



Experiences of digital transformation in large companies and the growing impact of data in businesses

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Introduction – Elina Piispanen



- Graduated with Masters degree from Helsinki School of Economics (Aalto) in 1986 with Management Information Systems as a major.
- 27 year long career at Accenture of which 17 years as a Partner.
- 2,5 years as Chief Transformation Director at Sanoma Media Finland
- Currently Board member at Viria, Telko and Sitowise, CEO at Fit Advice Oy and Business Angel in 4 start-ups
- A well-rounded Senior Business Executive with a passion to make things happen with people. Deep expertise in digitalization and leading transformational change complemented with wide business leadership experience and execution skills.

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Experiences of digital transformation in large companies and the growing impact of data in businesses - Agenda

1

- **Impact of digitalization**

2

- Transformation case: Sanoma Media Finland

3

- Impact of Data at Sanoma Media Finland

4

- Start up case: Cuckoo workout

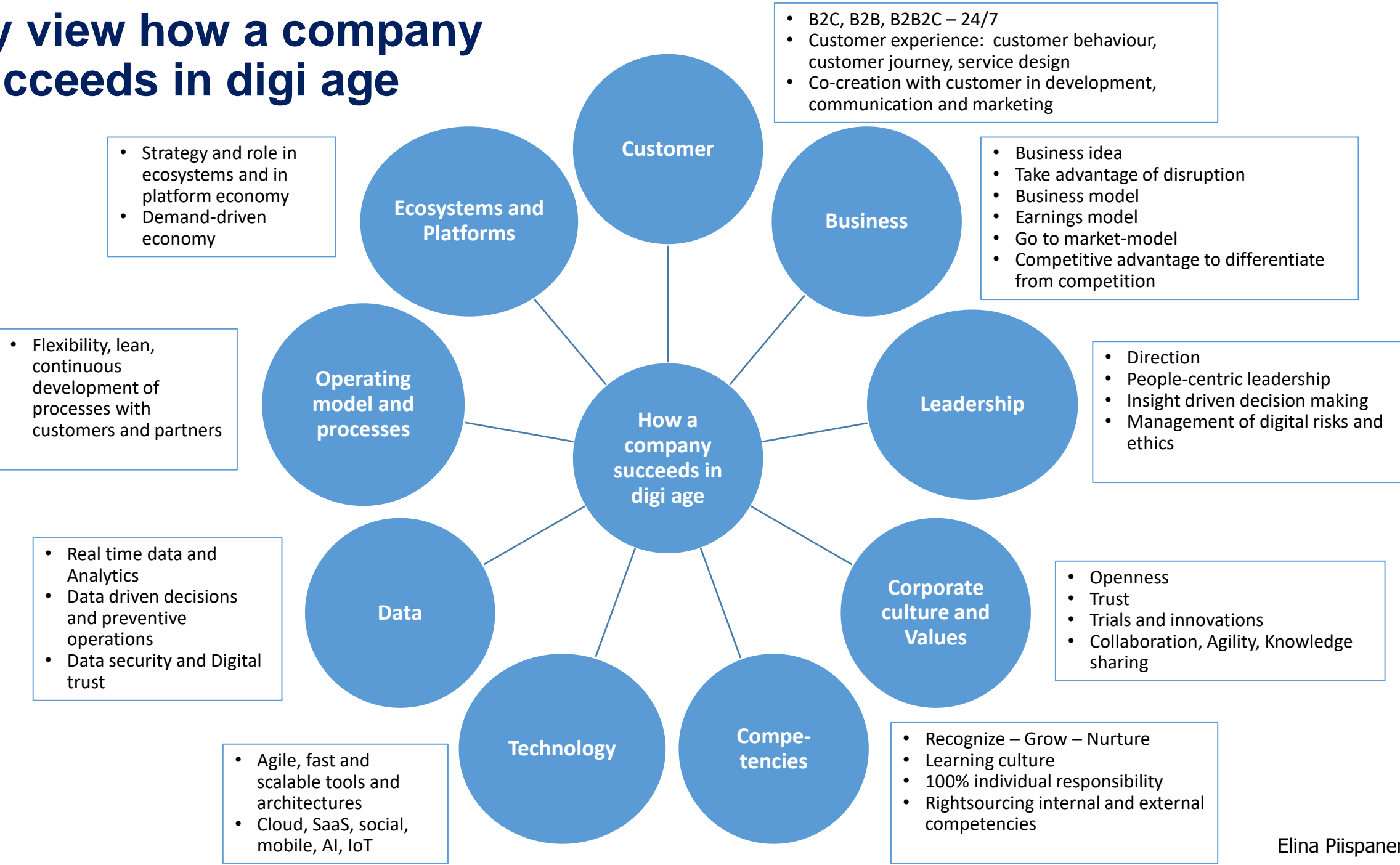
5

- Summary

Digitalization – some definitions

- ***Digitalization*** is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business (Gartner)
- In the journey of ***Digitalization***, process control is shifting towards customers based on the convergence of the four forces: social, mobile, big data and cloud.
- ***Digital transformation*** is the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the changes and opportunities of a mix of digital technologies and their accelerating impact across society in a strategic and prioritized way, with present and future shifts in mind.

My view how a company succeeds in digi age



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Sanoma Media Finland is the leading Finnish multi-channel media company. Our newspapers, magazines, tv and radio channels, online and mobile media offer information, experiences and entertainment.

We reach most of the Finns every day.



Sanoma is the market leader of digital consumer media in Finland

Weekly clients and sessions

#	Service	Clients	Sessions
1	Ilta-Sanomat	5 018 432	27 225 422
4	Helsingin Sanomat	2 614 006	9 839 116
7	Nelonen Media	1 454 818	3 975 215
9	Oikotie	1 063 268	2 345 885
12	Vauva	839 156	1 592 445
20	Me Naiset	435 169	646 270

Source: FIAM weekly list week 17/2018

This is how it looks when data is big

Tältä näyttää, kun DATA on
OIKEASTI ISOA

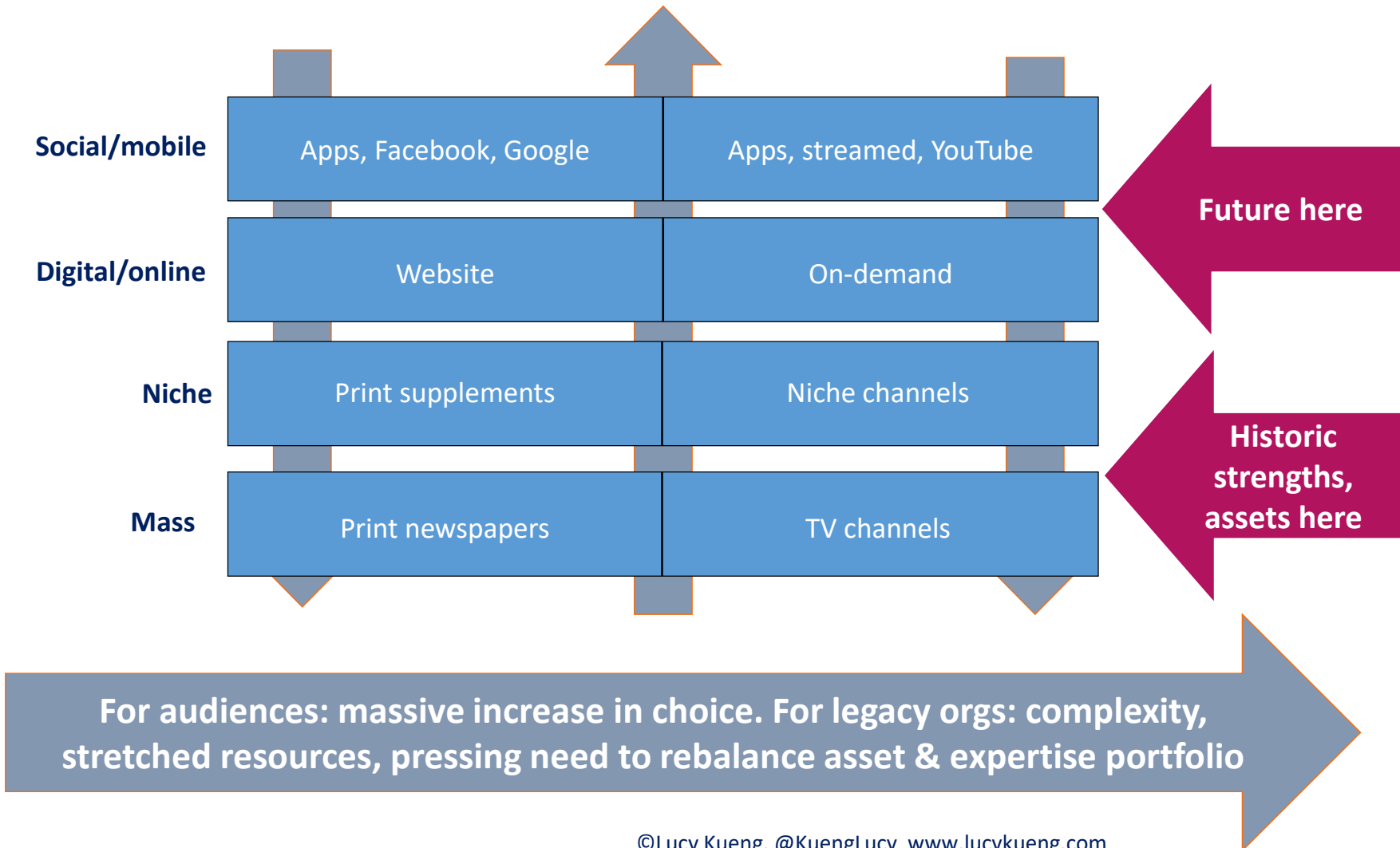


Examples: 258 870 615 internet page loads a week

Weekly users 97% of Finns

Most popular IS story 2552 readers a minute

Media companies have progressively expanded over past decades

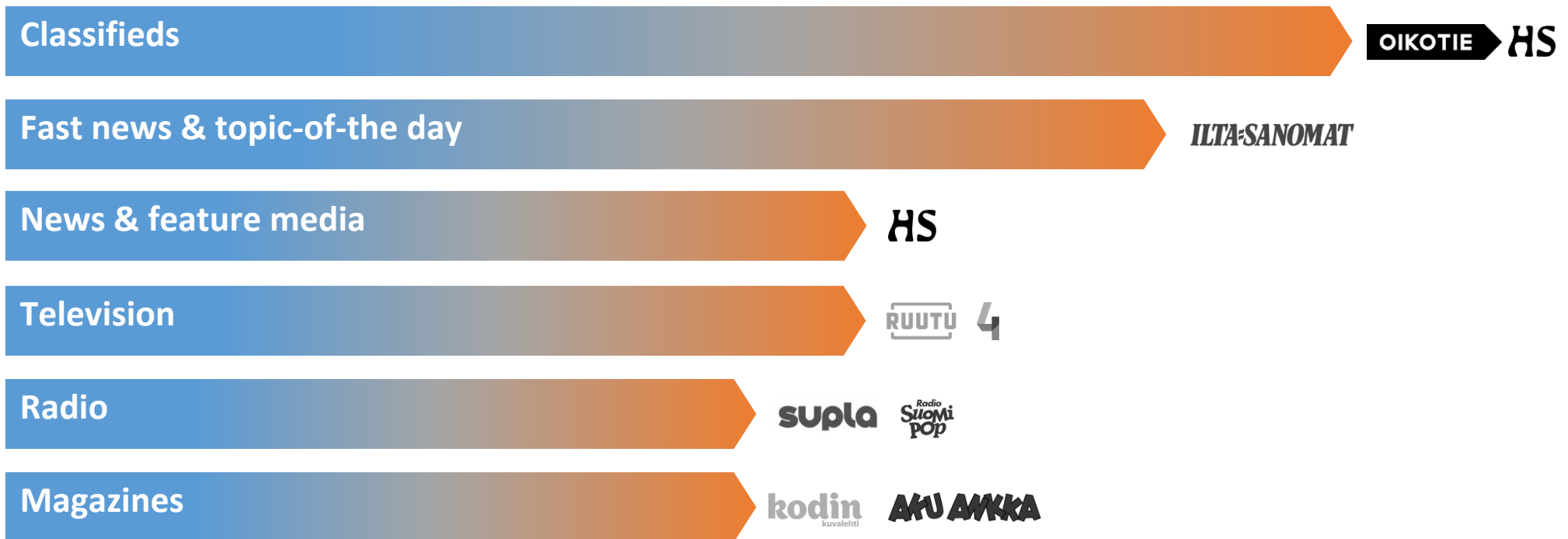


Hybrid strategy at the pace of consumers

Existing hybrid era, where media groups transform at different speeds at the pace of consumer behaviour, Sanoma Media Finland's strategy is a *hybrid strategy*: catering to both traditional and digital media consumption and balancing related costs

Pure play print/ linear

Pure play digital/non-linear



Understanding consumer behaviour is essential to succeed in digital

- Use both qualitative insights and quantitative statistics: When designing services, carefully mix human insights with data to get more colour into the facts that are usually black and white.
- Cluster analysis reveals three overarching dimensions in media use

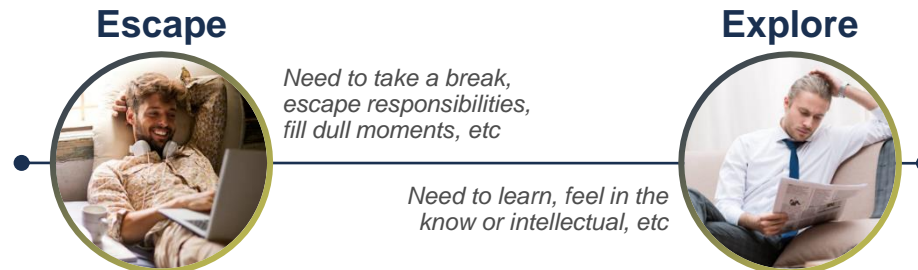
1 Occasion length

Occasion duration generates unique emotional & functional needs, yielding distinct set of media categories



2 Emotional need state

Media occasions highly polarized on need of Escape versus Explore, often correlated with consumer lifestage



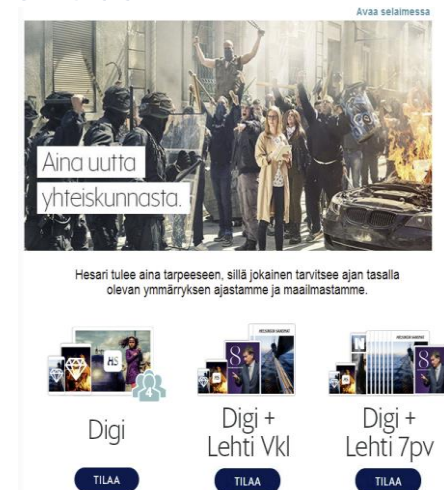
3 Consumer lifestage

Lifestage key dimension differentiating needs – influencing factors include age, marital status, children, employment



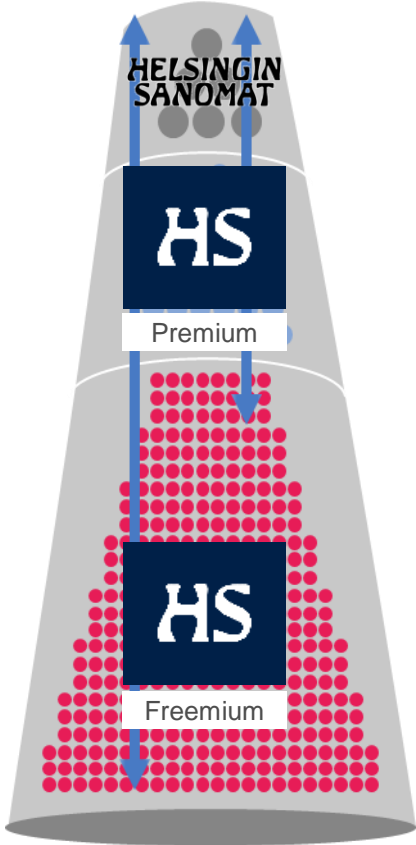
Competitive advantage to differentiate from competition – Quality journalism

- SMF is the local media company that contributes to the Finnish democracy, culture and well-being of Finnish society and keeps the local ecosystem competitive.
- The Land of free press
 - https://www.youtube.com/watch?v=cTfon2qTM_Y
- Productization
 - Digi only, digi + weekend, digi + print, print only
 - A/B testing
- The total number of subscribers of Helsingin Sanomat has been increasing now two years in a row after 25 years of decline.
- In 2018 the number of subscribers less than 40 years increased by 38%
- The number of young readers between 18-24 years grew by 30%



Digital HS service an important marketing, acquisition sales and retention tool

Example HS
(commercialisation funnel aligned with value proposition)



Key levers

Churn prevention especially through activation
BtoC sales together with media units, across all products and channels

Conversion optimisation from lead to upsell,
e.g. fluent payment
BtoC sales, across all products and channels

Paywall optimisation incl. dynamic targeting
BtoC together with MU

Audience identification, profiling & targeting –
supported by SMF identification strategy & initiatives

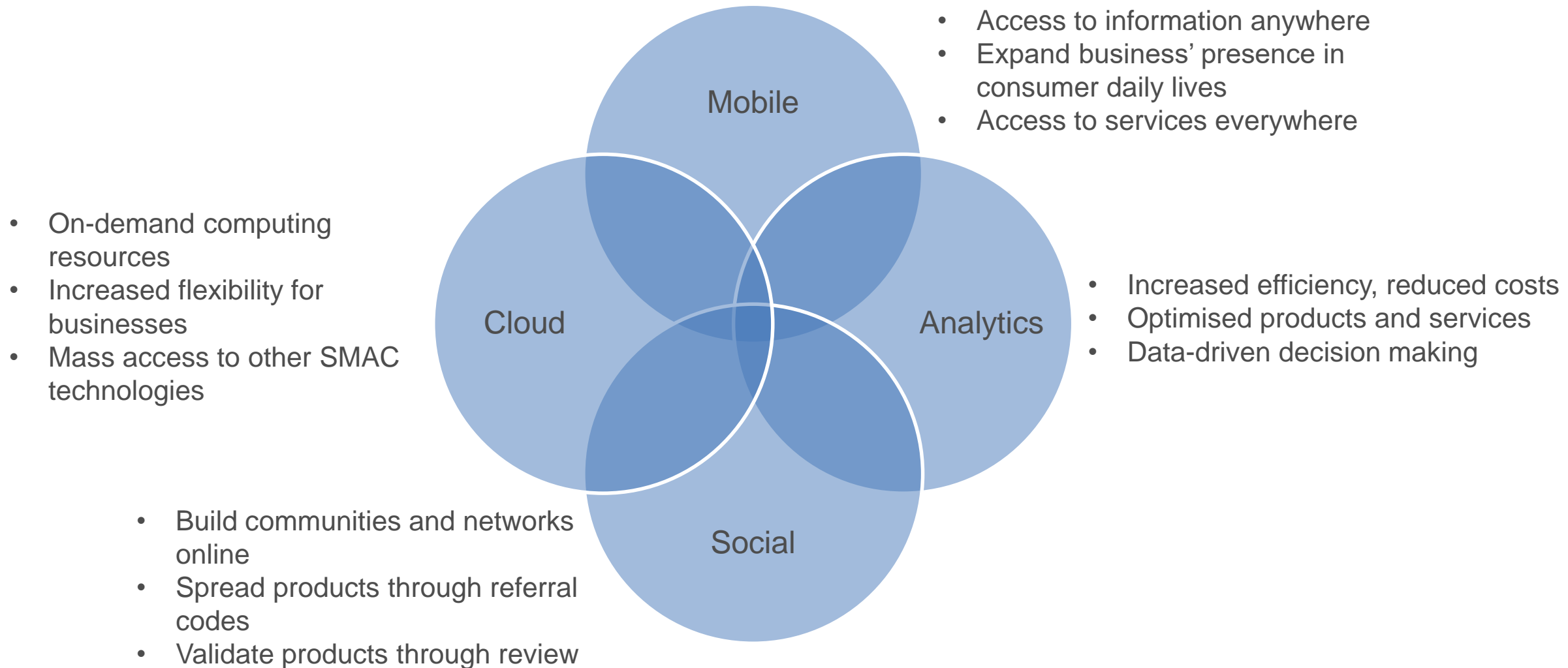
Grow traffic and usage (reach & frequency)

Competencies and Corporate Culture in Sanoma Media Finland

- Trials and innovations
 - AI development / Latoja
- Hackathons
 - HS Hackathon
 - Internal data Hackathons
- Competency development
 - Sanoma Academy
 - Digi journalism skills
 - Digital product and service design and development
 - Changing leadership
 - Data for everyone: Basics of Digital Analytics
 - Sanoma talks

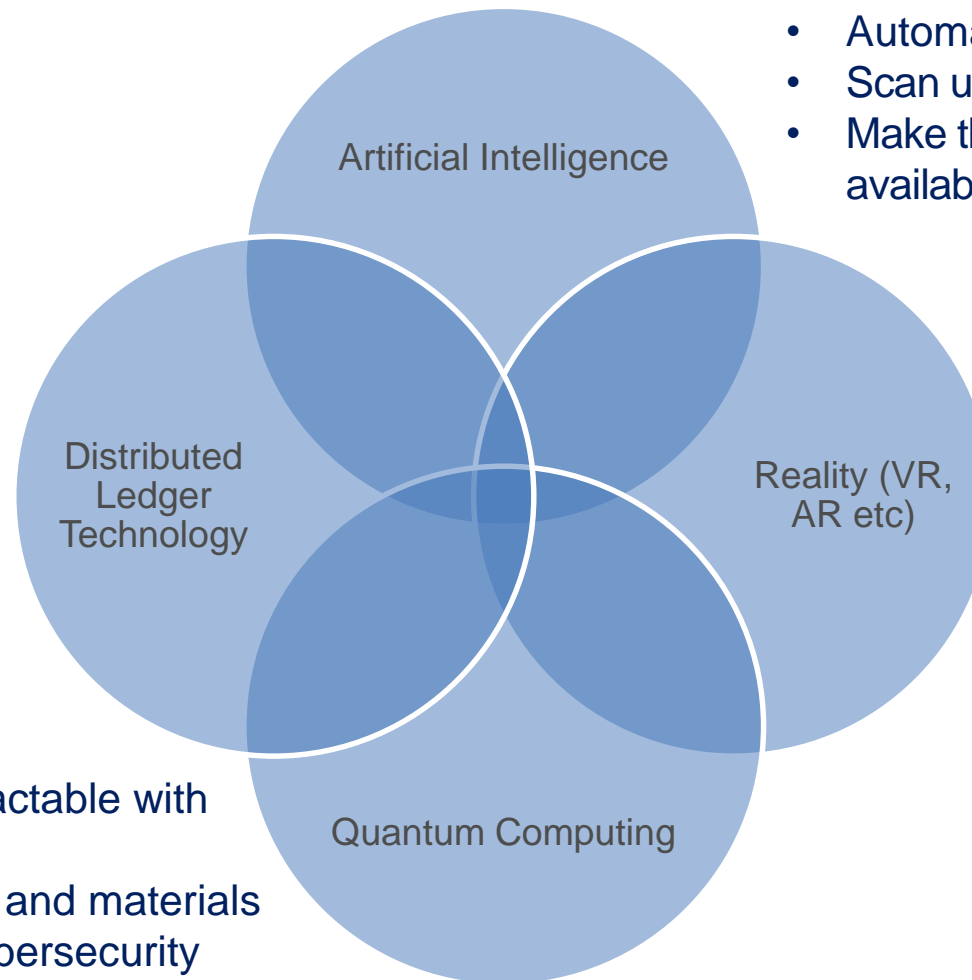


Digital foundation: Mastering SMAC (social, mobile, analytics and cloud)



The next set of technologies to master: DARQ

(Distributed Ledger Technology, Artificial Intelligence, Reality, Quantum Computing)



- Transact without middlemen or trusted third parties
- Large-scale collaboration and transaction among strangers
- Self-executing smart contracts

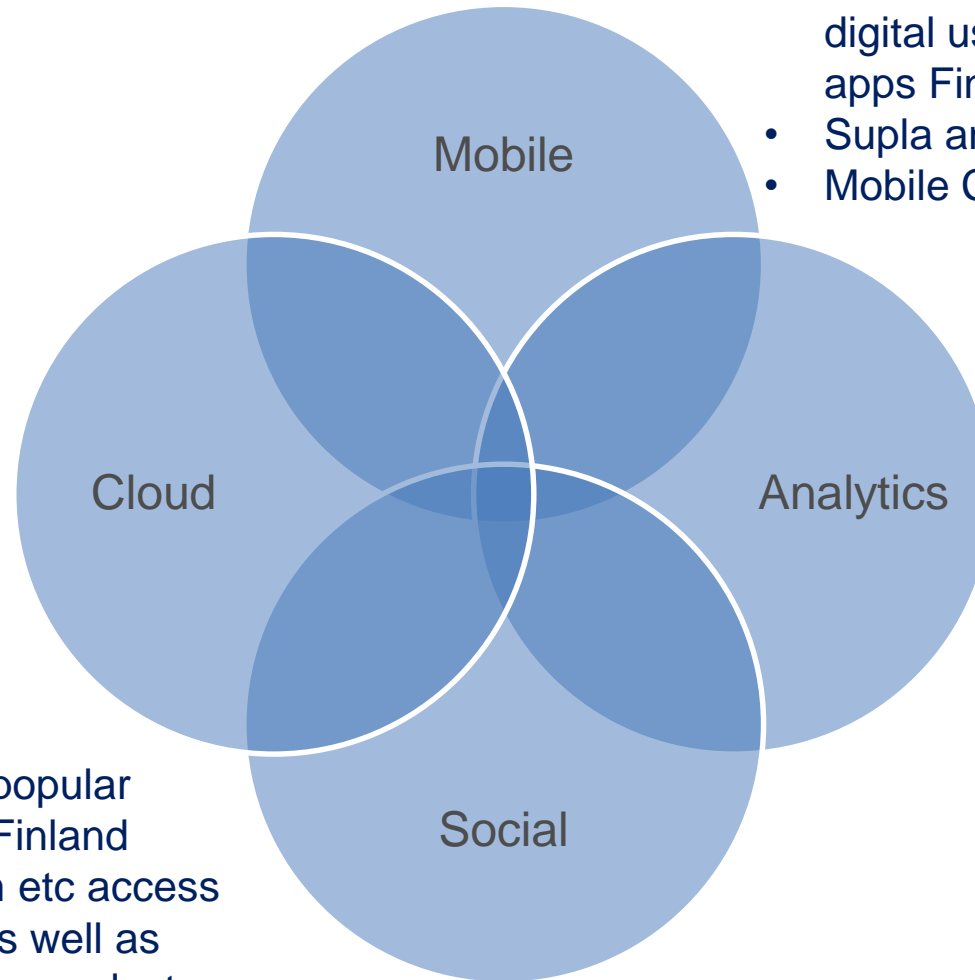
- Solve problems intractable with today's computers
- Discover new drugs and materials
- Transform global cybersecurity

- Automate business functions
- Scan unprecedented amounts of data
- Make the benefits of analytics more widely available

- New, immersive environments
- On-demand and hands free information

Technology: Social, mobile, analytics and cloud at Sanoma Media Finland

- Mobile IS and HS apps are growth drivers for digital usage -> IS to be among top 3 mobile apps Finns use daily
- Supla and Ruutu
- Mobile Customer service (Omasanoma)



- Amazon key technology partner in cloud: apps, data lake

- Really essential in understanding customer and business itself and getting value out of data -> see next chapter on Data in Sanoma Media Finland

- Vauva.fi one of most popular discussion forums in Finland
- FB, Twitter, Instagram etc access channels to content as well as marketing channels for products and content

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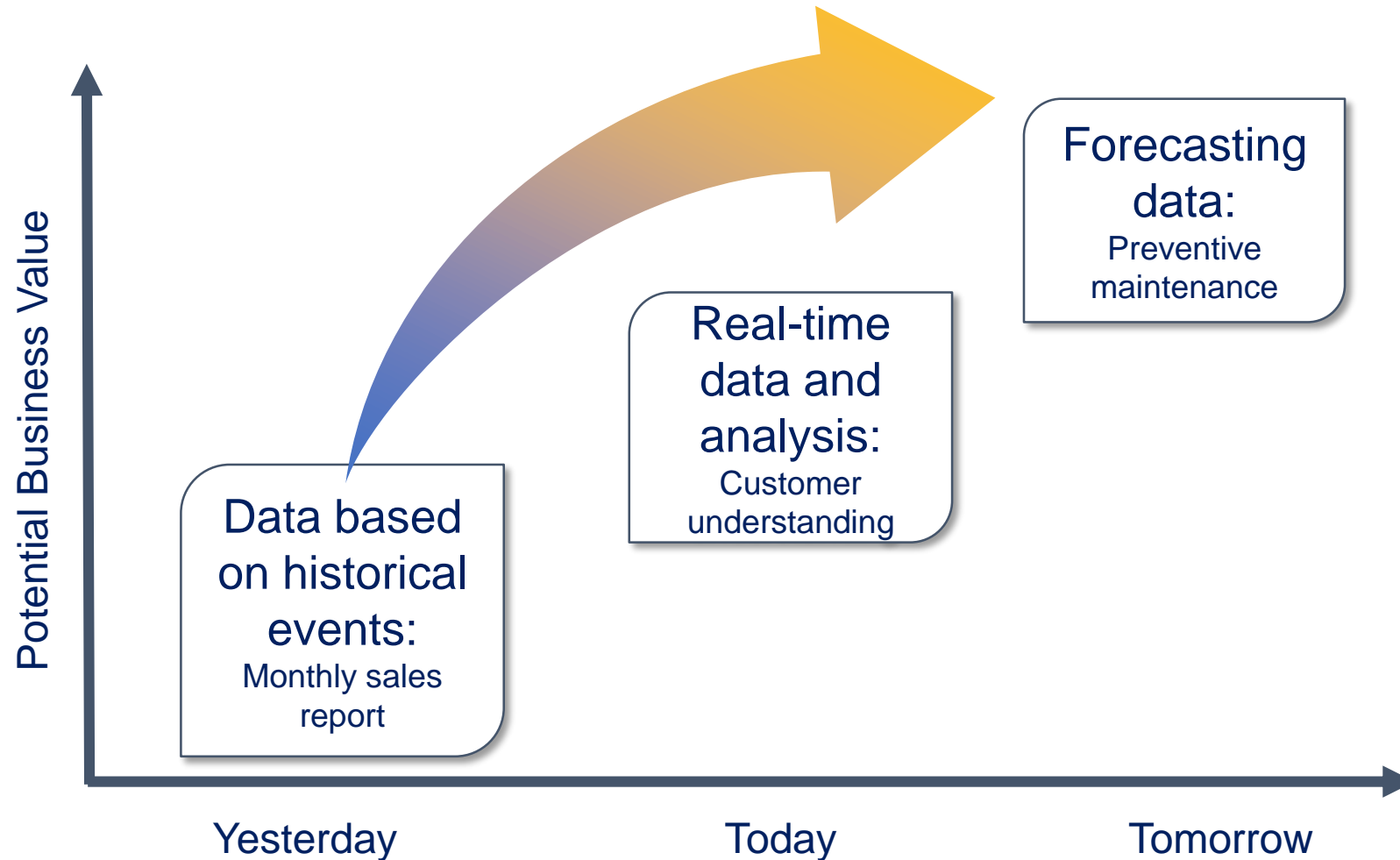
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- Start up case: Cuckoo workout

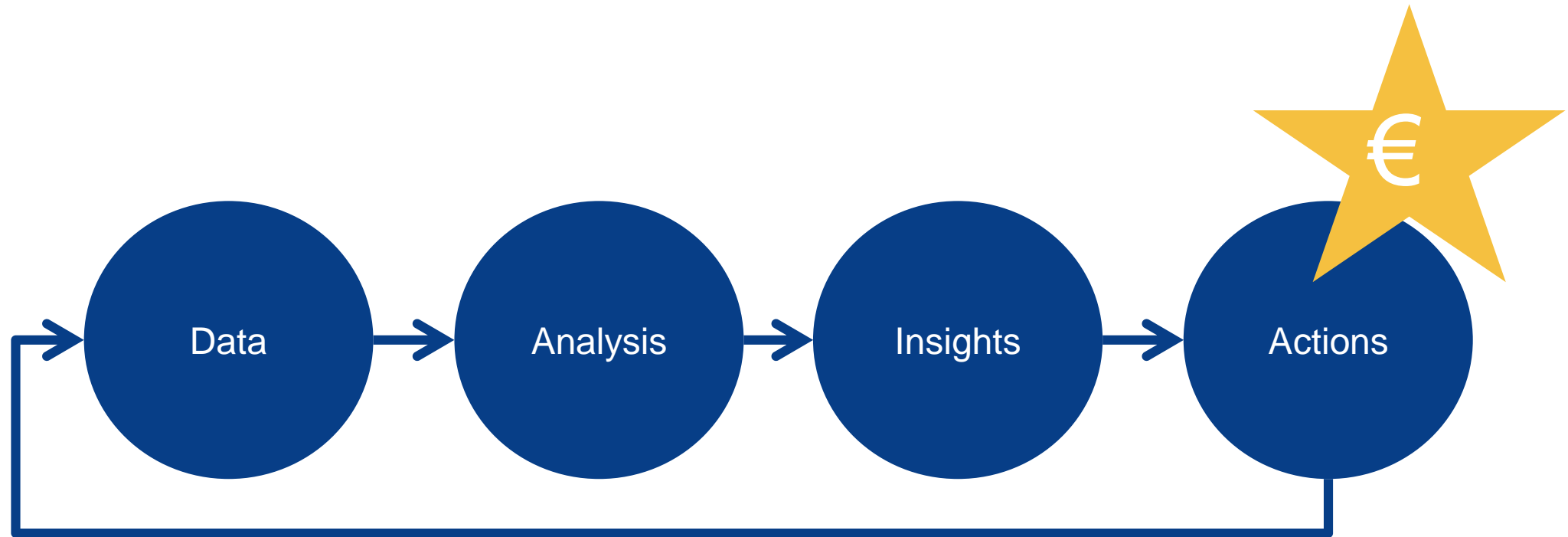
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- Summary

Data is at the core of Digitalization in creating business value



Data does not bring any benefits unless it is used



Data is a key enabler in a media company

Data enables Sanoma Media Finland to...

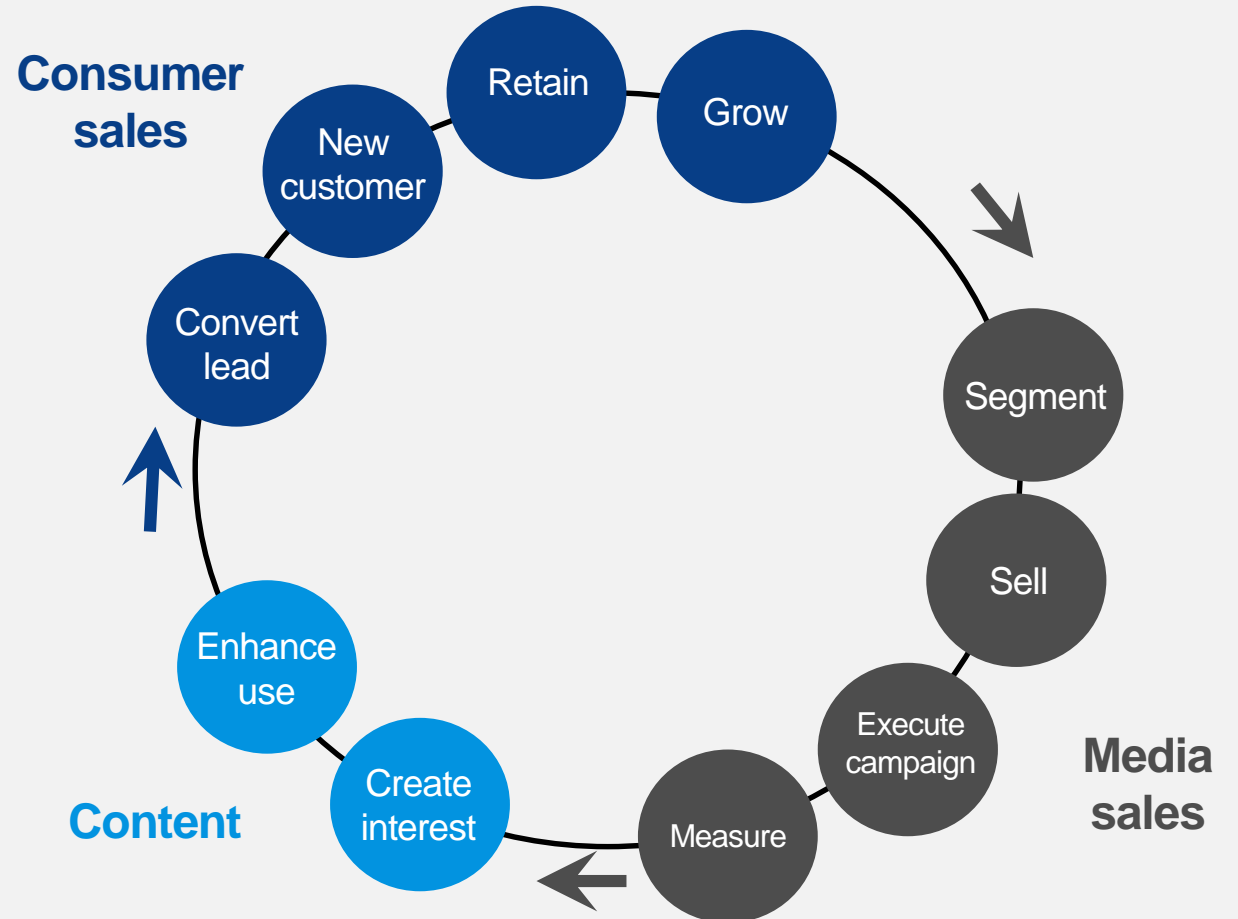
Build customer trust with transparent and reliable data adhering to privacy and security policies

Deliver relevant content to its customers

Find the right products and offerings for its customers

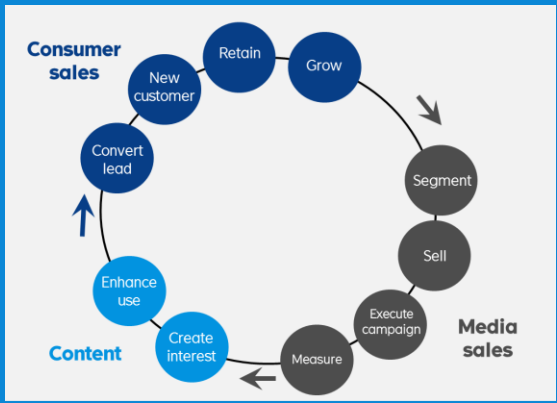
Deepen our relationship and dialogue with its customers

Create effective audiences for its media partners and advertisers





Example of data usage



CONTENT

Create interest

Enhance visit / use



CONSUMER

Convert lead

Convert customer

Retain

Cross- and up-sell



ADVERTISER

Segment

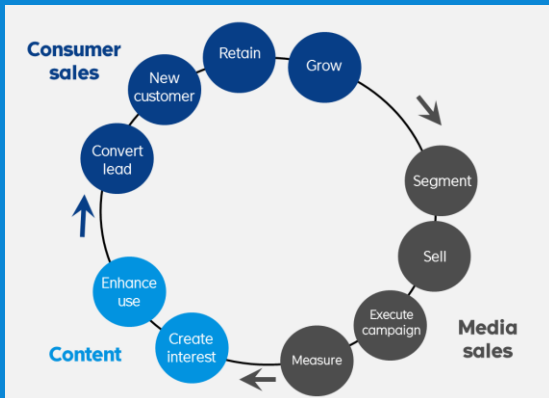
Sell

Execute campaign

Measure effectiveness



Building big data solutions requires a variety of different data & analytics capabilities working together: Example of data & analytics capabilities utilized



CONTENT

Create interest

Enhance visit / use

CONSUMER

Convert lead

Convert customer

Retain

Cross- and up-sell

ADVERTISER

Segment

Sell

Execute campaign

Measure effectiveness

Digital analytics

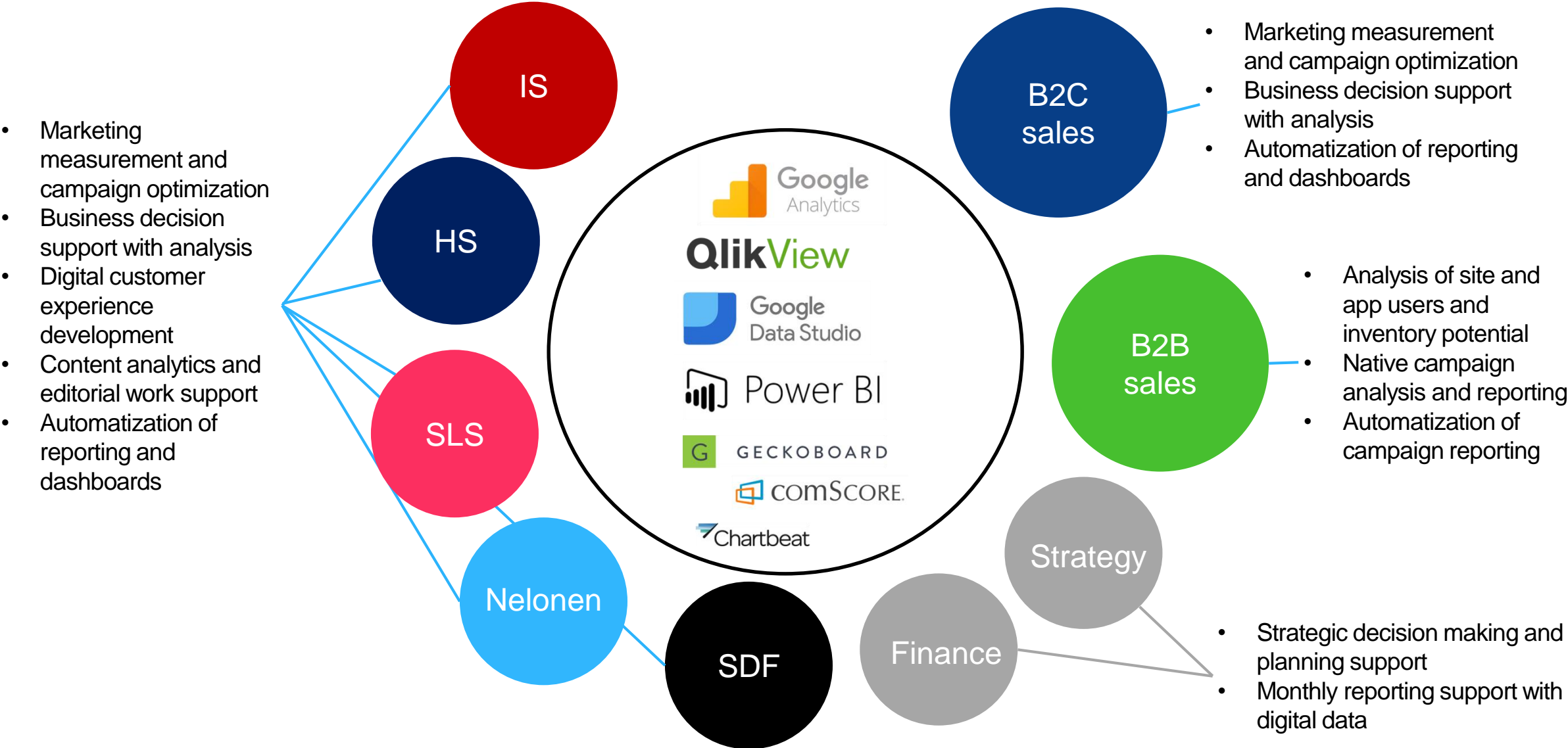
Consumer sales analytics

Data Science

Data sales

Media sales analytics

Digital analytics tools and services are used across Sanoma Media Finland

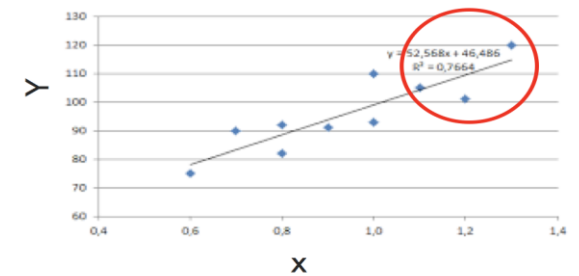
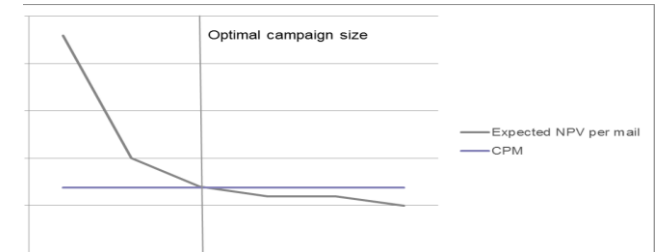
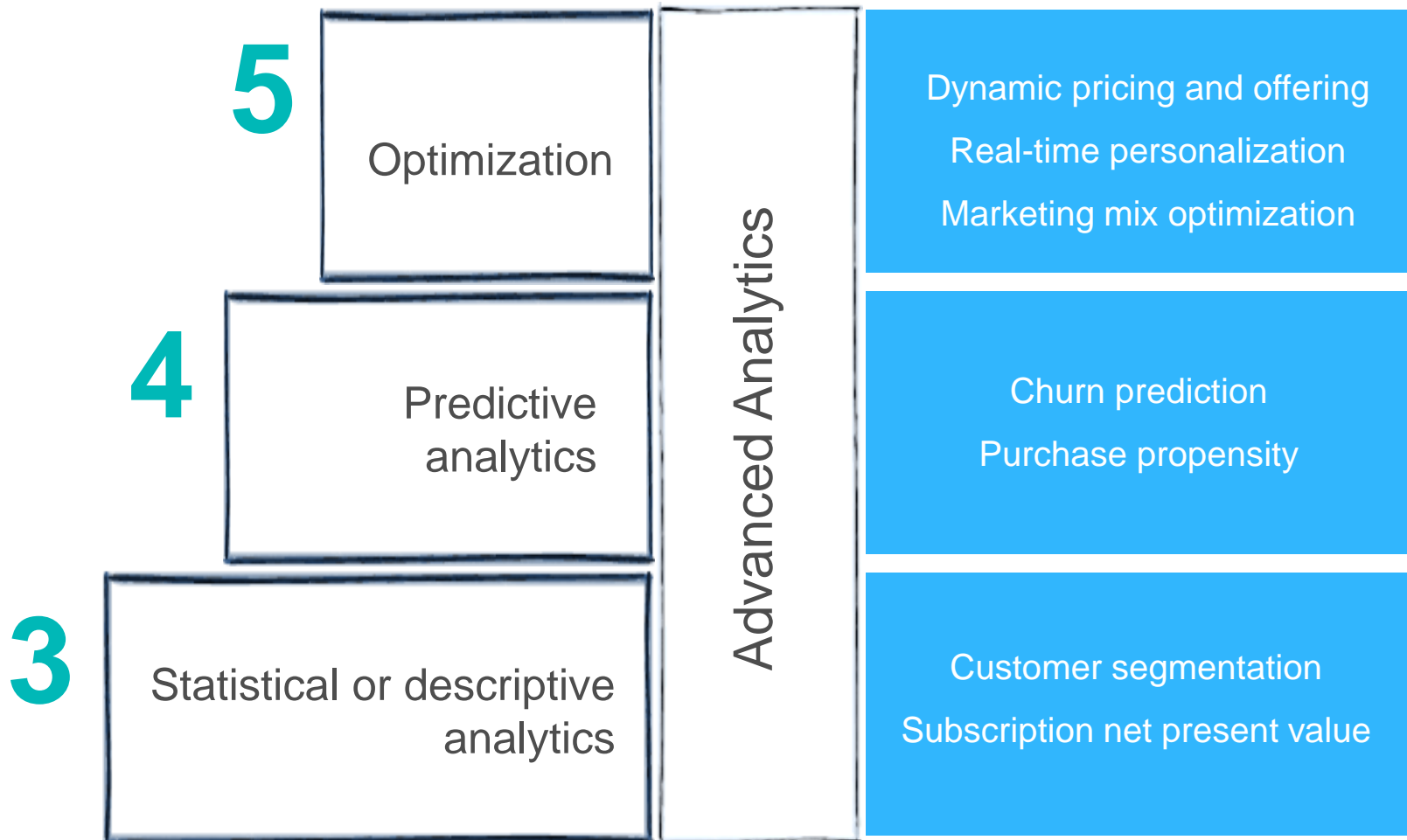


Analytics levels and use cases

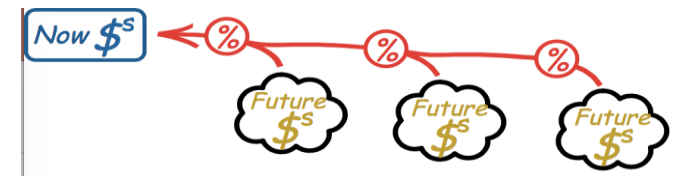
	Analytical Method	Description		Consumer Sales Use Cases
5	Optimization	What is the best that can happen?	Advanced Analytics	Dynamic pricing and offering Real-time personalization
4	Predictive analytics	What will happen next?		Churn prediction Net present value Marketing mix optimization
3	Statistical or descriptive analytics	Why is this happening?		Customer segmentation Subscription net present value
2	Query and drill down	Where exactly is the problem?	Business Intelligence	Ad hoc business insights for decision-making
1	Reports	What happened?		Big data visualization; Performance dashboards

Modified from Analytics Levels by Davenport & Harris, 2007

Examples of advanced analytics use cases in consumer sales



ita



Evolution of analytics -> Artificial Intelligence enabled by big data

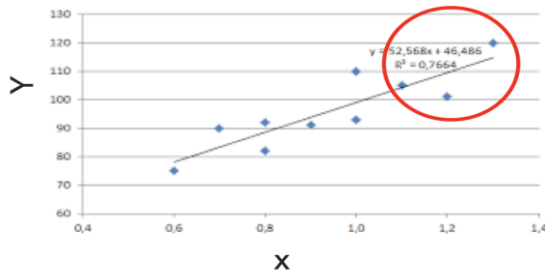
Advanced analytics



Machine learning



Artificial intelligence



$$Q_{st,at} = Q_{st,at} + \alpha * (r_t + \gamma * \max_a Q(st+1, a) - Q_{st,at})$$

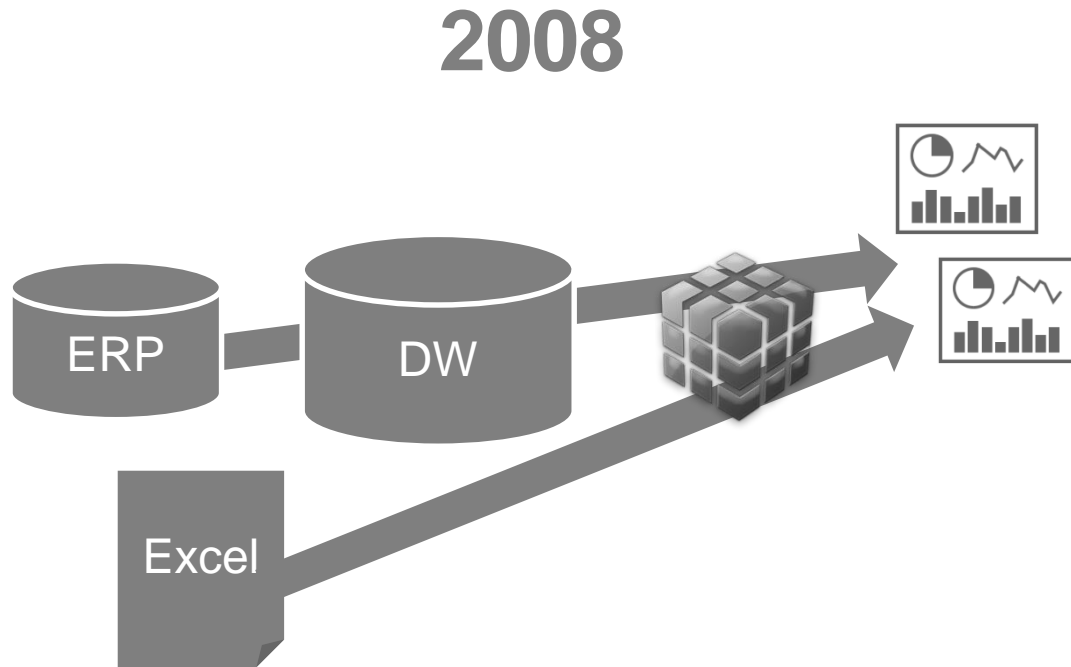
Learning rate: α
Reward: r_t
Discount factor: γ
New value: $Q_{st,at}$
Current value: $Q_{st,at}$
Future value estimate: $\max_a Q(st+1, a)$



Nice algorithms aren't enough.

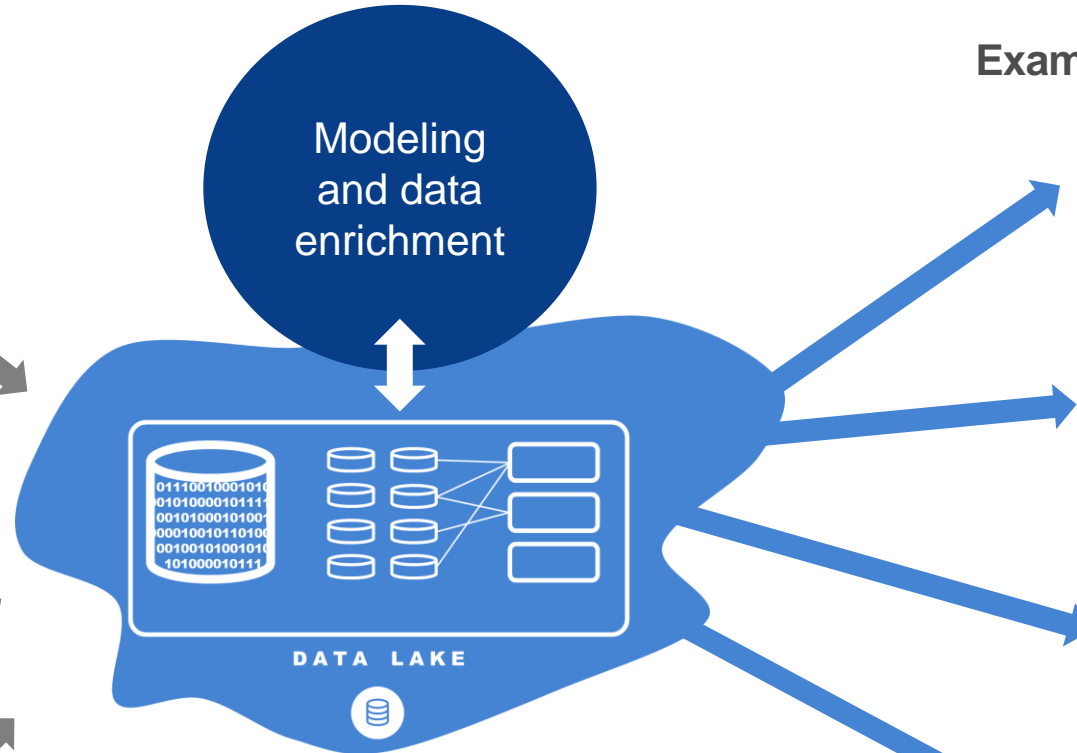
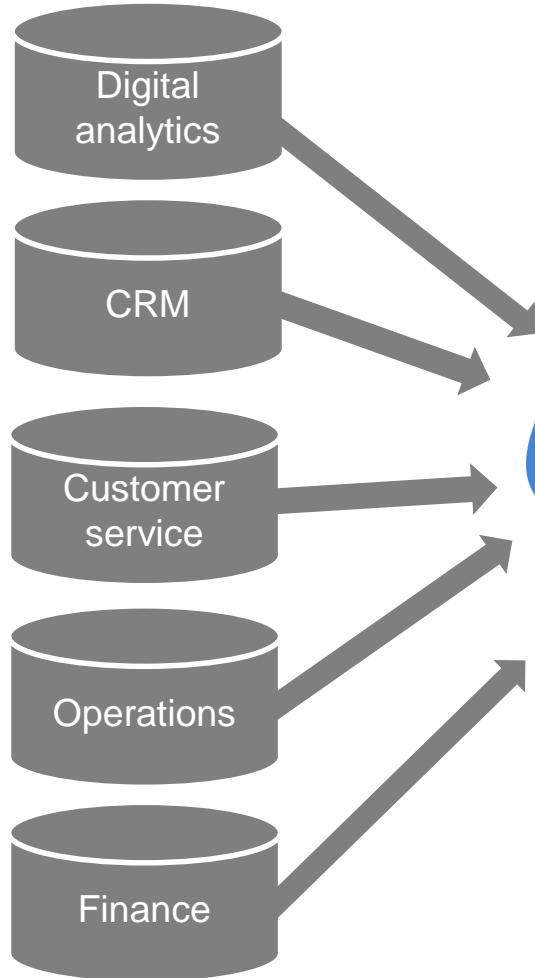
Only big enough data makes the algorithm learn...

From basic reporting to big data services



Data lake solutions integrate, prepare, enrich and deliver data for business use cases

Examples of source data systems



Examples of operational systems



- 1 Gather raw data**
- 2 Prepare core data**
- 3 Transform to use cases**

Compliant and transparent use of data is essential in building customer trust

The screenshot shows the ILTA-SANOMAT website with a consent dialog box overlaid. The dialog box has a green 'OK' button and a 'sanoma' logo. The text in the dialog box reads: 'Evästeiden avulla parempia palveluja', 'Evästeiden avulla kerätyn tiedon ansiosta voimme tarjota sinulle parempia palveluja: käyttökokemus, sivustojen toiminta, sisältösuositukset ja mainonnan osuvuus paranevat. Evästeitä käytetään myös kävijämittaukseen.', 'Klikkaamalla ok hyväksyt, että Sanoma ja yhteistyökumppanit keräävät eväsetietoa ja käyttävät sitä mainonnan ja markkinoinnin kohdentamiseen.', and 'Lue lisää evästeistä ja hallinnoi omia asetuksiasi täällä.' Below the dialog box, there is a headline: 'Näin Sojuz-rahastaja laukaisu eteenpäin joka näytti sa...' and a sub-headline: 'Juuri nyt: Nuori nainen kuoli kolarissa Oulunttiellä – henkilöauto ajautui säiliörekan keulaan'.

The screenshot shows the Media Finland website with a privacy policy page titled 'Tietosuojalauseke'. The page features a photo of a man and a child. The text on the page includes: 'Olemme sitoutuneet suojaamaan käyttäjämme yksityisyyttä. Luottamuksesi on meille tärkeää.' and 'Lue lisää tietosuojalausekesta'. Below the photo, there is a 'Tiivistelmä' section with a list of bullet points and a 'Tietosuojalauseke sisältää' section with a list of 17 numbered items. The list includes: '1. Mikä on tietojen muuttaminen?', '2. Miten voit ottaa käyttöön henkilökohtaisen profiilisi?', '3. Miten voit ottaa käyttöön henkilökohtaisen profiilisi?', '4. Miten voit ottaa käyttöön profiilisi?', '5. Miten voit ottaa käyttöön profiilisi?', '6. Miten voit ottaa käyttöön profiilisi?', '7. Miten voit ottaa käyttöön profiilisi?', '8. Miten voit ottaa käyttöön profiilisi?', '9. Miten voit ottaa käyttöön profiilisi?', '10. Miten voit ottaa käyttöön profiilisi?', '11. Miten voit ottaa käyttöön profiilisi?', '12. Miten voit ottaa käyttöön profiilisi?', '13. Miten voit ottaa käyttöön profiilisi?', '14. Miten voit ottaa käyttöön profiilisi?', '15. Miten voit ottaa käyttöön profiilisi?', '16. Miten voit ottaa käyttöön profiilisi?', '17. Miten voit ottaa käyttöön profiilisi?'.

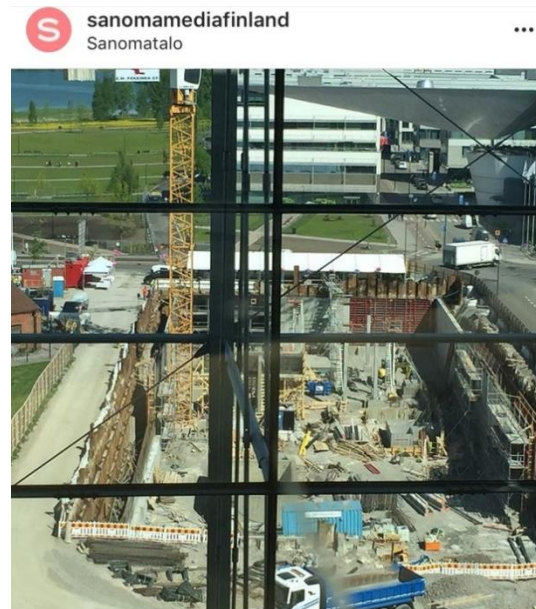
Compliance capability examples

1. Privacy by design
2. Consent management
3. Data retention
4. Data removal
5. Data report for customer
6. Data security

Key lessons from big data in action

1. Data does not bring any **value** unless it is used
2. The more clean and well structured the data is, the better the end results (**veracity**)
3. Continuously keep focus on data quality and building the trust towards the data (**validity**)
4. Data development requires a multi-skilled team
5. Data-driven culture is enabled by tools but created by capable and motivated people who are open for the change

..it is like building a library



hannajohde, akihelinofficial ja 48 muuta tykkäävät
sanomamediafinland Kuka muistaa vielä tämän
näkömän? Lasikuutiomme vieressä on jo tovin
uurastettu megaluokan rakennustyömaan parissa.

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REFRESHING AND RECOVERING MICRO BREAKS

Idea of Cuckoo was born when two young women got an idea to start activating their workdays with star jumps.

"Every time the alarm of our phone rang, we started jumping 100 star jumps daily"

Eventually the whole office got excited and they wanted to create a mobile solution that could motivate people around the world to exercise.



What is Cuckoo Workout?

CUCKOO WORKOUT® - TAUKOTREENISOVELLUS

Cuckoo Workout is an intuitive and user friendly micro break exercise application, which activates the work groups to exercise in a fun manner. It reminds people to take breaks and get off the screen for a while.

- Invitations and successes shared actively in **Social** media eg Badges for achievements
- Runs in Android and iOS **mobile** apps as well as in internet browsers
- **Analytics** used to follow progress on activity both individual and team levels
- **Cloud**-based application



- Strong elements of Gamifications with rewards like badges and raffles built in to attract users to return to application on frequent basis



Benefits

HEALTH

The exercise stimulates the musculoskeletal system and activates the brain and metabolism-> The result is more refreshed and efficient workers and fewer sick leave.

COMMUNITY

- Scalable service that connects employees even between different countries
- Promoting a more open corporate culture
- Improving the working atmosphere

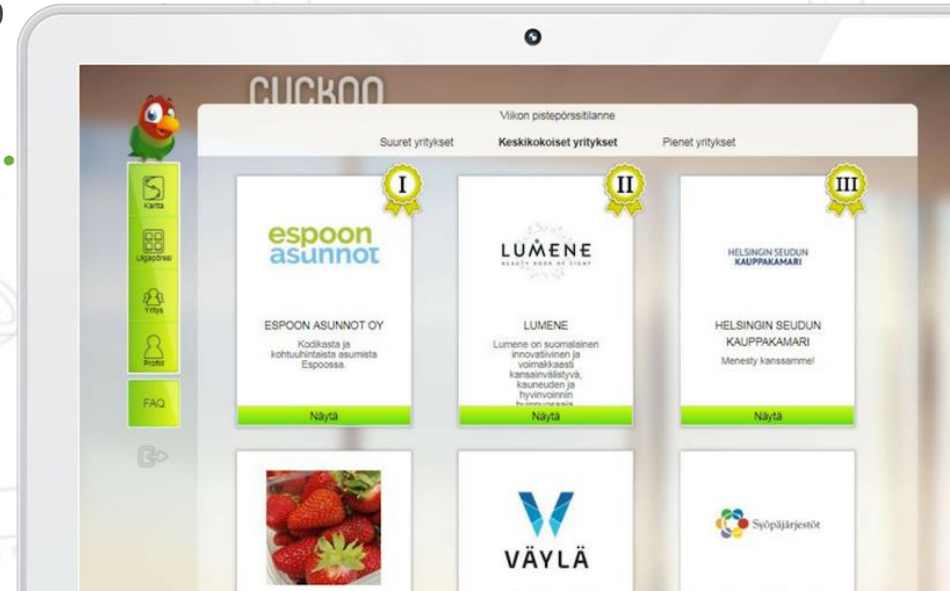
PRODUCTIVITY

- Financial benefits gained 50K€ annually for 100 employees by decrease in sick leaves .
- Institute of Occupational Health 2019

Link to research: <https://www.ttl.fi/taukoliikuntasovelluksen-kaytto-vahensi-istumista-ja-tehosti-tyosta-palautumista/?fbclid=IwAR1wid-qbEOh49SgnwvUWueovKTMhYlakBIL3cFou1khCu5mnPi25AU1l1w>

EMPLOYER BRAND

- The company is gaining visibility while competing against other companies
- Exercise done in working time creates a positive employer image



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How to get to digital mastery

Building digital capabilities

- Create a compelling customer experience
- Exploiting the power of core operations
- Reinventing business models

Building leadership capabilities

- Crafting your digital vision
- Engaging the organization at scale
- Governing the transformation
- Building technology leadership capabilities



Summary – My takeaways on Digitalization

- Hyper-connected world
 - Companies, consumers and everyday objects have instant capabilities to act and interact with each other digitally across the globe.
- Cheap and advanced technologies
 - Collecting and analyzing massive amounts of data real time for automated or preventive actions and for proactive decision making
- New business models or fundamental changes in existing ones
- Industry disruptions
- Global play available fast even with small investments
- Broader ecosystem and collaboration
- Ideas, Imagination and Innovation - only the sky is the limit for creativity

QUESTIONS???

