Fluid disinfection system using UV technology

UNIVERSAL

THE POWER OF LIGHT

MID-TERM PRESENTATION

TEAM 2

12-4-17

Team presentation and roles

Joanna Walczak
Technical University of Lodz
Co- ordinator
Resource investigator

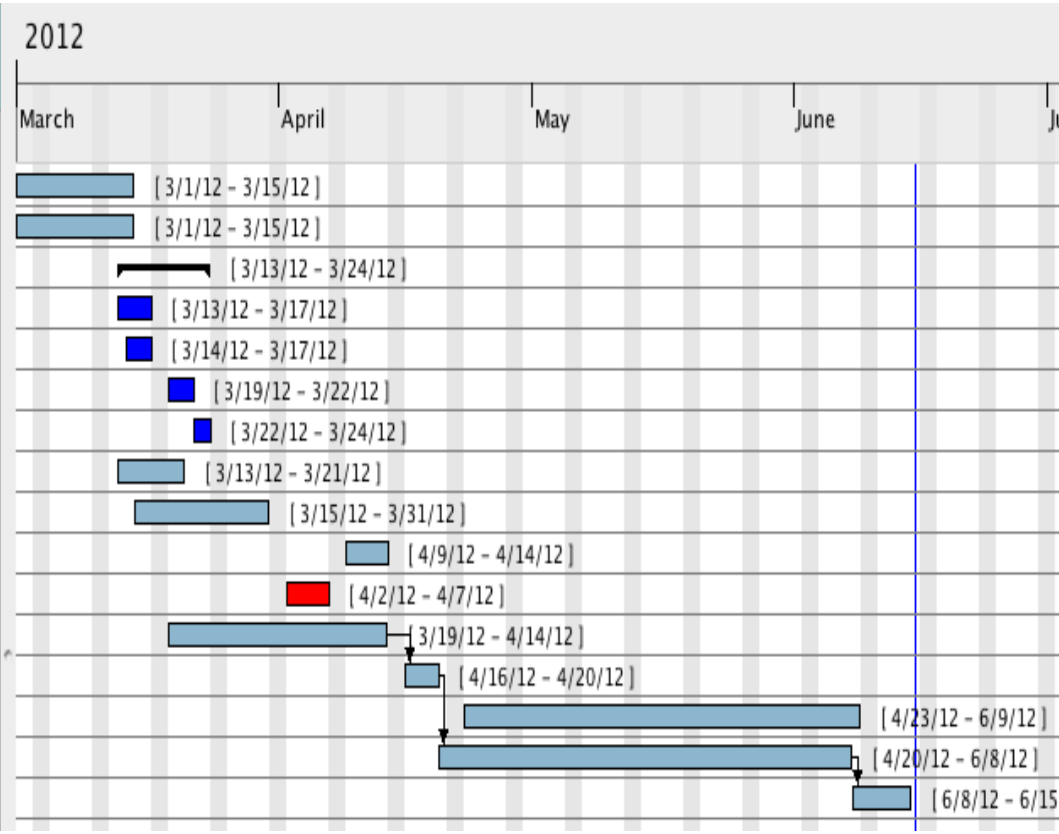
Aleksandra Bazylińska
Wroclaw University of Technology
Teamworker
Imple-menter

Sander Küttis
Tallinn University of Applied Sciences
Monitor evaluator
Specialist

Ádám Jenei
Obuda University in Budapest
Finisher
Plant

Gannt chart

Name	Begin date	End date
1. Discussions about different approaches	1.03.12	14.03.12
2. Meeting with the client	1.03.12	14.03.12
3. Searching information	13.03.12	23.03.12
Lamps, UV systems	13.03.12	16.03.12
Tubes, valves and seals	14.03.12	16.03.12
Aquariums	19.03.12	21.03.12
UV resistant materials	22.03.12	23.03.12
4. Choosing the way to solve the problem	13.03.12	20.03.12
5. Searching for required materials and where to buy	15.03.12	30.03.12
6. Buying materials	9.04.12	13.04.12
7. Designing logo	2.04.12	6.04.12
8. Interim report and presentation	19.03.12	13.04.12
9. Interim presentation and discussion	16.04.12	19.04.12
10. Building the system	23.04.12	8.06.12
11. Writing report	20.04.12	7.06.12
12. Final report and presentation	8.06.12	14.06.12



Agenda


1
Presentation of our solution
2
Marketing plan
3
Sustainability of our system

Solution description

Project description, Presentation of our solution, Advantages of our solution

Characteristic of our project

CLIENT: Nídia Sá Caetano from Chemical Engineering Department

REQUIREMENTS: Clean water with no viable cells of pathogenic (in particular bacteria, viruses, seaweeds), sterilizing 72l/h, with PC interface

FUTURE APPLICATION: System will be used in greenhouse for Chemical Department at Instituto Superior de Engenharia do Porto

OUR SOLUTION

Water disinfection system based on UV radiation

PLC - controls the work of START and STOP buttons, electric valve, uv lamp, pump and water level sensors inside the containers.

Contaminated water

72 L

Electric valve
ON/OFF
Normally closed

Filter
Density: 5 µm

UV lamp
Radiation power: 14 W

Pump
1,2 L/min

Cleaned water

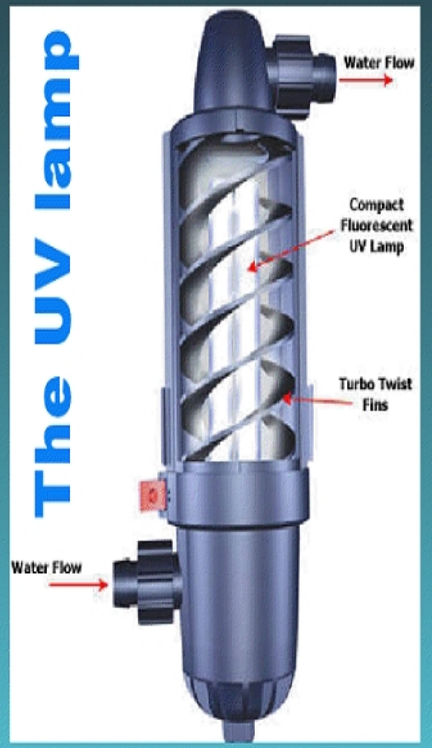
72 L

UniVersal

Water cleaning system based on UV light

A modular water cleaning system designed considering **Your** wishes and needs!

It is:
- Cheap
- Compact
- Modular
- Universal



Advantages of our solution

MODULAR SYSTEM

UV TECHNOLOGY

SMALL AND COMPACT SYSTEM

SIMPLE AND FLEXIBLE

MECHANICAL AND ELECTRICAL CONTROL

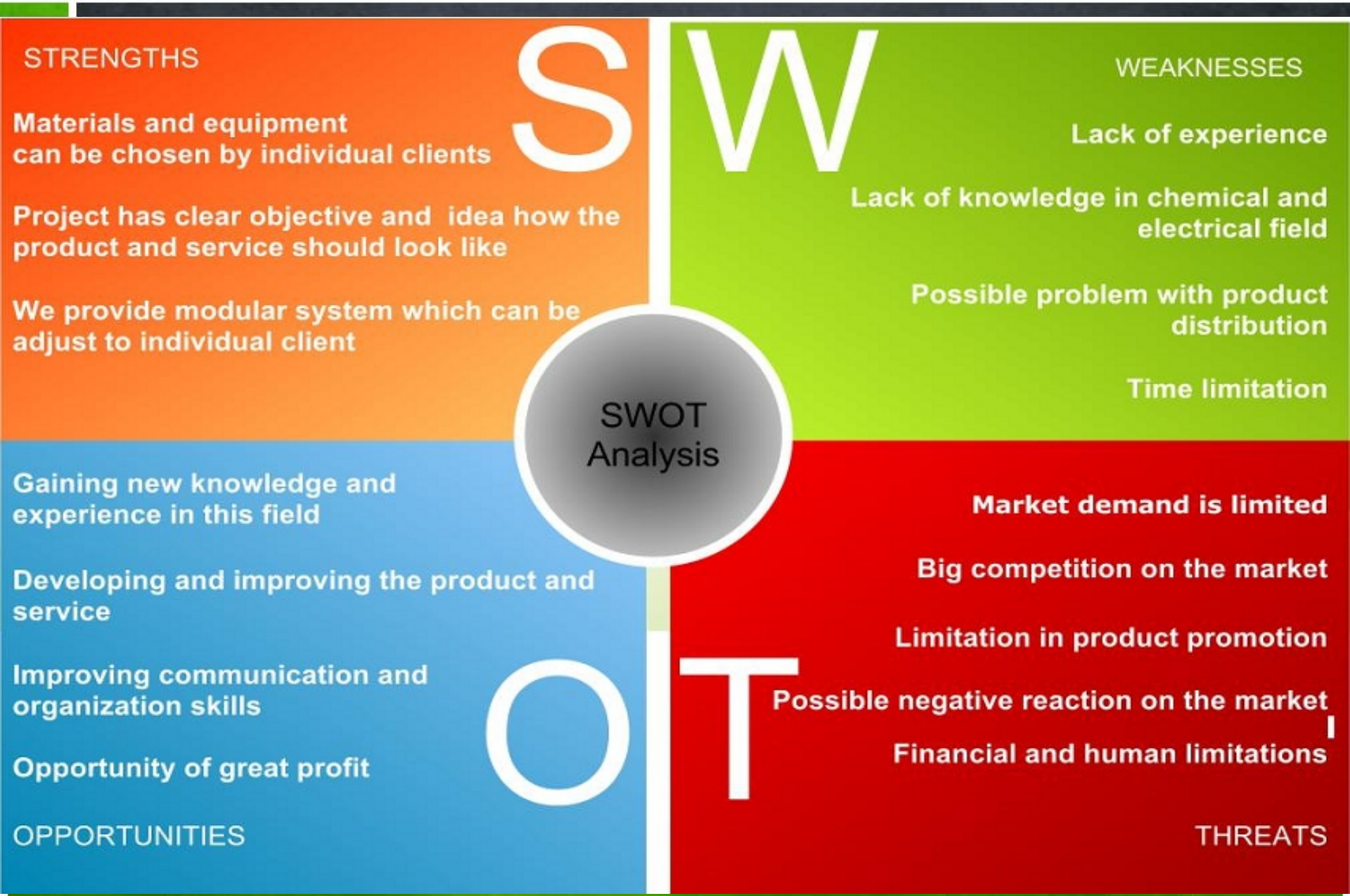
Marketing Plan

Competitor analysis, SWOT analysis, Marketing program

Competitor analysis – why UniVersal?

- UniVersal system is focused only on one type of technology
- UniVersal is a system which can be adjusted to client needs
- UniVersal is focused on specific stakeholders- chemical laboratories
- UniVersal is low cost and flexible service
- UniVersal is for YOU

SWOT analysis



Marketing Program

Our objectives:

- Discover and developing the national market
- Enter and expand the market with new product
- Advertise the product
- Design our product according to needs of the potential clients.
- Keep developing our system with new ideas, make new versions,
- Make the service
- Being competitive

Client needs:

- The service and product together are as cheap as possible;
- It should be modular (to change or add different filters, tanks, equipment);
- Easy to use;
- Easy to maintain;
- Compact - because the lack of space in laboratories

Eco-efficiency measures for sustainability

The way you think, the way you save !

Sustainability of our system

UV technology:

Simple in use and does not require mechanical cleaning

No need for using chemicals

Do not change chemical compound of water

You cannot overdose

Low cost operating

Now problems with chlorine and corrosion

Energy saving

REUSE

Search your trash:

Reusing materials

Sustainability of our system

Friendly materials:

Client can choose materials by himself
To our system we chose materials of:
Good quality
Long lifetime of equipment
Products from local shop

Modular system:

What makes out system more sustainable is possibility to exchange only some parts of the system when others may work forever

Thank you for your attention

But wait…

ANY QUESTIONS?