



# CARMELO VELARDO

Product director

## PROFILE

I am Product Director at Sensyne Health with 10+ years experience in digital health and machine learning (AI). Ex-academic at the University of Oxford with a PhD in Signals and Biometrics, I am motivated by achieving large scale impact and transforming the ways healthcare is delivered. I have applied my knowledge and skills in creating innovative products that deliver clear, tangible benefits to clinicians and patients. I crave user and stakeholder engagement and love to distill clinical knowledge into great products and opportunities for innovation.

## EMPLOYMENT HISTORY

### Product director at Sensyne Health, Oxford, UK

October 2021 — Present

My main focus is on ML-based products for real-time use of real world data both in the US and UK market.

- Delivering the product strategy by coordinating the work of Head of ML, Head of Project, Commercial Directors, Design Director, Clinical leads
- Leading several phases of the product lifecycle including discovery, definition & design, prototyping, development, and delivery
- Designing digital health and ML products within clinical areas such as nephrology, cardiovascular, intensive care, hospital-acquired conditions (including SaMD, UKCA class 1)
- Engaging with senior stakeholders (CPO, CRO, CSO, CMO) for progress report on product strategy and delivery
- Driving engagement of current and prospective customers and users
- Contributing to and leading several grant funding applications to NHSE, NHSx and local grants.

### Head Data Engineering & Analytics at Sensyne Health, Oxford, UK

February 2020 — September 2021

Led team of Data engineers and Data scientists in charge of business intelligence and analytics for the whole product portfolio

- Key decision maker for KPIs and metrics for product success with Product, Customer success, and Quality and regulatory leads
- Overviewed technical architecture of pipelines and dashboards to extract-load-transform data into metrics
- Information Governance board member driving technical decisions on data extraction, anonymisation, and safety processes
- Led implementation of digital transformation for data-related activities from local environments to automated workflow on Azure ML Studio
- Led R&D for joint research on synthetic data with MHRA
- Championed creation of AlaaS platform, later launched as SENSE™.

### Expert in Residence at LAB10x, Oxford, UK

August 2019 – Present

I have led the day to day management of the business accelerator co-created by Sensyne Health, Evotec, and Oxford Science Enterprises by:

- Scouting innovative ideas within the University of Oxford to accelerate time to market by co-developing and refining value proposition and business model
- Being responsible for growth and business coaching of the academic teams participating in the program and providing access to a network of experts including Product, Design, Finance, Strategy, Regulatory and Marketing

## DETAILS

London, UK

+44 7 447 366 882

carmelo.velardo@gmail.com

Italian & British national

## SKILLS

Product Strategy

Stakeholder mgmt

Agile Project mgmt

Business Analysis/Modelling

Market Analysis

Digital Health

US/UK Healthcare markets

Regulated Medical Devices

Machine Learning & AI

Data Analysis

Computer Programming

## LANGUAGES

Italian – Native

English – Proficient

French – Conversational

## PUBLICATIONS

A full list of my scientific publications can be found on [www.velardo.org](http://www.velardo.org) or on my [Google Scholar profile](#).

- Leading workshops on Business model and Value proposition canvas for early stage innovators
- Engaging with high-level stakeholders from the University of Oxford, Oxford University Innovation, Oxford Science Enterprises, Evotec, Sensyne Health.

## **Senior Research Fellow at Sensyne Health, Oxford, UK**

January 2019 – January 2020

- Designed SYNE-GDM, the first Sensyne ML model to reach production, now main component of a CE class IIa SaMD
- Collaborated with Senior Product Manager and VP of Engineering to manage its successful delivery and integration with the GDM-Health product, and finalised its technical file for regulatory approval
- Coordinated the Data Engineering and Analytics team composed of several Data Engineers and Data Scientists to make the algorithm into a fully functioning product feature.

## **Departmental Lecturer, Senior Researcher at University of Oxford, Oxford, UK**

June 2012 – July 2021

- Applied technology and AI/ML in primary and secondary care settings with a focus on: diabetes, COPD, heart failure, CKD, obesity, hypertension
- Participated to and actively contributed to the design of tens of clinical studies and randomised controlled trials
- Assisted licensing of majority of research projects I have worked on to commercial entities
- Directed group of PostDocs, DPhil and master students
- Visiting academic between Jan 2019 and Jul 2021

## **EDUCATION**

### **PhD, Eurecom Institute & Telecom Paris (ex ENST), Sophia Antipolis, France**

April 2008 - April 2012

Grade: “mention très honorable” (with highest honors)

- Explored the entirely new area of soft-biometrics (low-entropy, human characteristics) and applied advanced techniques to enable feature extraction from videos and images
- Wrote one of the first papers on real-time extraction of soft-biometrics from RGBD cameras with possible applications in security and healthcare
- Thought several classes and led labs for 30+ students and mentored master students and younger PhDs
- Other works includes, novel face recognition and re-identification approaches, multi-camera networks for automatic re-identification.

### **MSc Computer Engineering, Politecnico di Torino & Eurecom Institute, Turin & Sophia Antipolis**

September 2005 - April 2008

110/110. First-Class Honours degree (top 10% of class). Selected for a double degree program with EURECOM institute (ParisTech, ex-ENST). Recipient of merit scholarship contribution all three years.

### **BSc Computer Engineering, Politecnico di Torino, Turin**

September 2002 - September 2005

110/110. First-Class Honours degree (top 10% of class). Recipient of merit scholarship contribution all three years.