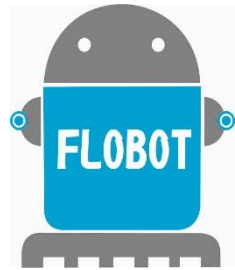


# FLOBOT

## Floor washing robot for professional users



# FLOBOT

H2020-ICT-2014-1  
645376



# Robotic Developments to Meet Facility Needs

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 645376

ISSA 2016 - 12 May 2016 - Amsterdam, NL



# THE FLOBOT PROJECT



## OBJECTIVES:

- Autonomous, robotized, professional washing machine
- Intelligent navigation, human detection, obstacle avoidance
- High performance sensors, path analysis, telemetry
- Mission autonomy, automatic pit-stops, robotized maintenance

# PROJECT CONSORTIUM



- 1 Research center
- 2 Robotic companies
- 2 European facility service companies
- 2 Universities (Wien & Lincoln)
- 1 manufacturer of professional cleaning machine
- 1 European end user supermarket chain



# STARTING POINT

- Market analysis
- FSC needs
- End users needs

**USER  
REQUIREMENTS  
+  
RISK  
ASSESSMENT**



# MARKET ANALYSIS

**In Europe the distribution of scrubber buyers is approximately as follows:**

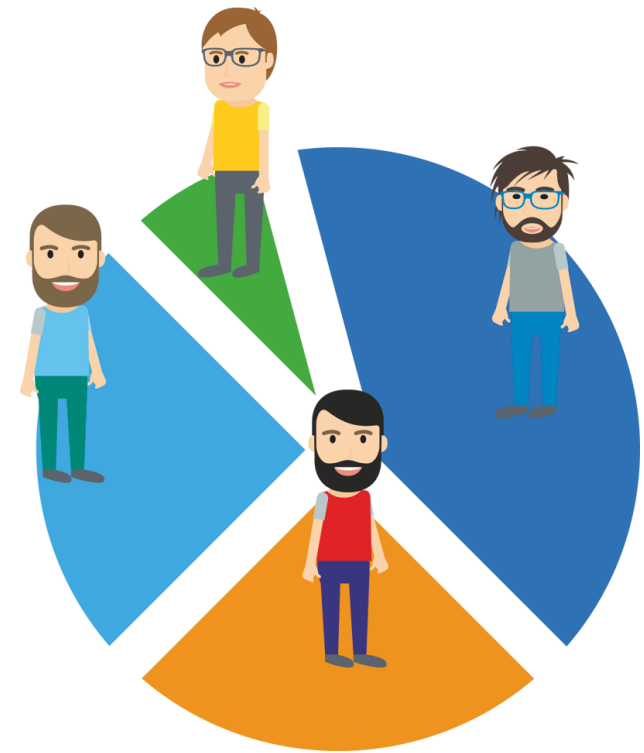


- Cleaning service providers 60%
- Industrial 10%
- Retail 20%
- Government 10%

# MARKET ANALYSIS

## The market is changing:

- Enlarging
- Differentiating
- New channel
- Aggregated services



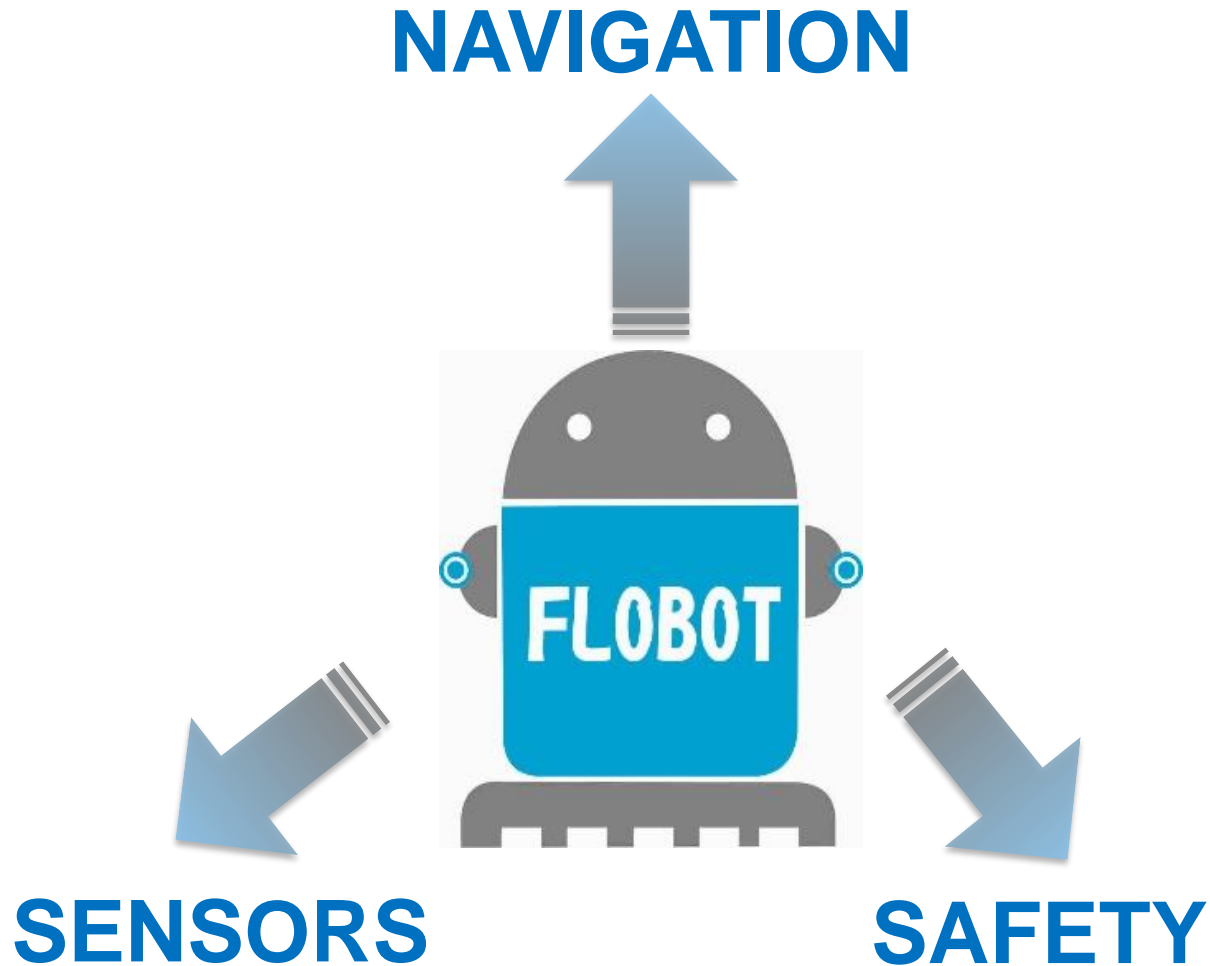
# COLLECTING REQUIREMENTS



1. Safety
2. Cleaning performance
3. Automatic recharge
4. Automatic water/detergents refill
5. Automatic discharge of wastewater
6. Velocity
7. Automatic cleaning of tanks after use



# FLOBOT FEATURES

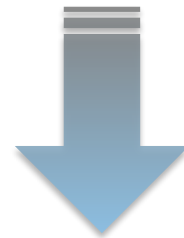
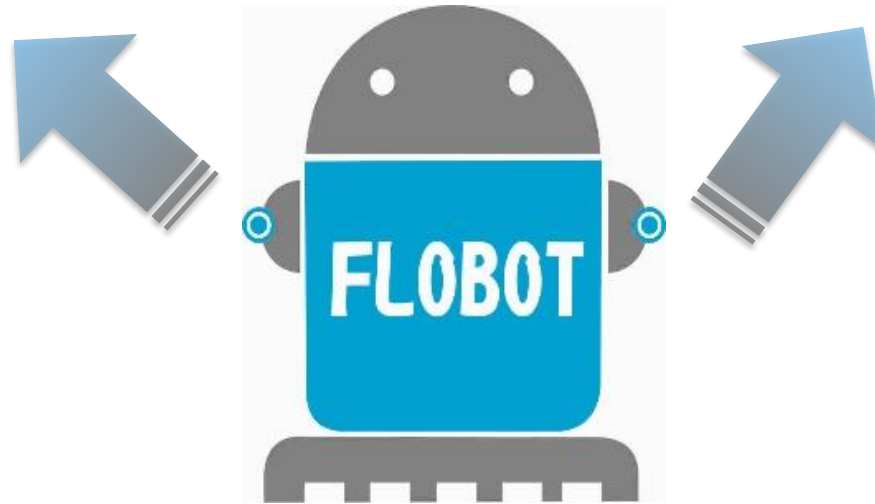




# FLOBOT FEATURES

CONTROLS

CONNECTION

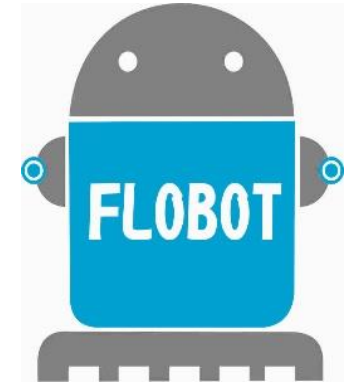


REASONING

# FLOBOT FEATURES

## DOCKING STATION

- Recharge Batteries
- Fill-up Solution Tank
- Empty Recovery Tank
- Clean The Squeegee
- Rinse Recovery Tank
- Download Data From The Flobot



# ADDED VALUE

1. Reducing Cost Of Cleaning
2. Reducing Cost Of Ownership
3. Instant monitoring
4. Reporting and statistics
5. Service Always Ready
6. High Level Cleaning Standards
7. Reduce down-time of broken equipment

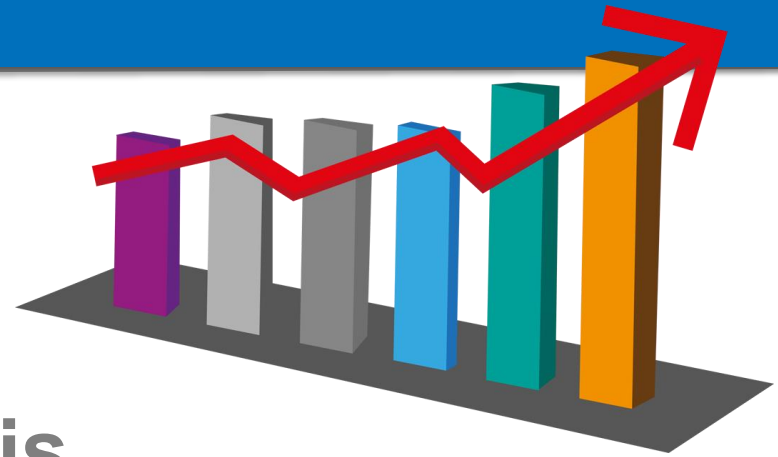


# SUSTAINABILITY



- There is no future without environmental sustainability
- Cleaning must be “clean”
- Smart consumption (energy and water)
- Efficient use of materials (circular economy)
- Market and society requests (certifications, laws)

# FUTURE TRENDS



- IoT
- Fleet management
- Path control & analysis
- Real-time quality check of the service
- Big Data analysis, forecast and planning
- New job opportunities