



Logistics 4.0. – Impacts on the materials handling industry & EU framework

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ANIMA/AISEM Workshop

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FEM in numbers

Founded in **1953**

16 Members

- 15 National Committees (EU and beyond)
- 1 Individual Member

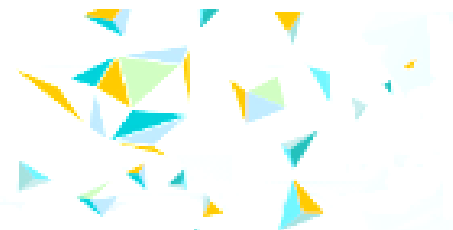
> **1,000** companies

> **€50 bn** annual turnover

> **80%** of European materials handling industry in value

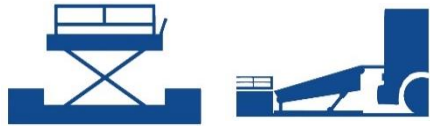


European
materials
handling
federation





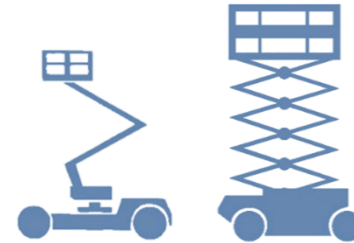
The European materials handling industry



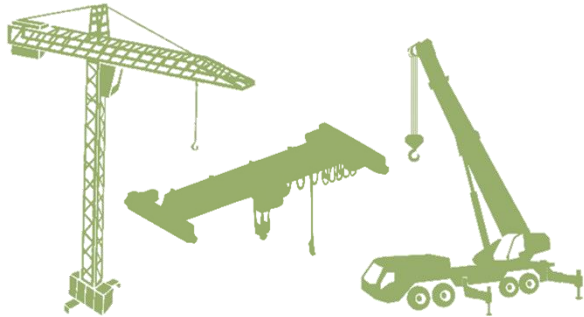
Elevating equipment



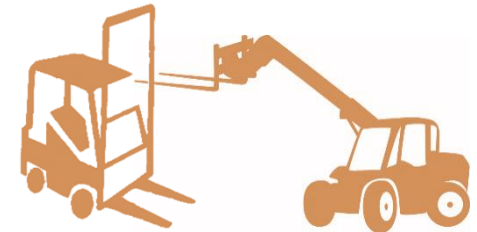
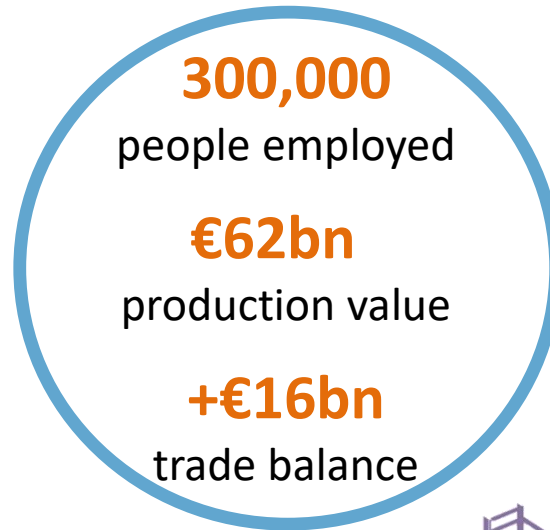
Conveyors for bulk handling



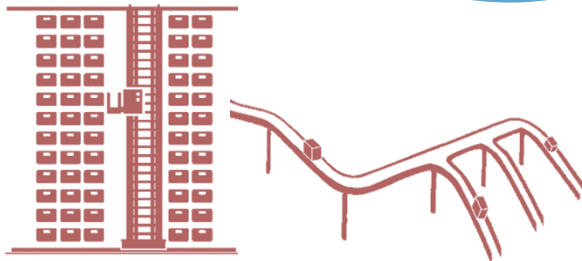
Mobile elevating work platforms



Cranes & lifting equipment



Industrial trucks



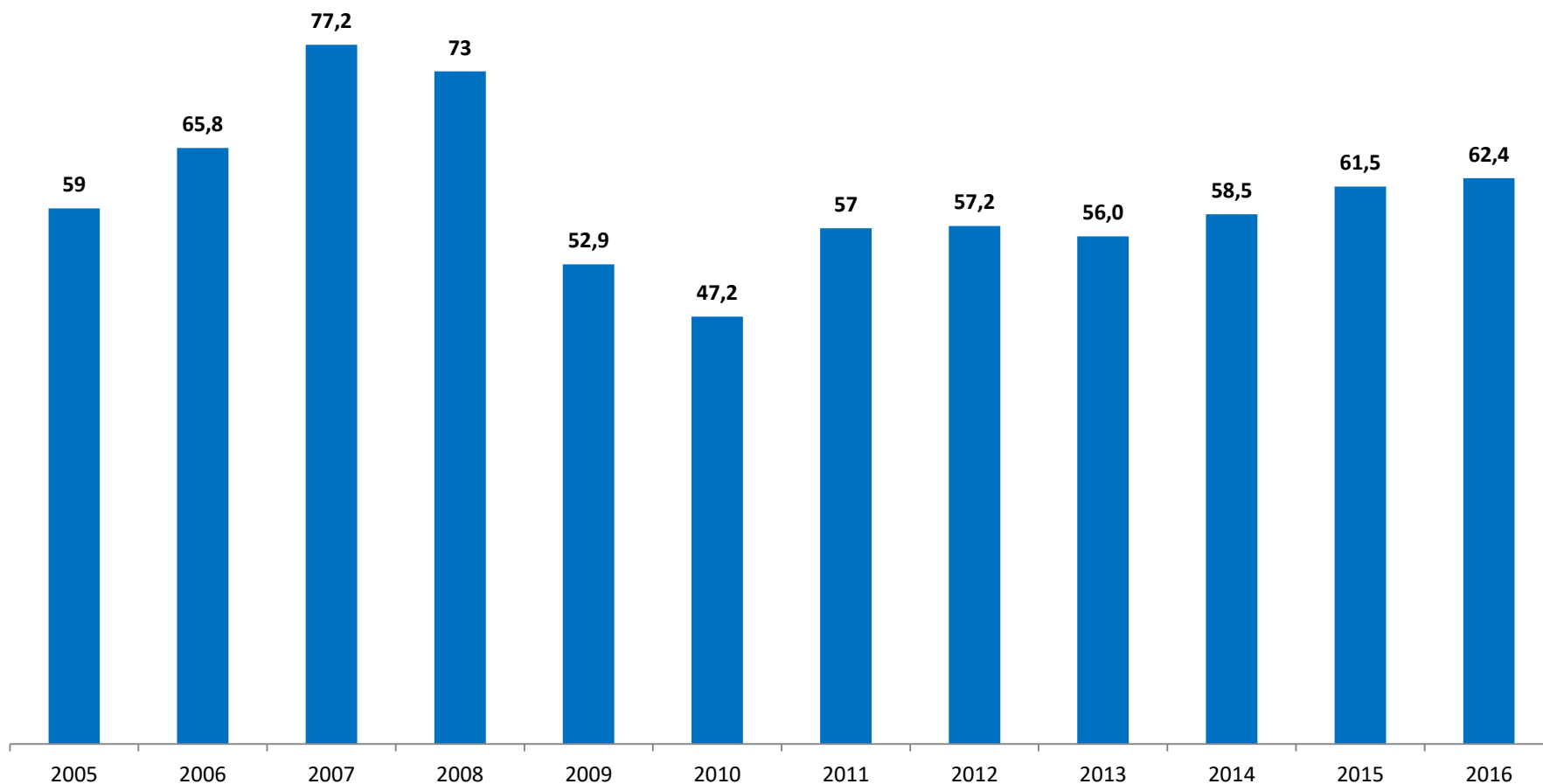
Intralogistic systems



Racking & shelving

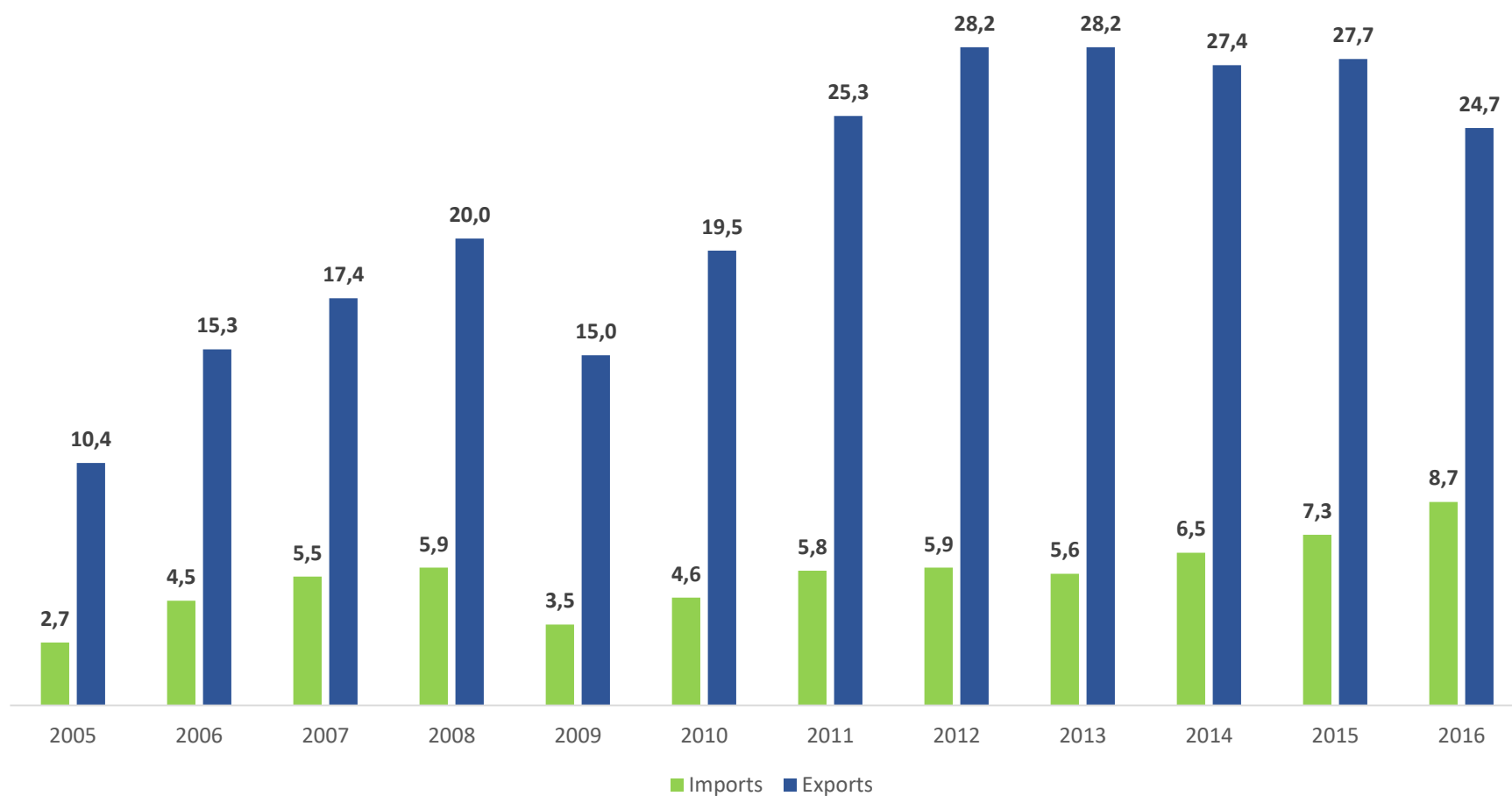


Materials handling equipment production value (EU28 / €bn)





External trade of materials handling equipment* (EU28 / €bn)





Logistics 4.0



Society is changing rapidly

Global trends



Demographics



Globalisation



Scarcity of
resources



Urbanisation



Knowledge
society

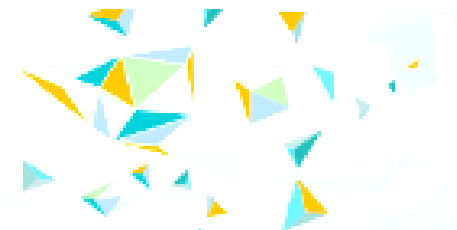


Sustainability



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materials
handling
federation

Source: Vanderlande vision workshop





Logistics is changing too...

Logistics trends



The growth of
e-commerce



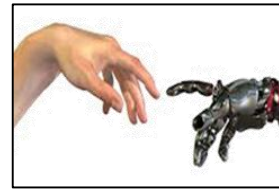
Sharing economy



Blockchain



Big data



Co-botics

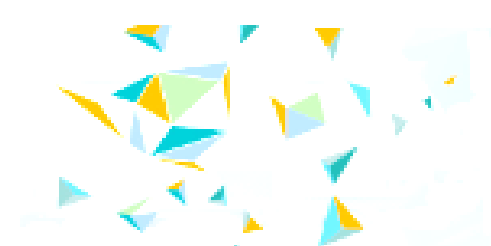


Artificial
intelligence



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Source: FEM / Vanderlande vision workshop





The European legislative framework



Artificial Intelligence

Cyber-security

Data



Artificial Intelligence for Europe

INVESTMENTS

- €4bn investments in PPPs (robotics, big data)
- Key areas: health, driving, manufacturing, energy
- AI excellence centres, AI digital innovation hubs
- Looking beyond 2020...

SOCIO –ECO CHANGES

- Set-up dedicated (re-)training schemes
- Anticipate changes on labour market & skills mismatch
- Support digital opportunity traineeships
- Encourage business-education partnerships

ETHICAL & LEGAL FRAMEWORK

- Guidance on interpretation of Product Liability Directive in light of technological developments
- Report on liability & safety frameworks for AI, IoT & robotics
- Support research on explainable AI



EU policy on data

Protecting data

- GDPR

Facilitating data sharing & re-use

- Free flow of non-personal data
- Re-use of public-sector information
- Access to and preservation of scientific information
- Common European data space
- Digital transformation of health and care



EU Cyber-security Strategy

Achieve
cyber
resilience

Reduce
cyber
crime

Develop
cyber
defence

Develop
industrial
& tech
resources

Establish
coherent
global
policy



Objectives of the EU
approach on cyber
security

Protect the EU from cyber threats

Avoid economic impact due to lack of safe
systems

Detect, trace and hold to account those
responsible for cyber-attacks

Create effective structures to promote cyber
security and respond to cyber-attacks

Develop cross-policy approach to building
cyber-resilience and strategic autonomy



New proposals on cyber-security

- ❖ Strengthen the EU Agency for Network & Security (ENISA) and create an EU cybersecurity framework (N.B.: specific EU proposal for legislation)
- ❖ Member States to step up the review of their national cybersecurity strategies
- ❖ Create an EU cybersecurity crisis response framework between Member States
- ❖ Set up a Cybersecurity Competence Network with a European Cybersecurity Research and Competence Centre
- ❖ Invest in education to develop a strong cybersecurity skills base
- ❖ Strengthen international cooperation on cybersecurity



THANK YOU!

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