



KNOW-HOW TRANSFER EVENT: MODERNISATION OF DANUBE VESSELS FLEET

STEPHAN STOUT, THURSDAY 7 MARCH 2019, VIENNA

AUTONOMOUS SHIPPING

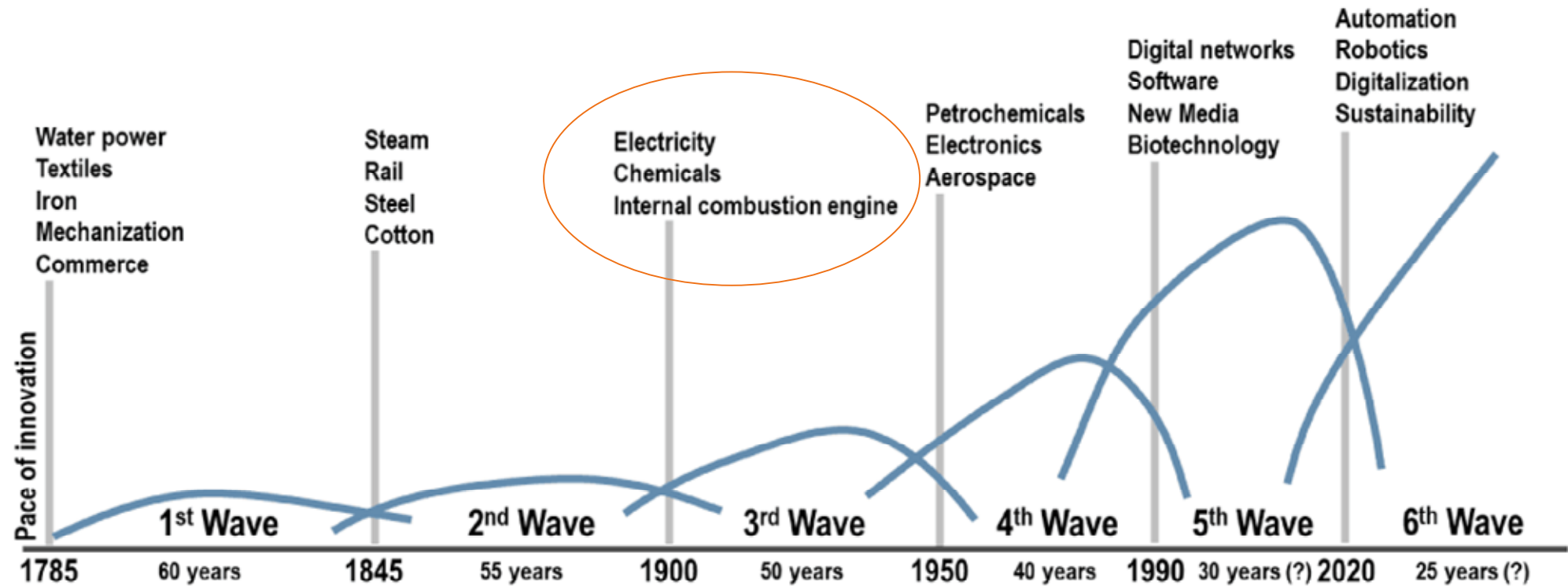
- Damen is making its first steps towards autonomous vessels.....
- But is this really the future? Why should we be interested?

INNOVATION

“New idea, creative thoughts, new imaginations in form of device or method“

The application of better solutions that meet new requirements, **unarticulated needs**, or existing market needs.

INNOVATION



INNOVATION

Easter morning 1913: 5th Ave, New York City.
Spot the horse.

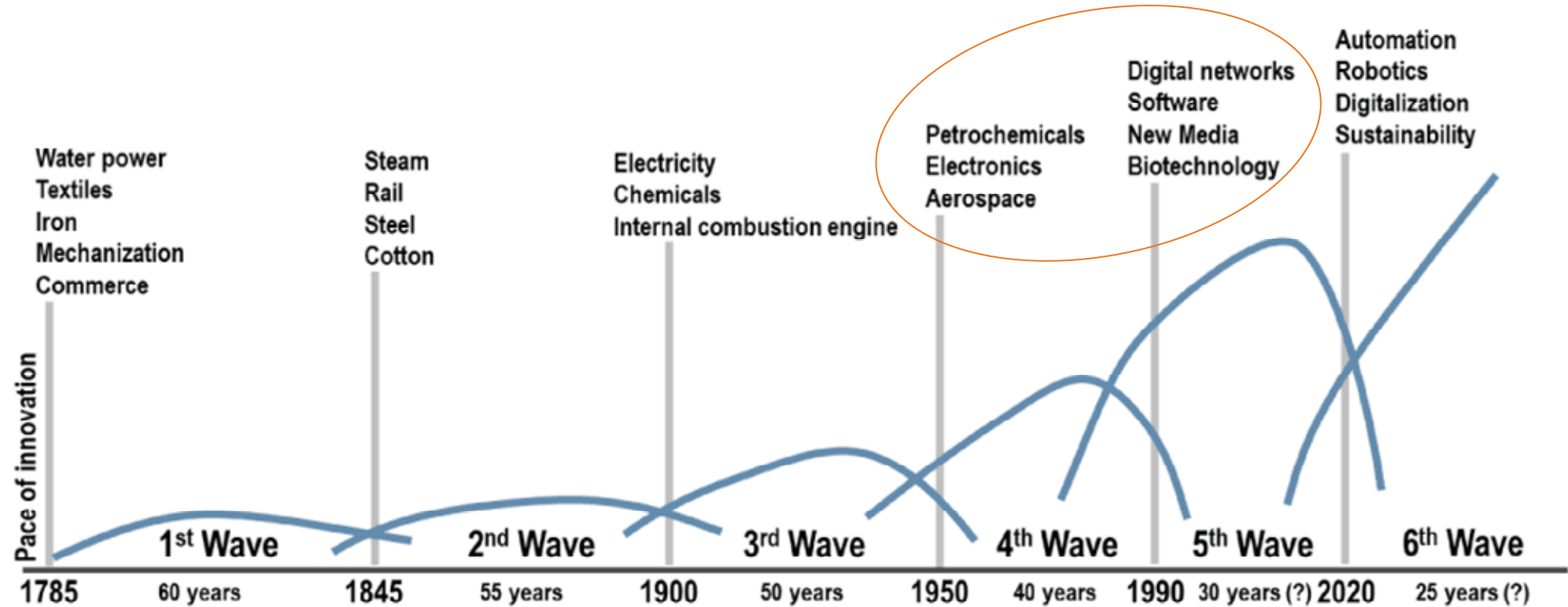


Source: George Grantham Bain Collection.

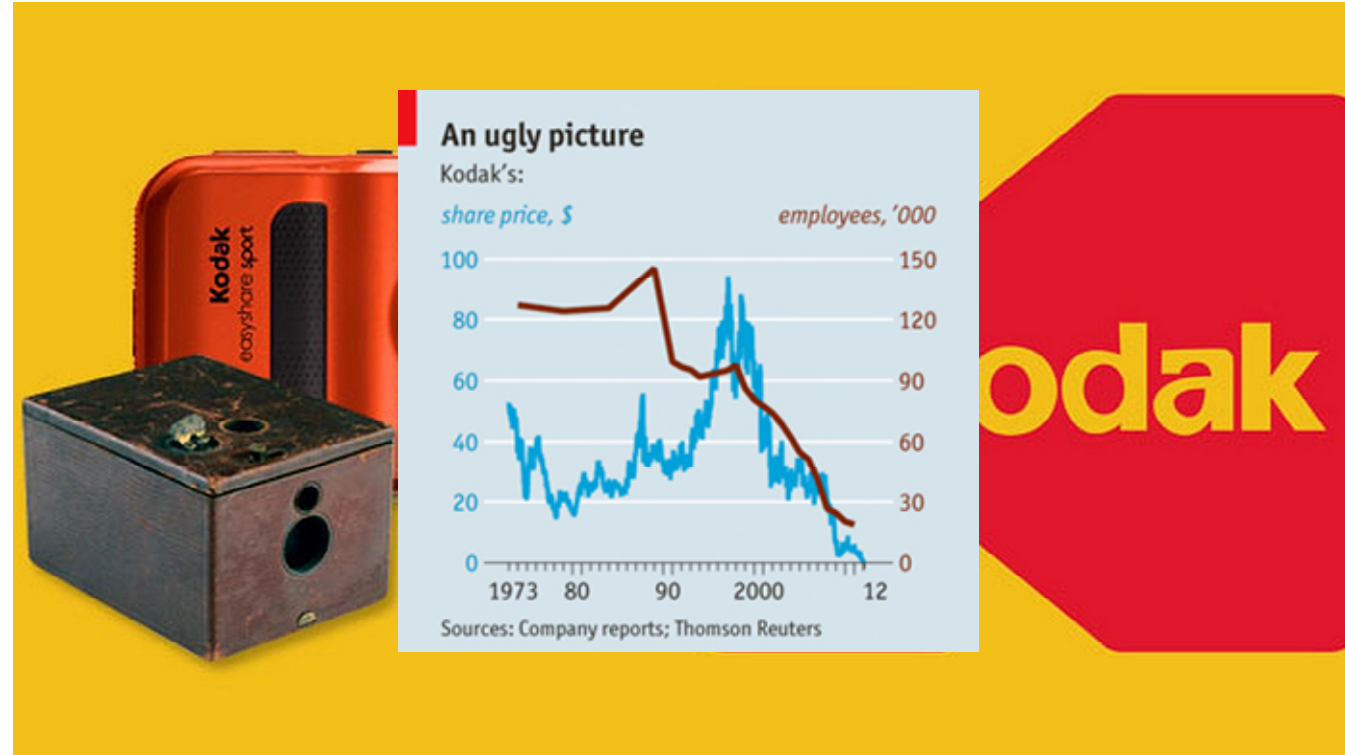


Source: US National Archives.

INNOVATION



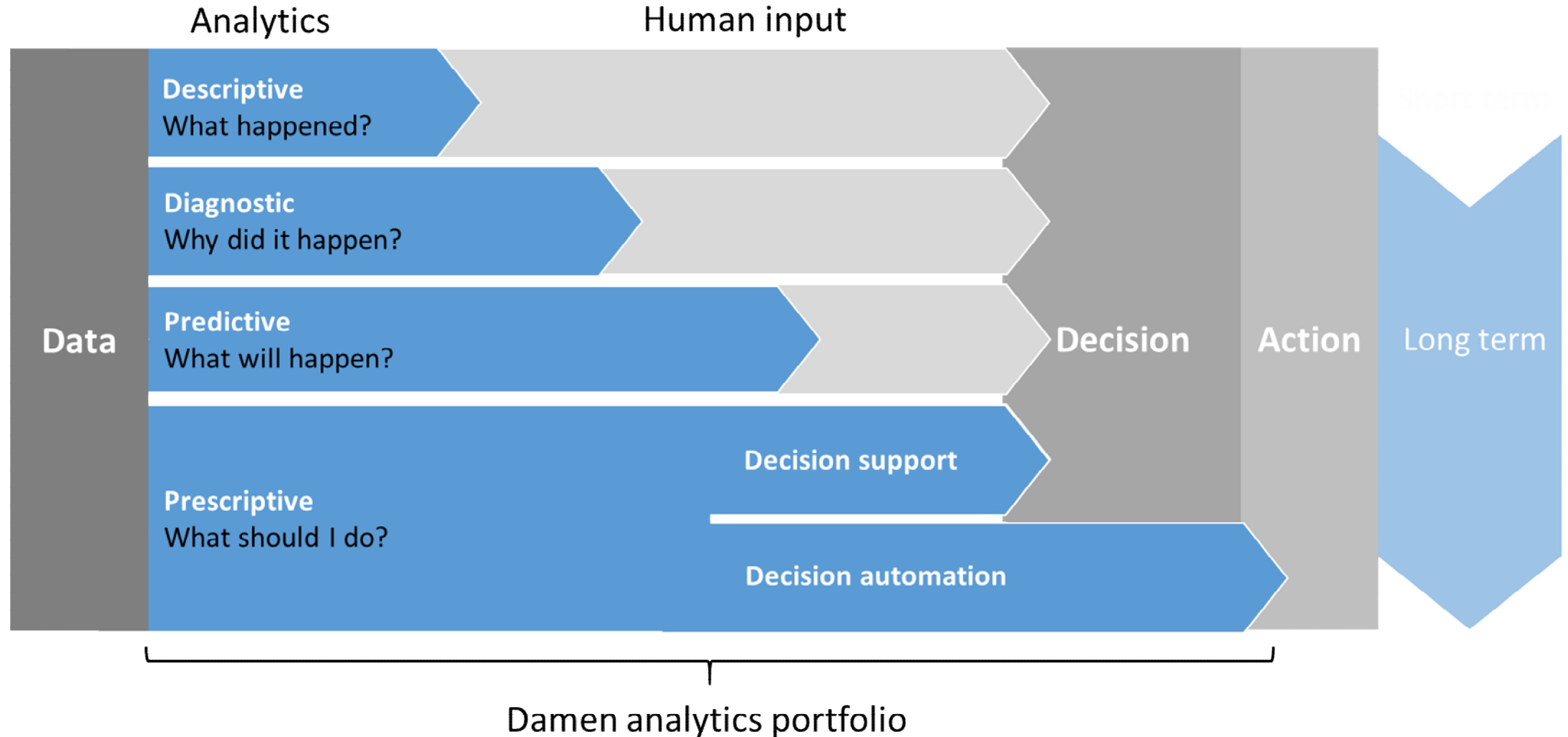
INNOVATION



AUTONOMOUS SHIPPING

- Damen is making its first steps towards autonomous vessels.....
- But is this really the future? Why should we be interested?
- The answer is clear: in order to survive, we **must** be interested

AUTONOMOUS SHIPPING: HOW?



AUTONOMOUS SHIPPING: HOW?

STEP 1: CONNECTING THE VESSEL TO THE CLOUD

STEP 2: TRANSFER DATA TO INFORMATION

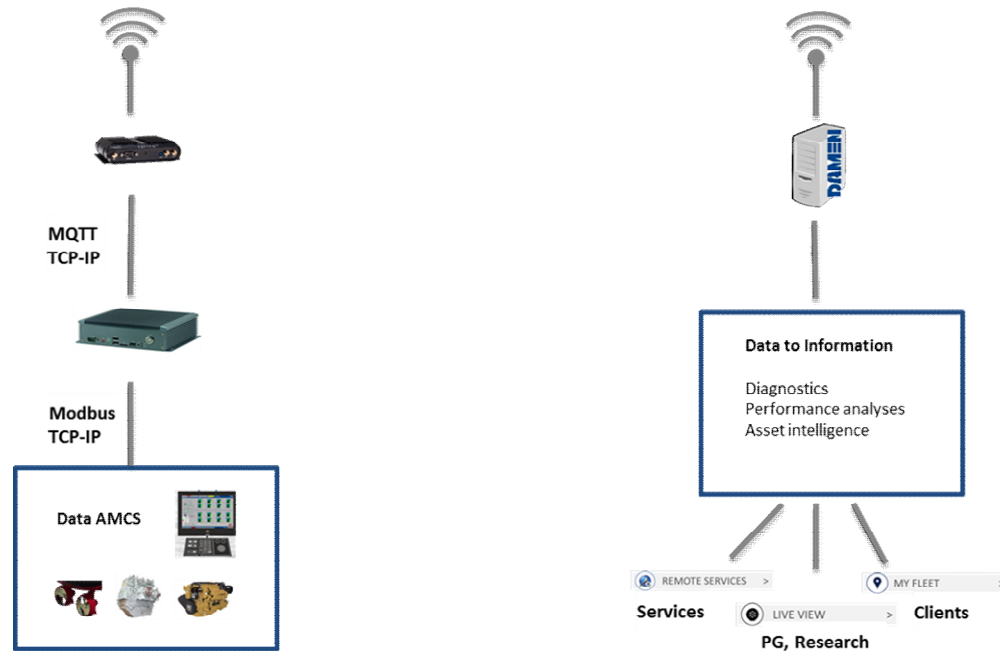
STEP 3: ENRICH THE VALUE BY ADDITIONAL DATA TRANSFER

STEP 4: PROCESS & VISUALIZE THE INFORMATION

STEP 5: PROVIDE ADVICE BASED ON THE INFORMATION

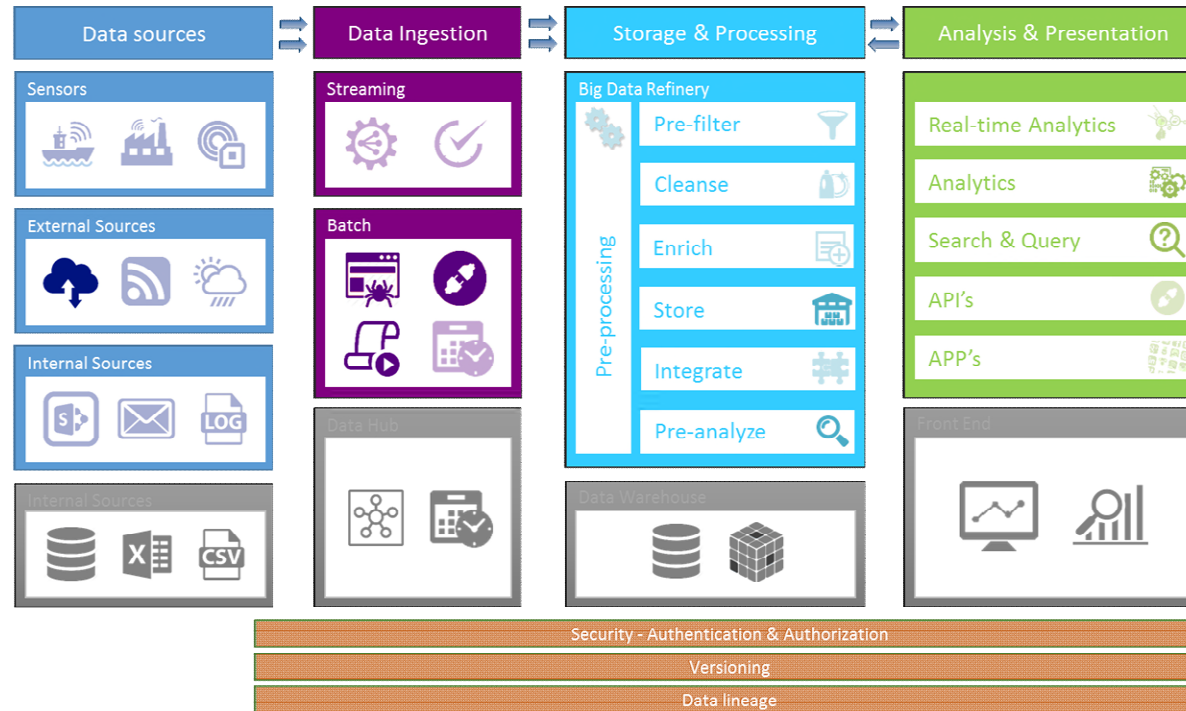
STEP 6: ACT BASED ON THE INFORMATION

STEP 1: CONNECTING THE VESSEL TO THE CLOUD

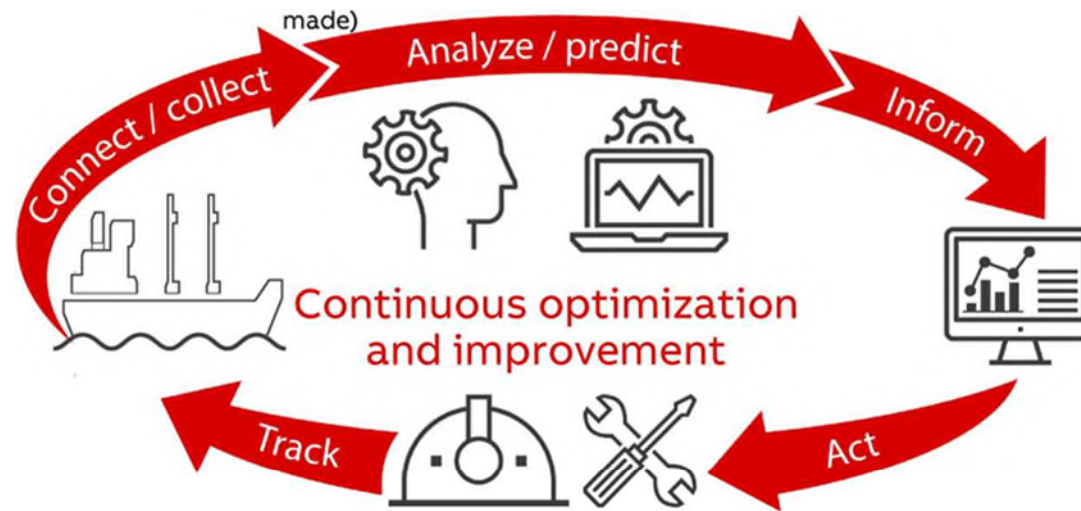


SELECTING THE RIGHT GATEWAY SOLUTION

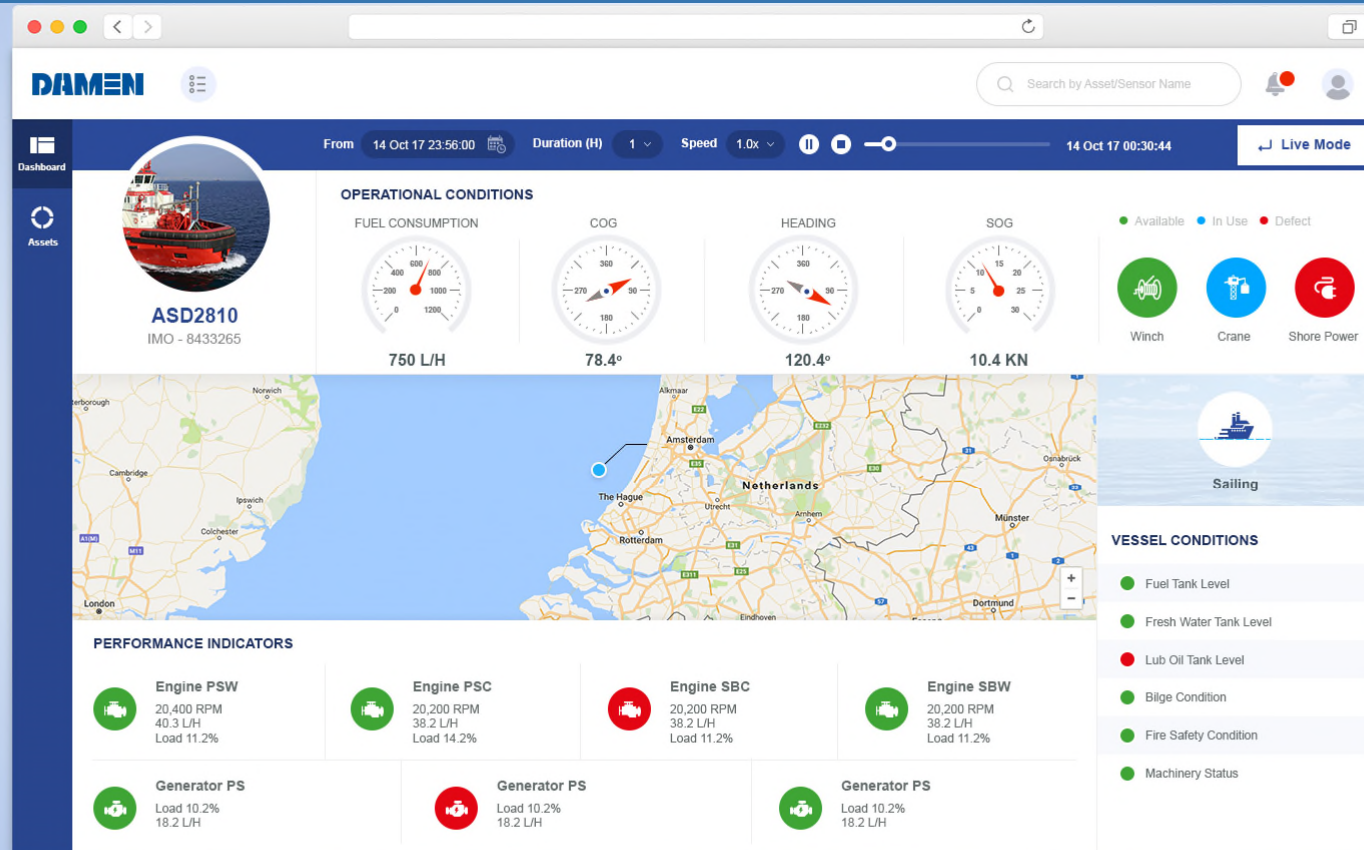
STEP 2: TRANSFER DATA TO INFORMATION



STEP 3: ENRICH THE VALUE BY ADDITIONAL DATA TRANSFER



STEP 4: PROCESS & VISUALIZE THE INFORMATION



STEP 5: PROVIDE ADVICE BASED ON THE INFORMATION



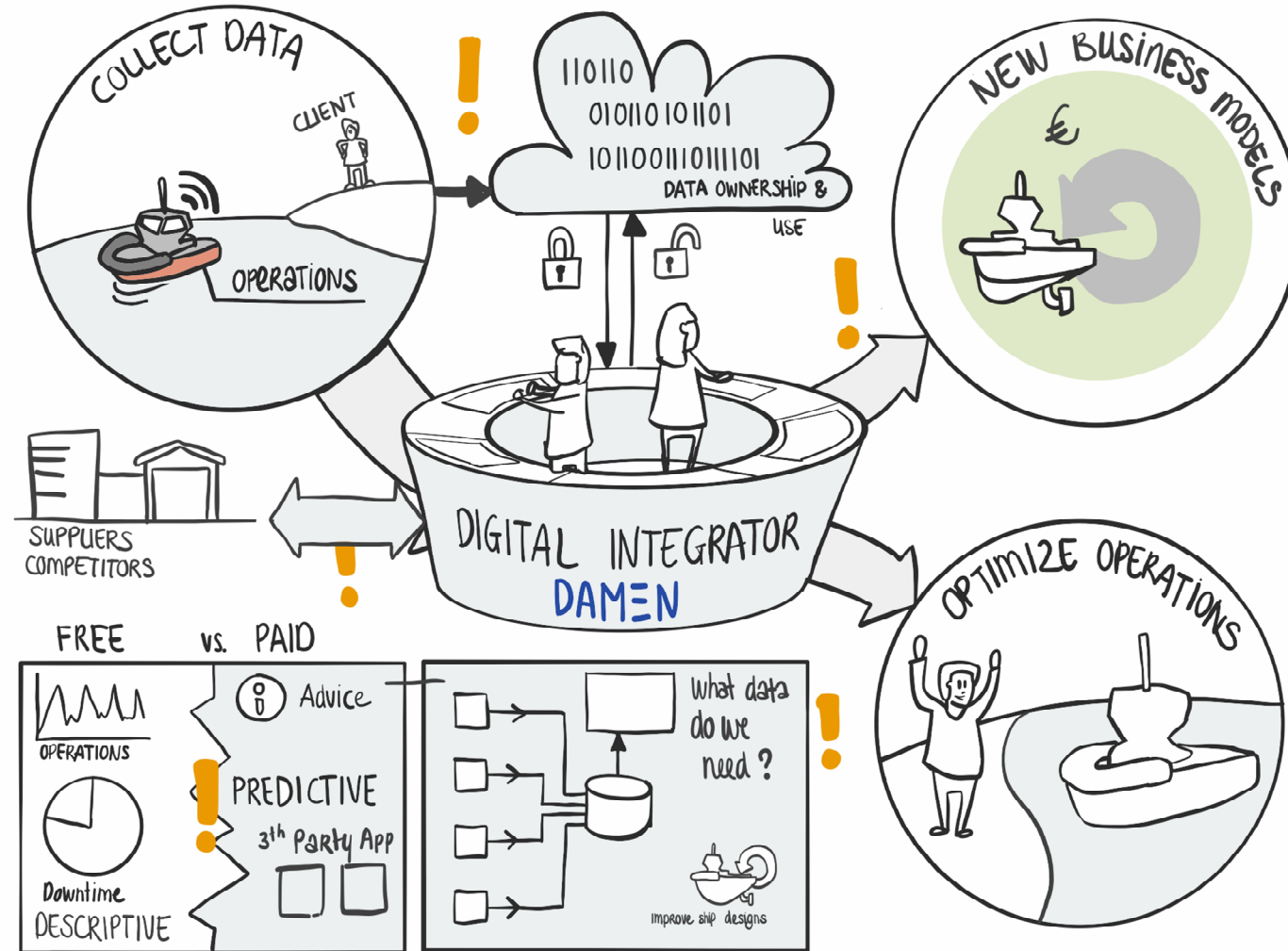
PROVIDE ADVICE FROM SHORE

STEP 6: ACT BASED ON THE INFORMATION



DECISION SUPPORT / DECISION AUTOMATION

DAMEN DIGITAL: CONNECTED VESSELS



CONCLUSION

- Embrace new technologies and innovations
- Outside-in approach
- We are ready for the future