



MEDTECH ONTWIKKELING VOOR DE DIAGNOSTIEK EN BEHANDELING VAN HART- EN VAATZIEKTEN

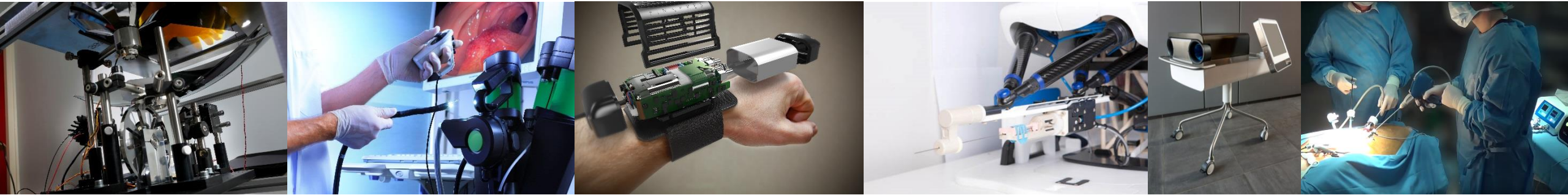
VAN CONCEPT TOT PRODUCT

Benno Lansdorp
Business development manager



DEMCON | medical

Contract R&D and manufacturing



Daughter companies



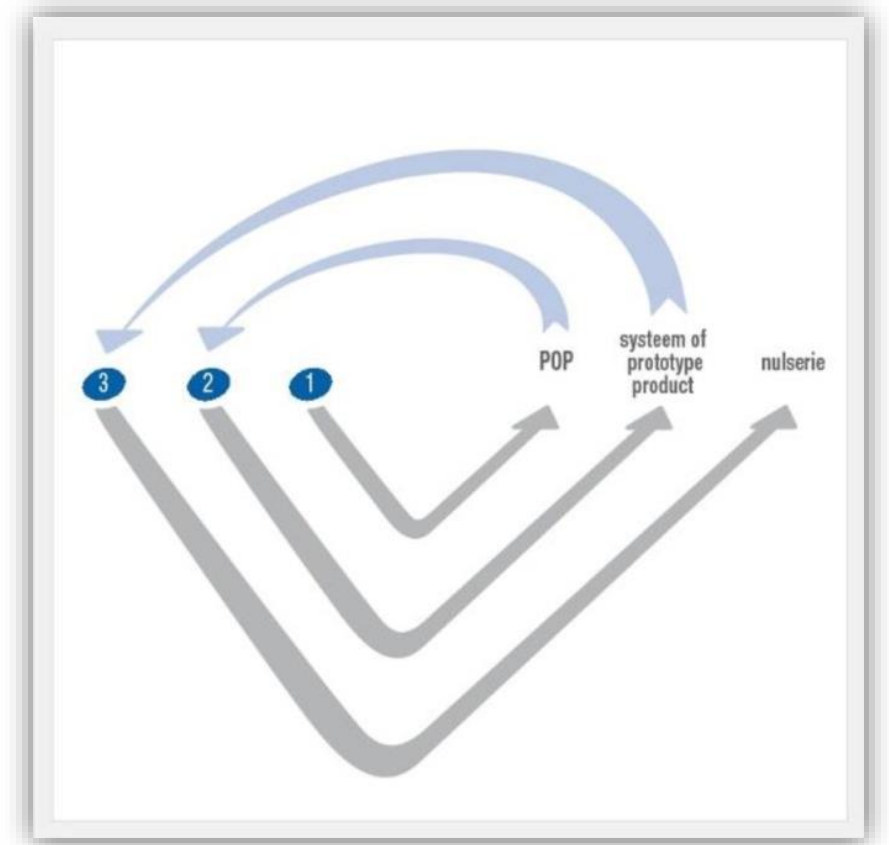
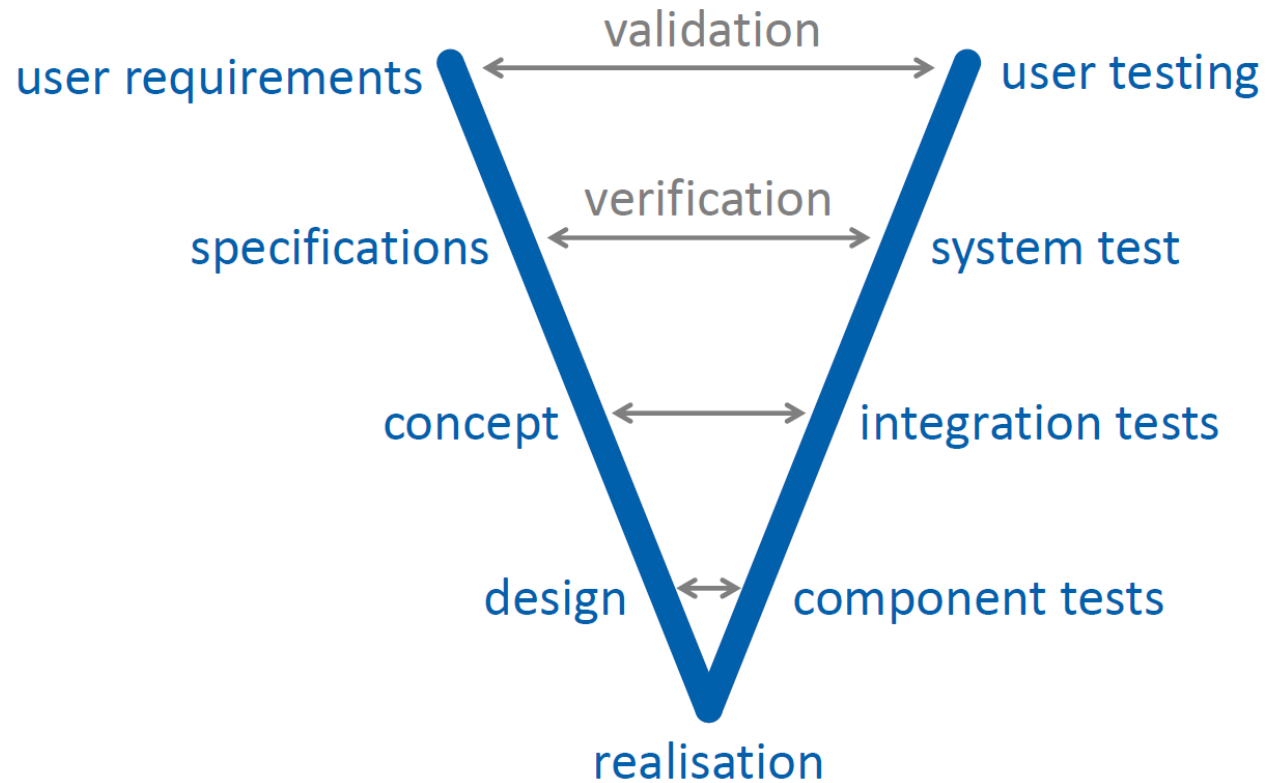
Example Projects

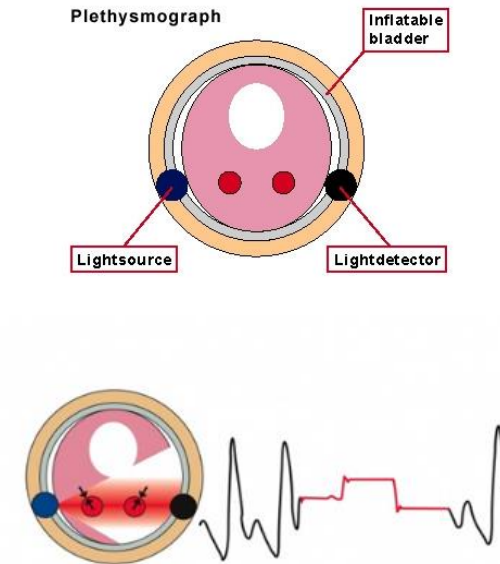


The team



From concept to product: V-model

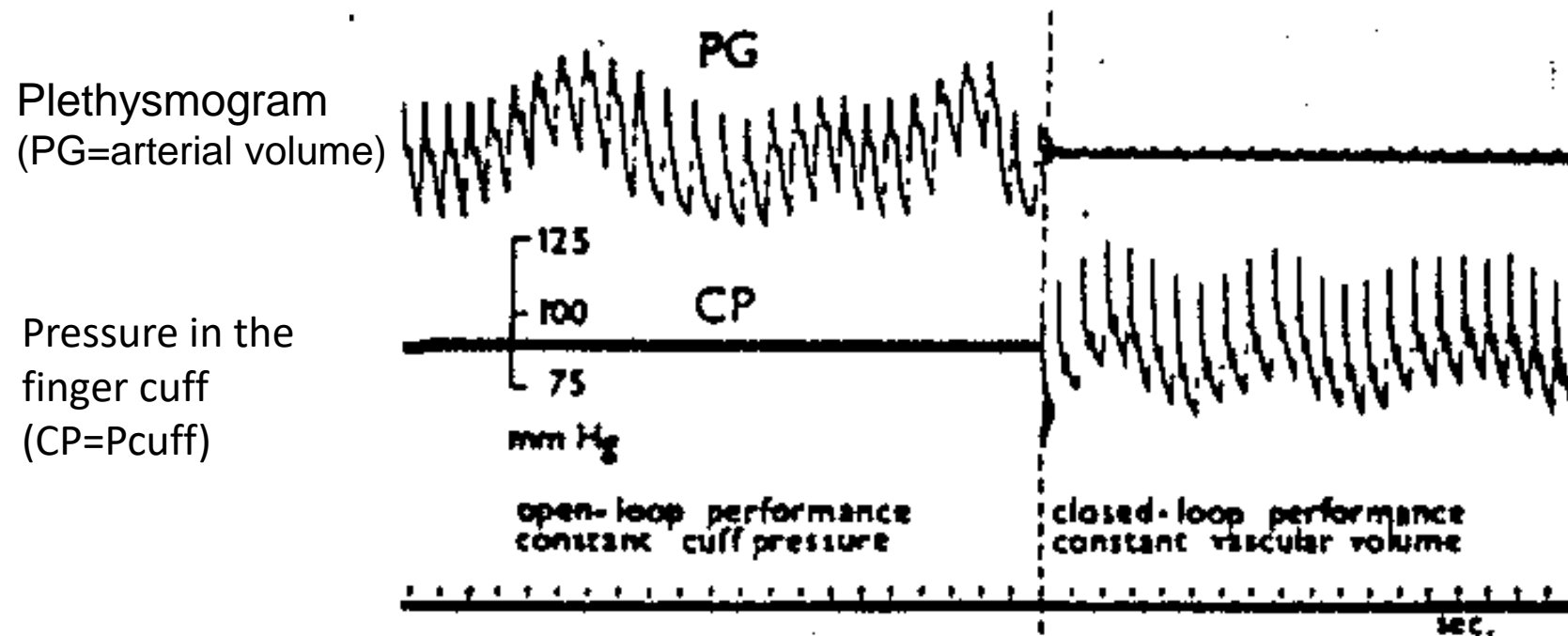




Non-invasive and continuous blood pressure measurement

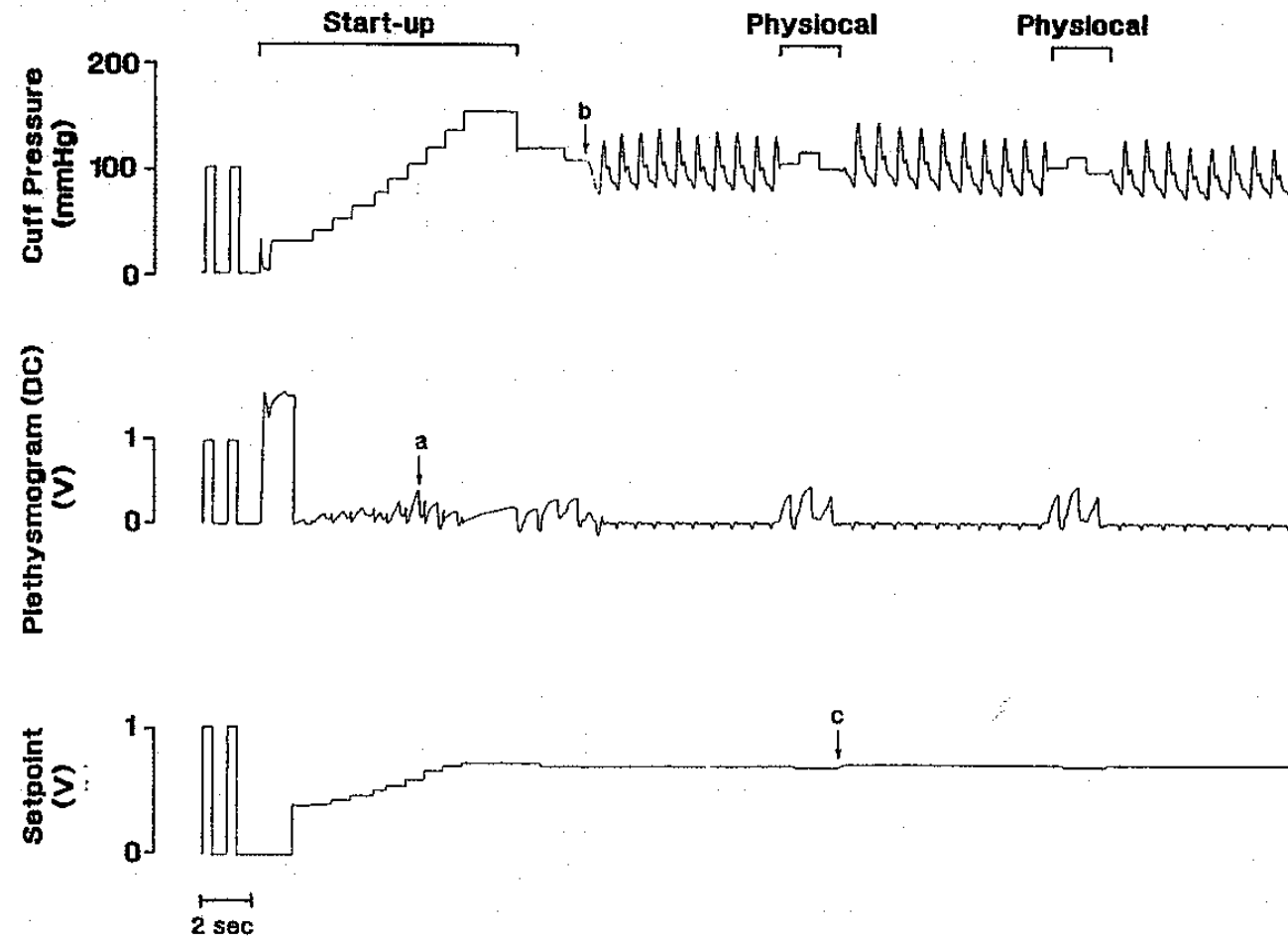
The Finapres concept: Vascular unloading principle

Prof. Peñáz's first registration with the device



Penaz et al, Z Gesamt Inn Med, 1976; 31: 1030-1033

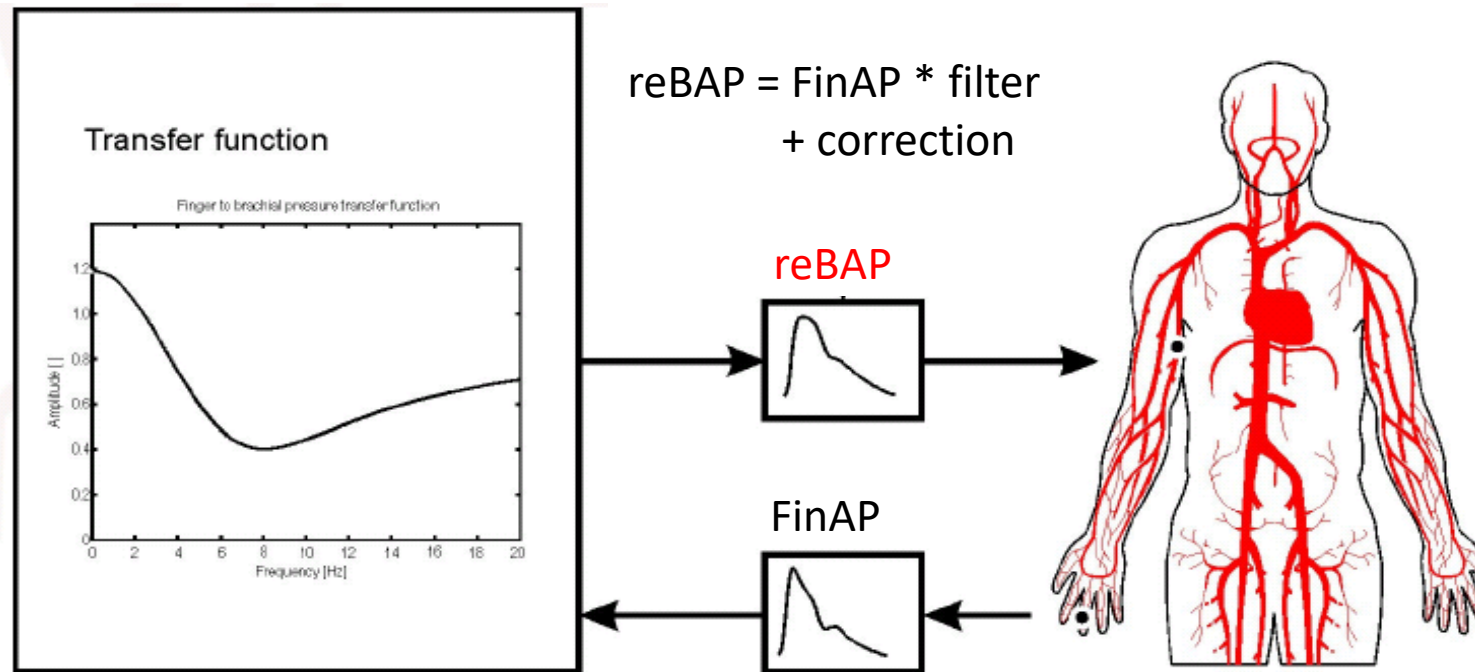
The Finapres concept: Vascular unloading principle



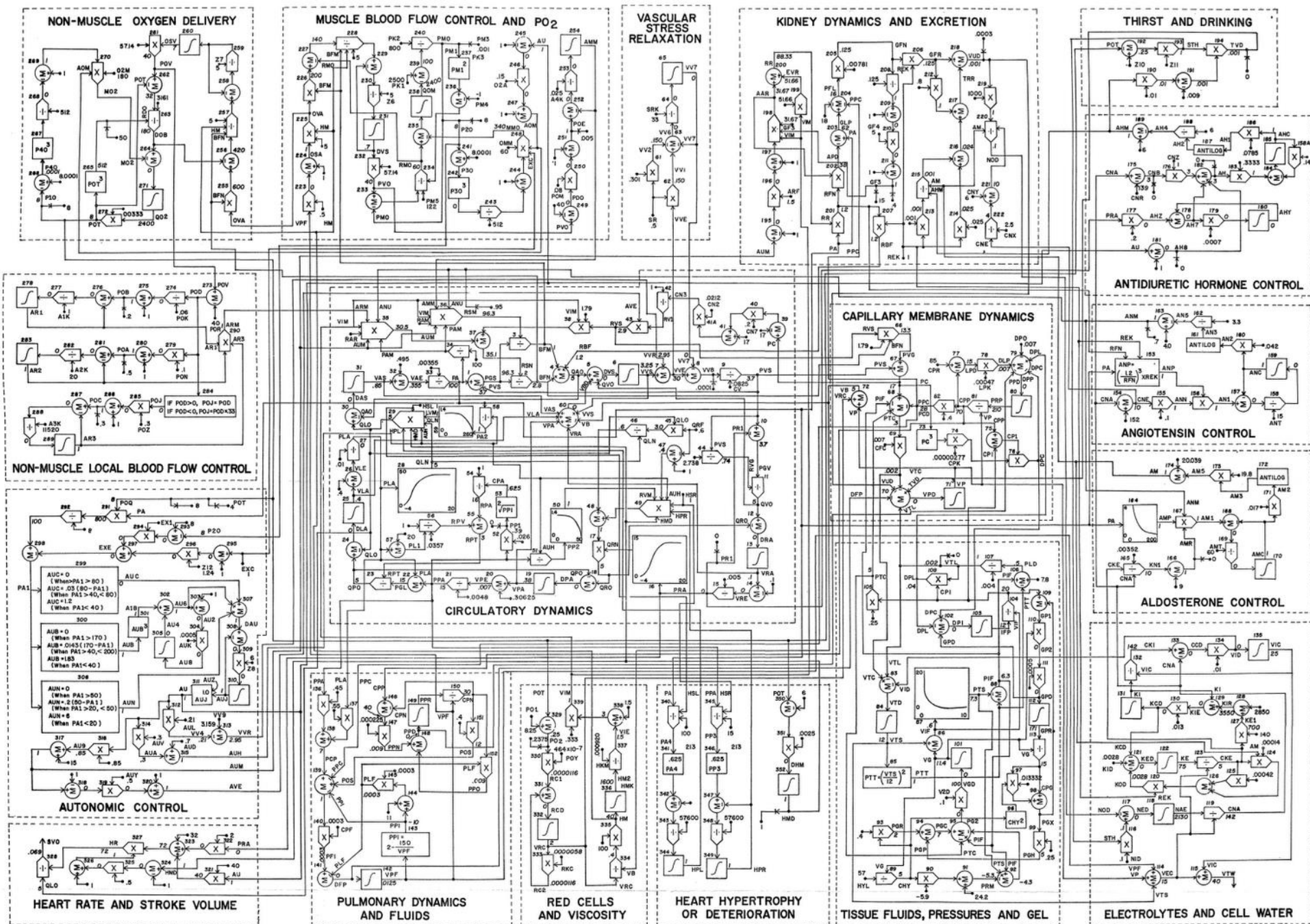
The Finapres concept: Vascular unloading principle

Continuous brachial artery pressure obtained from:

- measurement of finger arterial pressure (FinAP)
- model-based reconstruction of brachial artery pressure wave form (transfer function) & level correction by formula.

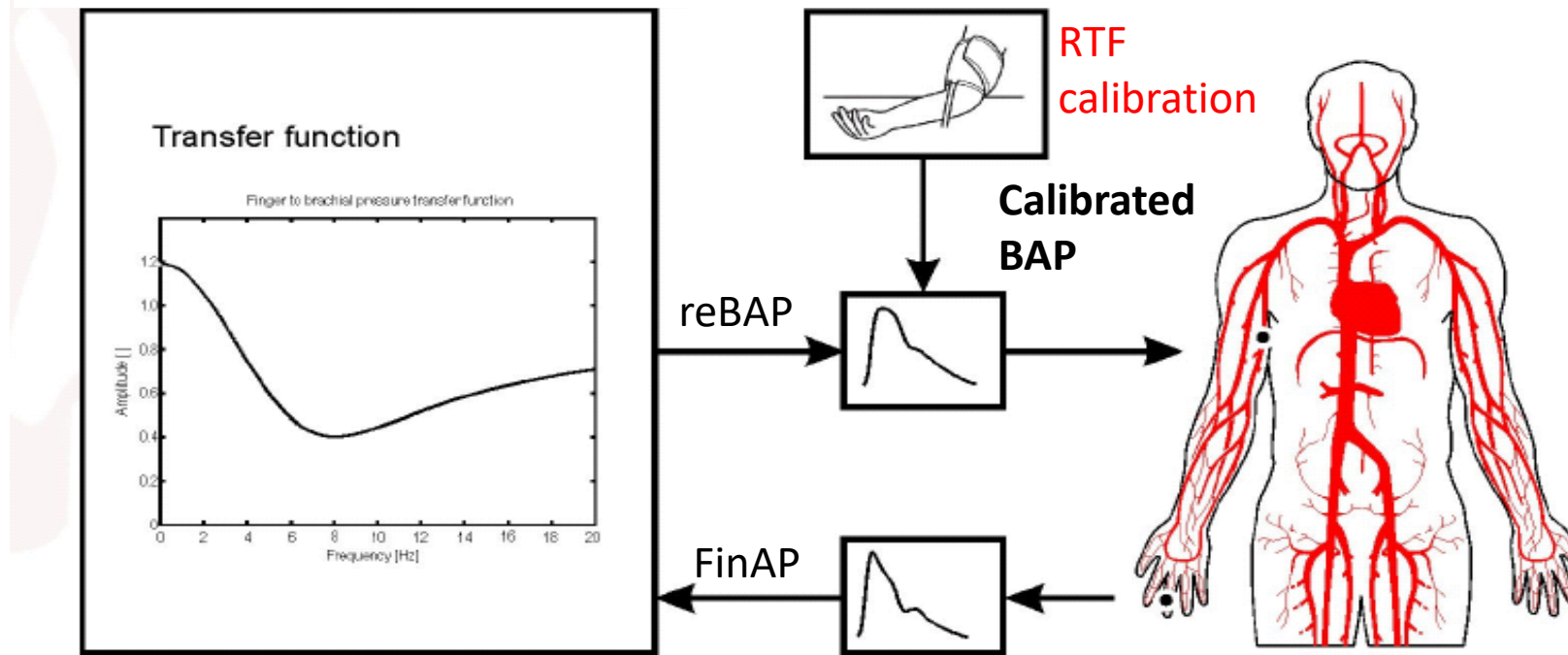


Bos et al, Circulation, 1996; 94: 1870-1875

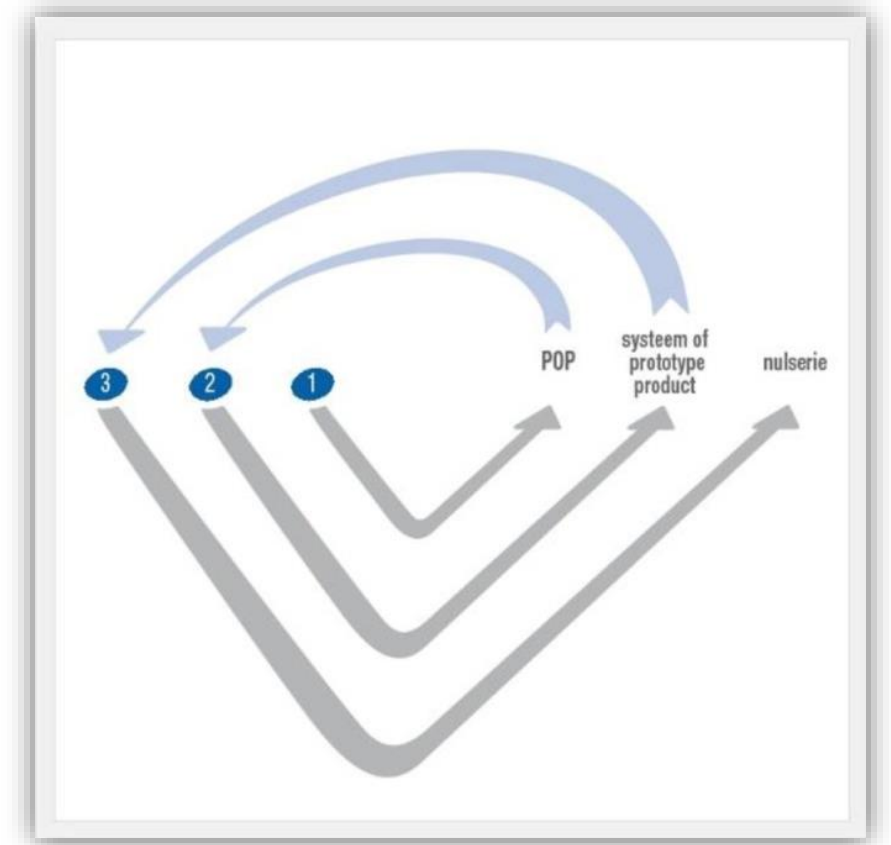
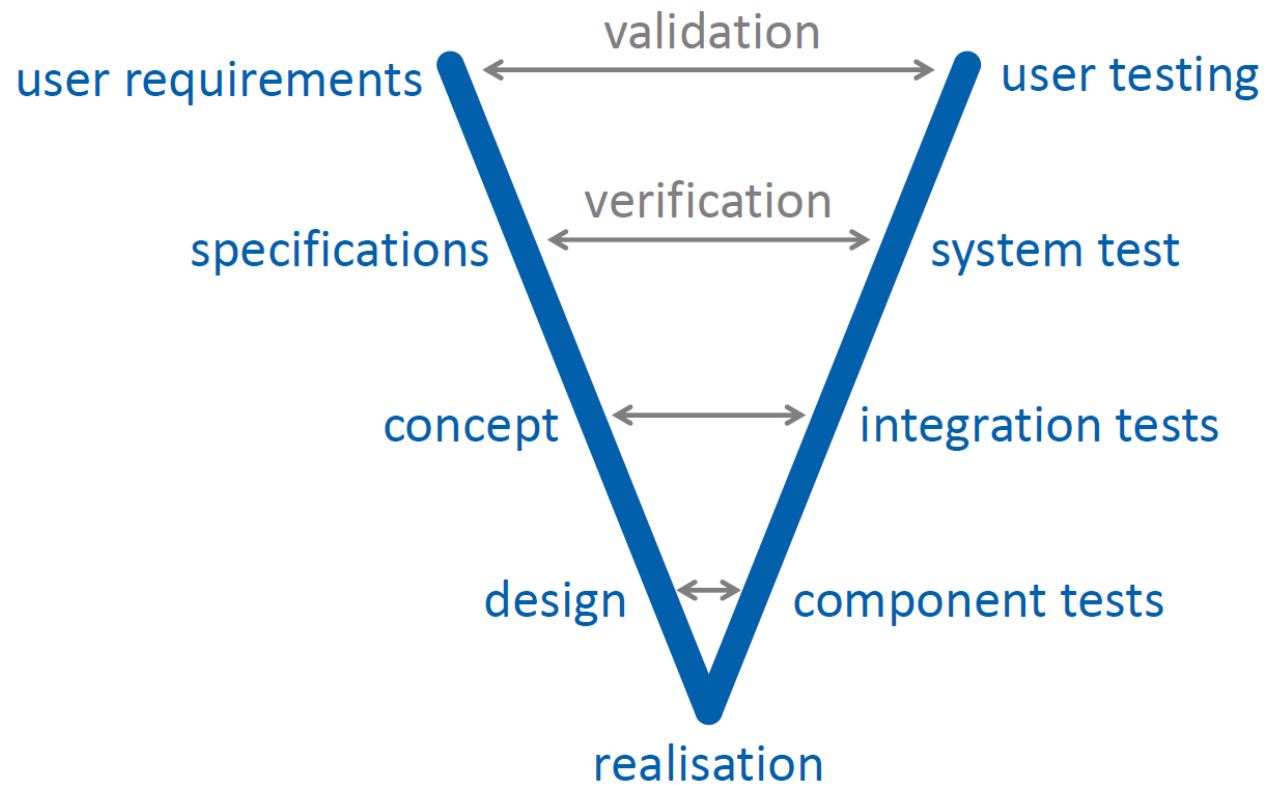


The Finapres concept: Vascular unloading principle

- $\text{reBAP} = \text{FinAP} * \text{filter} + \text{correction}$
- *Individual calibration by measuring systolic pressure using an upper arm cuff (RTF calibration) provides calibrated BAP*



From concept to product: V-model



Product development by TNO



Finapres PRO and MIDI

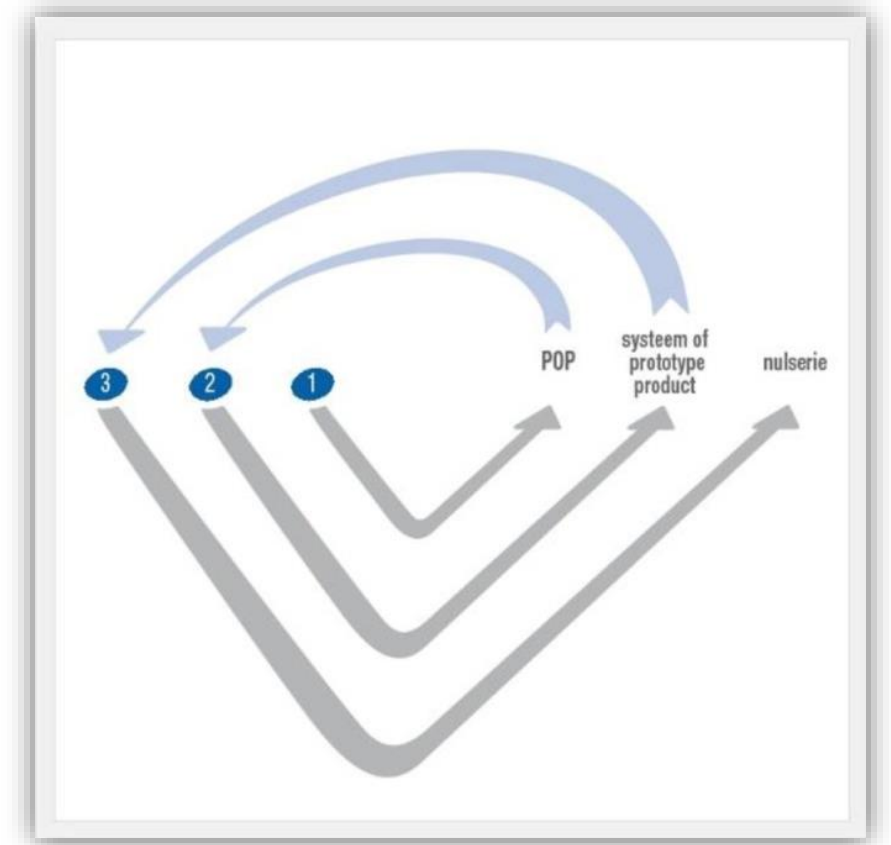
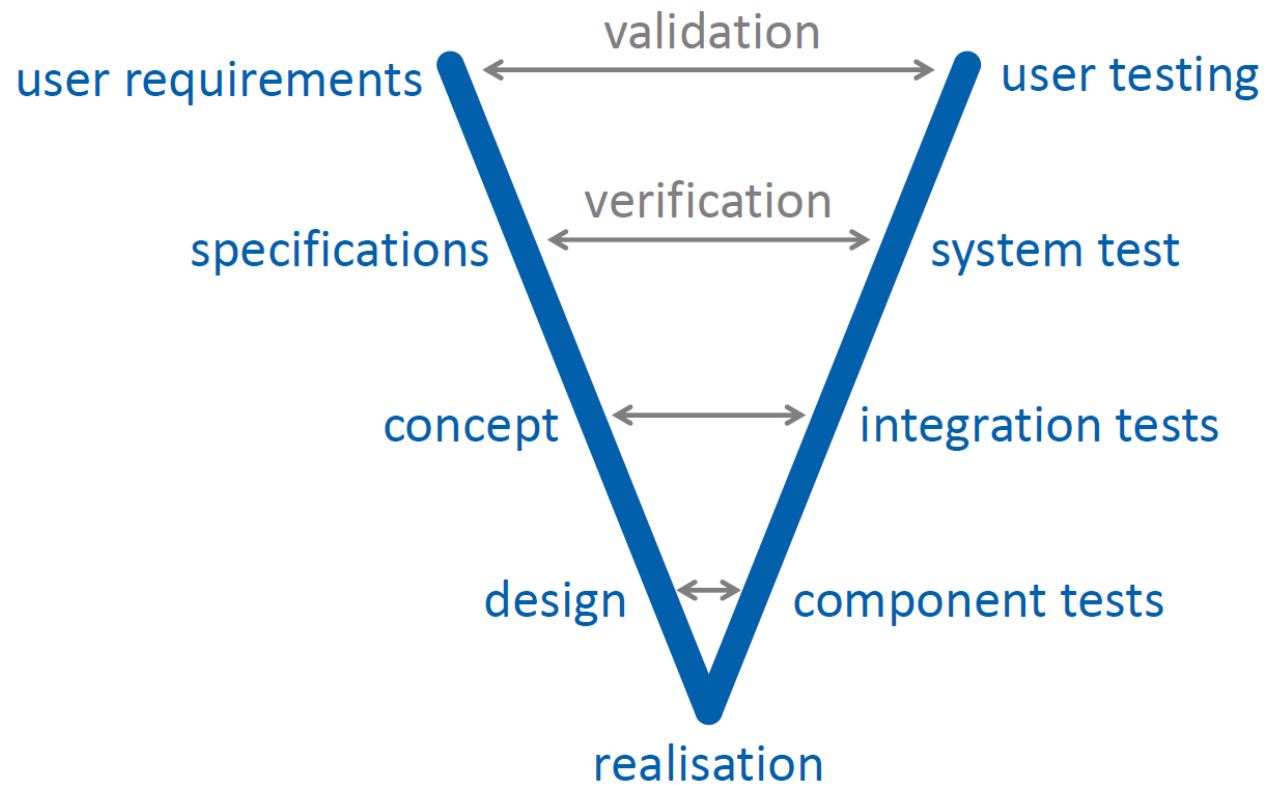


Portapres

Finapres NOVA



From concept to product: V-model



Finapres: technology

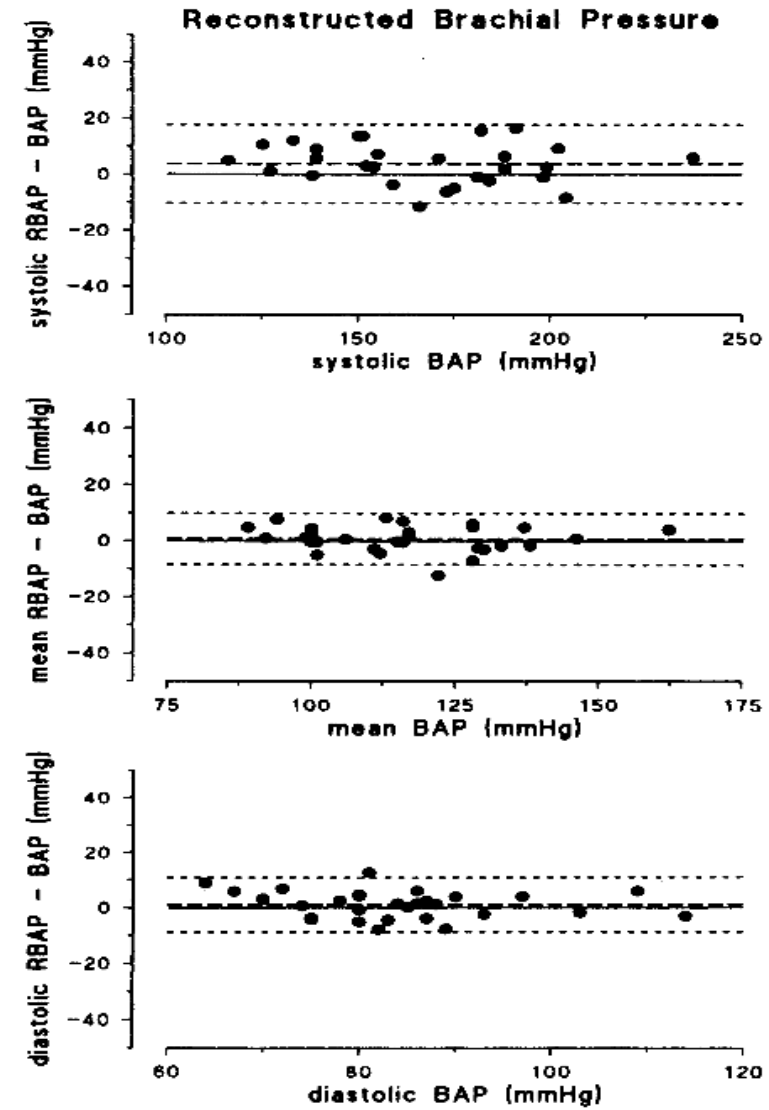
Validation

	reBAP - BAP (mmHg)		
	Mean	SDD	Sign.
Systolic	3.7	7.0	P<0.01
Mean	0.7	4.6	P<0.01
Diastolic	1.0	4.9	P<0.01

**Finometer PRO: is in compliance with
AAMI/SP-10**

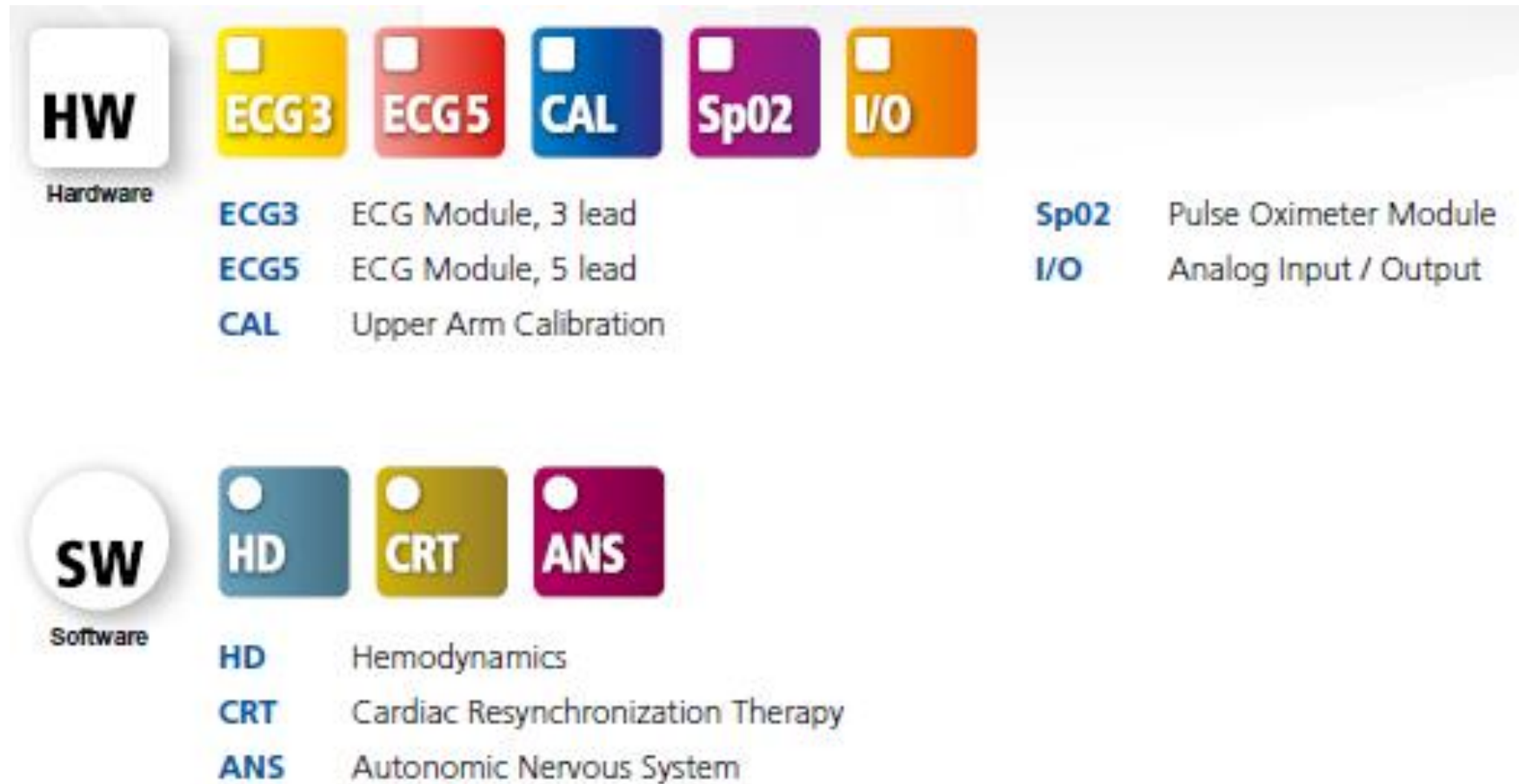
(Mean diff.<5 mmHG; SDD<8 mmHg)

also tracking of BAP is excellent



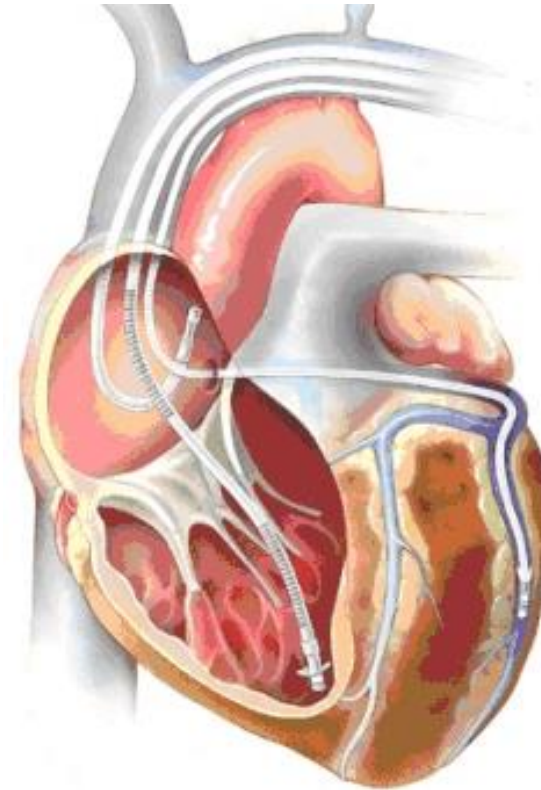
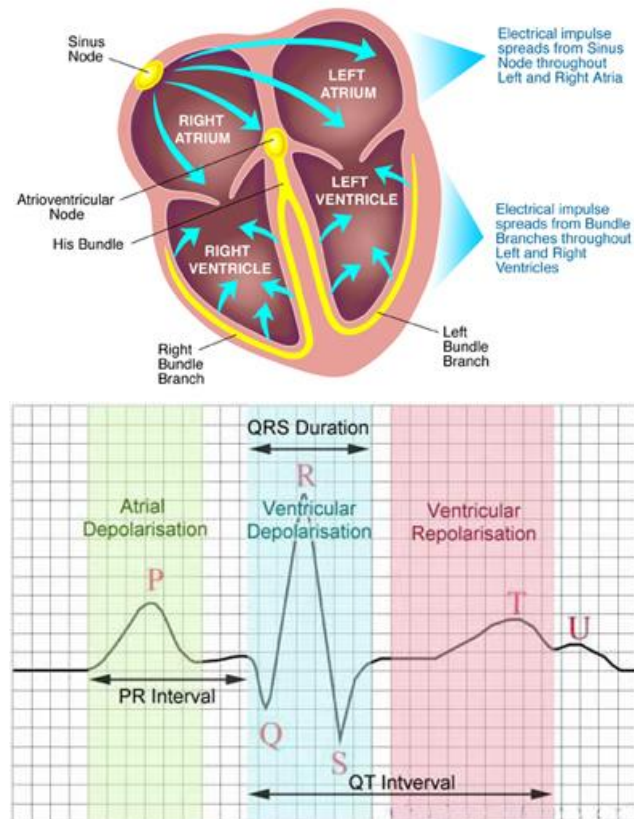
Bos et al, Circulation, 1996; 94: 1870-1875

Finapres 'apps'



Finapres app: cardiac resynchronisation therapy

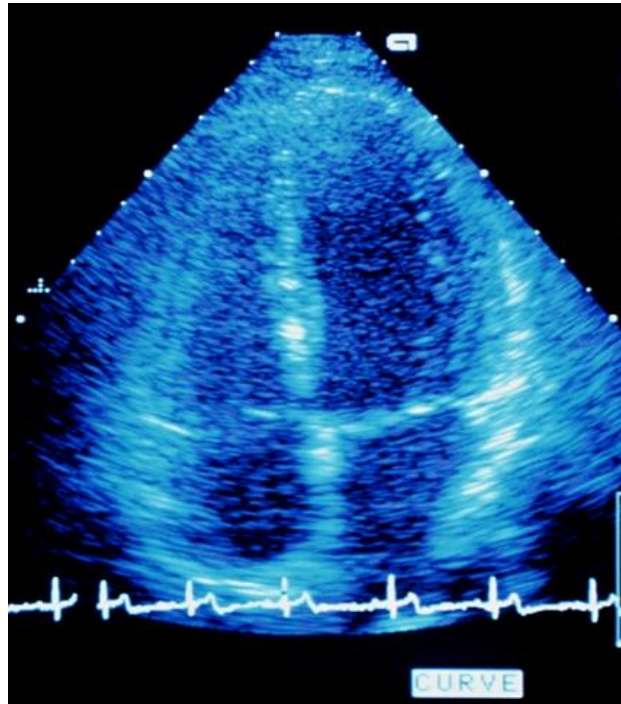
- In general: all arrhythmias will influence the cardiac pump function negatively
- CRT is effective therapy in HF and LBBB



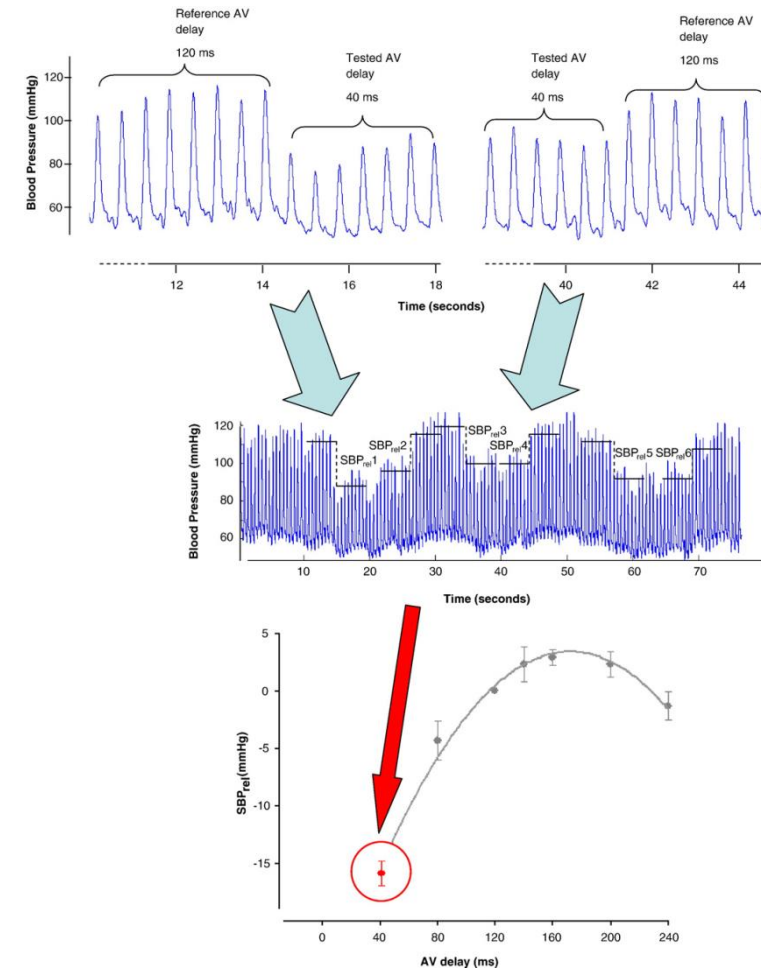
Finapres app: cardiac resynchronisation therapy

Echocardiography provides a non-invasive method to measure cardiac hemodynamics and cardiac dimensions, however:

- The measurements may be variable and inconsistent
- Procedure may be time-consuming



Finapres app: cardiac resynchronisation therapy





Europace

doi:10.1093/europace/euw136

CLINICAL RESEARCH

Cardiac resynchronization therapy: mechanisms of action and scope for further improvement in cardiac function

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The Nano Core OEM:

The non-invasive blood pressure waveform
available for every third party device



FINAPRES:

INNOVATIVE TECHNOLOGY FOR BETTER
DIAGNOSIS AND TREATMENT OF
CARDIOVASCULAR PATIENTS



**ELECTRONICS
& APPLICATIONS**
30/31 MEI & 1 JUNI 2017 JAARBEURS UTRECHT
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