

# WP5

## 2016 PROGRESS & 2017 ACTIVITY PLANS

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9. Marts 2017, SDU

NOVAGRASS Workshop

Photo: Nibe Bredning, july 2017



# 2016 PROGRESS

## WP 5. Development and application of large-scale restoration techniques

- *Milestone 5.1 Commercial eelgrass harvesting*
- *Milestone 5.2 Eelgrass seed storage for commercial use*
- *Milestone 5.3 Seed and/or seedling broadcasting techniques for commercial use*
- *Milestone 5.4 Developed techniques are applied full-scale at field locations where stressors are prevented*
- *Milestone 5.5 Monitoring of eelgrass*
- *Milestone 5.6 Technical guidelines/user manuals*

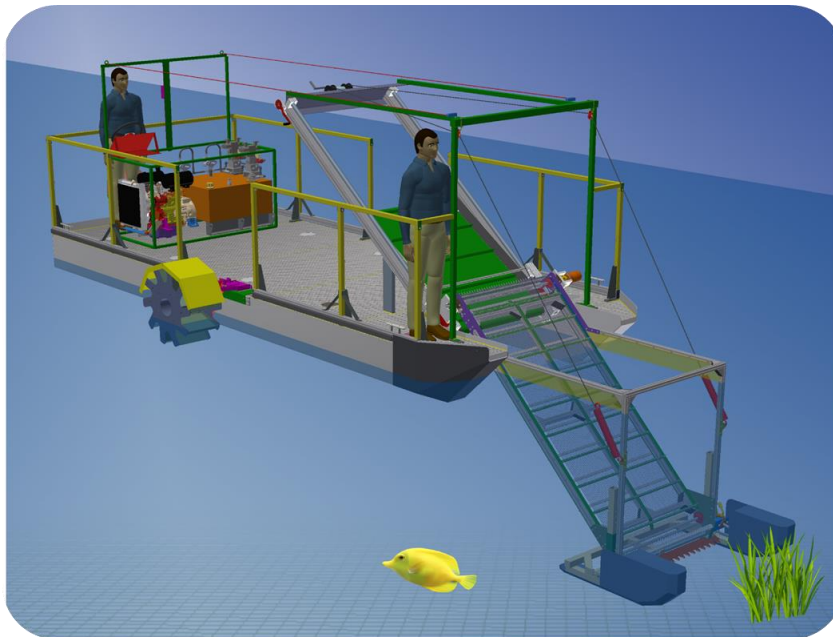
Planning & data analysis	Yellow	Yellow
Development	Blue	Blue
Field and lab activities	Green	Green
Dissemination of results	Red	Red

Year	2013				2014				2015				2016				2017			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>WP5 - Large-scale</i>																				
Milestone 5.1	Yellow	Yellow	Blue	Blue	Blue	Green	Green	Red	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue				
Milestone 5.2	Yellow	Yellow	Blue	Blue	Blue	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Milestone 5.3	Yellow	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
Milestone 5.4							Yellow	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
Milestone 5.5											Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green
Milestone 5.6																	Yellow	Yellow	Red	Red

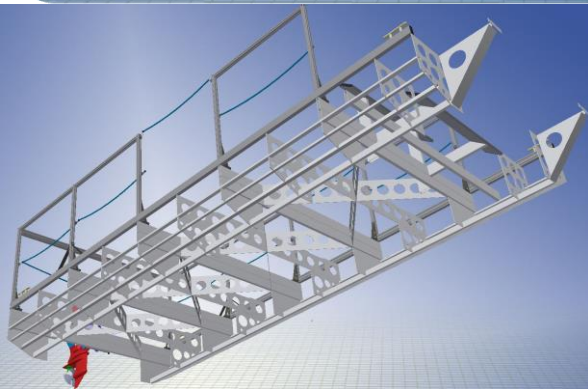
# 5.1 LARGE SCALE COMMERCIAL EELGRASS HARVESTER

- Collaboration with VIA University College and Mercantec (Technical and commercial educations / MetalCraft)
- VIA University College **DONE**
  - Design and drawings
- Mercantec **NOT DONE**
  - Building (together with professionals)

# 5.1 LARGE SCALE COMMERCIAL EELGRASS HARVESTER



	Situation 1: VIA students Mercantec trainees	Situation 2: Engineering & production company
Estimated value of 1ha (10000m <sup>2</sup> ) of eelgrass in DKK*	kr. 126.915	kr. 126.915
Material cost for the harvester in DKK*	kr. 298.555	kr. 298.555
Engineering cost per hour	kr. 0	kr. 800
Engineering hours	1200	800
The total cost of engineering	kr. 0	kr. 640.000
Production cost per hour	kr. 0	kr. 600
Production hours	2000	1000
Total production cost	kr. 0	kr. 600.000
<b>Total cost of the Eelgrass harvester</b>	<b>kr. 298.555</b>	<b>kr. 1.538.555</b>





# HARVEST 2016

Manuel with scythe

- 5,6 l seeds. 18 days man work
- In 2015:
- 15 l of seeds. (10 l good quality)
- 18 man days work (excl preparation)
- 2 days man work for cleaning seeds (small seperator)



# MILESTONE 5.2 STORAGE AND SEPARATION



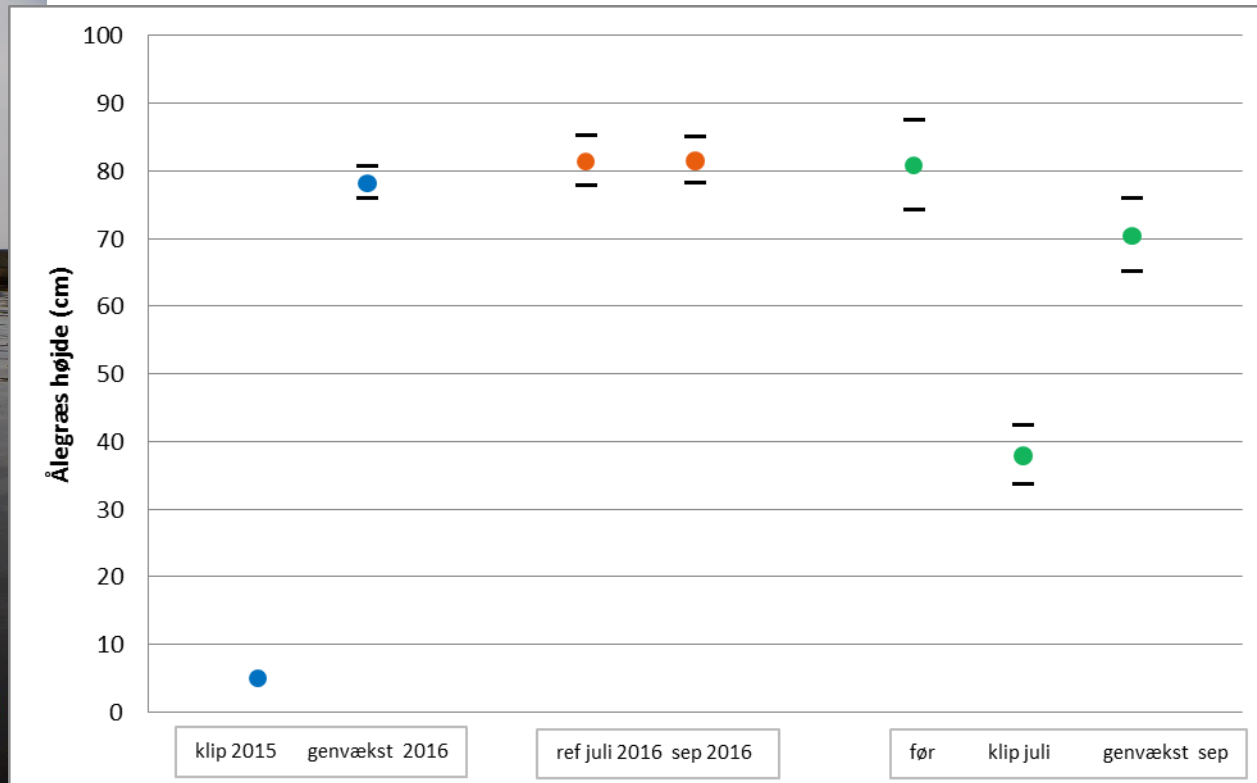


# MILESTONE 5.3 SEED AND/OR SEEDLING BROADCASTING TECHNIQUES



New lighter version made in 2016

# GROWTH OF EELGRASS





# "GROWTH POWER" OF EELGRASS

# LIMFJORDEN AT NIBE-GJØL



# LIMFJORDEN AT NIBE-GJØL





# LIMFJORDEN AT NIBE-GJØL



# BREGNØR HAVN, ODENSE FJORD 2006



# BREGNØR HAVN, ODENSE FJORD 2010





# BREGNØR HAVN, ODENSE FJORD 2014



# "GROWTH POWER" OF EELGRASS

Hypnosis's:

*Eelgrass from different sites will have different growth capabilities*

# TESTING "GROWTH POWER" OF PLANTS





## 2017 ACTIVITY PLANS

- 5.1: large scale harvester: Done
- 5.2: storage. Done
- 5.3: Optimizing sowing machine. New pump.
- 5.4. Sowing 4 sites
- 5.5 Monitoring ongoing
- 5.6 Technical guidelines/user manuals

# EUROPEAN GREEN CRAP



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