OIL & GAS

Spredningssimulering

SeaFAN – Seabed Footprint Analyser

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Et lite partikkeleventyr...

- Det var en gang for lenge siden da oljeprisen var høy...
  - ✓ vi hadde forskningsprosjekter og var ettertraktet
  - ✓ vi deltok på konferanser i fjerne himmelstrøk
  - ✓ vi lekte dronninger og konger og var på karneval
  - ✓ vi hadde til og med julebord
  - ✓ business was good

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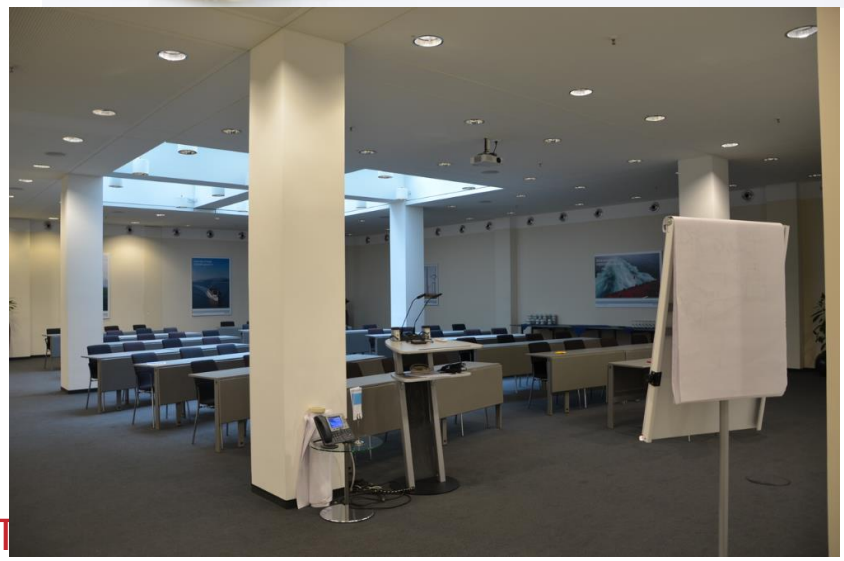
..andre tider skulle komme...

.. og oljeprisen falt....

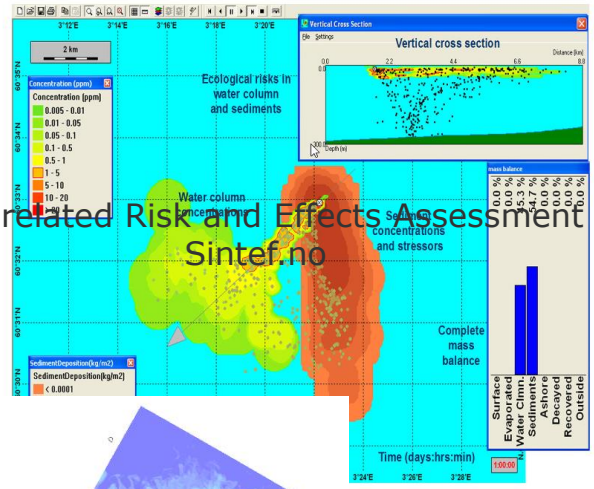
- ✓ Brikkene begynte å ramle
- ✓ Kontorer ble tømt
- ✓ Den 4. revolusjon ristet i oss
- ✓ Vi var tvunget til omstilling og tenke veldig veldig hardt og lenge!



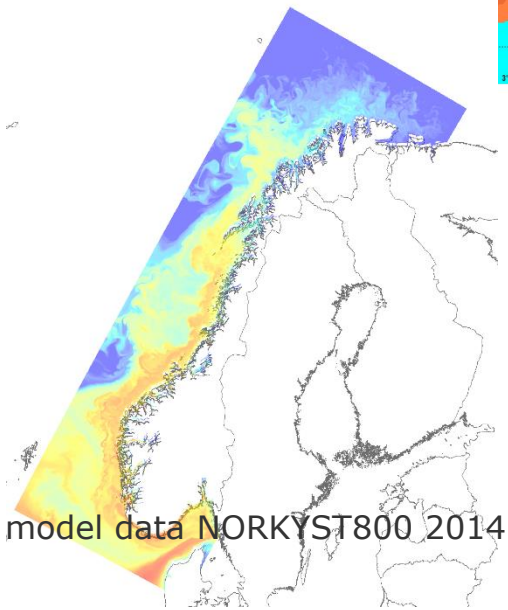
..etter langt om lenge hørte vi rop som sa..

Jeg fant jeg fant...

- ✓ En spredningsmodell vi ikke hadde brukt på en stund...
- ✓ Inngangsdata som hadde vokst i størrelse og som kunne gi nye muligheter
- ✓ Noen script og programmer som hadde blitt forlagt i en skuff..
- ✓ Kloke hoder, litt hell og lykke



DREAM (Dose-related Risk and Effects Assessment Mode
Sintef.no



MetOcean model data NORKYST800 2014--- met.no

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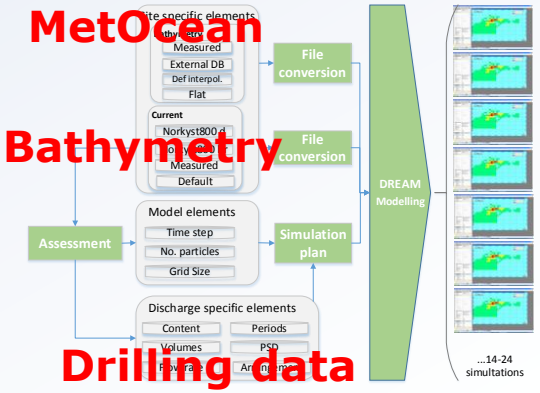
SeaFAN – Seabed Footprint Analyser – by use of the DREAM model

1600 datapunkter

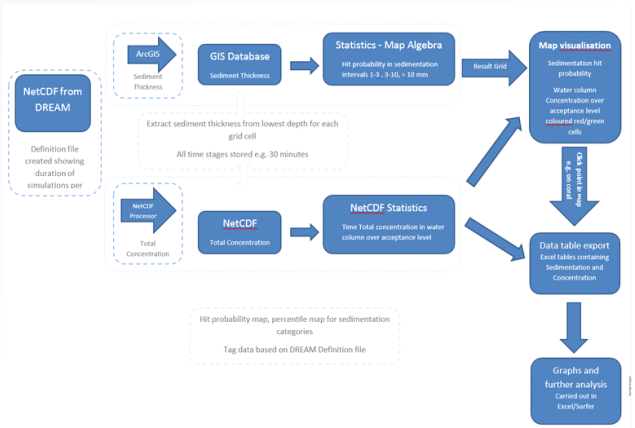
1,5 mrd datapunkter

Particle simulations

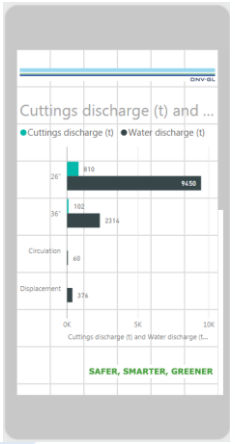
Model set up



Post processing



Publishing of results



Manual labour » Automated solution » Digital deliverables

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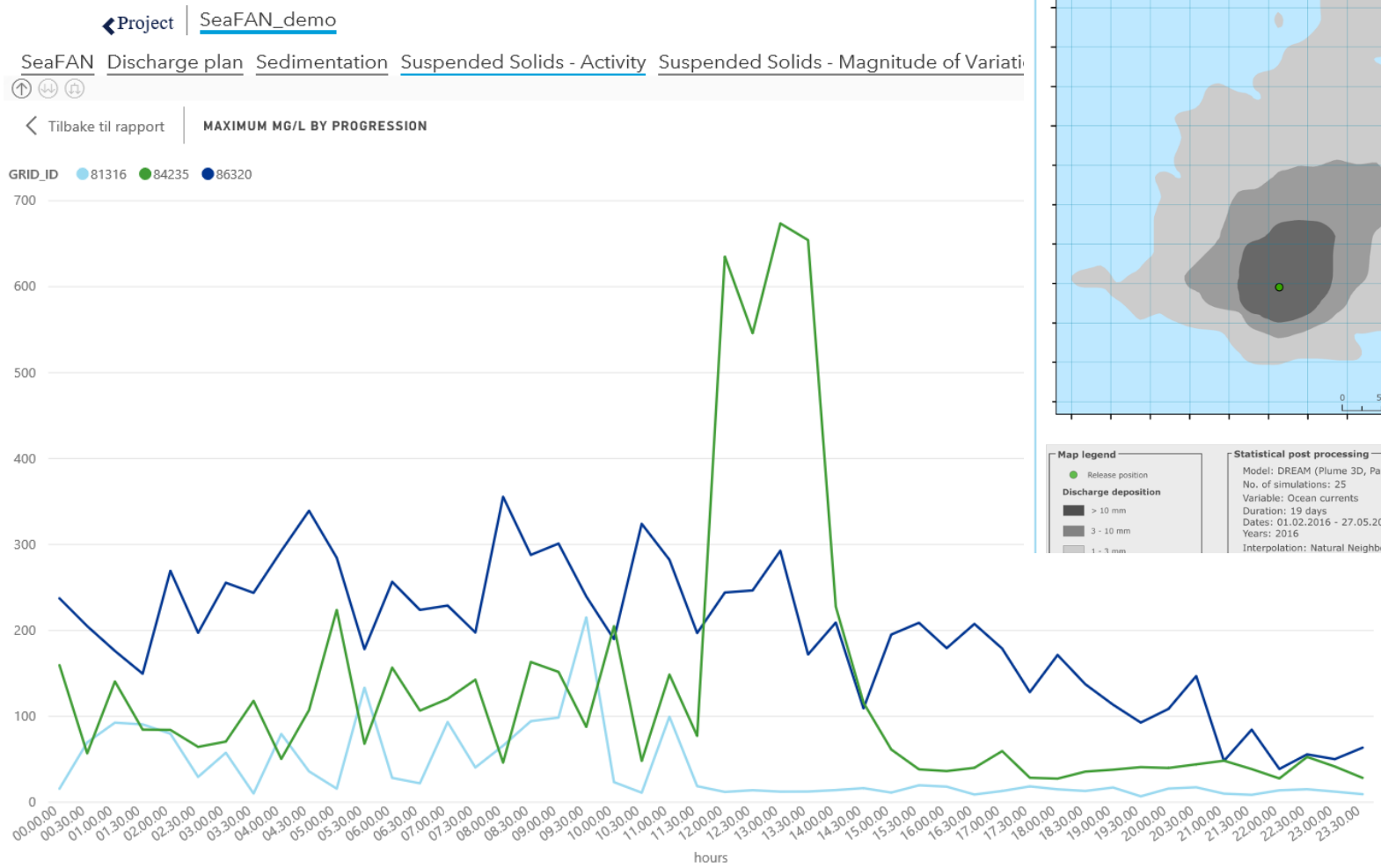
Leveranser



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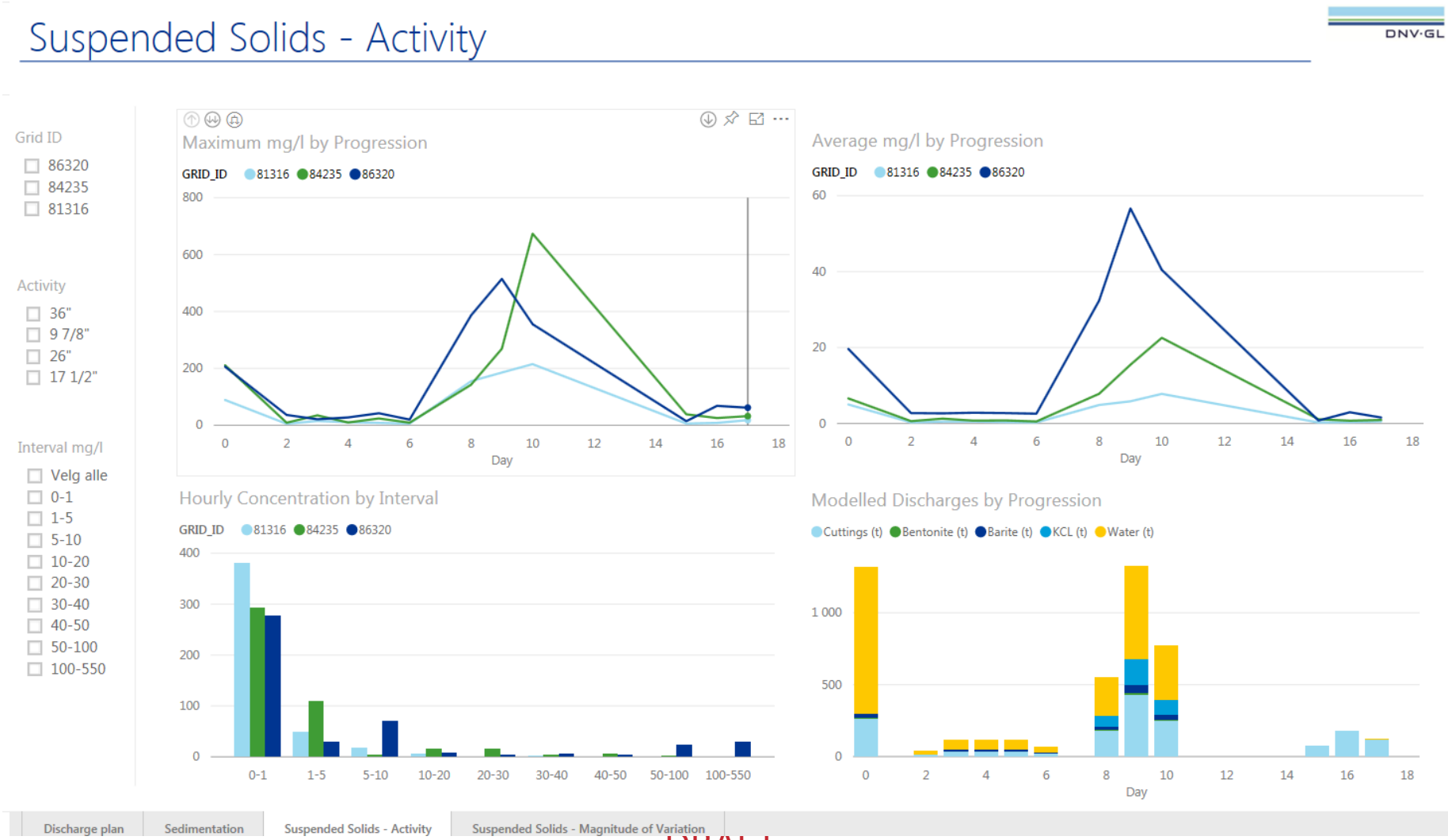
DEMO – online?

https://www.dnvgl.com/

Output and visualization: Dashboard - examples



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Summary and application of use

Benefits

1. To reduce the environmental footprint from discharges
2. Comply with regulatory requirements
3. Creation of sustainability targets

Planning phase:

- Use for discharge management
- Use in areas where there are valued ecological resources
- Use when there is particular type of discharges such as TSS
- Use for benchmark measures

Operational phase:

- Use in areas where there are valued ecological resources
- Use when there is planned for mitigating actions if thresholds are exceeded

Post phase:

- Use in areas where there are valued ecological resources
- Use for documentation purposes
- Use for benchmark measures

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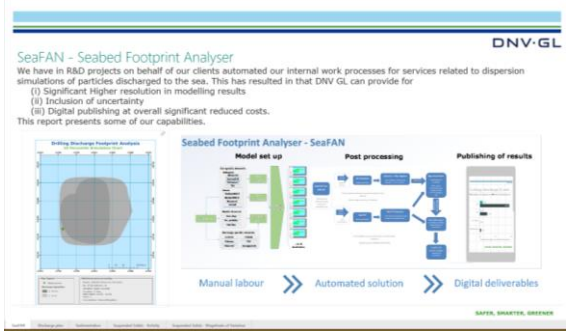
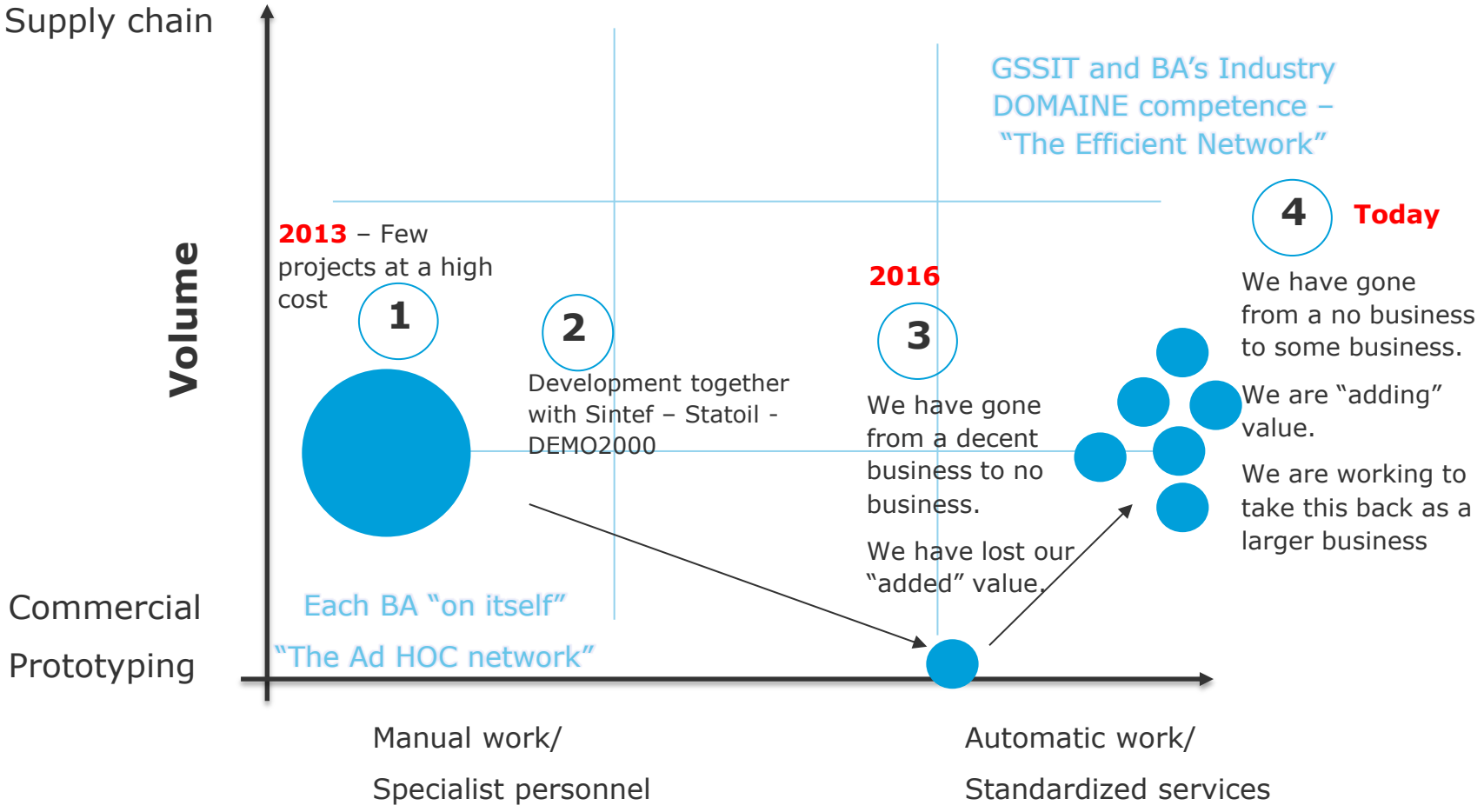


- Higher resolution
- Inclusion of uncertainty
- Digital publishing
- Significant reduced costs
- DB and benchmarking
- New measures

SeaFAN Business model - from prototyping to supply chain

We are working to take this back as a larger business



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Thank you

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SAFER, SMARTER, GREENER

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