mates

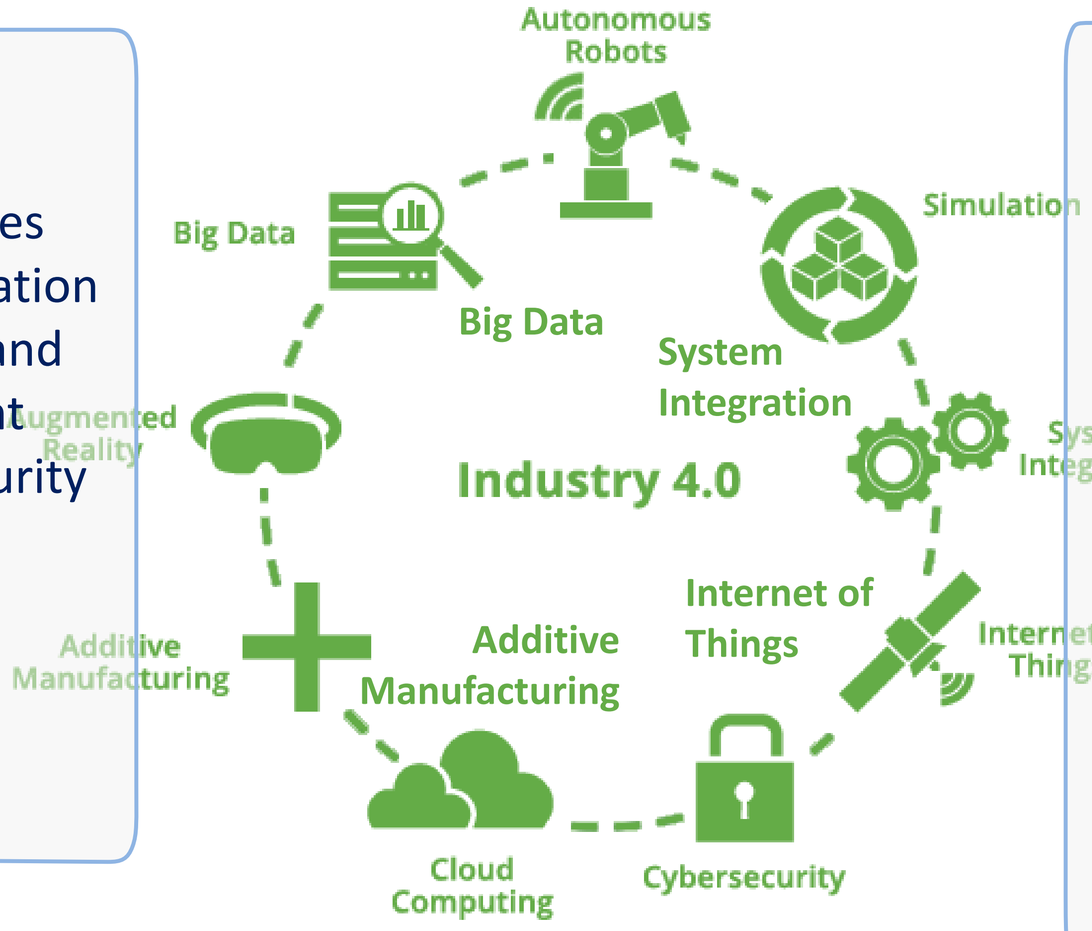
Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy

Professional and Soft Skills for Continuous Education of Data Professionals to enable the Digital Transformation of companies

Industry 4.0 and Digital Transformation

Digital Transformation

- Digitation and IoT
- Digitalisation of Processes
- Optimisation and Simulation
- Intelligent Information and Knowledge Management
- Data Management Maturity
- Digital Assets Manage
- Agile Data Driven Organisational Model
- Customer Experience
- People and skills



Digital Competences and Skills

- Information and data literacy
- Managing data, information, knowledge
- Digital content creation, programming
- Digital security and safety
- Communication and collaboration
- Problem solving and critical thinking

Digital competence and skills are transversal: Their effect spans from direct professional activity at all levels to more general attitude and entrepreneurship skills. Multiple competence and skills groups should be targeted by (continuous) education and training

Data Analytics and Processes digitalisation are driving Industry 4.0

21st Century or Workplace Skills

Top Skills for Future Data Driven Industry and Research

- Complex Problem Solving
- Critical Thinking
- Creativity
- People Management
- Coordinating with Others, Negotiation
- Emotional Intelligence
- Judgment and decision making
- Service Orientation, Customer focus
- Working with tools and technologies
- Dynamic (self-) re-skilling
- Cognitive flexibility
- Professional networking
- Ethics and professional code of conduct

MATES Project Objectives and focus areas

MATES' objective is to develop a skills strategy that addresses the main drivers of change to the maritime industry, in particular shipbuilding and offshore renewable energy. Both sectors are strongly linked and require new capacities to succeed in an increasingly digital, green and knowledge driven economy.

Part of the EU Skills Agenda and the Blueprint for sectoral cooperation on skills.

Data Scientist Professional Skills

Thinking and Acting like Data Scientist

1. **Recognise value of data**, work with raw data, exercise good data intuition, use SN and open data
2. Accept (be ready for) **iterative development**, know when to stop, comfortable with failure, accept the symmetry of outcome (both positive and negative results are valuable)
3. Good **sense of metrics**, understand importance of the results validation, never stop looking at individual examples
4. **Ask the right questions**
5. **Respect domain/subject matter knowledge** in the area of data science
6. **Data driven problem solver** and **impact-driven mindset**
7. **Be aware about power and limitations** of the main machine learning and data analytics algorithms and tools
8. Understand that most of **data analytics algorithms are statistics and probability based**, so any answer or solution has some degree of probability and represent an optimal solution for a number of variables and factors
9. Recognise what things are **important** and what things are **not important** (in data modeling)
10. Working in **agile environment** and coordinate with other roles and team members
11. Work in **multi-disciplinary team**, ability to communicate with the domain and subject matter experts
12. Embrace **online learning**, continuously improve your knowledge, use **professional networks** and communities
13. **Story Telling**: Deliver actionable result of your analysis
14. **Attitude**: Creativity, curiosity (willingness to challenge status quo), commitment in finding new knowledge and progress to completion
15. **Ethics and responsible use** of data and insight delivered, awareness of dependability (data scientist is a feedback loop in data driven companies)

www.projectmates.eu

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EDISON building the data science profession