

THREE KEYS TO THE FUTURE

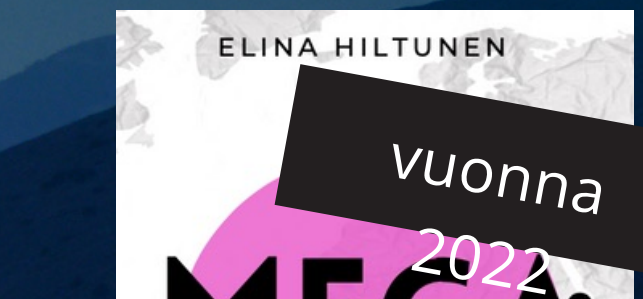
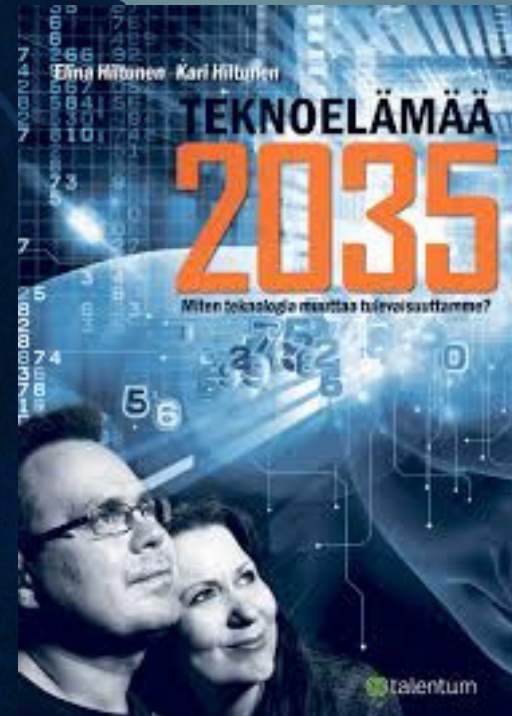
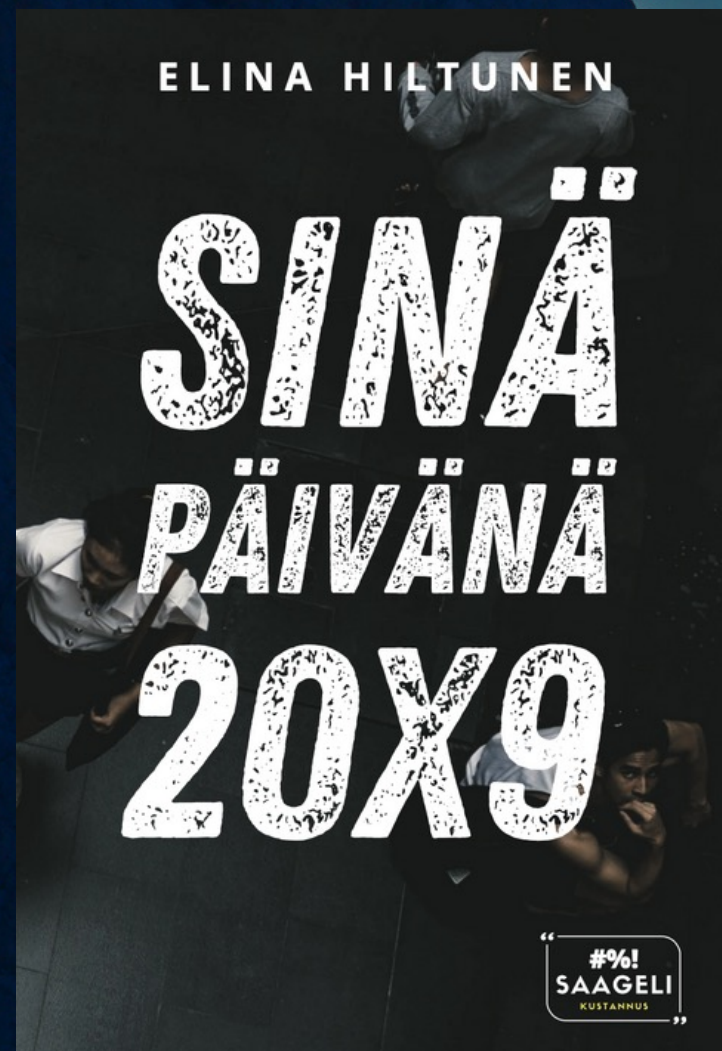
ANTICIPATION, INNOVATION AND COMMUNICATION




Elina Hiltunen

Futurist, D.Sc. (business administration) M.Sc. (chemical engineering),
writer of 13 books, consultant

Listed as one of the top 50 female futurists in the world in Forbes



A pair of hands is shown holding a glowing, translucent blue crystal ball. The crystal ball is the central focus, with a bright blue light emanating from it. Inside the crystal ball, the text "Forecasting the future is impossible" is written in a bold, black, sans-serif font. The background is dark, making the glowing crystal ball stand out. The hands are positioned around the crystal ball, with fingers slightly curled as if holding it. The overall image has a blue and black color palette.

**Forecasting the
future is
impossible**



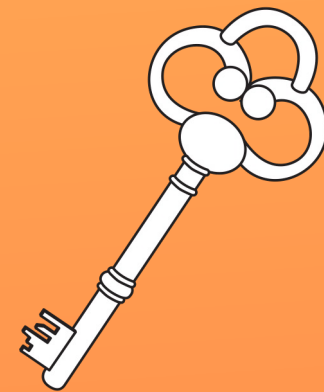
3 keys



anticipatin

g

Futures- thinking



innovating

communicatin





Thinking of alternative futures

Anticipating





HILTUNEN'S FUTURE FORMULA

**ANTICIPATING THE FUTURE=
FACTS +IMAGINATION**



FACTS:

**MEGATRENDS
TRENDS
WEAK SIGNALS
WILD CARDS**



WILD CARDS

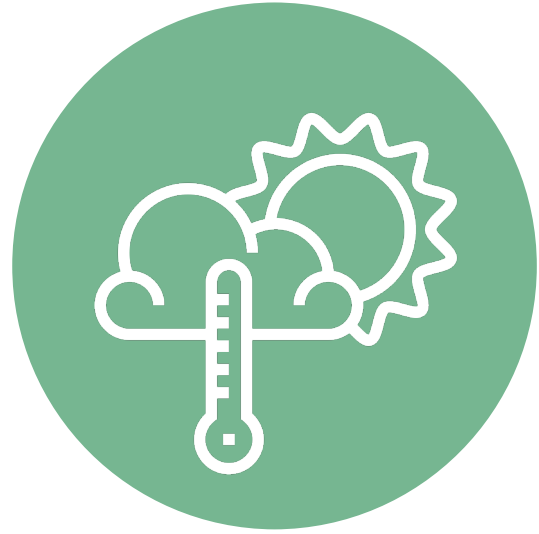




MEGA- TRENDS



TEN MEGATRENDS FOR 2020'S



CLIMATE CHANGE



INCREASE
OF POPULATION



DEMOGRAPHIC
CHANGE



URBANIZATION



GLOBALIZATION



INCREASE OF WEALTH
AND CONSUMPTION



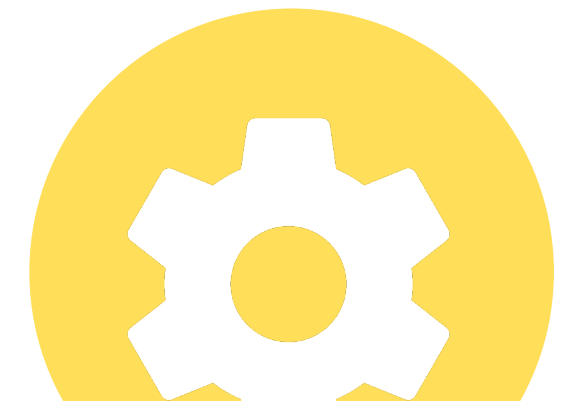
INEQUITY



ECOCRISES AND
RESOURCE DEPLETION

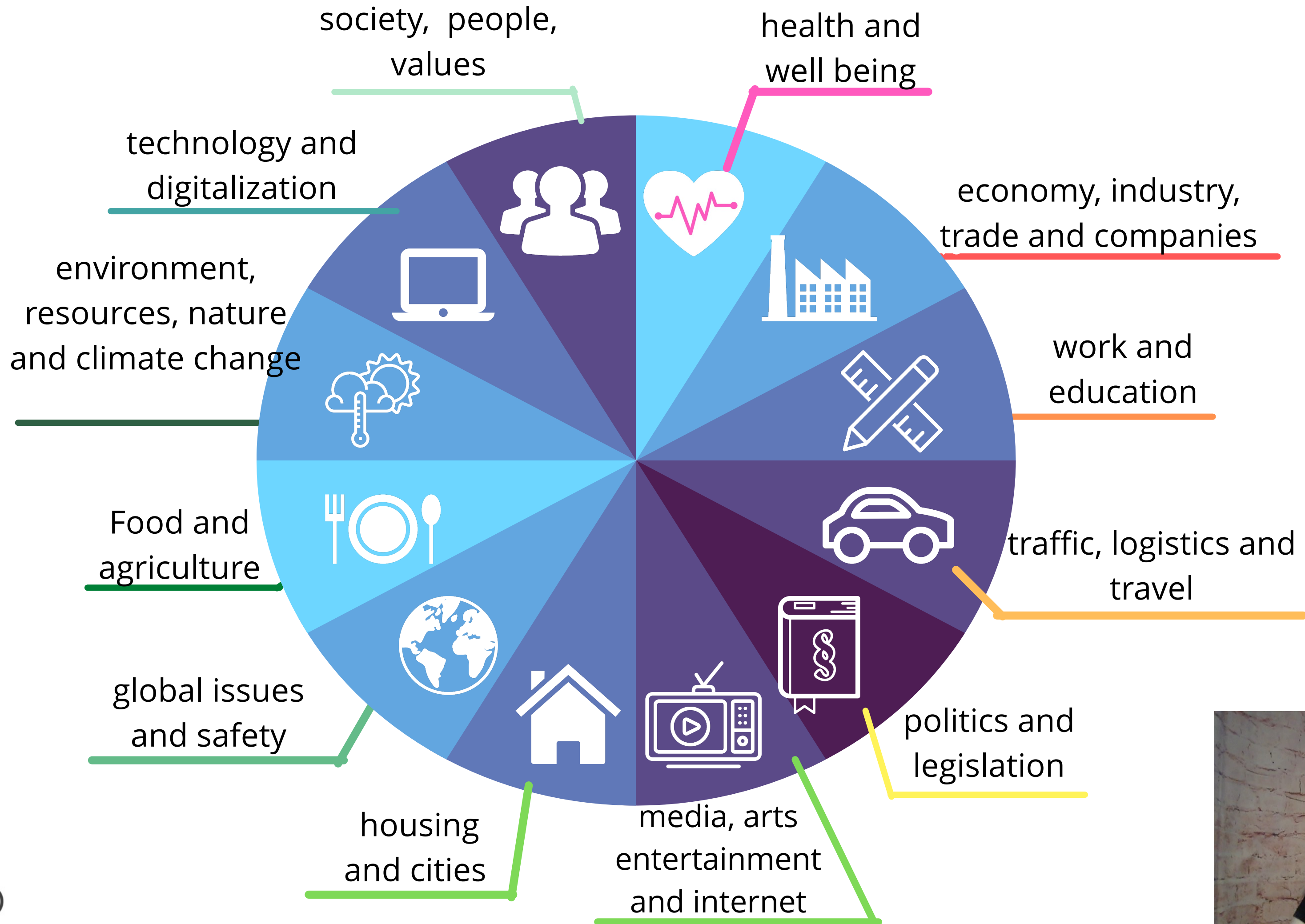


DIGITALIZATION



TRENDS





18 CONSUMER TRENDS



PETFUL LIFE

Pets as important family members



NEVER TOO LATE TO BE A CHILD

Humor and play allowed in adults' (work)life



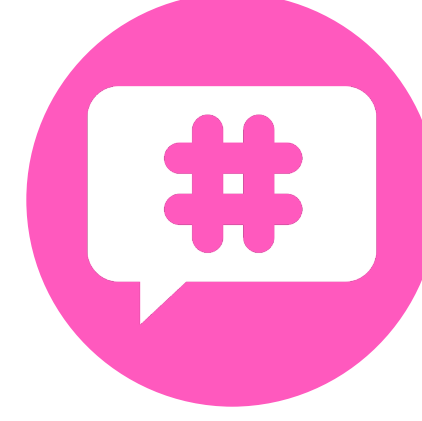
ME, PERFECT ME

Increase of hedonism and personal bubbles



MANY KINDS OF US

Openess to diversity of people



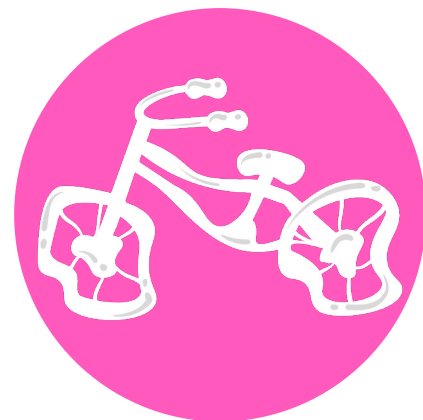
#SOME HEROS

Social media as an important tool for self experssion and business



SOMETHING FOR EVERYONE

Nanosegmentation



NEW AND WEIRD

Startups create new and weird solutions



DIGI- AND MOBILE CONSUMERS

Mobile phones as an important tool for consuming



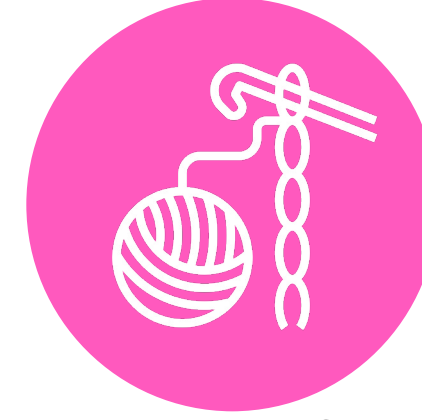
TEMPLE OF BODY AND SOUL

Increased interest in wellbeing



POWER OF THE CROWDS

Consumers finance, buy and innovate together



I DID IT MYSELF

Increased interests in handicrafts, gardening, baking etc. Also:serve yourself



A GOOD CONSUMER

Consumers making ethical and ecological choices



BEYOND THE TRUTH

False claims, distorted information



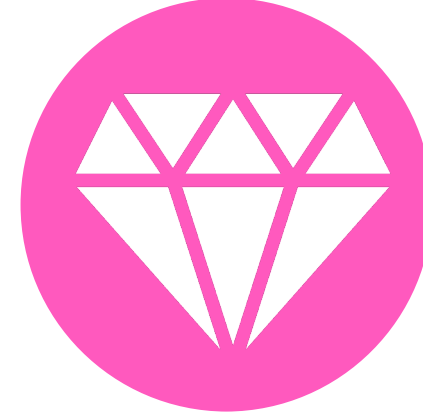
EASY, CHEAP AND NOW

Cheap prices, easy access and 24/7



CUSTOMERS OF THE FEAR

Frightening the consumers as a way to sell. Also: fear sells.



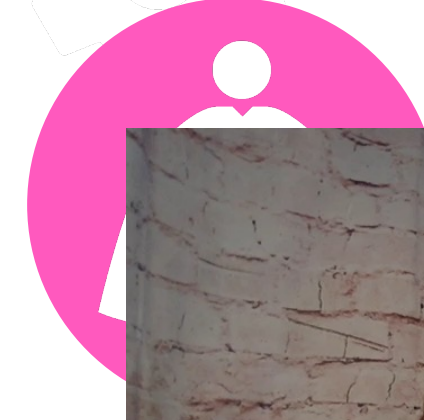
EVERYDAY LUXUS

Luxus trickles down



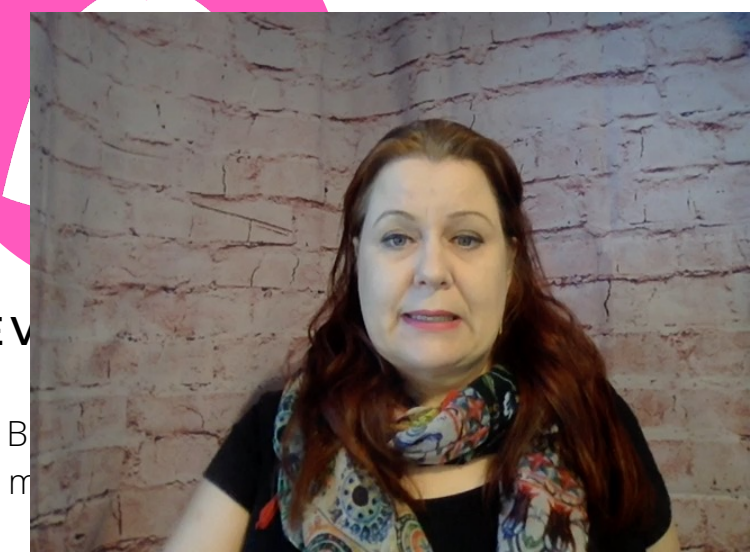
NEW TRADITIONS

As cultures mix, we have more variety. Also: seek for own traditions



EV

B
m





Petful life

People spend increasing amounts of money to their pets. Pets are considered as family members. New services and products to pets are innovated all the time.





It is never too late to be a child

Humor and childishness is allowed for adults too. This can be seen in a new products and services for adults. For example adult's summer camps have increased their popularity. This trend can also be seen in offices.

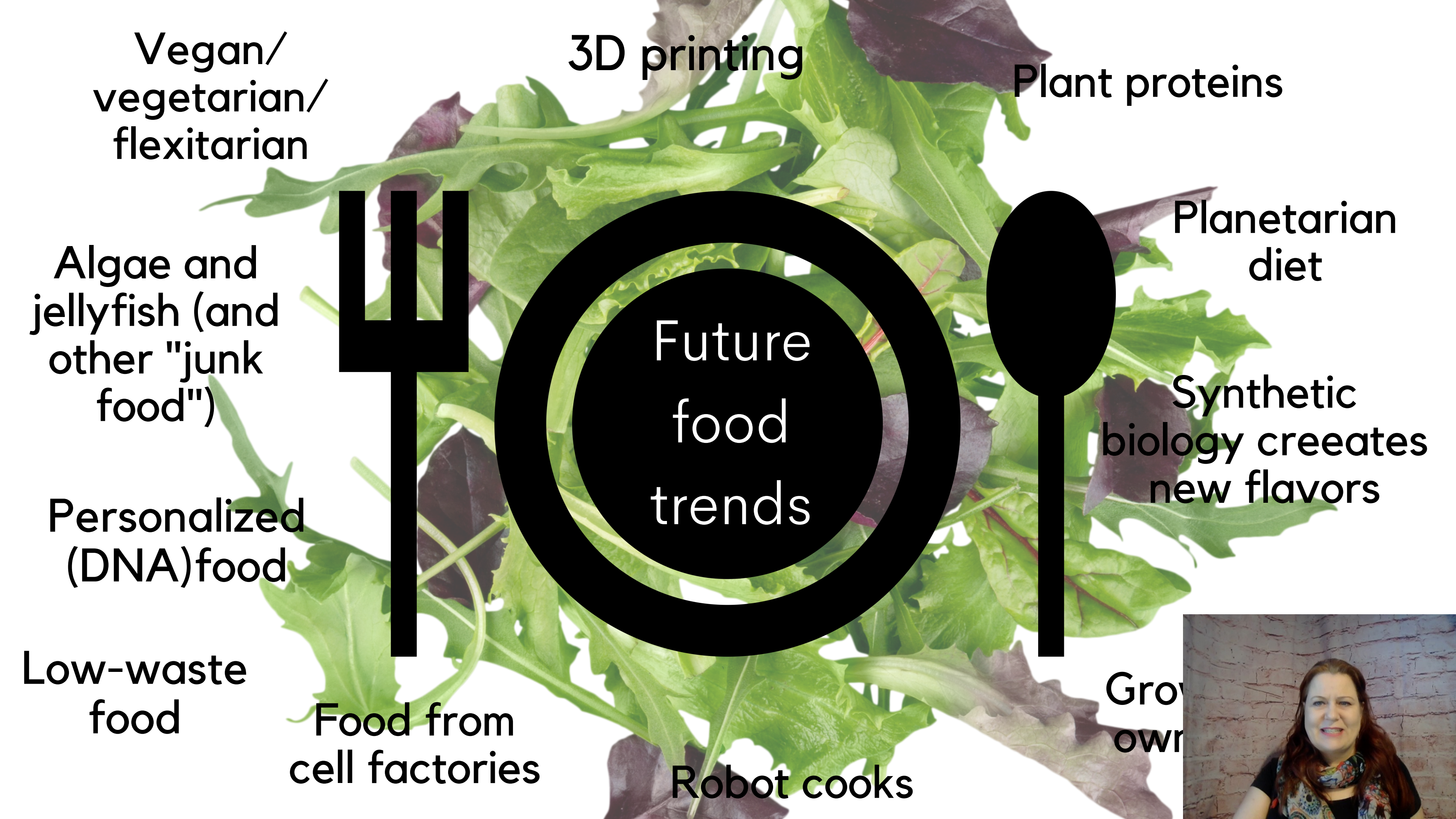




Something for everyone

Nanopersonalization, new target groups, using digital and tools and 3D printing for creating ultra personalized services





Vegan/
vegetarian/
flexitarian

3D printing

Plant proteins

Algae and
jellyfish (and
other "junk
food")

Planetary
diet

Personalized
(DNA) food

Synthetic
biology creates
new flavors

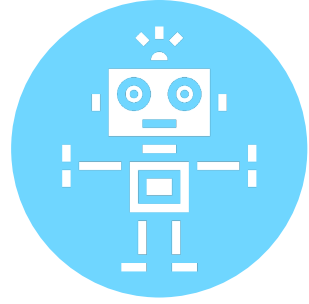
Low-waste
food

Food from
cell factories

Grown
own

Robot cooks





ROBOTICS

- Industry robots
- Service robots
- Nanorobots
- Humanoid robots
- Medical robots
- Farming robots
- Military/ security robots
- Mining robots
- Cobots
- Swarmbots
- Exoskeletons
- Cyborgs
- Claytronics
- Teleoperated robots
- Robot cars
- Drones
- Consumer robots
- Entertainment robots
- Aerospace robots



ICT

- Artificial intelligence (strong/weak)
- Machine/deep learning
- Predictive algorithms
- Big data
- 5G, 6G
- Internet of everything
- IoT
- Quantum computing
- Augmented intelligence
- Cyber security
- Brain-computer interface
- Virtual reality
- Augmented reality/mixed reality
- Digital twins
- Wearable computing
- Printed electronics
- Sensors and smart dust
- DNA computing
- Blockchain
- Cloud computing
- Digital workspaces
- Intuitive, haptic UI
- Edge computing



GREEN TECH AND ENERGY

- Renewable energy sources
- Biofuels
- Smart grid and internet of energy
- Distributed energy resources
- Hydrogen economy
- Fusion energy
- Small nuclear reactors
- Climate engineering
- Electrification of the society
- Energy storage technologies
- Carbon capture and storage CCS
- Vertical farming
- Hydroponics
- Algae as energy and protein source
- Synthetic biology
- Gene manipulation
- Cell factories
- Cultured meat



MEDICAL TECHNOLOGY

- Stemcell research
- Gene scissors
- Use of genome information
- Gene therapy
- 3D printing of organs
- 3D printing of medicine
- Tissue engineering
- Xenotransplantation
- Pharmacogenetics
- Optogenetics
- Immunotherapy
- Use of AI in diagnostics
- Personalized treatments and medication
- Self monitoring sensors
- Internet of medical things
- Lab-on-a-chip
- Mechanical spare parts for humans
- Robotic limbs
- Epigenomics
- Microbiome research
- mRNA vaccines
- Deep-brain-stimulation
- Vagus nerve stimulation
- Electricity treatments for brains
- Regenerative medicine
- Rejuvenation



MATERIALS

- Circular economy
- Recycling
- Nanomaterials
- Biomaterials
- Graphene / nanotubes
- 3D printing
- Metamaterials
- Materials created by synthetic biology



SPACE TECHNOLOGY

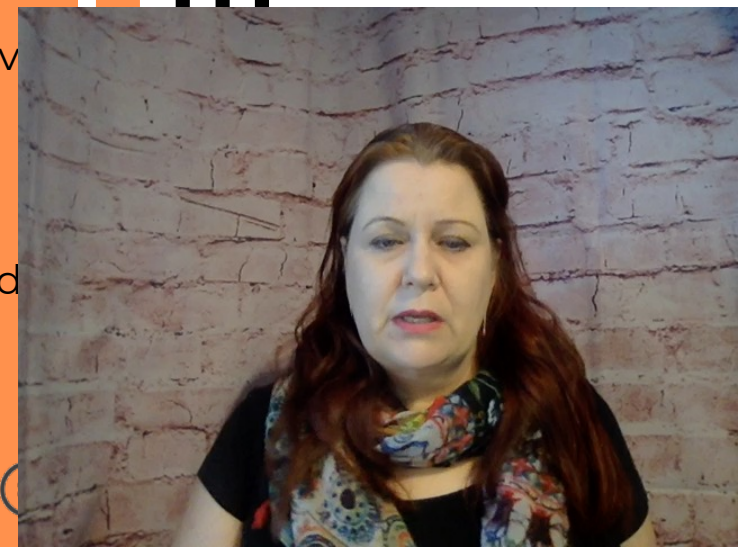
- Asteroid mining
- Nanosatellites
- Space debris removal
- Solar sail
- Space elevator
- Space tourism
- Space weather studies

TECHNOLOGY TREE



ELINA HILTUNEN

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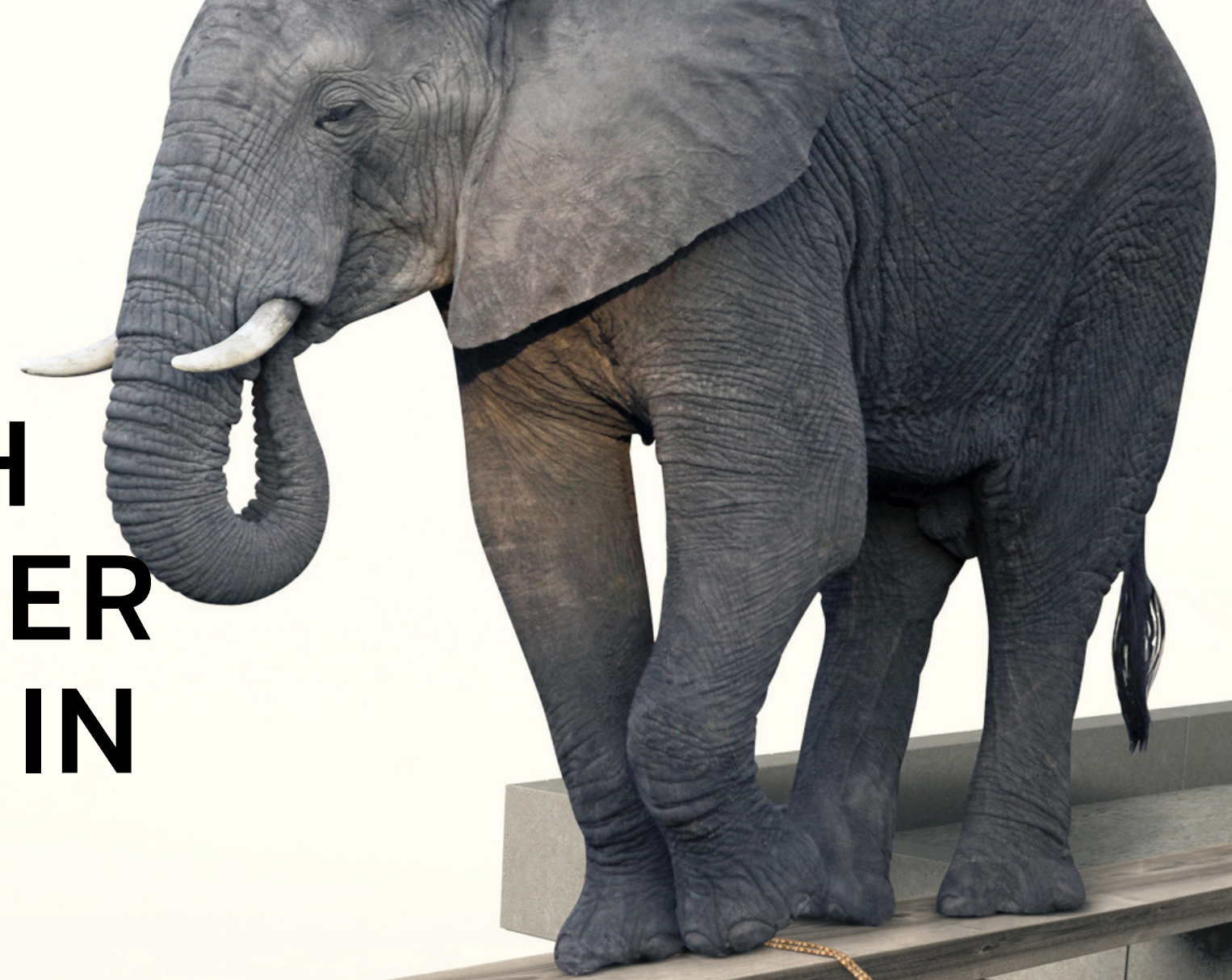


**WEAK
SIGNALS**




WEAK SIGNALS

- **MAKES YOU LAUGH**
- **MAKES YOU WONDER**
- **NOBODY BELIEVES IN THEM**
- **TABOO**







A close-up photograph of several hands of different skin tones and ages working together to assemble white puzzle pieces. The hands are positioned around the pieces, some holding them in place while others are in the process of fitting them together. The background is a soft, out-of-focus blue and grey. A semi-transparent white rectangular box is overlaid in the center of the image, containing the main text.

**COLLECT AND CLUSTER
WEAK SIGNALS- YOU
CAN FIND EMERGING
TRENDS**



MEGA-TRENDS

TRENDS

WEAK SIGNALS

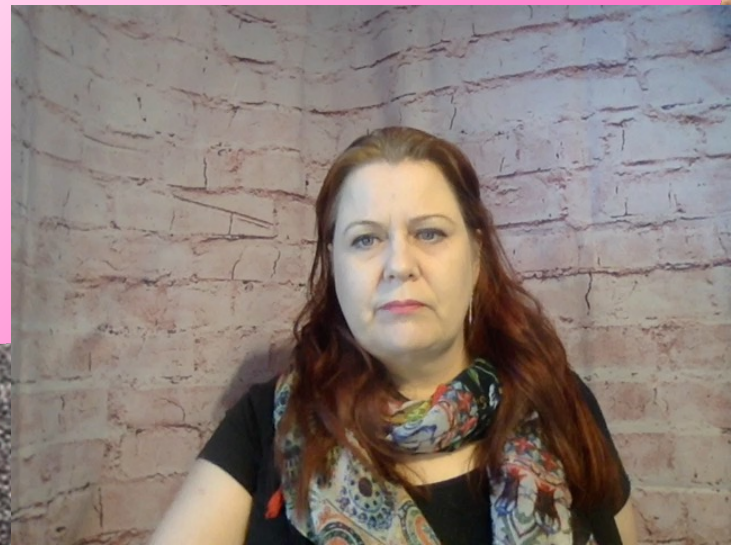
WILD CARDS



scenario 1

scenario 2

scenario 3



scenario 1

scenario 2

scenario 3

**strateg
y**





Innovatin

g





C L I M A T E

S T R I K E

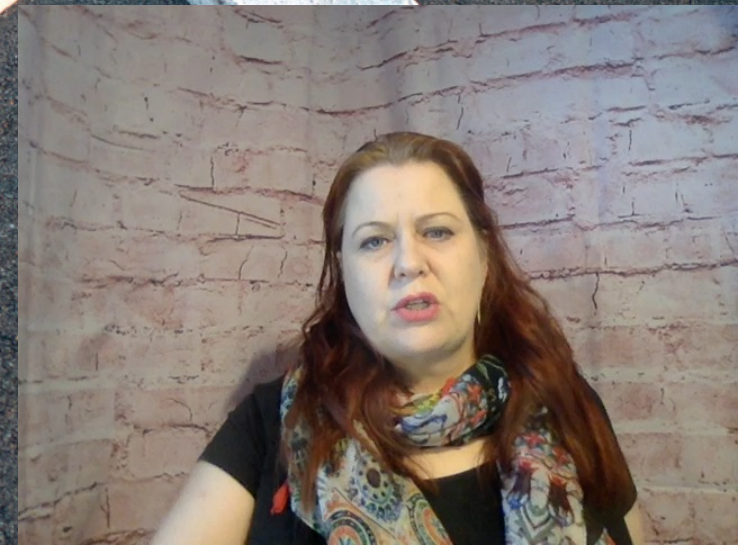




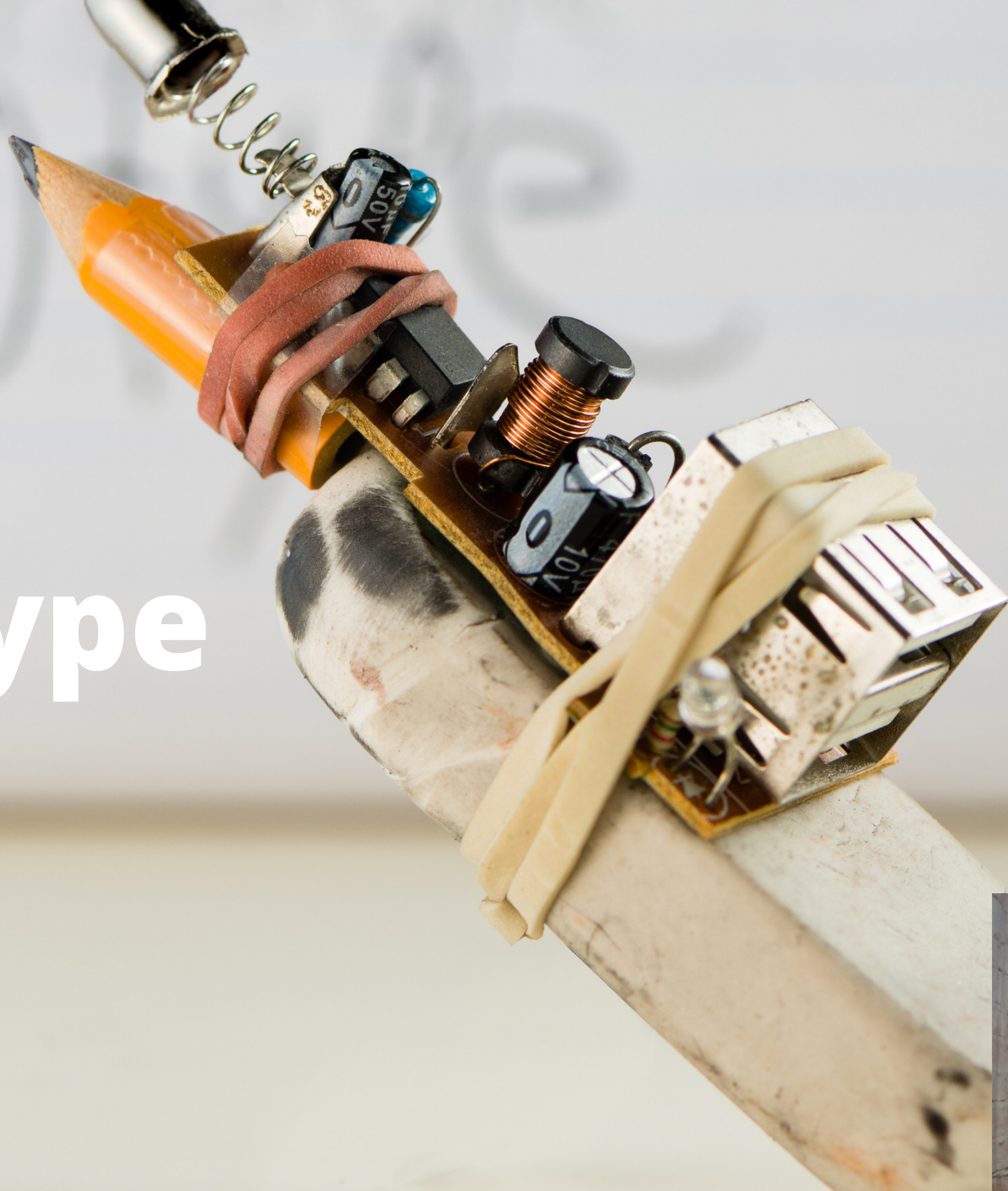
Design thinking



**follow the
customer**



Prototypes





**“Fail faster to
succeed sooner.”**

IDEO, David Kelley



Case: assisting dogs





**Trend / weak
signal**

target group

**strategic
serendipity**

theme





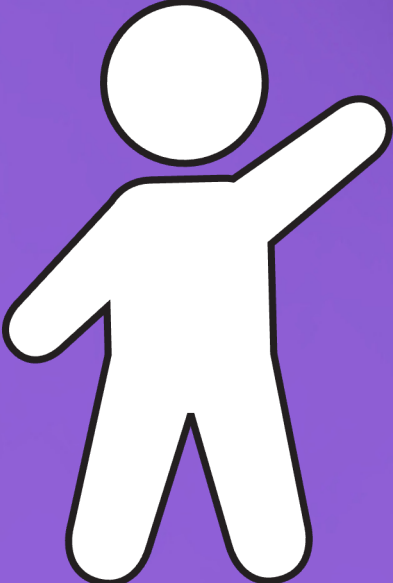
scenario 1



scenario 2

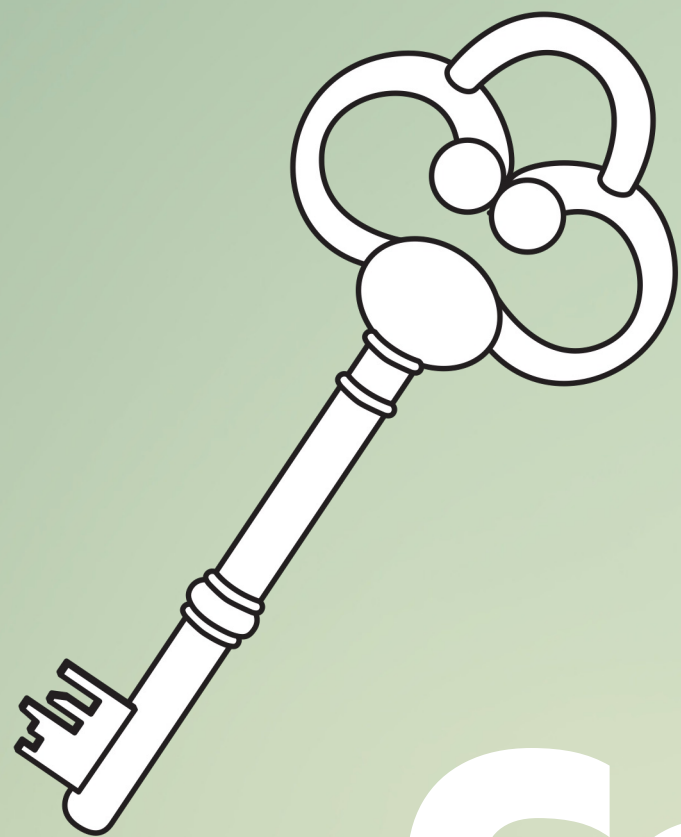


scenario 3



What would our
customer want in
various scenarios





Communicating









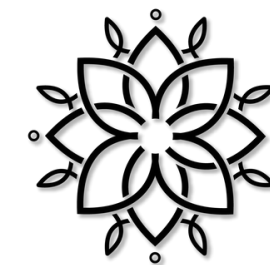
**Keep it simple,
sweetheart!**





Thank you!

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ELINA HILTUNEN
WHAT'S NEXT CONSULTING

