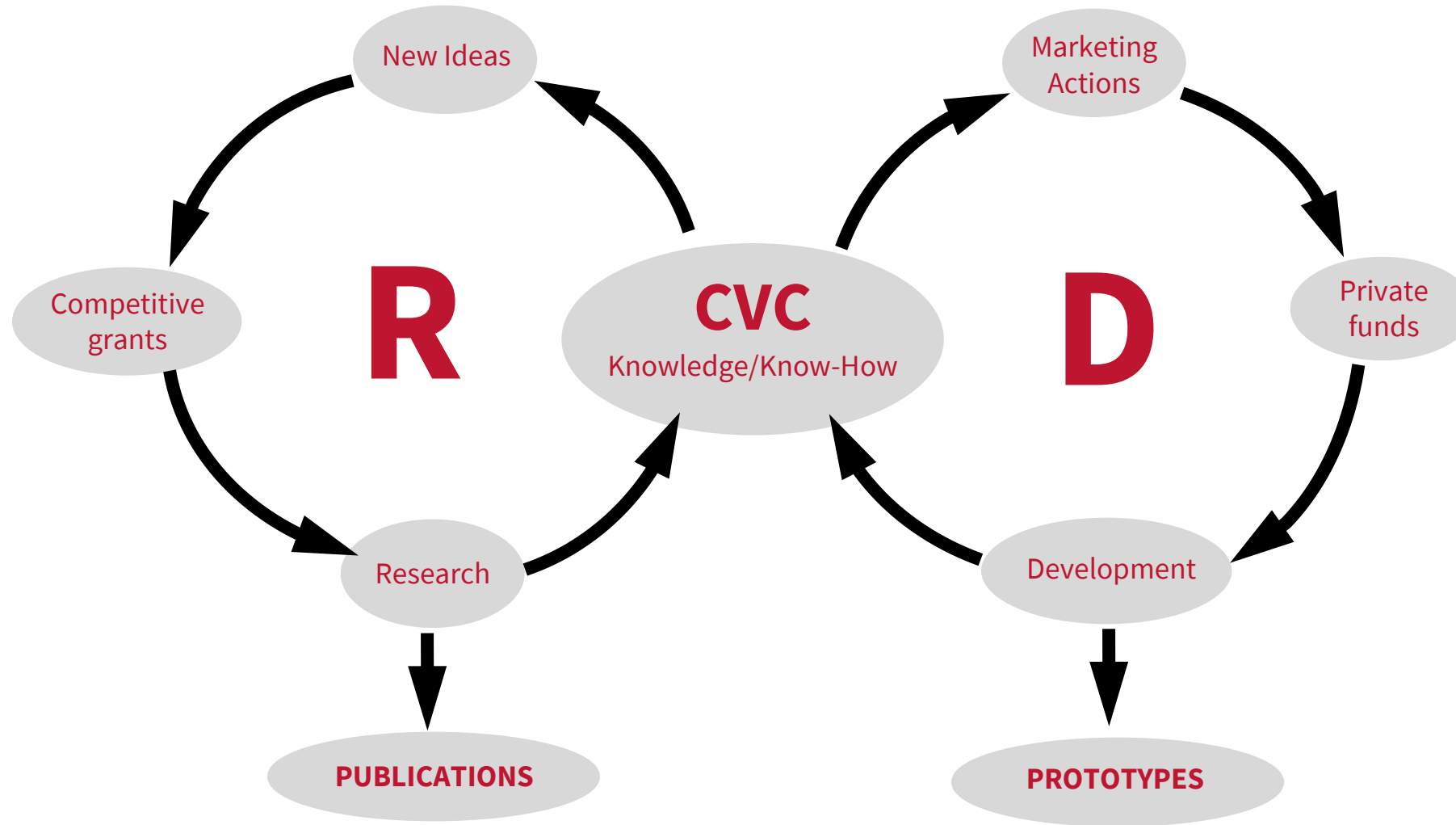


TRAINING



OUTREACH

CVC Model



Facts & Figures 2021



SCIENTIFIC PRODUCTION

41 JCR indexed
Journal articles

4 book chapters

32 Papers in
International Conferences

8 books



MEDIA

58 Articles in national
and international press

42 articles in blogs &
websites

3 Clips in TV & radio

+7.800 Social
Network followers



PHD THESIS

7 defended Thesis

39 ongoing PhD Thesis.



HUMAN RESOURCES

38 Post-doc and senior researchers

40 PhD students



HR EXCELLENCE IN RESEARCH

We have been granted with the **HR Excellence in Research** distinction in the year 2015

Facts & Figures 2021



TECH TRANSFER

40 active projects with a total budget of 2.342.200 €

18 new projects with a total budget of 1.188.372 €

2 Transferred Licenses

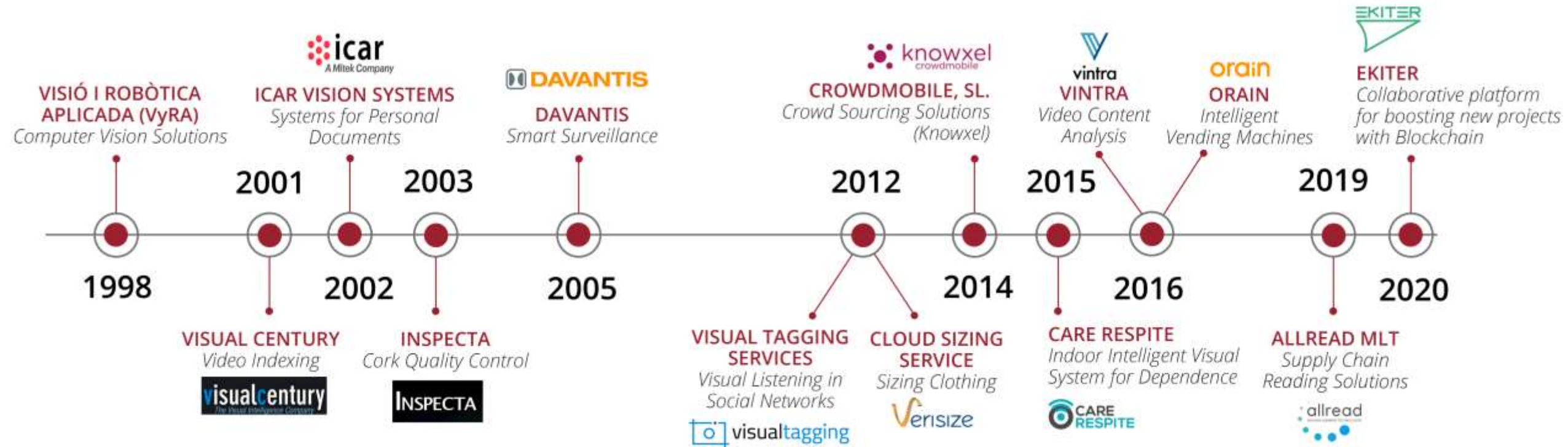
+150 companies among our customers and contacts



aplicaciones móviles
y realidad aumentada 3D



CVC SPIN-OFFS



CV Ecosystem

Computer Vision Catalan Alliance



+700

Professionals



+500

Publications in High Impact Index Journals



90

Pure Players companies



+200

Funded Projects



+137 M€

Total Income



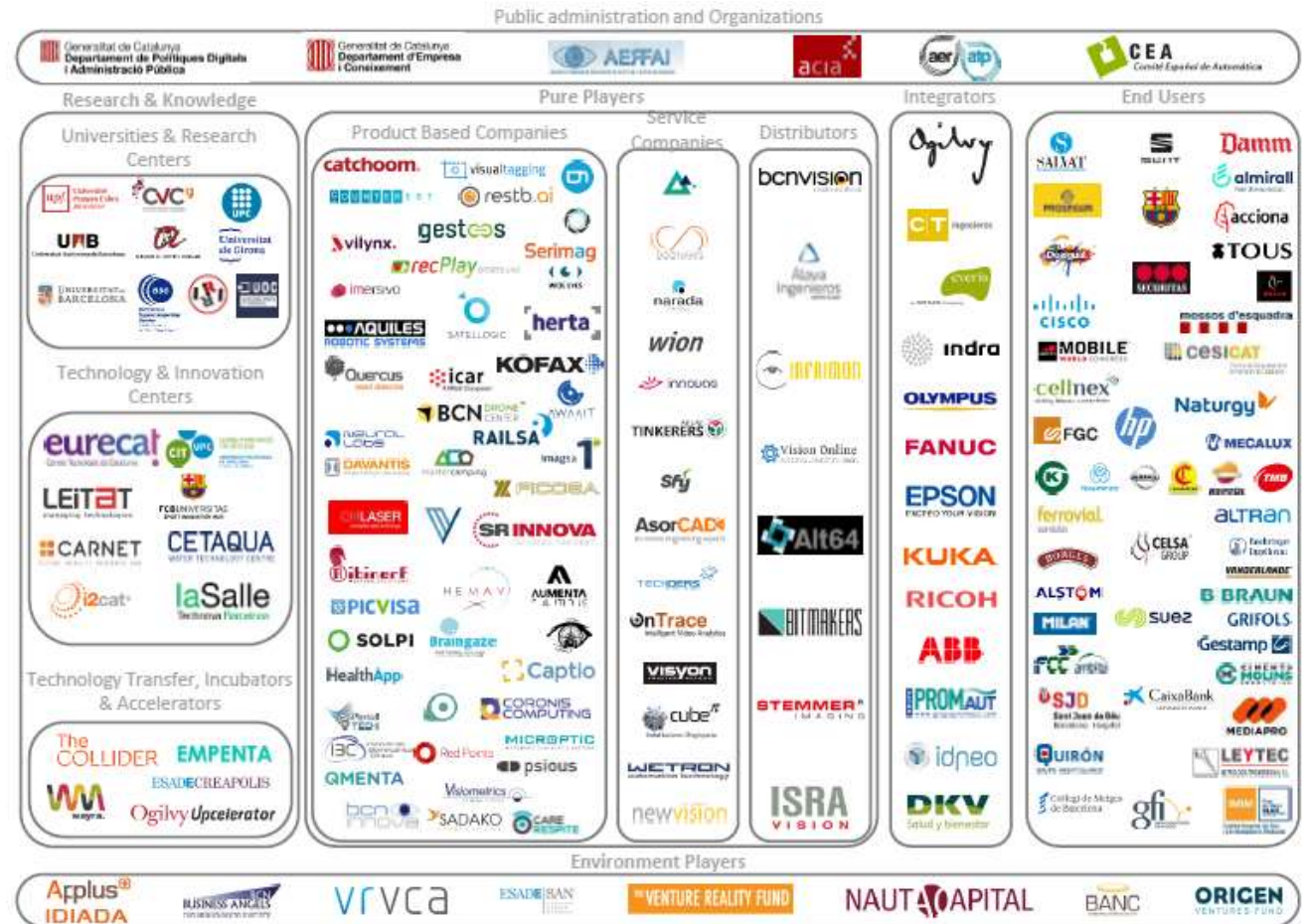
+68

Thesis



+21%

Market Growth



CV & AI Ecosystem



Artificial Intelligence Research Alliance (AIRA)

L'Estratègia CATALONIA.AI inclou, dins de l'eix sobre "Recerca i Innovació", la creació de l'Aliança de Recerca en Intel·ligència Artificial de Catalunya, amb la denominació AIRA (Artificial Intelligence Research Alliance of Catalonia), que té l'objectiu de promoure la recerca científica, la gestió del talent i l'acceleració del desenvolupament de solucions basades en intel·ligència artificial a Catalunya.



El govern de Catalunya, a través del Departament de la Vicepresidència i de Polítiques Digitals i Territori, ha impulsat l'estratègia d'intel·ligència artificial de Catalunya, que incorpora un eix estratègic dedicat a recerca i innovació. En aquest, es preveu la construcció d'una estructura operativa en xarxa per generar sinèrgies i col·laboracions entre grups, instituts, universitats, empreses i centres de recerca i innovació especialitzats en intel·ligència artificial per potenciar l'activitat conjunta a escala nacional i internacional i establir una visió conjunta dels objectius prioritàris en aquest àmbit a Catalunya. Aquesta estructura és l'Aliança de Recerca en Intel·ligència Artificial de Catalunya (AIRA).

Àmbit: Smart Technologies

Destaquem
Acord de Govern de l'AIRA

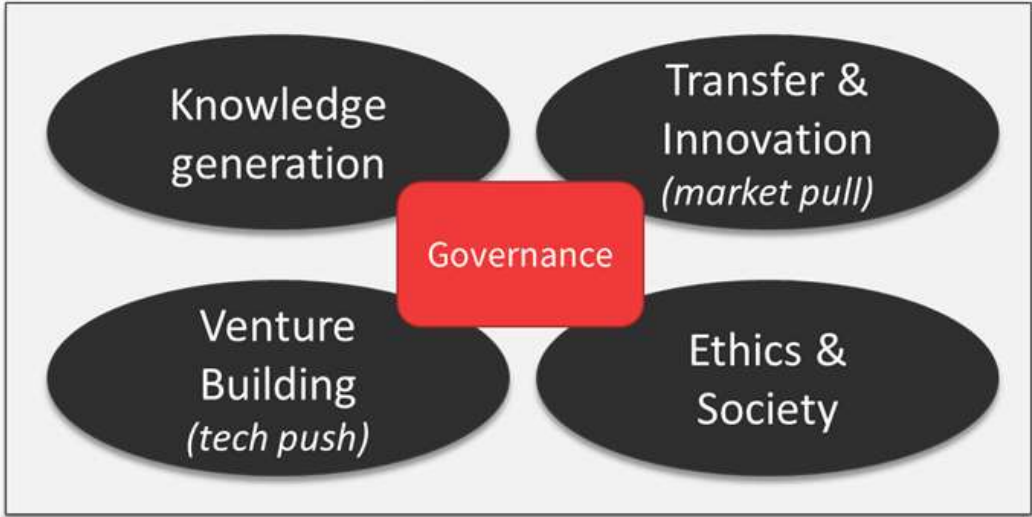


AIRA

Artificial Intelligence Research Alliance

CIDAI

Centre of Innovation for Data tech and Artificial Intelligence



Areas of Excellence



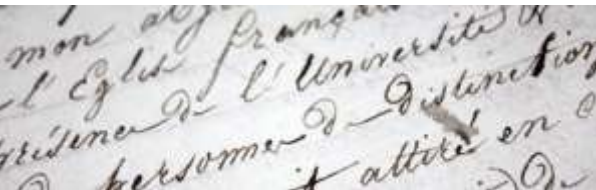
Health and well-being

Computer assisted diagnosis, intervention and planning;
Augmented modelling;
Well-being and ambient assisted living.



Mobility and transport

Advanced driving systems and autonomous driving;
Virtual worlds for ADAS;
Unmanned Aerial Vehicles.



Culture & Experience-based technologies

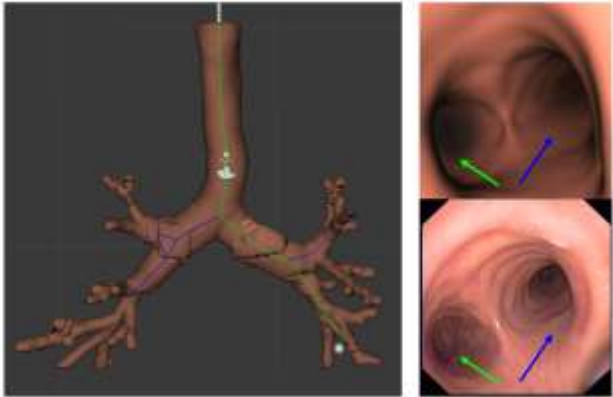
Cultural heritage (AR/VR)
Reading Systems – Document analysis
Surveillance



Industry 4.0

Quality control
AR/VR technologies for industry 4.0
Robotic Vision

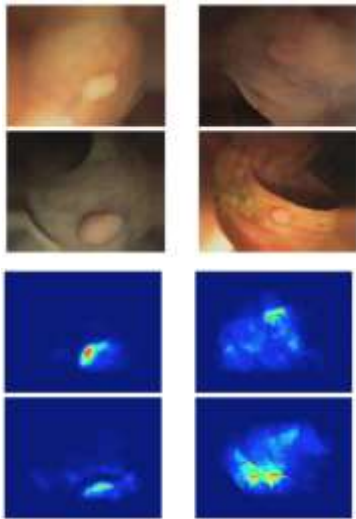
Health & Well-being



Intelligent Operating Rooms



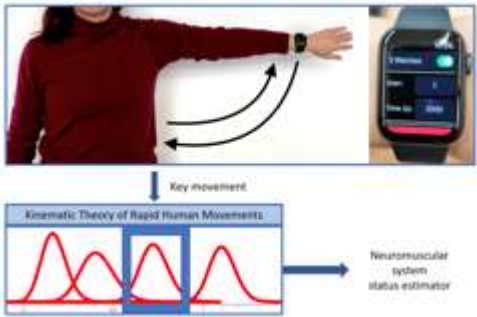
Cognitive Monitoring for Flight Safety



Automatic Polyp Detection in Colonoscopy videos



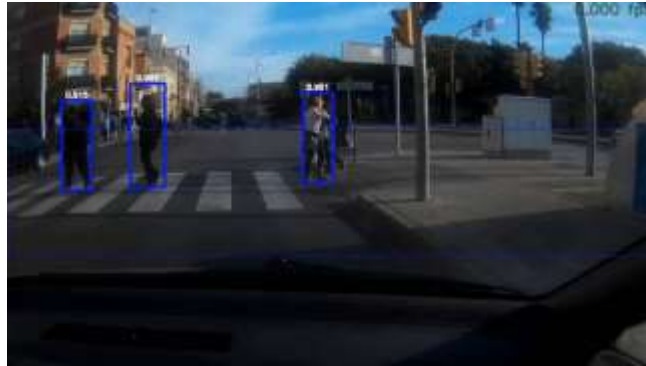
Ambient Monitoring & rehabilitation



3D Kinematics for Patient Monitoring



Food Recognition



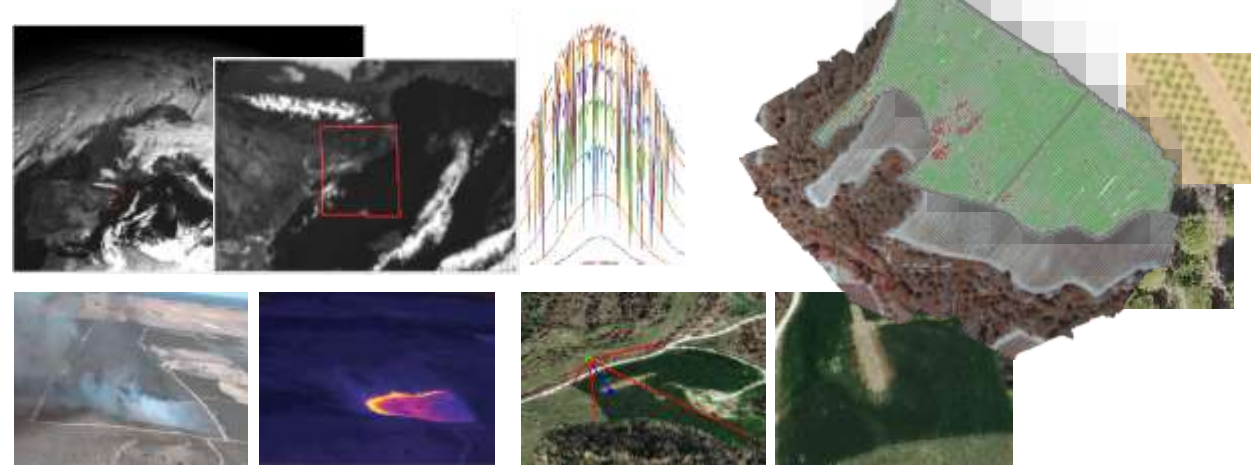
Pedestrian Detection



Simulators for Autonomous Driving



TDA: Autonomous vehicles in rural environments



Unmanned Aircraft Vehicles for Cloud Analysis, Agriculture and Fire Detection

Intelligent Content & Media



Intelligent Reading Systems



Document Verification

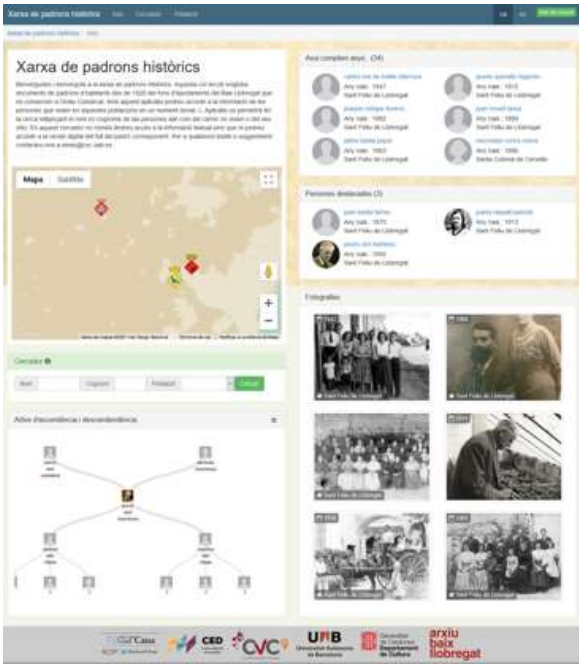


“a group of people riding horses on a street”

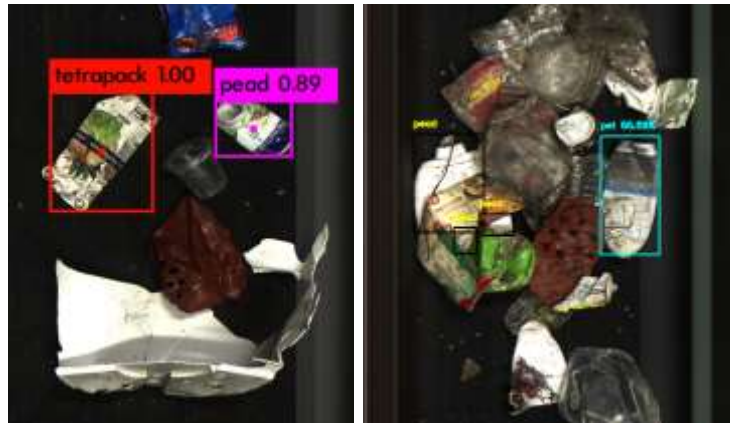
Image Captioning



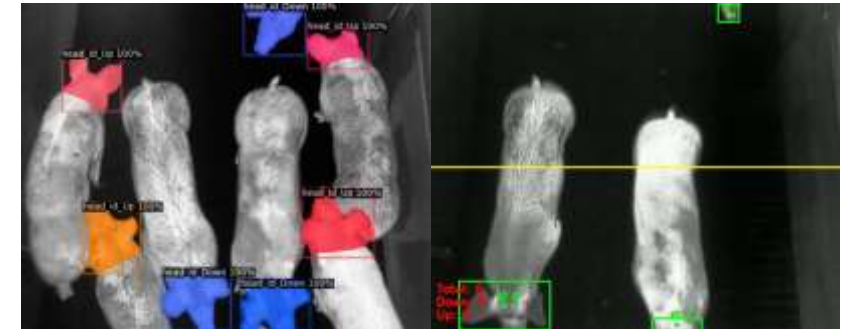
Crowd Counting



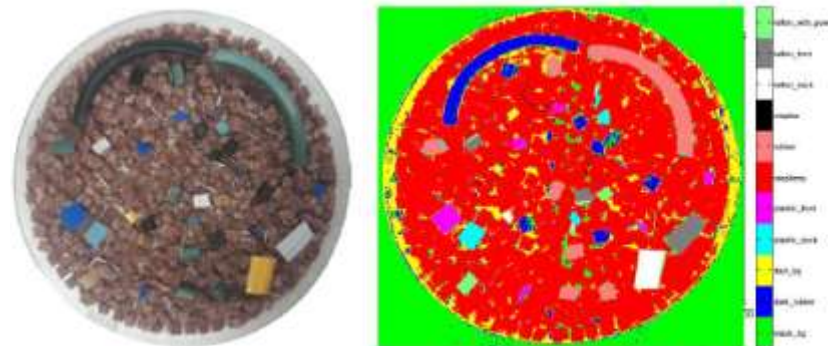
Cultural Heritage



Smart Recycling



Smart Farming



Quality Control



AR for training and maintenance activities

MASTER IN COMPUTER VISION



Master in
Computer Vision
Barcelona



Master designed to offer students an **updated program of cutting edge methods and foundations of computer vision.**

This master degree program attempts to tackle the need for qualified personnel in this field, with an **agile approach** and an **emphasis in Deep Learning techniques.**

Possibility for third-parties to offer **MSc studentships:**

- MSc project focused on challenges from company
- Internship at the company premises

UAB's new Degree in Artificial Intelligence

UAB Universitat Autònoma de Barcelona



- Multidisciplinary
- Active involvement of two reference centers in AI: CVC & IIIA-CSIC
- *Learning by doing* methodology
- Active collaboration of companies from the sector.

Social impact of AI

LIBRARY LIVING LAB



A space to define the new dynamics and protocols of citizen participation to innovation, contextualized in the public library.

AIM: Computer Vision as an **enabling technology** to approach culture as a driving force in social and economic development.

CONTEXT: The library of the future: **Novel ways** of accessing and creating physical and digital contents.

HOW: Acting as an **incubator of novel services** for the library of the future with Quadruple helix model.



Partners:



Collaboration Instruments

PRIVATE CONTRACTED RESEARCH AGREEMENT

- ✓ Oriented Market Pull Research.
- ✓ Ownership of outcomes is for company with/without exclusivity in its exploitation.

COLLABORATIVE RESEARCH AGREEMENT

- ✓ Collaborative oriented research jointly defined.
- ✓ Ownership of outcomes is usually shared for all parties.

PRIVATE TECHNOLOGY SERVICES

- ✓ Transfer of high-qualified knowledge focused on solving specific technical problems.
- ✓ Exploitation of outcomes is in exclusivity for the company.

THESIS CODIRECTION

- ✓ Assist researcher in propose a research program.
- ✓ Monitor the progress in the research.
- ✓ Assist the researcher in troubleshooting.



Collaboration Instruments

PARTNERSHIP PROGRAMM FOR UNDERGRADUATE

Addressed to Engineering degree students.

Supervised by CVC researchers.

Complementary mentoring activities provided.

Duration of 3 months full time.

Students receive 2k EUR plus travel expenses.

SPONSORSHIP FOR MSc STUDENTS

Internship to MSc Students:

Proposed projects related to topics defined by Company.
Costs according to the internship offer made.

Fully sponsorship:

Student inscription to Master ~6k EUR.
Involvement of Company in selection process.
Project focused on topic defined by Company.

INTERNSHIP OF PhD STUDENTS

Option 1.

Short Research stays to companies in the range of 3-5 months.

Option 2. Collaboration agreement with a specific PhD student.

Duration: 1 year

Costs: ~10k EUR for costs for supervision; overheads;

Travel costs (if any) covered by the company.

CO-DIRECTION OF PhD STUDENTS

Half funded Program of a PhD student for 3 years by Government.

Research contract to the candidate by Company of minimum 22.000€ p.a.

Company receives 21.600€ in three years (7.200 per year) towards their costs.

The PhD receives 6600 € towards mobility costs.

The academic partners covers the inscription of the student to the PhD program.



Thank You

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