Welcome to The Digital Manufacturing Cluster Session "Digitalization tools, 3D Printing, Logistics and Coating"

Time	Session leaders *Alf Andersson, Volvo Cars; Magnus Widfeldt, RISE*
13.20	**Circularity - Finding tools to make it work** ***Adam Edström, RISE*** **Intro: Business criteria for selection of 3D-printed components** ***Markus Eriksson, RISE***
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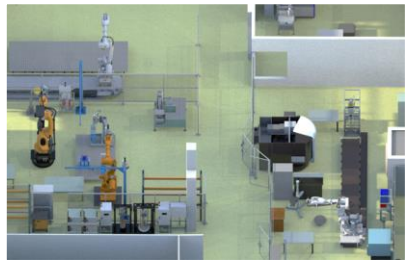
The Digital Manufacturing Cluster

Four RESEARCH AREAS: Development and management over the life cycle

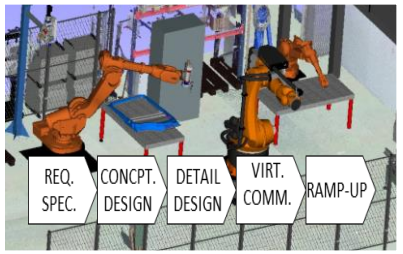
The cluster focus the **development and management** over the **life cycle** of manufacturing systems with extensive use of **digital technologies** and related **methods and processes.**

The Digital Manufacturing Cluster is one of eight Manufacturing R&D clusters.

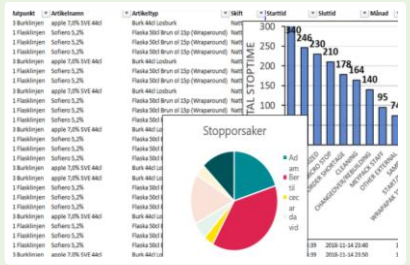
Capability of virtual tools



Work process and methods for the development of production



Manufacturing data, use and analysis



Design of Automated system

The cluster...

Defines

- Strategy
- Technology and competence needs
- Roadmap of research projects

Provides Information

- Surveys
- research projects
- Educations
- programs and calls

Supports

- Networking
- initiation and building project applications and consortium

Arranges:

- Seminars
- Workshops
- Pulse meetings

THE SWEDISH **Manufacturing R&D Clusters**

The Digital Manufacturing Cluster: Members

MANUFACTURING COMPANIES

- Scania
- AB Volvo
- Volvo Cars (CLUSTER CHAIR)
- FKG Fordonskomponentgruppen
- GKN Aerospace *
- 3M *
- Väderstadsverken *

SOLUTION PROVIDERS/ CONSULTANTS

- Siemens Digital Industries Software *
- Ideal Grp *
- Unibap *
- Utvyakta *
- Virtual Manufacturing *
- Good Solutions *
- Eye At production *

UNIVERSITY

- KTH Royal Inst of Techn
- Chalmers Univ of Techn
- Univ of Skövde
- Univ West
- Uppsala University
- Jönköping University *
- Linnéuniversitetet *
- Linköping University *

INSTITUTE/OTHER

- RISE (CLUSTER COORDINATOR)
- Innovatum
- EIT Manufacturing *
- Swerim *

If interested in the cluster, please contact Per.Gullander@ri.se *or* Magnus.Widfeldt@ri.se

** New members since Jan 2021*

Cluster and Research Area leaders of the DM cluster

Industrial chairperson

Alf Andersson
Volvo Cars

support

Wim de Spiegeleer
Volvo Cars

Coordinators

Magnus Widfeldt
RISE

Per Gullander
RISE

DM cluster have appointed research area leaders

Martin Hochwallner
Linköping Univ

Capability of virtual tools

Work process and methods for the development of production

Welf Löwe
Linnaeu Univ

Darya Botkina
KTH

Gunilla Sivard
KTH

Manufacturing data, use and analysis

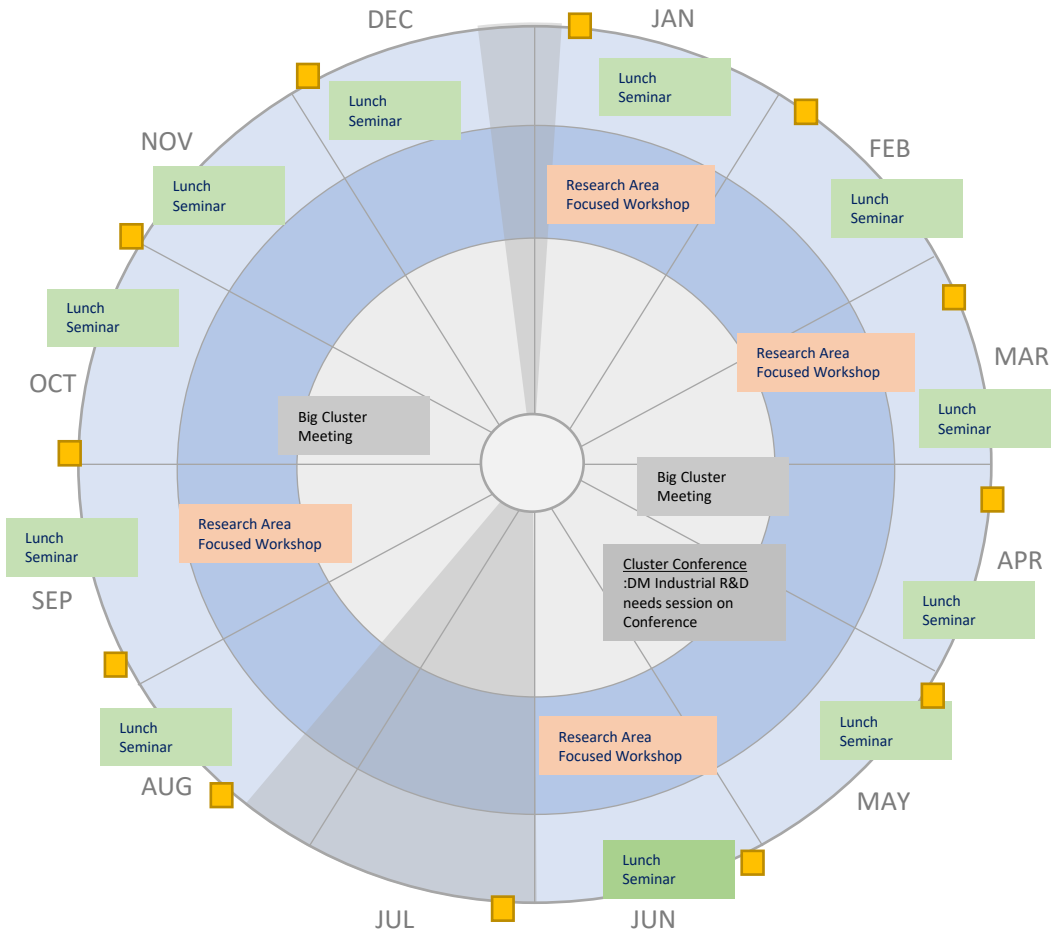
Design of Automated system

Torbjörn Danielsson
Virtual Manufacturing

THE SWEDISH
Manufacturing R&D Clusters

Digital Manufacturing Cluster

YEAR WHEEL CALENDAR:



Cluster Conference
DM Industrial R&D session

Big Cluster Meeting
Meeting for all Clusters' chairpersons and coordinators

ACTIVITIES:

Pulse meetings

Follow-up status of ideas, propo-sals, projects. Identification of needs and ways for support.

Presentation of industrial challenges.

General Cluster issues

Funded research projects: Ongoing, Results, Effects

Create research project applications

Research Area Workshops
Work to elaborate on identified ideas to form concrete project proposals and to find partners.

Lunch seminars
Presentation and discussion of themes and ideas selected from strategical topics and industrial needs.

DM Cluster core group meetings
(chairperson, coordinators, and research areas leaders) Scanning, selecting themes for lunch seminars and Research area workshops. Updating of strategy, year wheel and DM processes

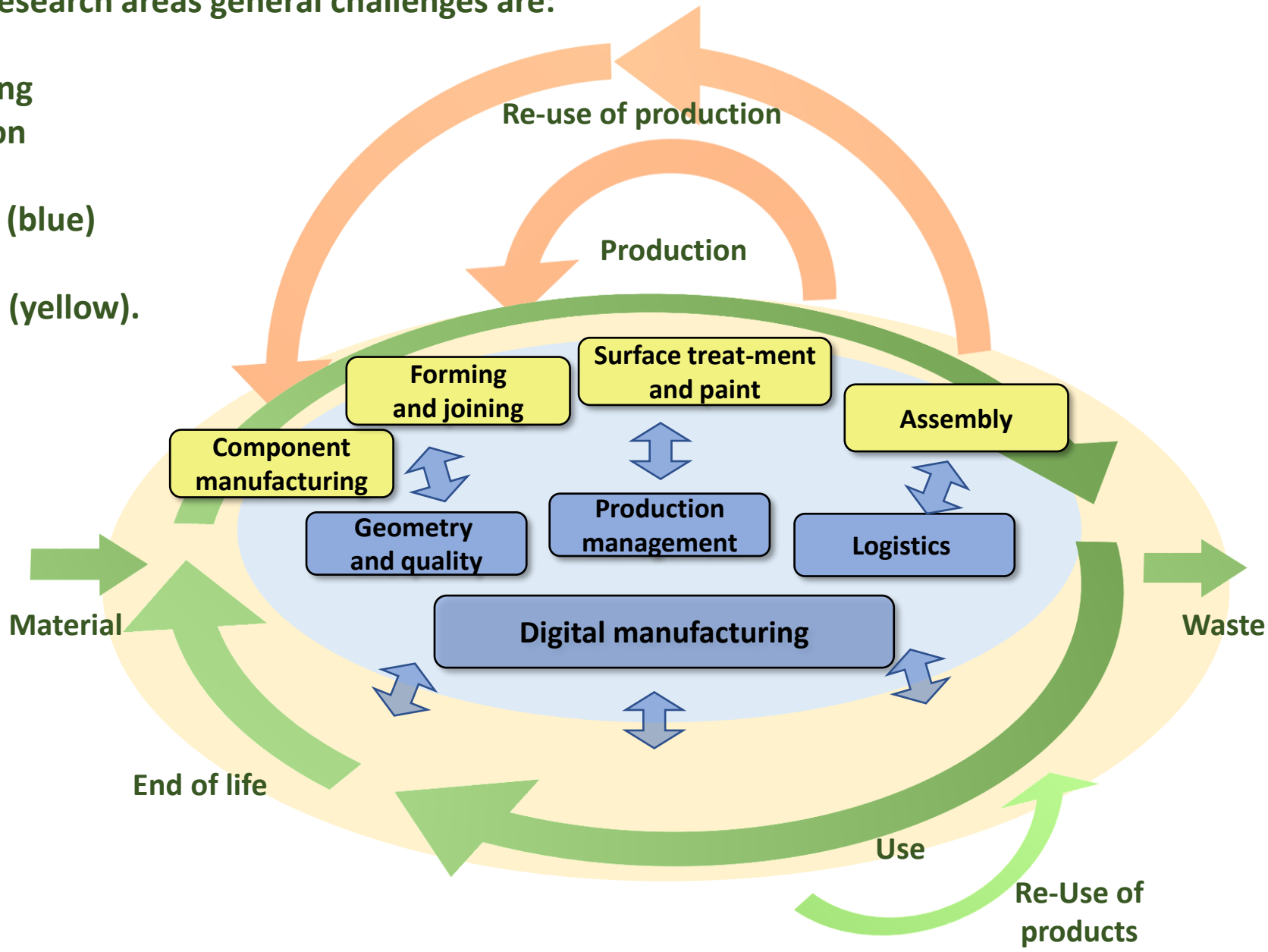
Project creation process

The DM Cluster´s four research areas general challenges are:

- Sustainability
- Education and training
- Digital transformation

The supporting clusters (blue) provide solutions to process related clusters (yellow).

Digital Manufacturing provides solutions to all clusters



THE SWEDISH Manufacturing R&D Clusters

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Welcome tomorrow on May 10th to The Digital Manufacturing Cluster session:

"AI and Data-Driven Solutions for Predictive Maintenance, Quality Monitoring, and Energy Management"

Time	**Session leaders** *Gunilla Sivard, KTH and Per Gullander, RISE*
10.50	**AI solutions for predictive maintenance: Demonstrations from real world use cases** *Ebru Turanoğlu Bekar, Chalmers*
11.20	**Data augmentation with machine learning models in hard turning** *Yaoxuan Zhu, IPU, KTH*
11.50	**Interoperable and scalable energy management system to smart up buildings.** *Alice Hallén, Virtual Manufacturing*