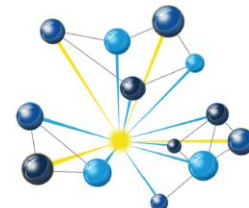


Vanguard Initiative

EARTO Innovation School
14 January 2019

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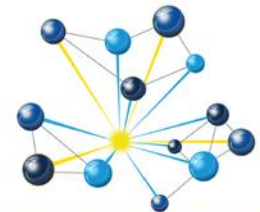
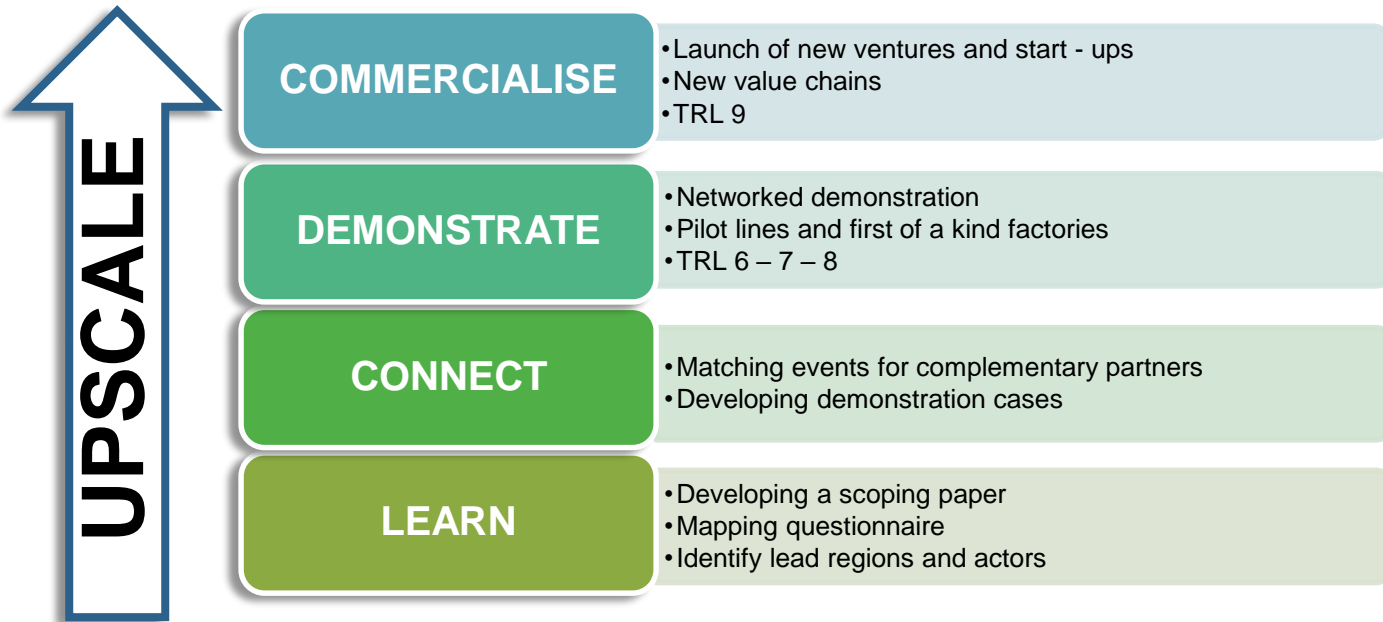


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Structure of the Vanguard Initiative



Methodology of the Pilot Projects



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Current pilot projects and demo cases

3D-printing

3D printed hybrid component

Additive Subtractive Platform High Precision & High Finish Production

3D printed automotive components for large, medium, and small complex parts

Machinery, tooling and complex shapes

3D-Printed Customized Components for Orthosis, Exoskeleton and Exoprostheses

Advanced Manufacturing for Energy-Related Applications in Harsh Environments

Corrosion

Manufacture of large-scale components

Operations and Maintenance

Sensing and Instrumentation

Efficient and Sustainable Manufacturing

De-and Remanufacturing

Adaptive and intelligent assembly and manufacturing systems

Advanced Sustainable Surface and Coating Manufacturing Technologies on Polymers

Digital and Virtual Factory integrating planning and stimulation into operative environments

Energy-Flexible and resource-efficient factory operation

Bioeconomy

Lignocellulose biorefinery

Bio-aromatics

LNG Blue Corridors

New Nano-enabled Products

Nanowires for ICT and energy applications

Nano enabled Micro System for Bio Analysis (NeMs4Bio)

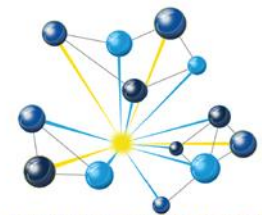
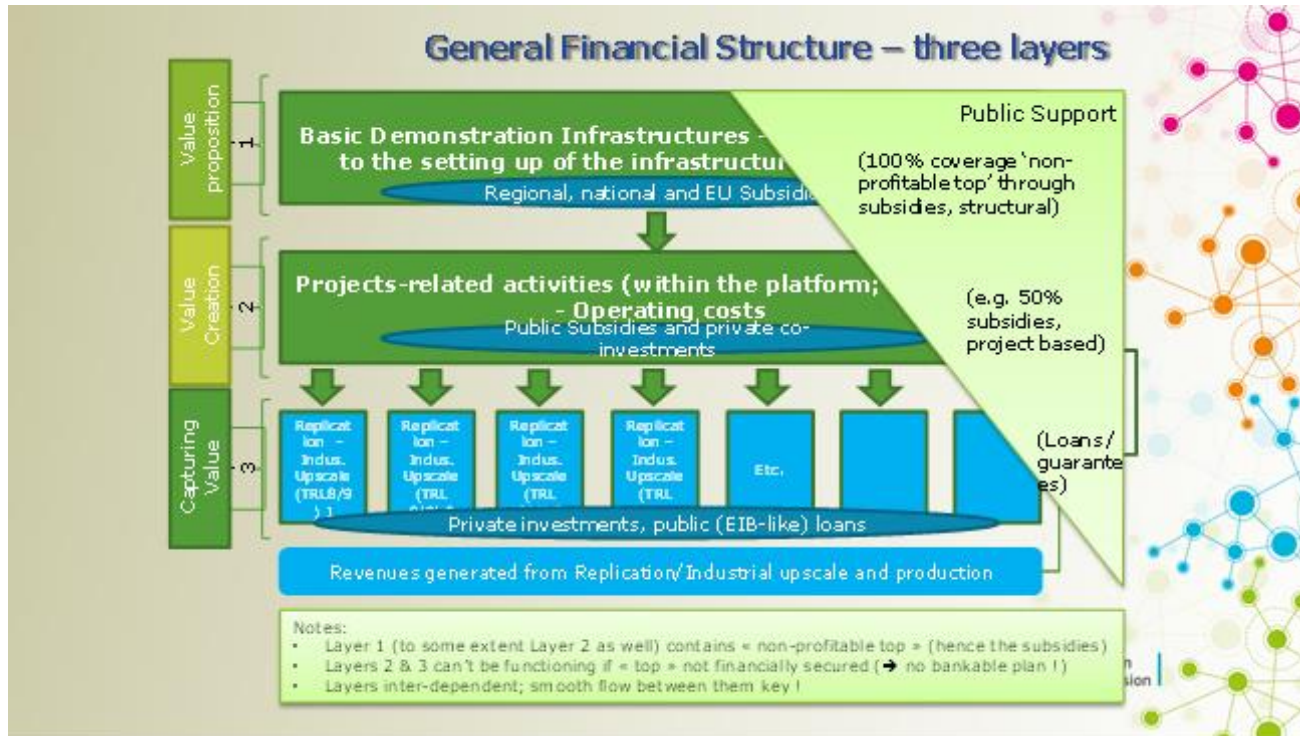
Nano Enabled Printed Electronics



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Vanguard Pilot Monitoring (VPM)

– Three Layer Model



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HybrAM – Additive Manufacturing for metal and hybrid components (CFRP)



SIEMENS
Ingenuity for life



ÖREBRO
UNIVERSITY



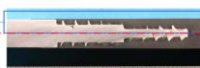
Swedish research
team led by
Prof. Lars Pejryd



BOFORS TEST CENTER

LASERTECH LSH AB

ALFRED NOBEL
SCIENCE PARK



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Italian research team
led by
Prof. Luca Tomesani



nt NEXTEMA
ENGINEERING - MATERIALS - APPLICATIONS



Ferrari



Central Sweden är Dalarnas, Gävleborgs och Örebro läns förlängda arm i EU.

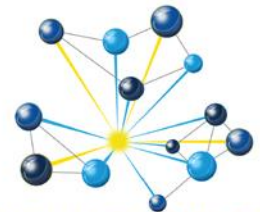


Vanguard Initiative

Based on complementary smart specialisations Vanguard Initiative aims to :

1. develop thematic roadmaps to build innovative industrial value chains across Europe, with a key role for interregional networks of demonstration and pilot infrastructures.
2. create open access for SMEs to those interregional demonstration and pilot infrastructures.
3. support facilitation and acceleration of bringing innovative solutions to the market.

in order to enhance Europe's competitive position



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LEARN

CONNECT

DEMONSTRATE

COMMERCIALISE



3D-printing



Bio-economy



ADMA-Energy

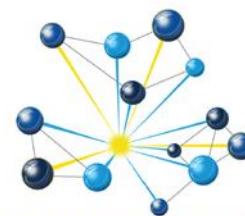


Nano-
technology



Efficient and
sustainable
manufacturing

UPSCALE



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THANK YOU

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