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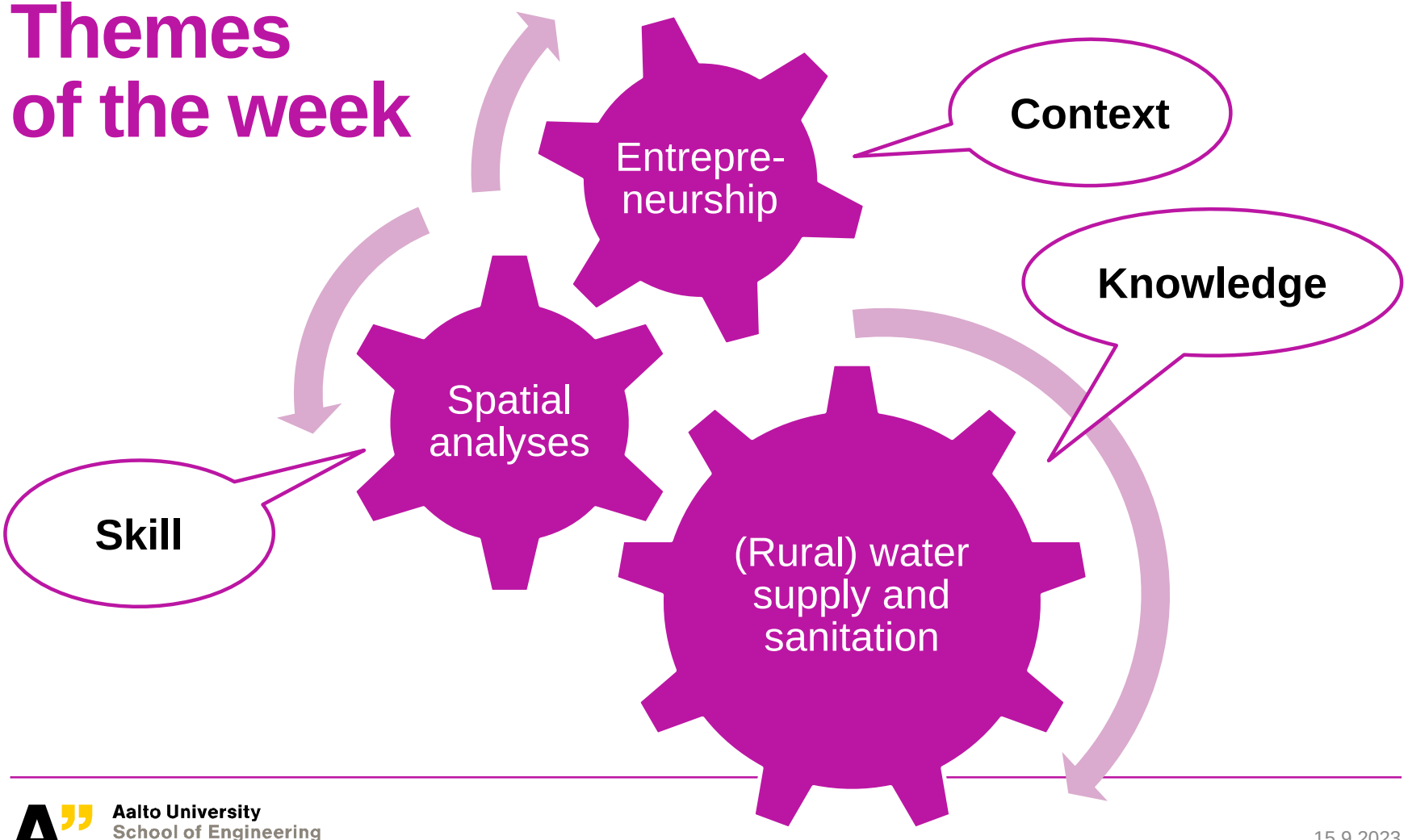
Orientation for the week:

”Water supply and sanitation”

Prof. Anna Mikola

Themes of the week



Learning objectives of the week

After the completion of the week the student

- Can define the main aspects of **water** and environmental **services** and related **infrastructures** [knowledge]
- Is able to work interactively as part of the group and to communicate his/her own ideas [identity]
- Understands the basic concepts of storing and processing **spatial data** in GIS [knowledge]
- Is able to identify the broader societal context relevant to water and environmental engineering, including the key institutional, legal, and economic **(entrepreneurship)** aspects [knowledge]

Timetable

Monday (water building 286)

9:00 – 10:00 Introduction to the week
Urban water supply and sanitation

10:00 – 12:00 Introduction to rural water supply and sanitation by Dr. Harri Mattila, HAMK (LUNCH)

13.00 – 14.00 Water and wastewater treatment

14.00- 15.15 Entrepreneurship and intrapreneurship by Sonja Hilavuo AVP

15.30 – 16:30 Hints for a skillful interview

Tuesday :

9:00 – 11:30 GIS introduction by Teemu Kokkonen (U257)

12:30 – 16:30 Client interviews (286)

Wednesday

- 9.00 - 11.00 GIS exercise (U257)
- 12.00- 14.00 Emerging treatment needs (286)
- 14:00 – 17:00 Transforming interviews into business ideas (286)

Thursday

- 9.00 - 11.30 GIS exercise (independent with support)
- 12:30 – 14:00 Crafting compelling customer presentations (286)
- 14:00 → Independent work in groups to prepare the pitch

Friday

- 9.00 – 11.00 Customer communication clinics (286)
- 13.00 – 16.00 Group presentations and wrap-up (286)

Interviews on Tuesday

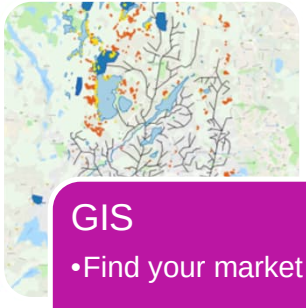
Customers stay in their rooms and the students are moving.

Customer	Sylvie Gillot (Room 247A)	Juho Uzkurt Kaljunen (Juho's room)	Anna Mikola (Room 262)	Oona Kinnunen (Room 280)	Mika Jalava (Mika's room)
13:00 – 13:45	Group 6	Group 3	Group 4	Group 5	Group 2
13:45 – 14:30	Group 4	Group 1	Group 3		Group 5
BREAK					
14:45 – 15:30	Group 1		Group 2	Group 6	Group 4
15:30 – 16:15	Group 3	Group 5	Group 6	Group 2	Group 1

How does all this link together – it's all part of a bigger plan ☺

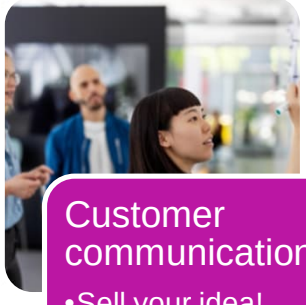
WSS

- Use your engineering knowledge for a solution



GIS

- Find your market



Customer communication

- Sell your idea!

Outputs and grading

- **GIS: Individual GIS exercise**
- **graded 1 – 5**

- **Enterpreneurship + water&sanitation: Group pitch**
- **Graded pass/fail – oral feedback during the pitching session**

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WATER & WASTEWATER ENGINEERING COURSE OFFER

- Urban water systems
- Design and management of water and wastewater networks
- Physical and chemical treatment of water and waste
- Modelling and control of treatment processes
- Biological treatment of water and waste

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Questions?
Comments?

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Individual work:

Draw a simplified lay-out plan of the centralised drinking water and wastewater system in separate A4 papers (bird perspective).
(7 min.)

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Group work:

Look at the the pictures of the layout plan within the group. Discuss about the similarities and the differences. Select one plan that your group is ready to present. (10 min.)

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One group will present the water supply system and another group will present the sanitation system.

(10 min.)

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BREAK 10 min.