Science Rocks!

Research as the first step in your Dredging Career

IHC MERWEDE

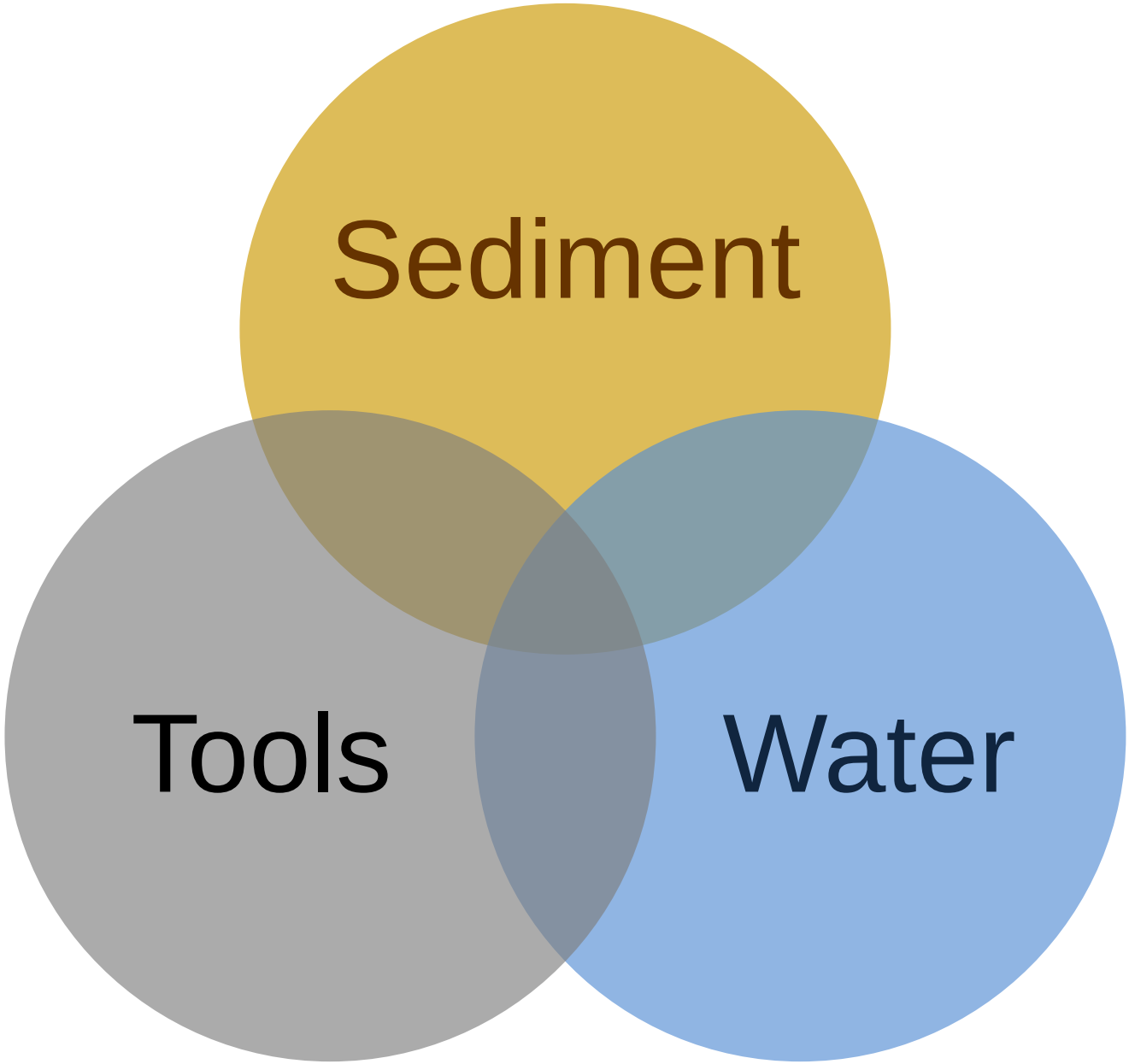
Jort van Wijk

MTI

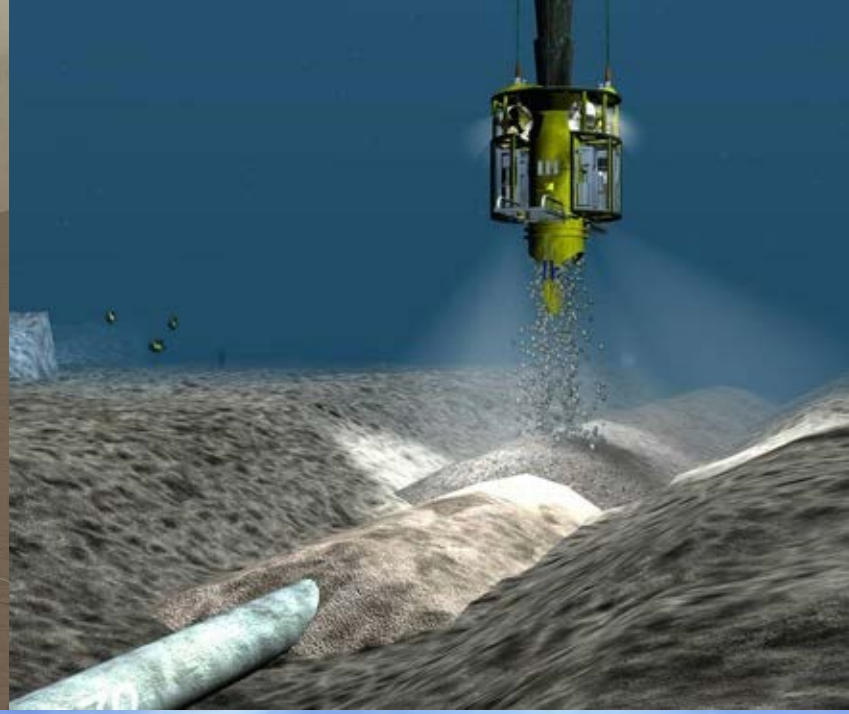
Curriculum Vitae

JM.vanWijk@mtiholland.com

- 2004-2009 Delft University of Technology
  BSc Mechanical Engineering
  MSc Offshore and Dredging Engineering
- 2008-2010 Student at MTI Holland
- 2010-present Research Engineer at MTI Holland
  PhD student at DUT (prof. Van Rhee)

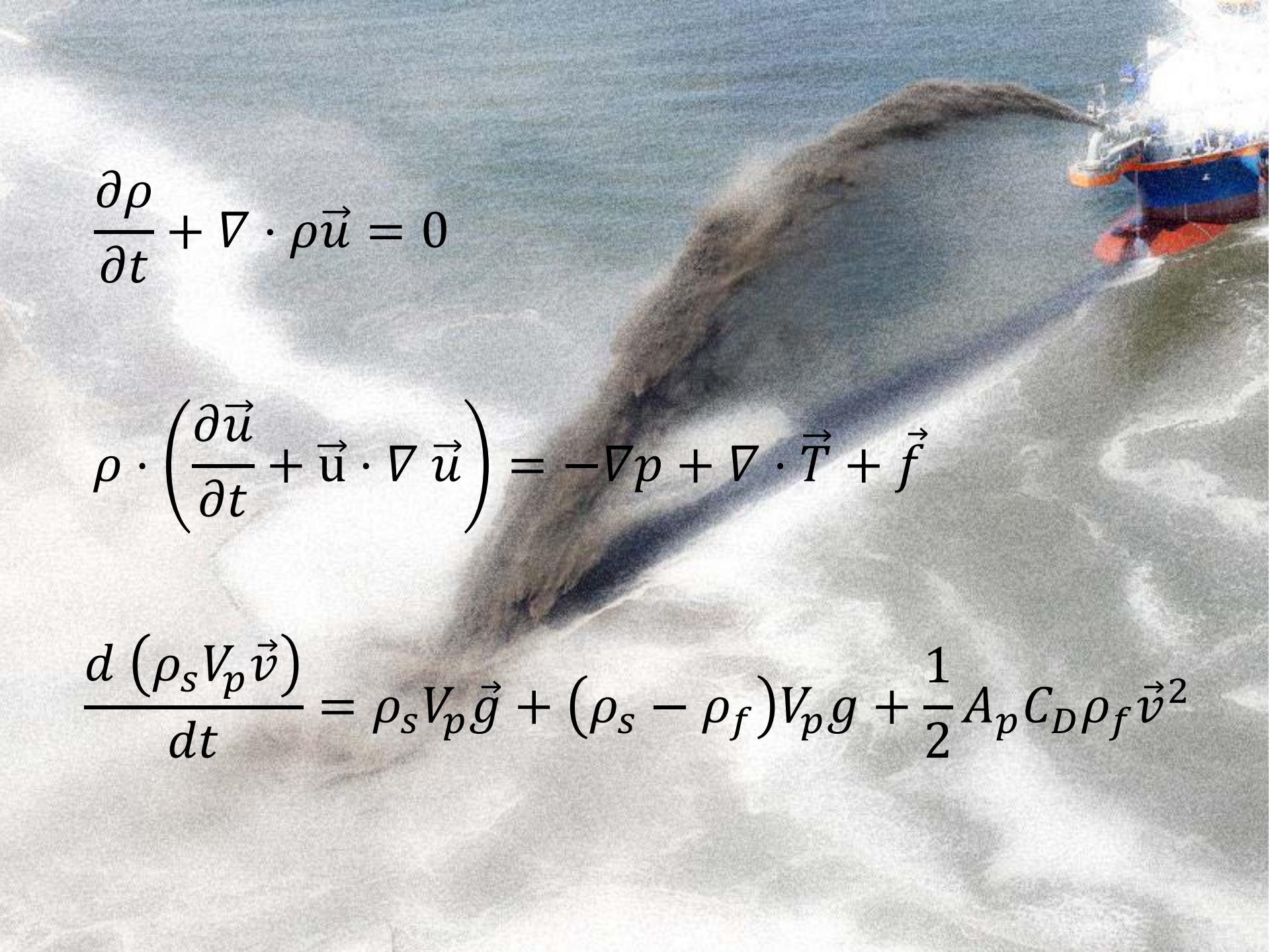

Sediment
Tools
Water

Beaver 50



HI-TRAD

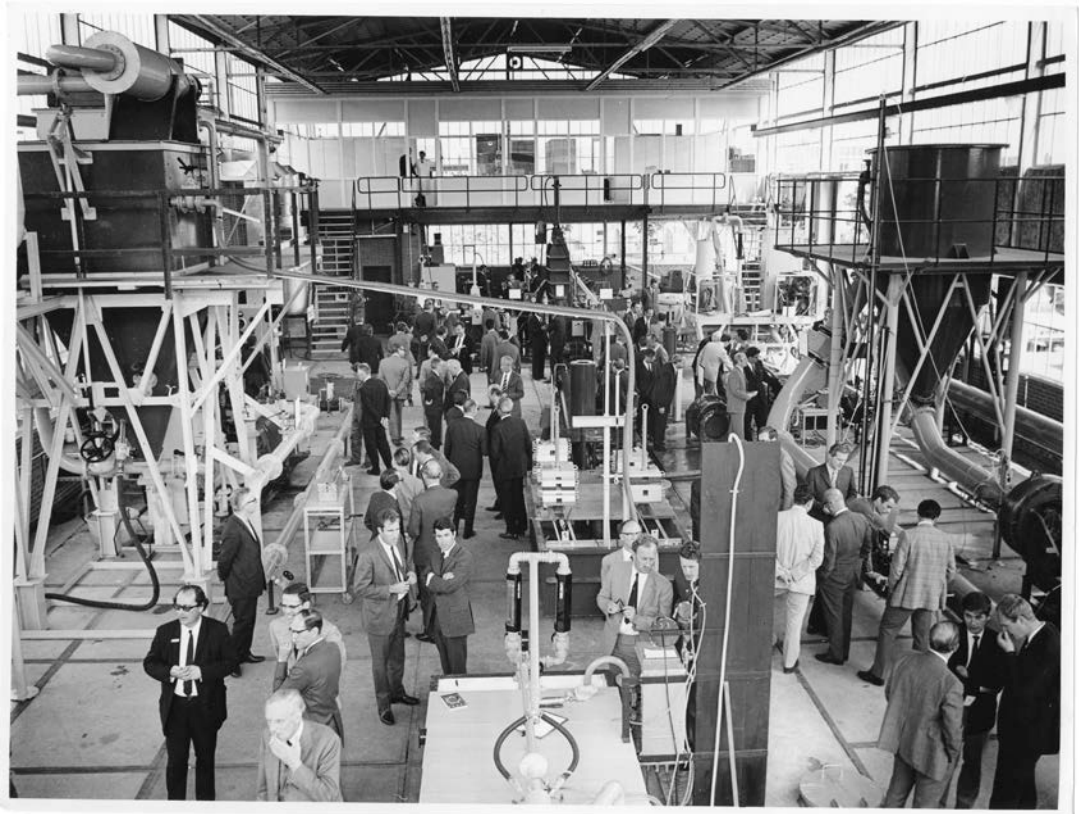
VOX MAXIMA

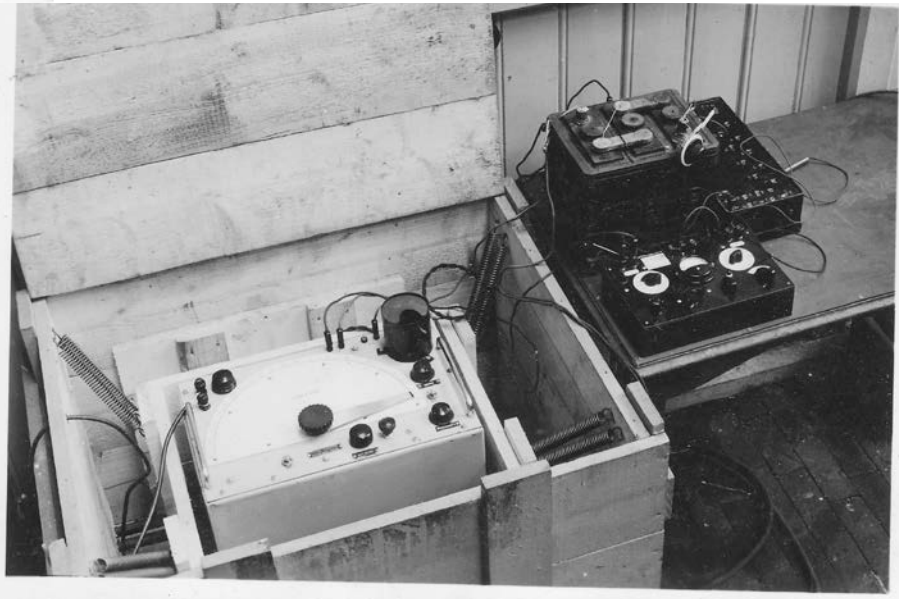


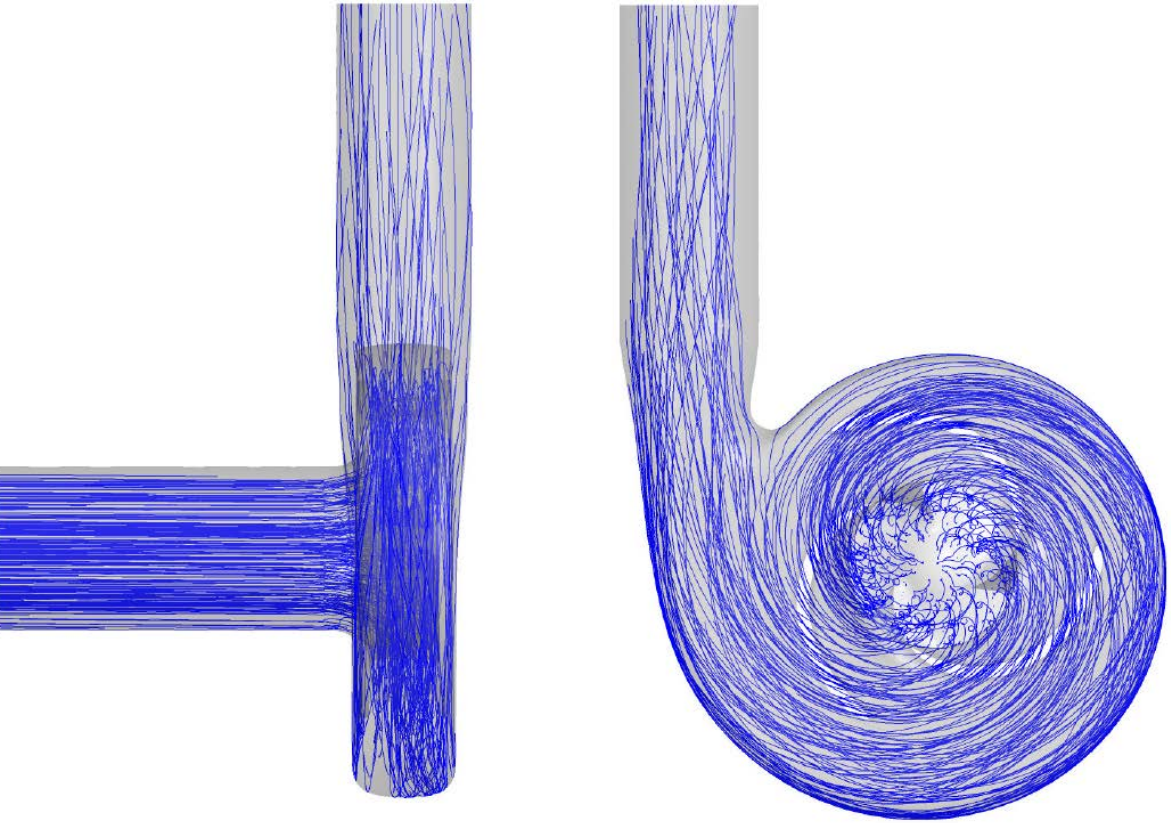
$$\frac{\partial \rho}{\partial t} + \nabla \cdot \rho \vec{u} = 0$$

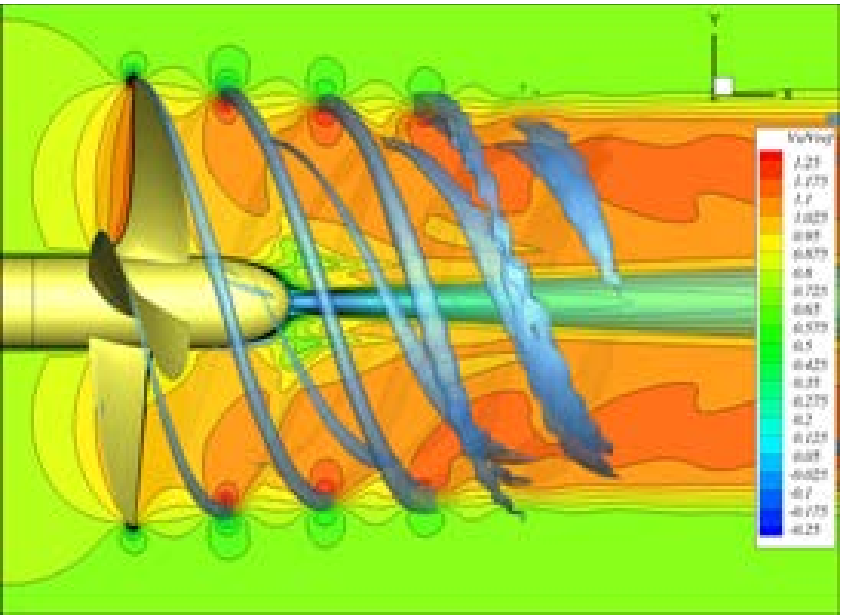
$$\rho \cdot \left(\frac{\partial \vec{u}}{\partial t} + \vec{\mathrm{u}} \cdot \nabla \vec{u} \right) = -\nabla p + \nabla \cdot \vec{T} + \vec{f}$$

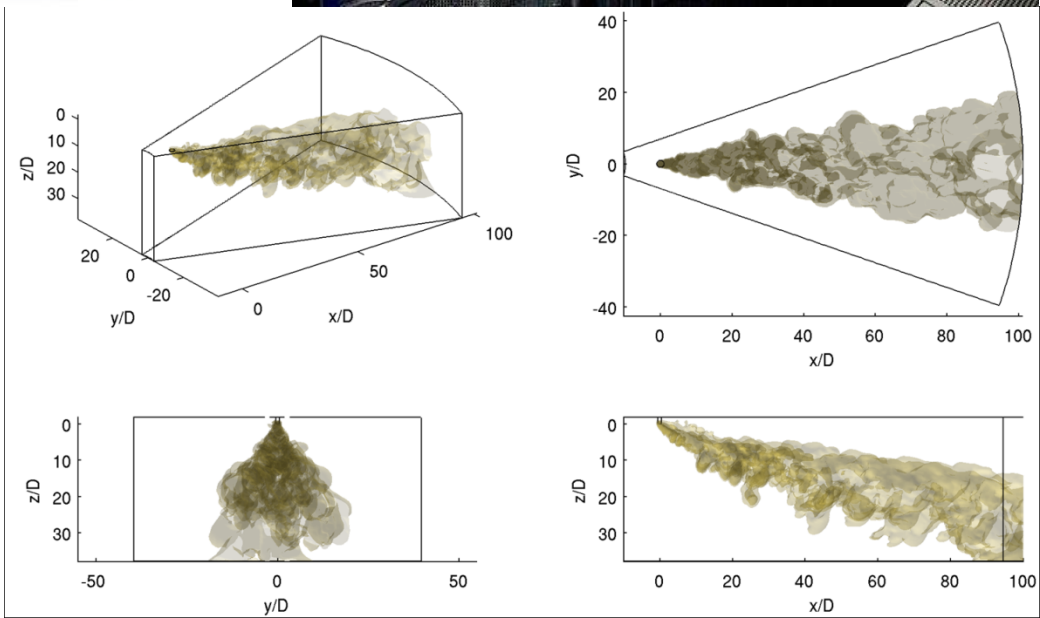
$$\frac{d\left(\rho_s V_p \vec{v}\right)}{dt} = \rho_s V_p \vec{g} + \left(\rho_s - \rho_f\right) V_p g + \frac{1}{2} A_p C_D \rho_f \vec{v}^2$$

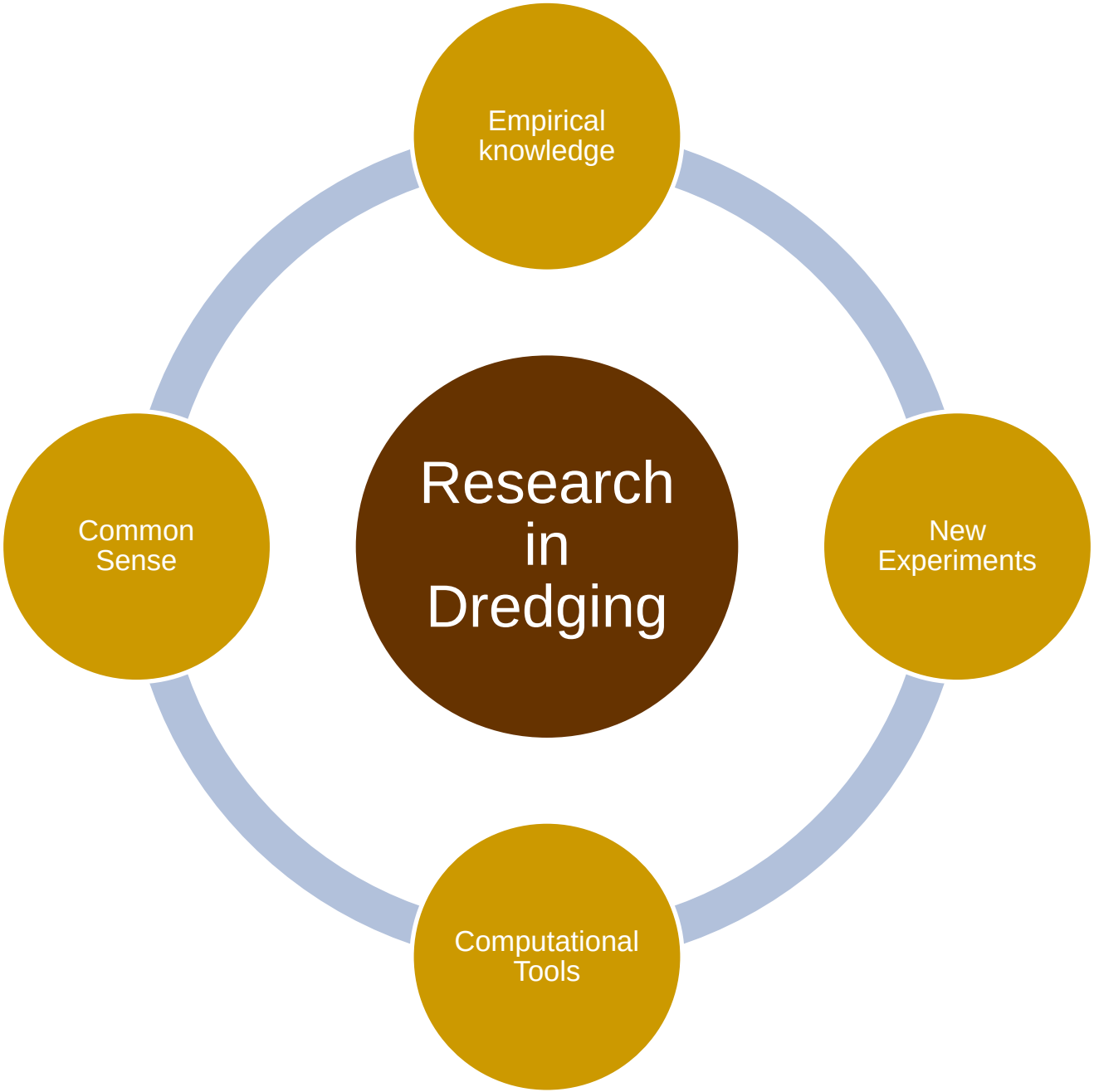


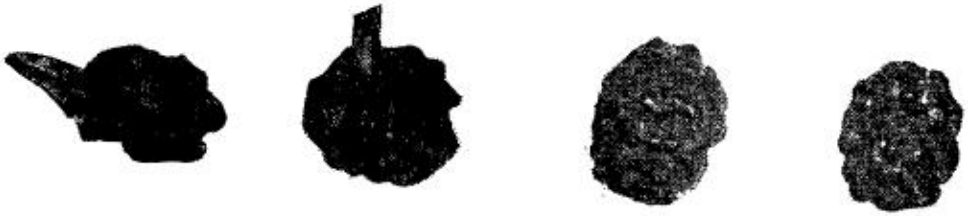




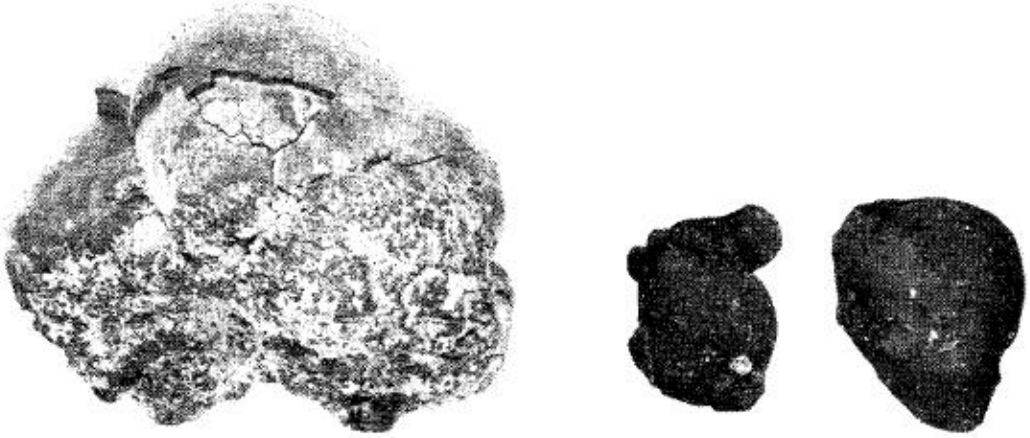



z/D
0
10
20
30
y/D
20
0
-20
x/D
0
50
100
y/D
40
20
0
-20
-40
0
20
40
60
80
100
x/D
z/D
0
10
20
30
-50
0
50
y/D
z/D
0
10
20
30
0
20
40
60
80
100
x/D


Empirical knowledge
Common Sense
Research in Dredging
New Experiments
Computational Tools



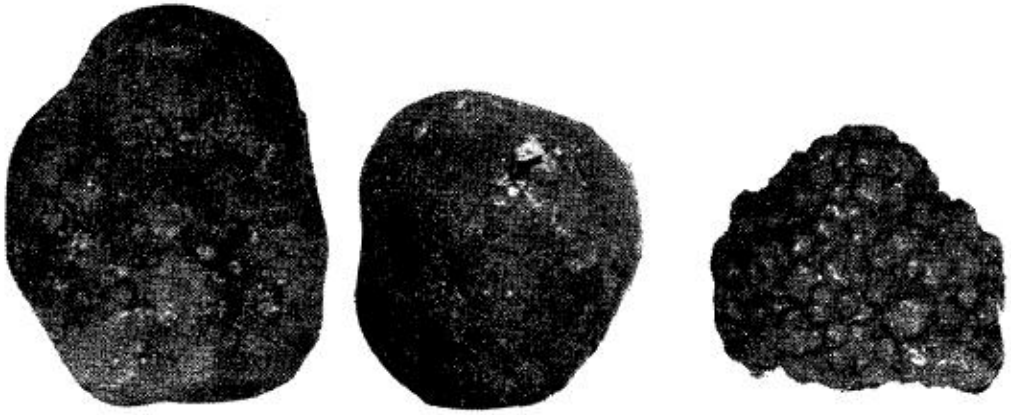
Healthcare



Electric Vehicles

Solar Energy

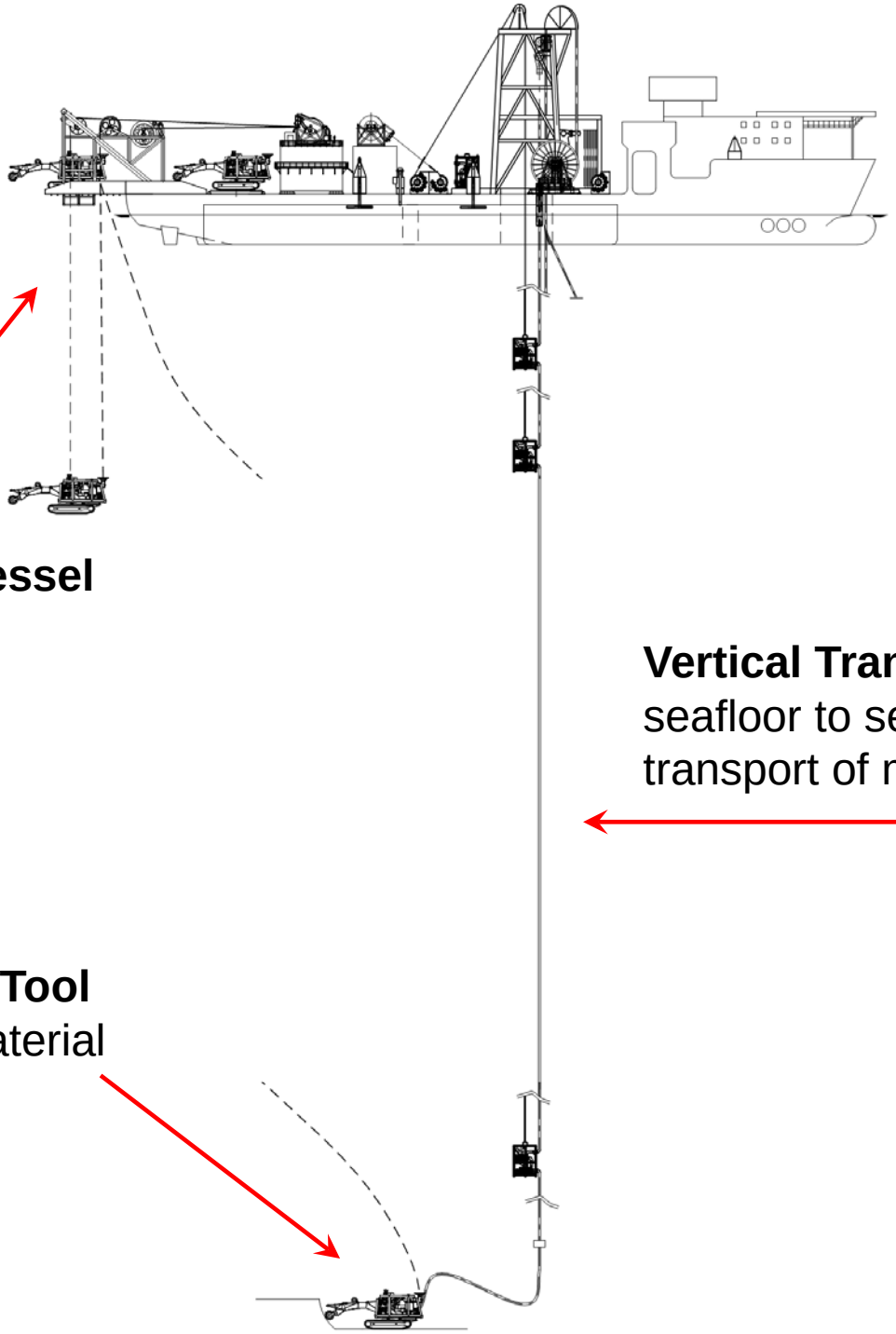
Wind Energy



Digital infrastructure

Agriculture

…



Mining Support Vessel
the Mothership

Vertical Transport System
seafloor to sea surface
transport of material

Subsea Mining Tool
excavation of material

“Theory meets Practice,
Passion meets Purpose.”

Porsal
Kerlouan
Guisseny
St Christ
Plouguerneau
R. Aber Vrach
Plouider
Lanilis
R. Aber Benoit
Ploudalmezeau
Vierge Islan
red flash,
by short
channel to
outer one of
hew's Point Light revolves
is visible at the distance
ucceed each other every
do not
total
NW
NE
E
SE
SW
W
Black Stone
St. Matthews P.
Le Coq
Pte de Toulinguet
La Vandree
Parquete
Toulinguet
Camaret
Dinant
Crozon
B. du Lis
Les Tas de Pois
Le Bouc