



# i-Danha

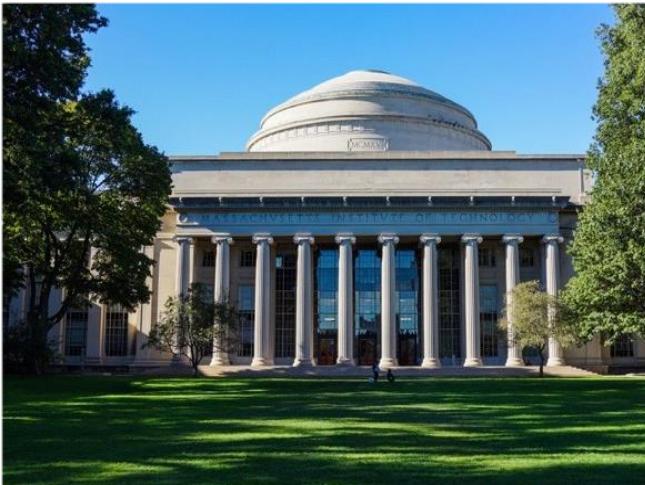
## Food Lab Accelerator



Agri-Innovation Summit  
Lisboa, 11 Outoer, 2017



# BGI GENESIS



“Spillover” of the MIT Portugal Program - Innovation & Entrepreneurship Initiative, to commercialise promising science and technology (2013)

An hybrid between the MIT100k, i-teams and the Deshpande centre for technological innovation grants

15 year Special Purpose Vehicle launched with support from Caixa Capital and FCT in Q12013



## BGI STRONGLY EMBEDDED IN EIT



**EIT Digital:** one of the 5 strategic EU KICs for furthering innovation in Europe w/ an annual budget of 250M€. EIT Digital is a leading European organisation for Innovation and Education in the field of Information and Communication Technologies (ICT).

**EIT Climate KIC:** -Climate KIC is one of four Knowledge and Innovation Communities (KICs) of the EIT. Its main objective is a zero carbon economy and climate resilient society and enable Europe to lead the global transformation towards sustainability.

# I-DANHA AGRI-FOOD ACCELERATOR



- Access to BGI's network and contacts (Stakeholders, Corporates, investors)
- Expert Mentoring: 10 week program
- Piloting focus: Access to “Land bank” (564ha) for a period of up to 3 year
- 3-month free incubation (inc. Accommodation in locu)
- €15k per selected team (5k€ in cash, remainder in-kind)



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- I – Innovation linkages between Rural and Urban areas
  - II – Engaging with the local (Rural) Farmers
  - III – Building the “fabric” of the rural innovation ecosystem
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# BGI FOCUS AREAS



**Focused in 4 market verticals, tech-based new ventures:**

- Medical Devices & Health IT
- Smart Cities & Industrial solutions 4.0
- Enterprise IT & Smart Data (*a.k.a. big data*)
- Water Economy.

\* - ventures that take 5+ years to get to market and considerable human and financial resources to achieve commercialization.



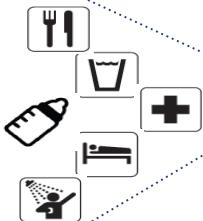
## 10 year horizon goals:

- Creation of >50 new, highly sustainable agri-food businesses
- Facilitation of 1 000 FTEs in the region
- Active use of 300 ha of agricultural use
- Facilitate over 25 Mio€ of outside investments into the region
- Re-location into the region of 200 families (aprox. 750 individuals).

# BGI ACCELERATION MODEL

Developed over a 7 year collaboration with MIT Portugal\* in early stage deep innovation commercialization (\* - inspired on Deshpande's model).

- 2.500 Entrepreneurs
- 900+ submissions
- 125 selected
- 7 Editions



- 727 jobs
- 85 active startups
- 111M€ in financing
- Survival Rate 74%

## INPUT:

Tech-based solutions aimed at Enduring global needs

## CUSTOMER VALIDATIONS (B2B):

BASF  
Galp  
Amorim  
Nokia  
Cisco

GE  
BRISA  
Odebrecht  
Google  
...

## OUTPUT:

Successful **Ventures** that generate societal & economic value



## Resultados BGI





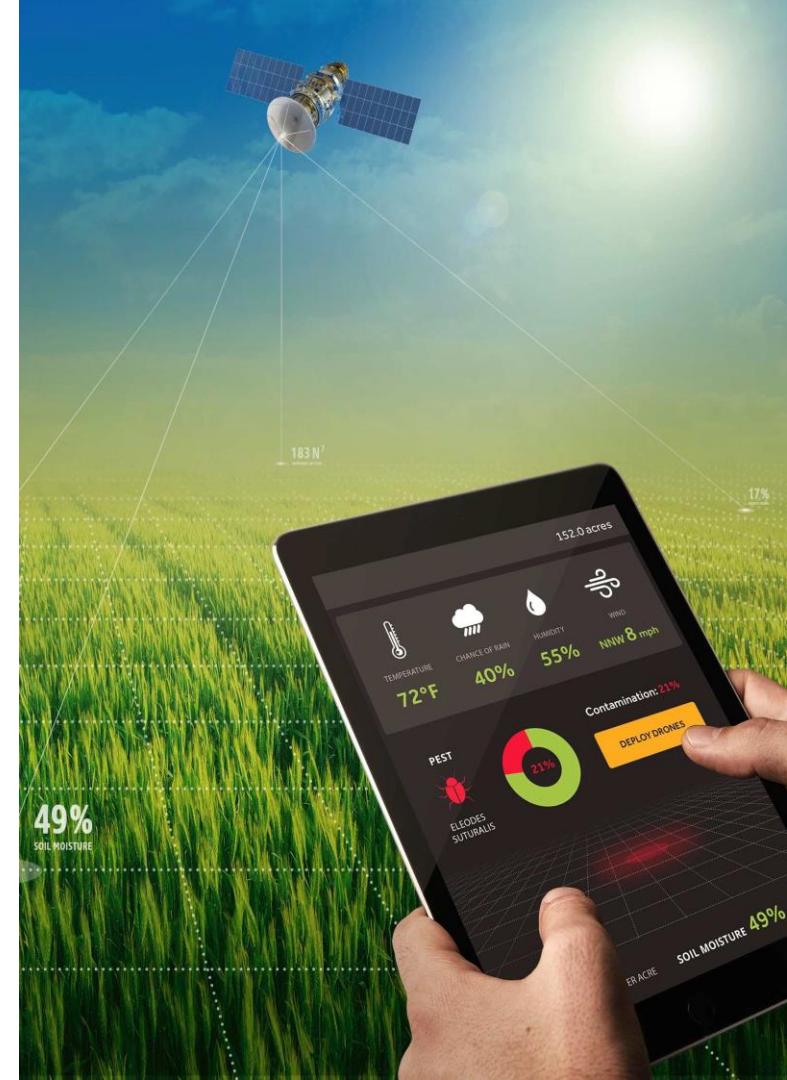
Building the “fabric” of the rural innovation ecosystem



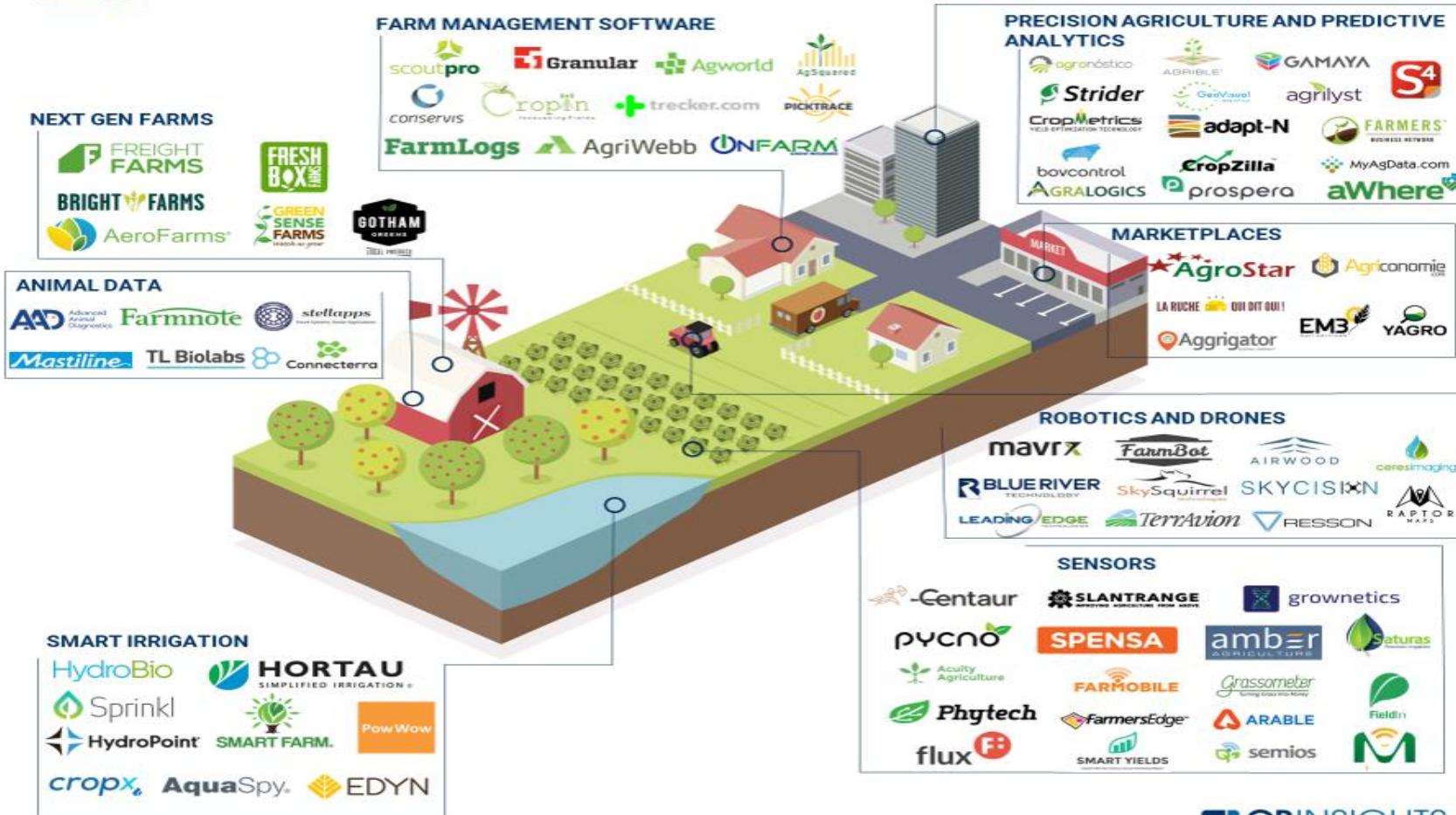


*As tecnologias de informação e comunicação têm potencial para criar novas oportunidades no sector da agricultura e em toda a cadeia de valor.*

*Estas tendências criam novas oportunidades (e modelos) de negócio ao nível de eficiência e sustentabilidade na agricultura.*



# CB INSIGHTS AG TECH: 80+ TECHNOLOGY COMPANIES CHANGING THE FARM



# i-danha Food Lab

INPUT -> Innovation :

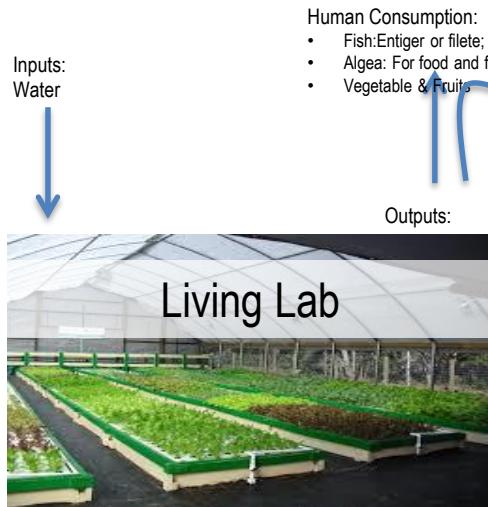
- Start-ups
- PHD thesis
- Research projects

PROCESS -> Achieve a circular economy with food production

- Acceleration
- Partnerships
- Communication

OUTPUT ->Transfer of Knowledge

- Annual Events
- Education
- Sales / Replicate



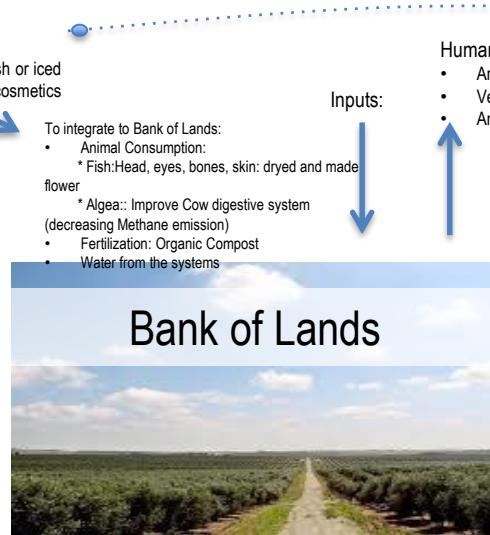
Greenhouse alveolar polycarbonate coating and automatic climate control with 3 systems in 100m x 100m laboratory, each system will have its own leader that will integrate and coordinate all technologies:

- System A - Aquaponics
- System B - Microalgae
- System C - Hydroponics

All of those will have:

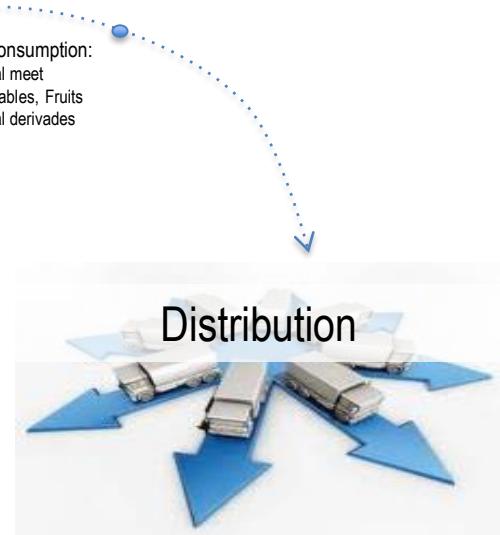
- Storage - area of materials, seeds, feed and supplements;
- Electrical installation - inside the greenhouse to serve the various equipment
- Monitors and controllers for various parameters such as: pH, temperature, dissolved oxygen, conductivity, TDS, ammonia, nitrates, flow meters and others.

The materials and equipment to be used will preferably be removable and



1000 ha of lands, with existing plantations for pilots:

- More effective irrigation systems
- Erradicate plagues through biodynamics techniques
- Reduce resources used decreasing environmental impact, e.g. Fuel, electricity, human resources
- Maximizing the efficiency of the plantation given the conditions found and seeds used



Given the outputs taken from living and bank of lands:

- Decrease the CO<sub>2</sub> emitted - e.g. Aggregate different types of food transported from different suppliers
- Shared economy – integrate in 1 transportation different solutions, combining for instance transport of people (Rede Expresso), letters (CTT), Food from i-danha
- Improve the quality of transporting conditions to reach in real time maximum efficiency, e.g. Using sensors that measure location, temperature, etc.

1-hectare para o laboratório vivo para implementar tecnologias de ponta e utilizar as plantações já existentes para introduzir novas técnicas

### Objectivo

Think Thank – criar uma economia circular e sustentável, onde os sistemas de produção de alimentos podem ser testados, melhorados para economias de escala e disseminados para outras regiões da União Europeia, incluindo cidades

i-Danha Food Lab, pretende ser considerado um centro de investigação de renome a nível internacional, sendo que todos os anos os grandes “players” do mercado poderão visitar o “estado da arte” em termos de sustentabilidade e eficiência em 3 áreas tecnológicas:

#### AgriTech

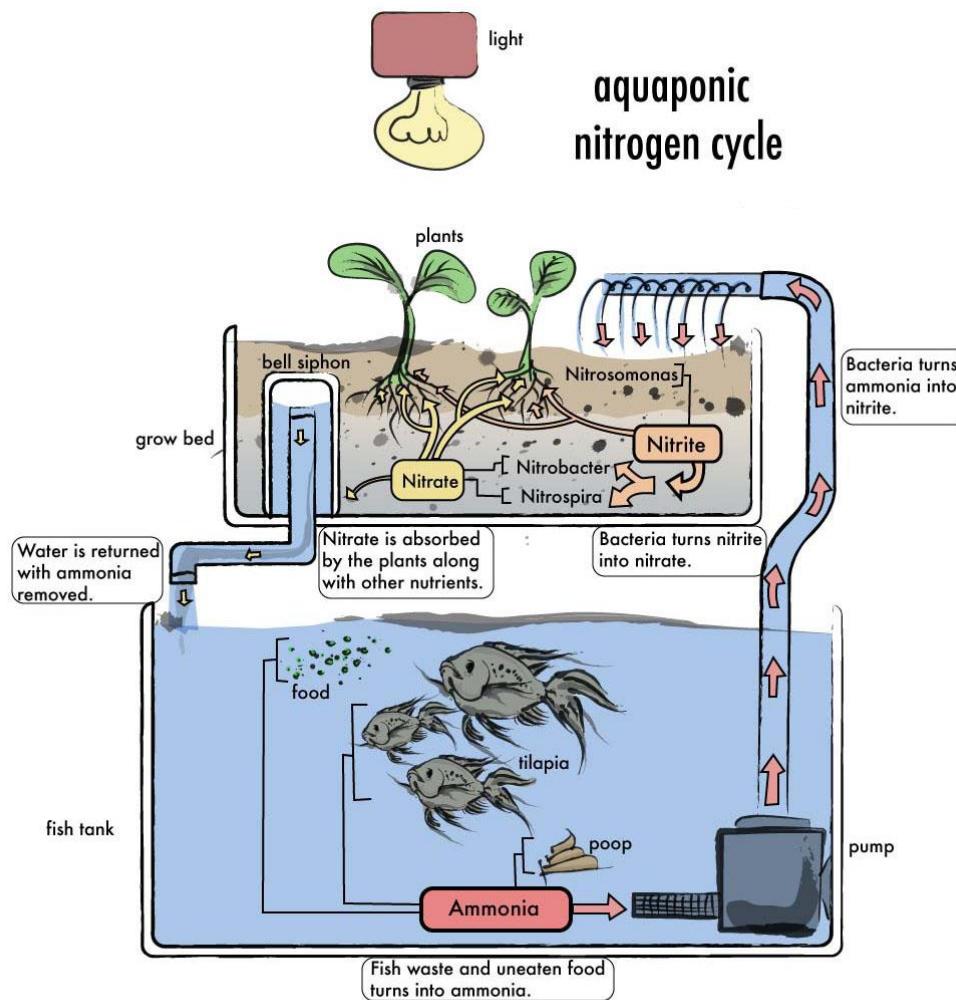
Agricultura sustentável em toda a cadeia de valor usando biotecnologia.

#### FoodTech

Novas técnicas gastronómicas, usando comida macrobiótica e outros recursos de Idanha.

#### DistributionTech

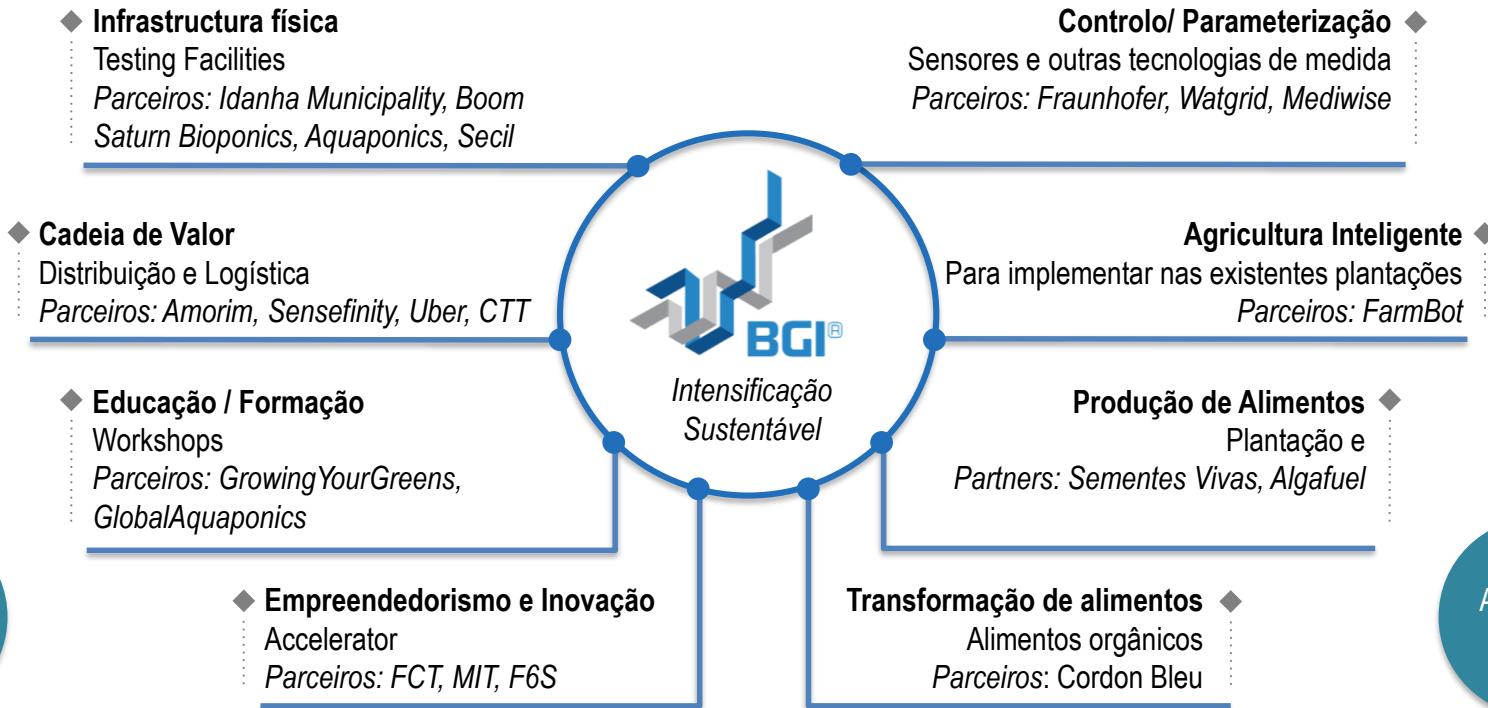
Novos canais de distribuição para alimentos biológicos (do produtor para o consumidor). Desenvolvimento de uma economia colaborativa: internet, geolocalização, AppS, etc.



### TIS-3 Smart Specialisation Strategy

- Criar em Idanha uma infraestrutura que contem o “estado da arte” para testar novas técnicas de produção de alimentos e distribuição de baixo carbono
- Laboratório vivo desenhado “bottom up” para implementar testes de tendências emergentes em hidroponia, aquaponia, e outras tecnologias auxiliares.

# Instigar a Inovação no sector alimentar, fortalecendo as políticas de inovação local e construindo uma indústria de alimentação sustentável



Futuro das  
cidades  
inteligentes?

Alterações  
Legais?