

# Aalto University

Tutkimuksen vaikuttavuuden  
seuranta, Aalto-yliopiston  
kokemuksia



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# Vaikuttavuuden seuranta, huomioita

- Yliopistotoiminnan vaikuttavuuden määritelmässä ja tulkinnassa vaihtelevuutta
- Mittaristo osittain vaikea rakentaa
- Tutkimuksen suorittamisen ja tutkimuksen vaikuttavuuden välillä monesti erittäin pitkä aika
- Näkyvyys miten tutkimus on vaikuttanut mm. yritysten liiketoiminnassa on heikkoa
- Isot läpimurrot vaativat monesti laajoja ekosysteemejä, jolloin yksittäisestä yliopistosta tai korkeakoulusta tehty analyysi ei riitä
- Aalto on mukana mm. EUA:n innovaatioverkostossa, UNITE ja N5T, joissa pyritään yhdessä löytämään tapoja vaikuttavuuden seurantaan
- Aalto on isossa digitaaliohjelmassa pyrkinyt ottamaan paljon mittareita myös vaikuttavuuden alueelle. Tavoitteena laaja-alainen data driven university
- Aallolla on erittäin kattava CRM-järjestelmä käytössä, “kumppanuusrekisteri”

# AaltoCRM Overview: Data driven University and Partnership Master Data



# What is CRM- Customer Relationship Management ?

## CRM - Customer Relationship Management

- Do we manage customers or relationships?
- Do we strive to understand customers or encourage them to understand us?

## CRM is a data bank vs. CRM is a way of thinking

- CRM is not a system or a database.
- CRM is a method and actions carried out from a customer's perspective. It is done by people and for the people. The CRM database is a tool in this work.

## Customer Relationship Management is a business strategy designed to improve customer service.

- CRM also aims to increase customer satisfaction, to manage the key customers effectively, and to gain new high-quality customers, thus increasing a business's profitability.

# Higher mission for CRM in Aalto

CRM is based on **openness**: sharing customer relations, providing transparency to activities, strengthening internal collaboration, developing partnership-oriented methods and culture

CRM is a joint venture for the **benefit of partnerships**

CRM is the key to **profiling our customers** and understanding their **relation to our university**

CRM is the **Master Data for customer relations**, and relevant Aalto personnel have access to it

CRM is the support tool for management and the analytical basis for **decision making** in customer relations

CRM is one of the spearhead areas in digitalization for 2022 in Aalto University

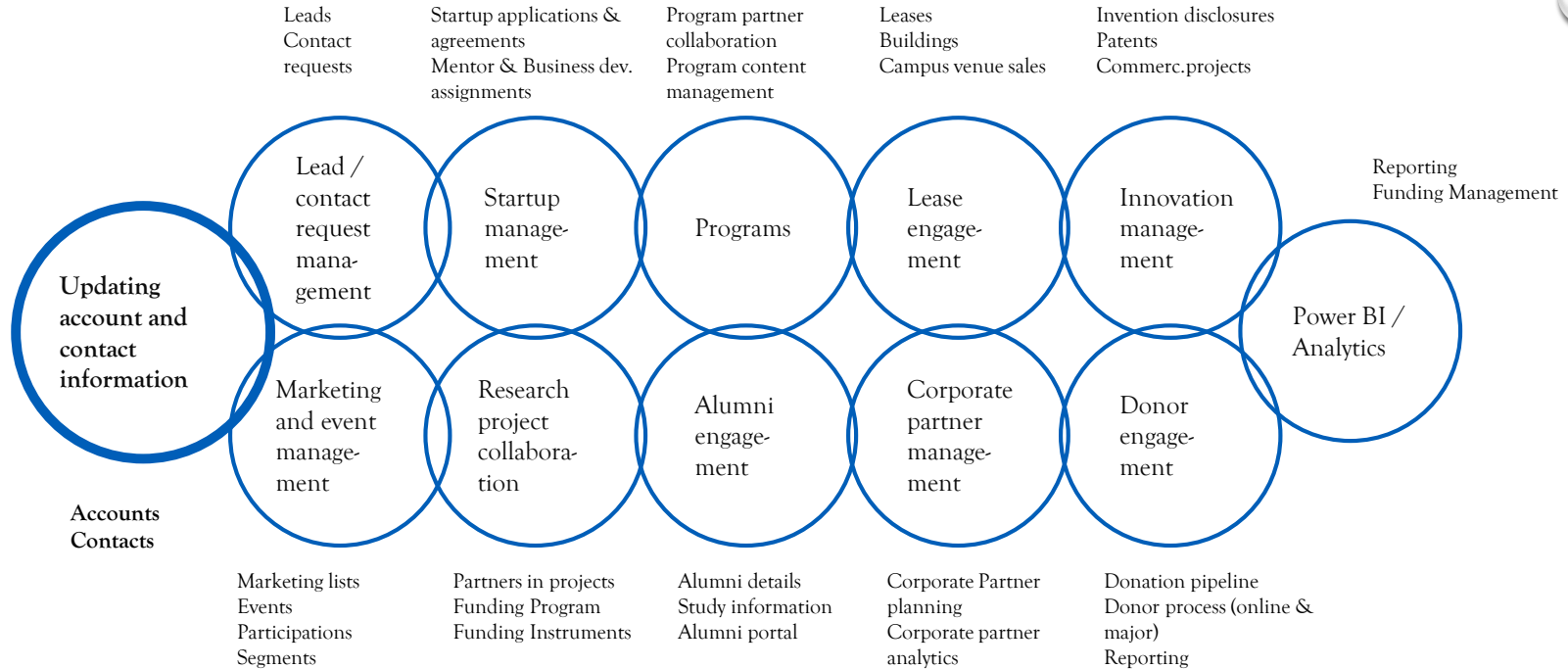
# Master Data Management

- Combining partnership data in way, which ensures the best quality and content.
- Master Data is distributed to other systems
- Other systems enrich Master Data
- Basis for high-quality analytics for example via PowerBI
- CRM Partnership Master Data: Home in Power Platform ecosystem and Microsoft D365
- Account and Contact-> Master Data Forms in CRM: Definite collection of related data -> *Golden Record*
- Strong Data Quality begins and ends with strong Master Data





# AaltoCRM ecosystem functions



Different functions support Master Data Management.  
Account and Contact entities tie all information together.

# AaltoCRM in figures 2021

>9000 accounts

>90000 contacts

>12000 research projects

180 CRM users

34 CRM user groups

13 key users



# Innovation management solution

*Enable data driven decisions and end-to-end follow-up of cases through Aalto's innovation, patent and commercialization life cycle.*

## Fluent end-to-end workflows

## Easy customer forms integrated to CRM

**A! Aalto Startup Center Application**

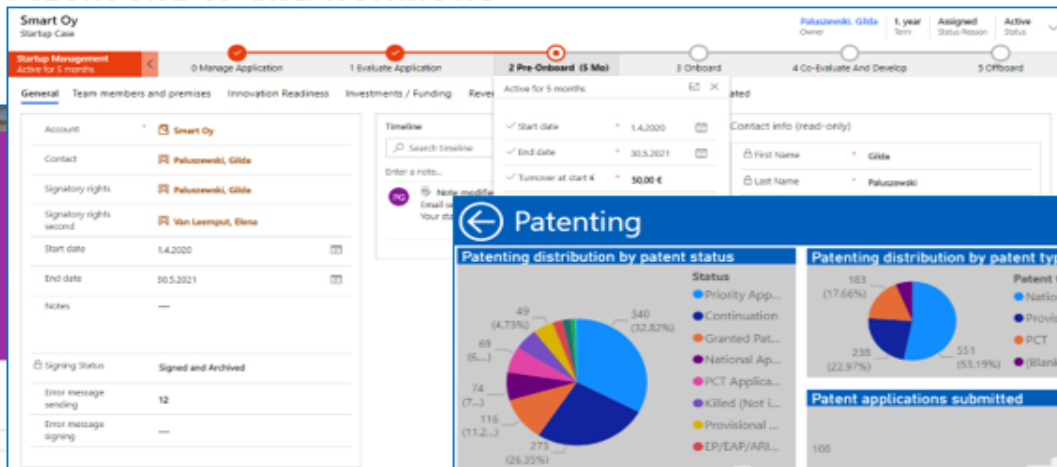
Aalto Startup Center facilitates and helps startups to utilize university's knowledge and talent base, startup community and Aalto campus innovation. Aalto Startup Center works also as a first business partner that can benefit from each other, including mentors, investors and corporate world.

We are located at Aalto University Campus, Espoo, Finland and require the startup to locate in the area for the business generation period (12+12 months). We only accept startups with Finnish Business ID number for our program partners.

The applications are reviewed and startups accepted continuously.

**Patent form fields:**

- 1. Company name \*  
[Input field]
- 2. Company web page  
[Input field]



## Real-time data visibility and analytics

**A" Aalto-yliopisto  
Aalto-universitetet  
Aalto University**

## Secured confidential information

## Digital signed documents

**A? Aalto-yliopisto  
Aalto-universitetet  
Aalto University**

# Aalto strategy



**Impact**

**We renew society with research-based knowledge, creativity and entrepreneurial mindset.**

**We generate innovative solutions to tackle global grand challenges.**

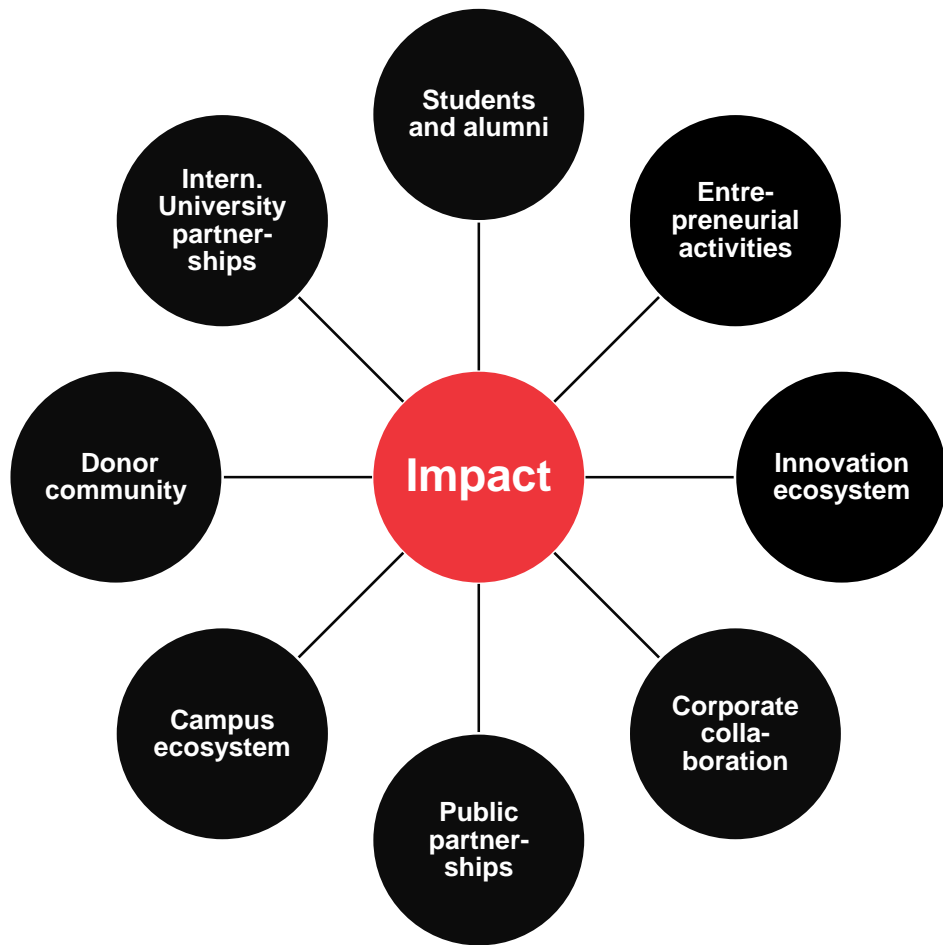
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**Focus of development:** Inspiring ecosystem

**As a community of faculty, staff, students, alumni and partners, we build our innovation, creative and entrepreneurial ecosystem as a prominent node in global networks.**

**Actions:** Cultivating an environment of innovation, developing global and local networks, building a sustainable and thriving campus

# Creating impact at Aalto



# Students and alumni



**Students interact with society already during their studies in various ways, and after graduation their impact in Finland and abroad is Aalto's greatest asset.**

**The Aalto alumni community is an international network of influencers and a growing community of life-wide learners.**

**Voluntary alumni activities take place in alumni organizations from the school level to special interest groups. The Aalto Alumni Network Board connects the various types and levels of alumni activity.**

## Key figures

- Graduate employment, 1 year after graduation<sup>\*\*</sup>: 81,2%
- Number of external theses assignments in 2020<sup>\*</sup>: 806
- Total number of alumni: ca. 100 000<sup>\*\*\*</sup>
- Number of alumni as founders of operating Finnish companies: 2 500-3 000
- Number of alumni as board members in Finnish corporations: 2 000-2 500
- Alumni organizations: 40

# Student-led entrepreneurial activity's alumni projects

**Aaltoes**

**Aalto Entrepreneurship Society's** mission is to breed new kinds of thinkers and empower them to take ownership.

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TECHNOLOGY  
CONFERENCE  
**25,000**  
ATTENDEES  
YEARLY

JUNCTION

EUROPE'S  
BIGGEST  
HACKATHON  
**+350**  
PROJECTS  
STARTED



ACCELERATOR  
PROGRAM  
**+200**  
STARTUPS  
HELPED,  
RAISED 50M€  
IN 2020

*startupilifers*

INTERNSHIP  
PROGRAM  
**+200**  
STUDENTS  
SENT ABROAD

# Innovation ecosystem



**Aalto aims to develop a globally competitive multi-disciplinary research environment that facilitates development of research-based innovations and their commercialization.**

**Collaboration with student-led ecosystem, corporates, local start-ups, cities and other stakeholders play a significant role in our innovation ecosystem.**

**Aalto's innovation activities range from impact mentoring to generation of invention disclosures, patents, pre-commercialization projects and technology transfers.**

**Accelerator and other business development services are provided for emerging startups by the Aalto Startup Center (ASUC) at the A-Grid startup facility.**

## Key figures

- Innovation metrics:
  - Invention disclosures: 150/ year
  - Priority patent applications: 56 (2020). 4th in Finland
  - Pre-commercialization projects (Business Finland): 100 (2012-2020)
  - Technology transfers: 275 (2012-2020)
- Aalto origin deep tech spinout companies have raised 283 M€ funding, 6th in Europe.
- ASUC has served over 800 start-ups, with an alumni company turnover of 500 M€.
- Aalto participates in four Academy of Finland Flagships, which target is to support high-quality research and increase the societal impact emerging from the research. Tens of partners in each flagship.

# IQM, Quantum computing spinout

- IQM (<https://www.meetiqm.com/>)
- (7/19) secured US\$ 13M Seed Round for Quantum Computing
- (6/20) awarded €2.5M grant and up to €15M of equity investment for currently open Series A round from the EIC Accelerator program
- (11/20) raised €39 M in Series A funding
- Associate Prof. Mikko Möttönen, Co-founder & Chief Scientist, Founder of Aalto's Quantum Computing Devices Group

## MISSION

IQM is set to create value based on the power of quantum technologies





# Selected FCAI Flagship highlights

Fundamental AI research creates solutions to the needs of people, society, and companies

## AI for plant breeding

Fundamental research producing applications far beyond the original purposes

SEE VIDEO →



## Privacy-preserving synthetic twin to a sensitive data set

Help for researchers in many disciplines

SEE VIDEO →



## Speech recognition technology for Finnish

Quick adaptation of results in industry

SEE VIDEO →



## Tackling societal questions

Trustworthy practices for utilizing Finnish data on health and social services

SEE VIDEO →



## Computer vision to make industrial premises safer

Results transferrable to other applications

SEE VIDEO →



## Turning a regular smartphone into a super-accurate camera

Application potential of AI in different fields

SEE VIDEO →



# Corporate collaboration



**Aalto's corporate collaboration includes research projects, educational and innovation cooperation and recruitment services for companies and career design for students, and increasingly life-wide-learning opportunities.**

**Long-term partnerships and participation in key multilateral networks create broad societal impact and more stable financial base for Aalto.**

## Key figures

- Corporate invoicing in 2020: x M€
- Strategic corporate partners: 4
- Other key partnerships: 50
- Active corporate accounts: 560\*
- Professors involved in contract research in 2020: 110

## TOP 15 corporate partners in 2020:

- Invoicing: x M€
- Professors involved in contract research: 50
- Alumni: 3900
- Publications in 2018-2020: 285

# Campus ecosystem



**The lively campus is the beating heart of the international Aalto community of students, researchers, partners and alumni.**

**Aalto is building Otaniemi campus with ambitious sustainability targets.**

**We develop our digital and physical campus, innovation and creative ecosystem, infrastructures and services to be globally attractive for different stakeholders.**

## Key figures

- Otaniemi-Keilaniemi area: over 1500 high tech companies. Close connection to Helsinki innovation ecosystem
- 70-100 start-ups founded every year in the ecosystem
- A-Grid: 25 000 m<sup>2</sup> cooperation hub with 150+ startups, Aalto Startup Center, European Space Agency Business Accelerator
- Facilities for external tenant partners: 50 000 m<sup>2</sup>
- Aalto Design Factory, Startup Sauna
- Co-location centers of EIT KIC's, research institutes VTT, GTK and LUKE.
- Two upper secondary schools, Aalto Junior.

# Highlights of Aalto University's impact featured in international media in 2021

**New Scientist article** on AI that mimics how people type on a smartphone.

Commenting from Aalto University: **Jussi Jokinen**, Postdoctoral Researcher, Communications and Networking



<https://www.newscientist.com/article/2277214-ai-that-mimics-human-typos-on-a-smartphone-could-improve-keyboards/>

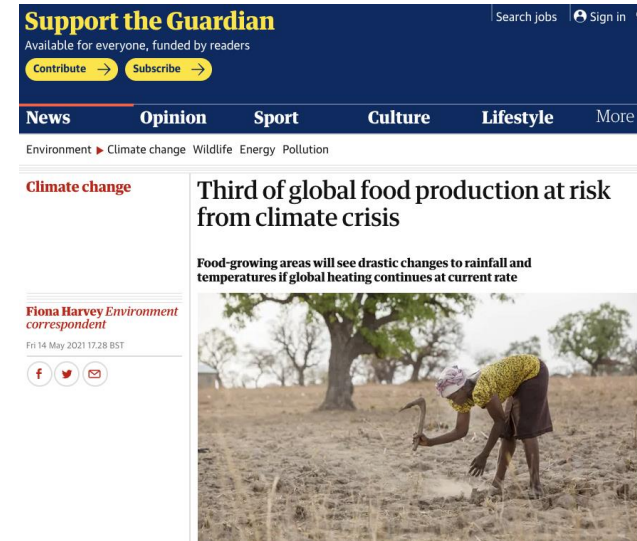
**Forbes article** on the research by Aalto University School of Business and the University of Vaasa on Pride's impact on business.



<https://www.forbes.com/sites/josiecox/2021/05/24/pride-pays-lgbt-friendly-businesses-are-more-profitable-research-shows/?sh=5d7d7f93d07e>

**Guardian's article** on how climate change impacts food production.

Commenting from Aalto University: **Matti Kummu**, Associate professor, Global water and food issues, Built Environment.



<https://www.theguardian.com/environment/2021/may/14/third-of-global-food-production-at-risk-from-climate-crisis>

**BBC World Service's** article and TV program about the happiest country in the world published widely around the world.

Commenting from Aalto University: **Marketta Kyttä**, Professor of Land Use Planning, Built Environment and **Frank Martela**, Post-doctoral researcher, Industrial Engineering and Management.

## Finlandia, el país más feliz del mundo en el año de la pandemia de coronavirus

Redacción  
BBC News Mundo  
19 marzo 2021



<https://www.bbc.com/mundo/noticias-56457653>

**Fast Company's 2021 World Changing Ideas Awards** shortlisted Aalto University's multidisciplinary project 'Shimmering wood' by designer **Noora Yau** and materials scientist **Konrad Klockars**.



<https://www.fastcompany.com/90623621/world-changing-ideas-awards-2021-art-and-design-finalists-and-honorable-mentions>

## Dezeen Awards Winner: Sustainable design 2020

Aalto University professor **Julia Lohmann's** pavilion made entirely of seaweed.

At the 50th World Economic Forum Meeting in Davos, Switzerland, Julia Lohmann's seaweed pavilion encouraged world leaders to make difficult decisions and establish a "do-tank" way of collaborating.



<https://www.dezeen.com/awards/2020/winners/the-department-of-seaweed-installation-and-workshops/>

# Vaikuttavuuden seuranta, yhteenveto

- Yliopistot ja korkeakoulut vaikuttavat yhteiskuntaan erittäin laajasti ja kattavan yhteenvedon tekeminen hankalaa.
- Arvio Aallon tutkimuksen vaikutuksista Covid-19 haasteiden ratkaisemisessa on ollut erittäin positiivinen. Tutkimuksella pystytään vastaamaan nopeastikin yhteiskunnan isoihin haasteisiin.
- Tiettyjen vaikuttavuuden alueiden kehitystä voidaan seurata ja ohjata mittareilla. Tieteenaloilla isoa vaihtelua.
- Järjestelmien kehitykseen pitää panostaa paljon. Laaja seuranta antaa askeleittain paremman kuvan toiminnan vaikuttavuudesta
- Aalto on isossa digitaaliohjelmassa pyrkinyt ottamaan paljon mittareita myös vaikuttavuuden alueelle. Tavoitteena laaja-alainen data driven university



*Towards a better world.*



aalto.fi