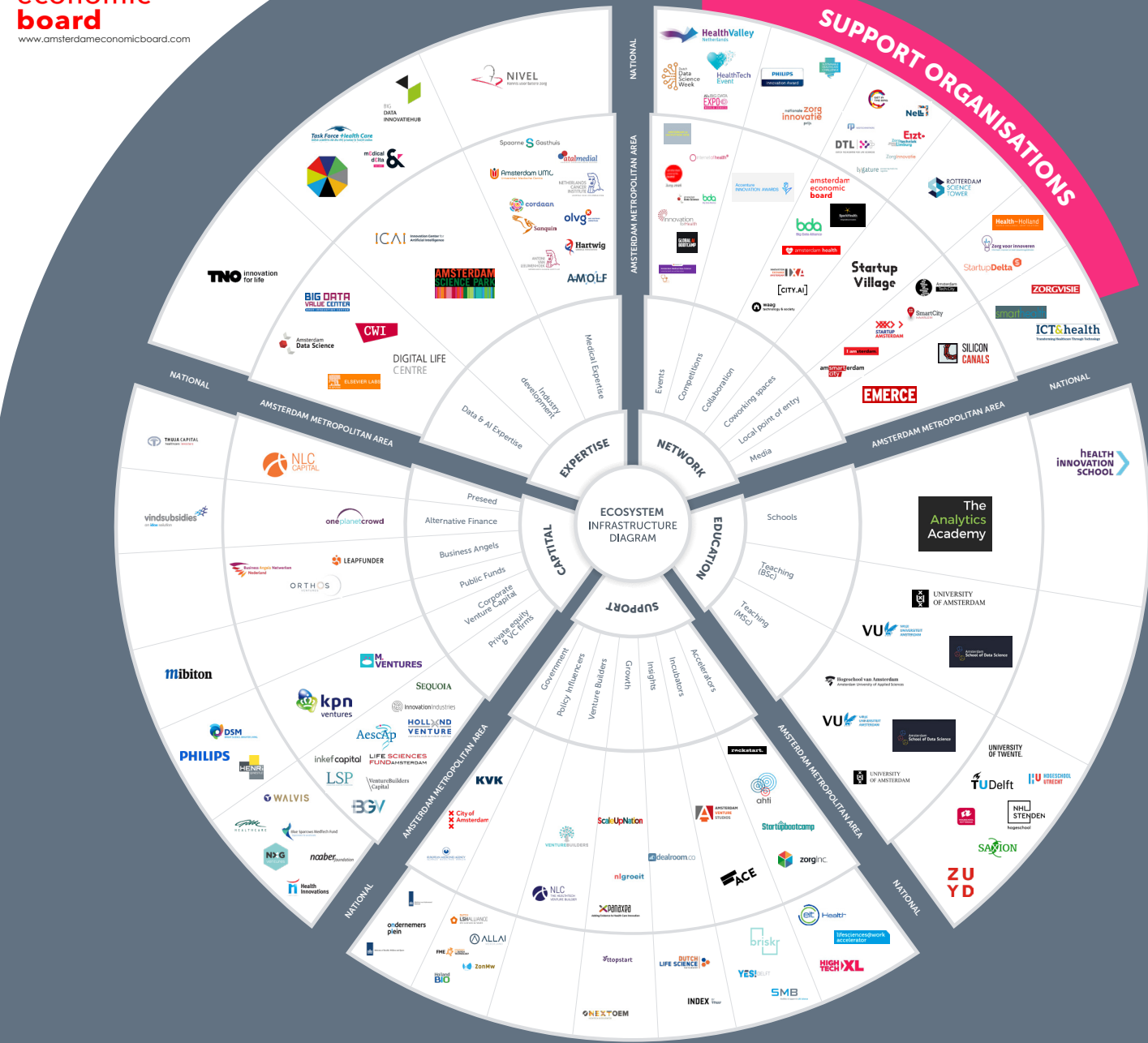


# Ecosystem Infrastructure Diagram.

Amsterdam Data Sciences & Artificial Intelligence in Health

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STARTUP



SME



CORPORATE



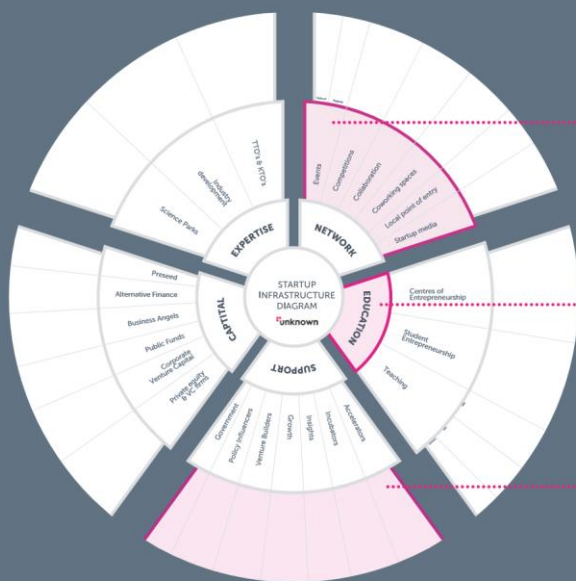
# Our philosophy

## UNLOCKING INNOVATION SYSTEMS

Ecosystems are a hot topic. Countries around the world are trying to create environments in which businesses can flourish, with countless public and private support initiatives popping up. The result: a proliferation of initiatives that all make some sort of contribution, but a lack of coordination and quality assessment to create real impact for businesses and the wider ecosystem. We think this is a waste of great potential.

Therefore we developed the Infrastructure Diagram: a powerful visual to show the essence of the ecosystem. It highlights the main organisations and programmes that form the supporting infrastructure of an innovation ecosystem in a specific geographical location (local, regional or national) or within a specific industry (e.g. water, cleantech). The diagram is a basis for discussion and an important first step towards a strong, coordinated ecosystem with high-quality support for businesses.

### A TRIED-AND-TESTED MODEL...



#### Categories

Subcategories within each pillar

#### Pillars

Five main pillars that form the basis of any ecosystem

#### Players

Most important organisations representing a category

**10 ecosystems mapped**  
**>1500 ecosystem players**

- ✓ OMAN
- ✓ THE NETHERLANDS (LOCAL, REGIONAL & NATIONAL)
- ✓ PORTUGAL
- ✓ LONDON
- ✓ SHENZHEN
- ✓ HEALTH APAC
- ✓ IMPACT NL & EUROPE

**+15 in progress**

... WIDELY USED IN THE ECOSYSTEM

**Businesses** find their way around the ecosystem and have better access to support.

**Policymakers** gain insight in gaps and opportunities to improve the policy agenda.

**Ecosystem players** understand their role in the wider ecosystem and identify opportunities for collaboration.

### SOME OF OUR PARTNERS



Ministerie van Economische Zaken

# The innovation ecosystem

## DATA SCIENCES AND ARTIFICIAL INTELLIGENCE IN HEALTH

In collaboration with the Amsterdam Economics Board, we mapped the innovation ecosystem of data sciences and artificial intelligence (AI) in health, specifically in the hotspots of the Amsterdam Metropolitan Area and the Netherlands. In the healthcare domain, data sciences and AI technology are becoming increasingly important to improve the healthy life of people. We see a proliferation of initiatives, parties and business that seek to improve active and healthy ageing, prevent or reduce time spent ill by using data sciences and AI.

In the diagram we focus on five pillars that form the basis of the data sciences and AI in health ecosystem. Below the diagram you can view highlighted businesses that already offer a solution for the health domain based on the use of data sciences and/or AI. The diagram shows the unmet needs and existing opportunities in the current ecosystem.

## Criteria

### KEY PLAYERS IN THE ECOSYSTEM

Our ecosystem diagram does not aim to offer an encompassing overview of all players in the ecosystem. Instead, we highlight those players who really shape the playing field and make a difference to businesses. This is determined by the following criteria:

#### 1. SUPPORTING ENTITIES

Organisations that have a strong focus on supporting and strengthening the infrastructure of the wider ecosystem or directly support businesses (not the banks, consultancy firms etc.).

#### 2. PROVEN & SUSTAINABLE

Organisations that have demonstrated to improve or contribute to the ecosystem and aim to make a long-term impact (not one-off initiatives or short term programmes).

#### 3. MAIN ENTITY & CORE BUSINESS

Only the main organisation or department is displayed on the diagram, not its specific programmes or initiatives. Organisations are mentioned in the category that represents their core business (where they bring most value).

# Definitions

## THE 5 CATEGORIES OF THE INFRASTRUCTURE DIAGRAM

### A. NETWORK

*Stimulating interaction and collaboration and connecting stakeholders in the ecosystem*

#### A1. EVENTS

Events that are mainly focused on data sciences and artificial intelligence and/or health and have significant reach and impact on the ecosystem.

#### A2. COMPETITIONS

Competitions that operate on the scale of the ecosystem (usually an ongoing or longer process).

#### A3. COLLABORATION

Initiatives that foster collaboration between different stakeholders within the ecosystem and foster communities.

#### A4. CO-WORKING SPACES

Spaces that give entrepreneurs the opportunity to work on a flexible basis with access to a high-quality network/community.

#### A5. LOCAL POINT OF ENTRY

Parties that serve as a point of entry to a local ecosystem.

#### A6. MEDIA

Media that are centred around data sciences and artificial intelligence or have a strong presence in the health community.

### B. EDUCATION

*Teaching data sciences and artificial intelligence skills and enhancing the development of the health sector*

#### B1. SCHOOLS

Schools that offer data sciences and artificial intelligence modules applied to the health sector.

#### B2. TEACHING (BSc)

Faculties that offer modules with data sciences and artificial intelligence applied to the health sector as part of the curriculum at Bachelor level.

#### B3. TEACHING (MSc)

Faculties that offer modules with data sciences and artificial intelligence applied to the health sector as part of the curriculum at Master level.

### C. SUPPORT

*Supporting businesses from start to growth in a friendly environment*

#### C1. ACCELERATORS

Programmes boosting early stage startup (<500k) revenue to the next level.

#### C2. INCUBATORS

Incubators supporting startups during their first three to five years (medical up to 12 years).



### **C3. INSIGHTS**

Data providing insight in the 'Data Sciences and Artificial Intelligence' in health ecosystem.

### **C4. GROWTH**

Programmes supporting businesses to grow from one million euros onwards.

### **C5. VENTURE BUILDERS**

Organisations that build companies using their own ideas and resources.

### **C6. POLICY INFLUENCERS**

Organisations and initiatives trying to influence policies in order to create a more friendly environment for development of data sciences and artificial intelligence in the health sector.

### **C7. GOVERNMENT**

Government/semi-government organisations offering support, (semi) guidance and advice to businesses in the sector.

## **D. CAPITAL**

*The availability of capital and investment in businesses in varying stages*

### **D1. PRESEED**

Funding aimed at early stage startups (<500k).

### **D2. ALTERNATIVE FINANCE**

Finance opportunities beyond the traditional types, including crowdfunding.

### **D3. BUSINESS ANGELS**

Business angel networks investing in businesses (<1 million).

### **D4. PUBLIC FUNDS**

(Semi-) publicly funded funds made available to businesses in the sector.

### **D5. CORPORATE VENTURE CAPITAL**

Corporate venture funds (>250k).

### **D6. PRIVATE EQUITY & VC FIRMS**

Private equity and venture capitalists aimed at financing data sciences and artificial intelligence businesses in the health sector (>250k).

## **E. EXPERTISE**

*Areas of expertise in which a specific region excels and which are accessible for organizations.*

### **E1. DATA & AI EXPERTISE**

Parties that have expertise on data sciences and/or artificial intelligence.

### **E2. MEDICAL EXPERTISE**

Parties that have the medical expertise and knowledge for development of new solutions in health practices.

### **E3. INDUSTRY DEVELOPMENT**

Initiatives that further develop the data sciences and artificial intelligence expertise in the health sector and give organizations access to this area.

## THE 3 CATEGORIES OF THE BUSINESSES

### 1. STARTUP

A startup is a business which is in the first stage of the business life-cycle (< 5 years), working on the development of the product, acquiring financing, or initiating first clients.

### 2. SME

Small and medium-sized enterprises have a maximum of 250 employees and annual turnover of less than 50 million.

### 3. CORPORATE

A large business entity with an annual turnover of more than 50 million and/or more than 250 employees.

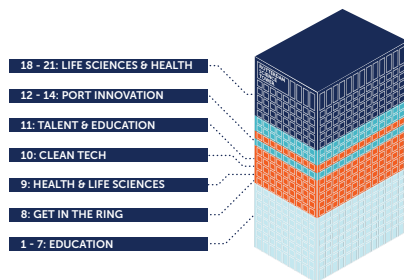
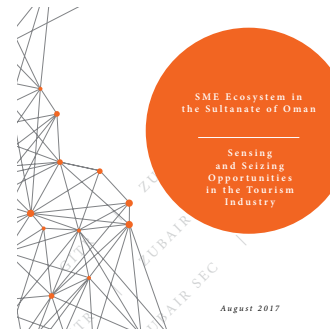
# What's next

## CREATING LONG TERM IMPACT

Mapping the ecosystem is the first step in fostering growth and strengthening the ecosystem on the long term. Next, we help to create deeper understanding of ecosystems, develop concepts and activate stakeholders. Some of our work includes:

### In-depth ecosystem or industry analysis

The Startup Infrastructure Diagram provides important insights that form the basis of our analysis. We combine in-depth research, including interviews with key ecosystem players, and our experience in ecosystems worldwide to develop tailored recommendations to bring the ecosystem to the next level. We also produce Industry Insight Reports that provide insight into the challenges and innovations in a specific industry.



### Concept development and support

We provide support in developing and setting up programmes and initiatives aimed at closing gaps in the ecosystems, from local incubators to nationwide platforms and even universities.

### Workshops & trainings

Using proven concepts, we bring stakeholders together and facilitate dialogue with actionable outcomes. Examples are roundtables, market insight workshops and impact measurement.



### Who we are

Unknown is a global innovation agency. We unlock future business potential by internal and external venturing.

Get in touch with us to discuss how we can help you unlock the potential of your ecosystem.

### Get in touch

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