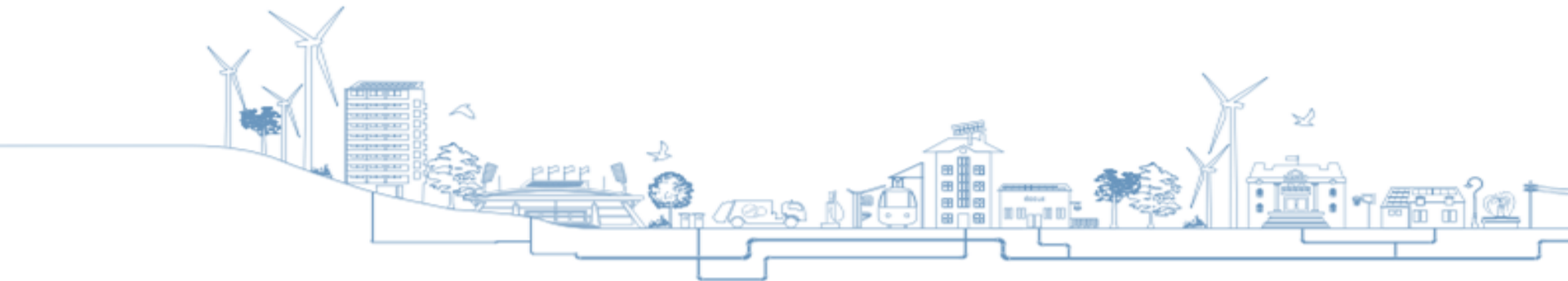


Smart City: Water Scarcity

TEAM 8:

Mohammad Abuabiah
Lorenzo Pirrami
Davide Pisasale

Roberta Poletini
Alberto Uberti
Lorenzo Vaggi



THE PROBLEM: WATER SCARCITY

Four billion people face severe water scarcity, new research finds

California's Drought Is Part of a Much Bigger Water Crisis. Here's What You Need to Know

*by Amanda Zamora, Lauren Kirchner and Abraham Lustgarten
ProPublica, June 25, 2015, 11:30 a.m.*

German economy vulnerable to global water scarcity, WWF warns

State of emergency declared in Messina

Bypass pipe breaks, city without water for most of two weeks



THE SOLUTION: ALGAE BASED WATER FILTRATION

MODULAR PANELS SYSTEM THAT USES ALGAE FOR WATER FILTRATION

VALUE PROPOSITION:

- ▶ Filters rain and grey water
- ▶ Reduces air pollution
- ▶ Create value from used filters
- ▶ Maintenance easy
- ▶ “Green feeling”



MARKET SEGMENTATION: customer target

**INDUSTRIAL
APPLICATION**

WATER FILTRATION MARKET ~50BN\$

CAGR: 20%

**AGRICULTURE
APPLICATION**

**BUILDINGS
APPLICATION ~15BN
new and restructuring**



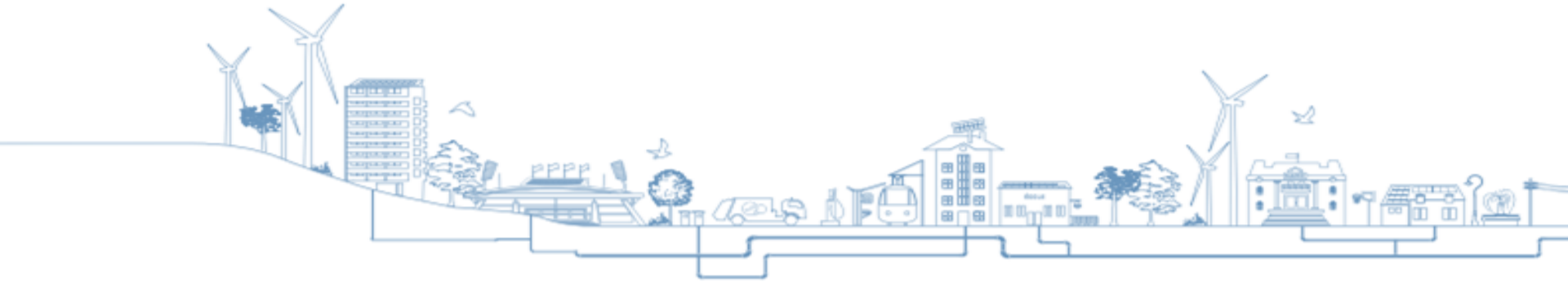
MARKET SEGMENTATION: geographical

PRIMARY RESEARCH

INVESTIGATED AREAS: Northern and Southern Italy, Palestine, Chicago

TWO FACTORS IDENTIFIED

		OPEN TO INVESTMENT	
		NO	YES
PROBLEM	NO	Some areas (NW of Italy)	Northern Italy Chicago
	YES	Palestine	Southern Italy



WHAT WE SELL AND COMPETITIVE ADVANTAGE

HOW AND WHAT WE SELL:

- ▶ B2B2C
- ▶ Panel – Project – Assistance (technical, sales, marketing)

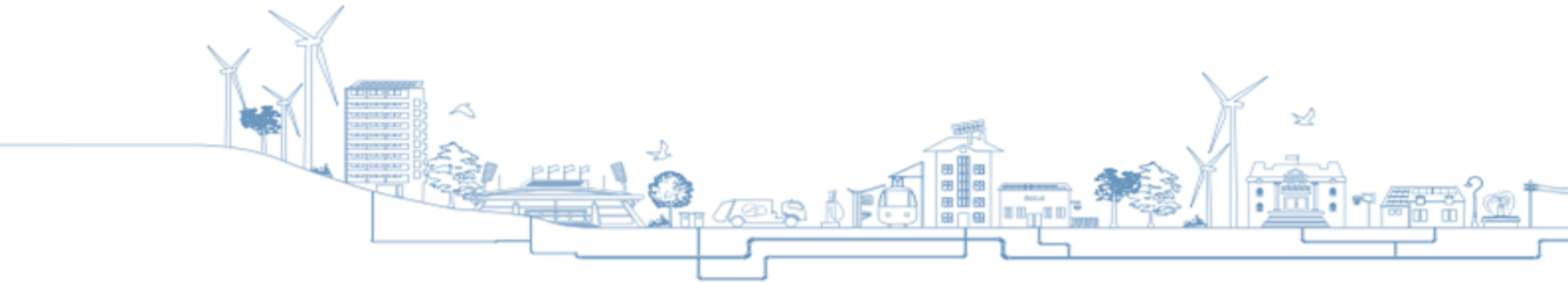
COMPETITIVE ADVANTAGE:

- ▶ MODULAR PANEL – FLEXIBLE APPLICATION
- ▶ THERMOPLASTIC MATERIAL
- ▶ INTEGRATION WITH BUILDING WATER SYSTEM
- ▶ MAINTENANCE EASY (MIXING & DEPLATION SYSTEM)



NEXT STEPS

- MVP requirements
- Business Model → some numbers
- Research Plan (second phase)



LONG TERM VISION

FROM VERTICAL TO HORIZONTAL



THANK YOU



TECH & DESIGN NEEDS

TECH NEEDS:

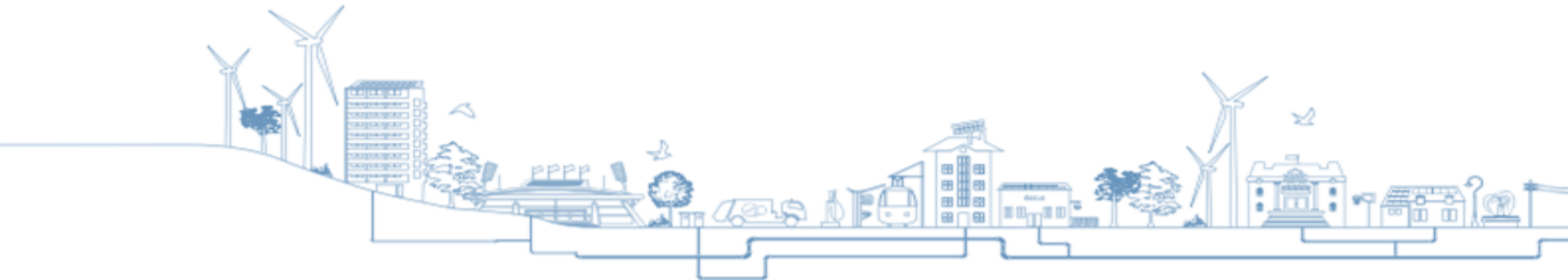
- A system to take of liquid algae from water (maybe a cyclone separator...)
- A sensor able to detect the purity of water instead of a chemical analysis

LAB NEEDS:

- Microalgae (e.g. Scendimus Obliquous) cycle of life and proprieties (pH, absorption, biomass production...)

DESIGN NEEDS:

- Flash video with the description of the flow and functioning of the whole system
- Layout of the ALFIE modular Layout (it is enough with some paper and plexiglass)



DESIGN NEEDS

- A system to take of liquid algae from water (maybe a cyclone separator...)
- A sensor able to detect the purity of water instead of a chemical analysis
- Microalgae (e.g. Scendimus Obliquous)
- Flash video with the description of the flow and functioning of the whole system

