syngo® Velocity Vector Imaging™ technology (VVI) is a dynamic 2D method for assessing cardiac function that enables visualization, measurement and display of myocardial mechanics as never before. It uses individual vectors to display direction and relative velocity of frame-to-frame tissue movement, delivering motion measurement at any point in the cardiac cycle. This unique graphical presentation allows easy visualization of cardiac contraction-relaxation mechanics. Moreover, it quickly gathers information for many clinical applications including rapid assessment of ventricular synergy in heart failure.

**Highlights**

**Advanced Motion Assessment**
- Displays myocardial tissue motion, direction and relative velocity in the left ventricle, right ventricle, left and right atria and aortic root
- Utilizes high frame rates to deliver superior spatial and temporal resolution clarifying subtle wall motion abnormalities
- Sophisticated 2D tracking algorithm provides accurate strain and strain rate calculations of myocardial mechanics
- Provides dynamic assessment of mechanical synchrony without the limitations of Doppler

**Intuitive Visualization**
- Enables simple and intuitive visualization through use of moving vectors
- Provides graphical display of segmental and regional velocity information
- Aids identification of wall motion changes in serial studies of the same patient

**Convenient and Versatile Operation**
- Facilitates study of all heart chambers from any angle and any transducer position
- Displays accurate velocities for longitudinal, tangential and radial motion
- Works with all transducers including TEE, vascular and ACUSON AcuNav™ ultrasound catheters
- Available on select ACUSON™ ultrasound systems or with syngo® US Workplace
• Normal syngo VVI with a narrow QRS complex compared to a wide complex LBBB.

• Regional syngo VVI quantification and parametric displays in a normal study.

• A heart failure patient with a bi-ventricular pacemaker and regional dyssynchrony.

• The same patient after resynchronization demonstrating improvement.