The Swedish industry's role and view on Gen IV materials

An Interface between the material science research at the Ångström Laboratory/Uppsala University and the industry

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The Swedish industry's role and view on Gen IV materials

– who are we to come and talk about this?!

1. **ÅMAs role in general**
Why we do it
What we do

2. **ÅMAs role specifically within Gen IV Materials**

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Ångström Materials Academy

Why is interfaces between Industry and Academy needed in Sweden?

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ÅMA
Ångström Materials Academy

?

?

VATTENFALL

ABB

VOLVO

SANDVIK

OUTOKUMPU

AstraZeneca
AstraZeneca Egypt

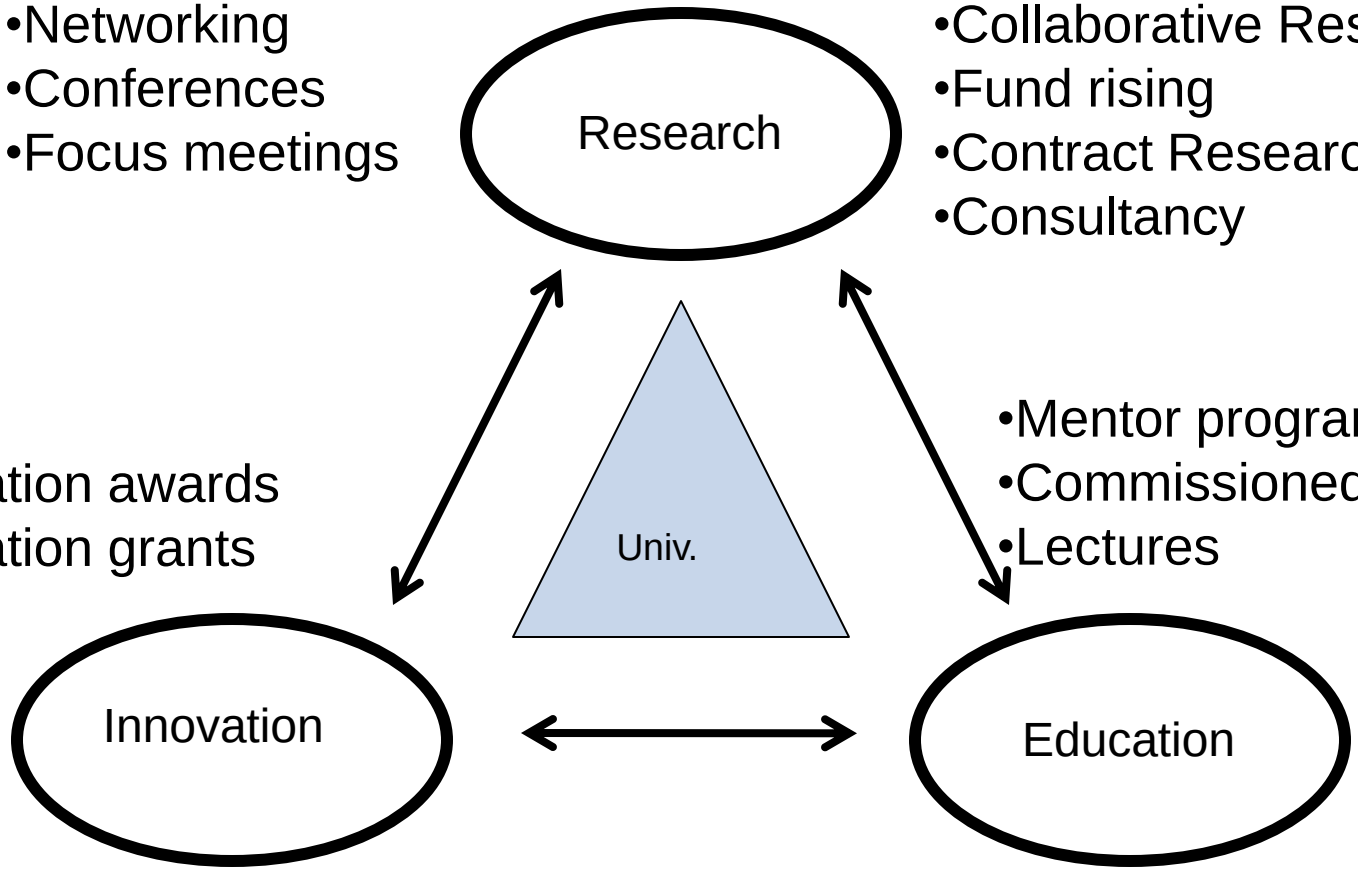
ERICSSON

UDDEHOLM

Two cultures, two different worlds with two different languages and with two different time horizons.

The challenge:
To improve the possibilities for the two worlds to meet and improve the possibilities for the knowledge created at the university to be transformed into economical growth.

ÅMA a proactive model
What do we do?



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How to make it happen?

Ångström Materials Academy

- Work proactively
- Listen to industry issues/needs
- Create conditions for interdisciplinary projects with several companies.
- True collaboration, activities useful both for the industry and the academy.
- Activities in all three areas; research, education and commercialization.
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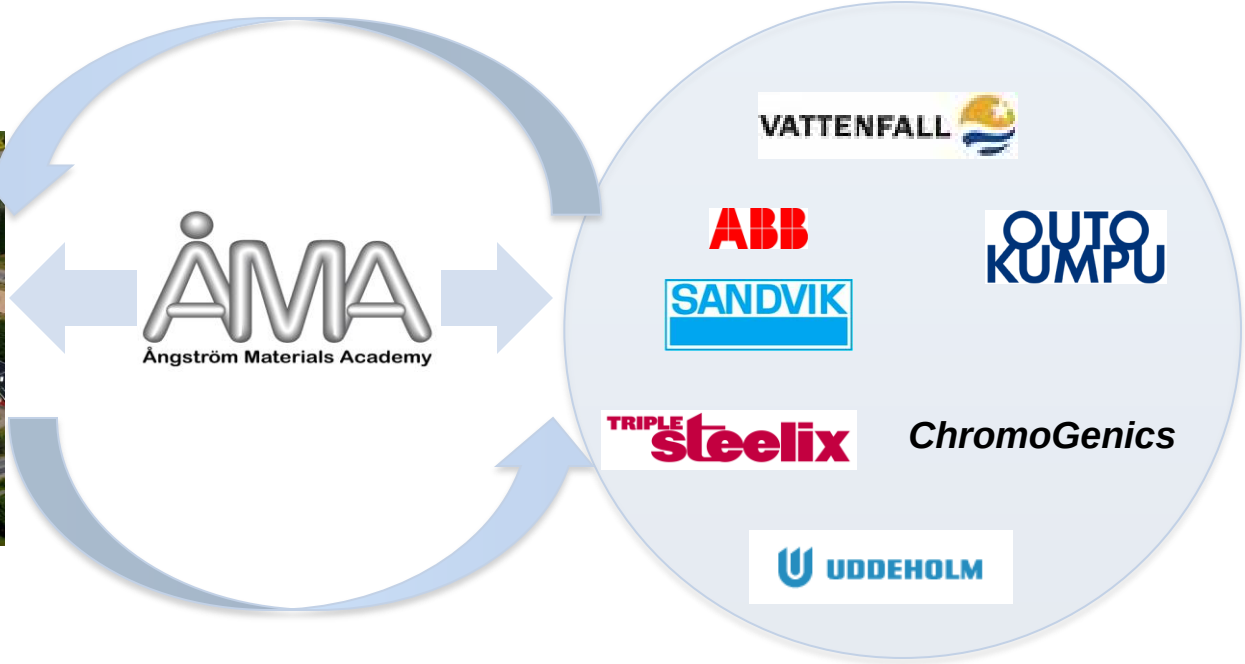
How to make it happen?

- The contacts between ÅMA and the Ångström Laboratory
- The contacts between ÅMA and different companies
- The contacts and between the companies and the Ångström Laboratory



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The Ångström Laboratory

One of Europe's leading centers for materials science

Ångström Materials Academy

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Department units

Ångström Materials Academy

Engineering science
- Electricity
- Electron Microscopy and Nanoengineering
- Solid State Electronics
- Solid State Physics
- Solid Mechanics
- Ion Physics
- Materials Science
- Nanotechnology and Functional Materials
- Ångström Space Technology Centre
- Signals and Systems Groups

Material Chemistry
- Inorganic
- Polymer
- Sructural

Physics and Astronomy
- Applied Nuclear Physics
- Astronomy and Space Physics
- Global Energy Systems
- Material Physics
- Materials Theory
- Molecular and Condensed Matter Physics
- Nuclear and Particle Physics
- Physics Education Research
- Theoretical Physics
- Space Plasma Physics
- Physics in Space

Photochemistry & Molecular Science
- Chemical Physics
- Molecular Bionimetics
- Organic/Organometallic Chemistry
- Artificial Photosynthesis

Physical & Analytical Chemistry
- Analytical Chemistry
- Physical chemistry
- Quantum Chemistry
- Surface Biotechnology

Mathematics
- Algebra and Geometry
- Analysis
- Analytic Number Theory
- Etc…

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-The Materialrelated Research

-- a common denominator for various successful reserach fields

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Material Chemistry

- Inorganic
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Physics and Astronomy

- Applied Nuclear Physics
- Astronomy and Space Physics
- Global Energy Systems
- Material Physics
- Materials Theory
- Molecular and Condensed Matter Physics
- Nuclear and Particle Physics
- Physics Education Research
- Theoretical Physics
- Space Plasma Physics
- Physics in Space

Photochemistry & Molecular Science

- Chemical Physics
- Molecular Bionimetics
- Organic/Organometallic Chemistry
- Artificial Photosynthesis

Physical & Analytical Chemistry

- Analytical Chemistry
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Mathematics

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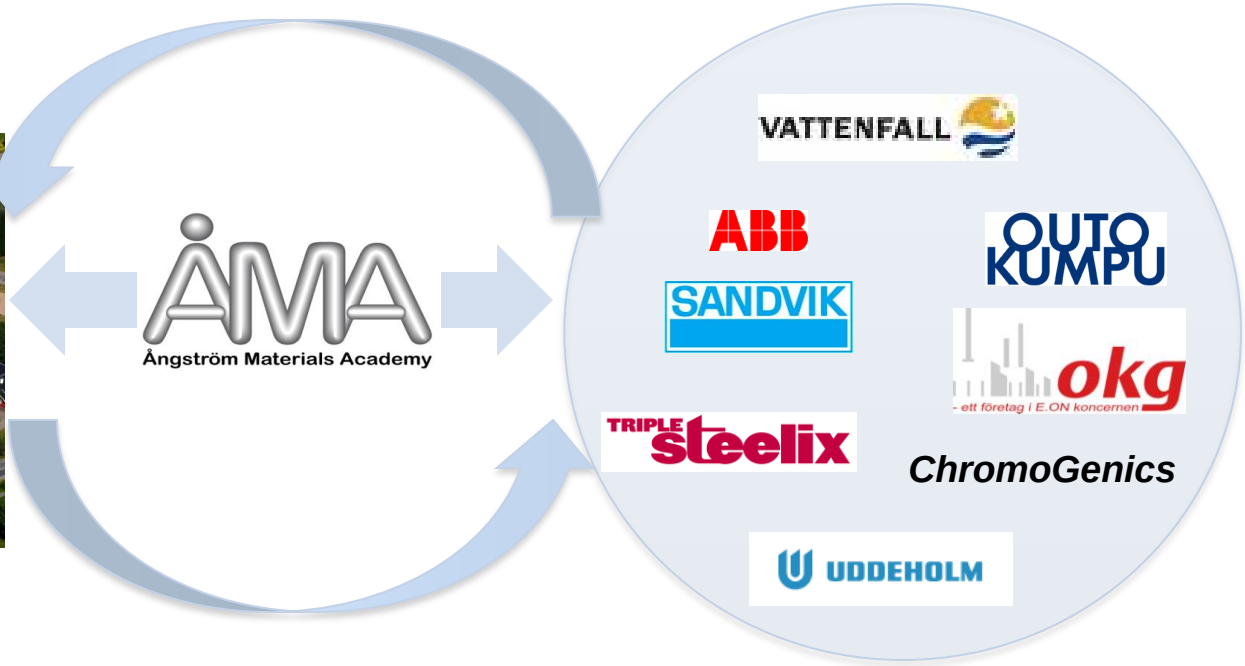
A partnership model

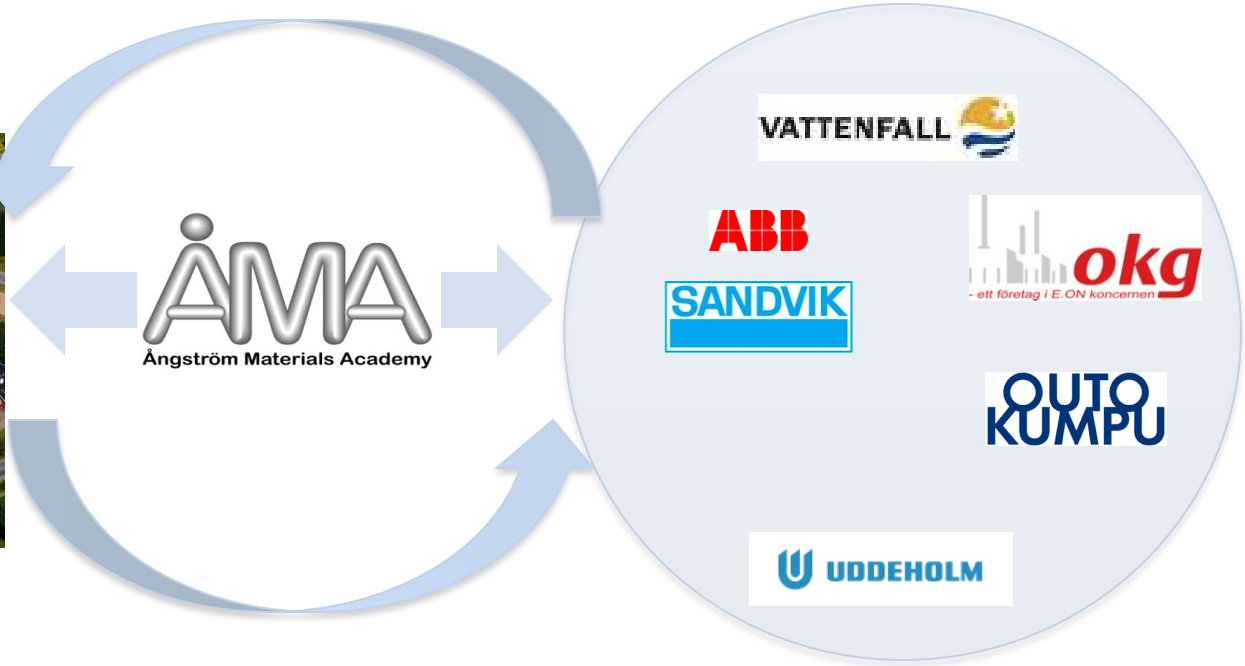
ÅMA
Ångström Materials Academy

- Two models; affiiate and core partners
- A steering group of researchers
- A board with representatives from UU and industry



ÅMA's role, specifically within Gen IV materials

During the last year, the ÅMA board wants us to: inform and organize meetings for academy and industry around Gen IV material issues to learn more.



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Thank you for your attention

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