# List from meeting

* Exclude marker
* Initial position of model (calculated using markers)
* Initial segment scaling (calculated using markers)
* Range of motion for joints (to assist kinematics)
* GRF prediction
* Model independent of windows folder structure
* Model independent of AnyScript folder structure (position of HumanModel and EnvironmentModel, C3DFileData etc)
* tStart/tEnd perturbation to allow calc of Vel and Acc in the inverse dynamic model
* Parameters of #define ?????
* Marker drup-up handling?????
* Marker renaming vs. standard protocols
* Single Model-load-step
* Separation of Trial/subject/lab specific data.
* Fusion of AnyGait/Mocap
* Optimization of bodypart without marker ?????? (ST)
* Multiple calibration trials ( standing, dynamic reference)
* Study to just visualize the C3D data
* Comparing trials ??????
* Easy to read and understand model ( hiding vs. showing the complexity of model)
* Residual reduction algorithm to segment parameters (mass/inertia)
* More environment directly created from the c3d files.

# ======================================================== Structured in groups

New model features (in anyscript)

* GRF prediction
* Study to visualize markers
* Range of motion for joints
* Initial segment scaling from markers
* Residual reduction algorithm for segment parameters.

Mocap model customization to specific usecases

* Marker definition for many marker protocols.
* Fusion with AnyGait
* Multiple calibrations trials (standing and dynamic reference)

General structure/appearance of the model

* Make it easier to understand the model ( especially for beginners)

# Mocap model issues:

## Transferring joint angles:

Files: JointAngleOutputs.any, JointsAndDriversOptimized.any

Problems:

* Model does not load unless the files exist. This is a real problem with the combined model where both kinematics and inverse dynamics are in one model.
* Model has to be reloaded after joint angles are save to the file
* Adding new body parts or other things to the model is a pain.

## Making class templates independent of hard-coded model structure.

Files: CreateMarkerDriverClassNew.any, Create