

Techniek & communicatie in Museum Boerhaave

NERG symposium

Museum voor Communicatie
20 april 2016

Dirk van Delft

Museum Boerhaave
Universiteit Leiden





Museum Boerhaave
17 april 2017



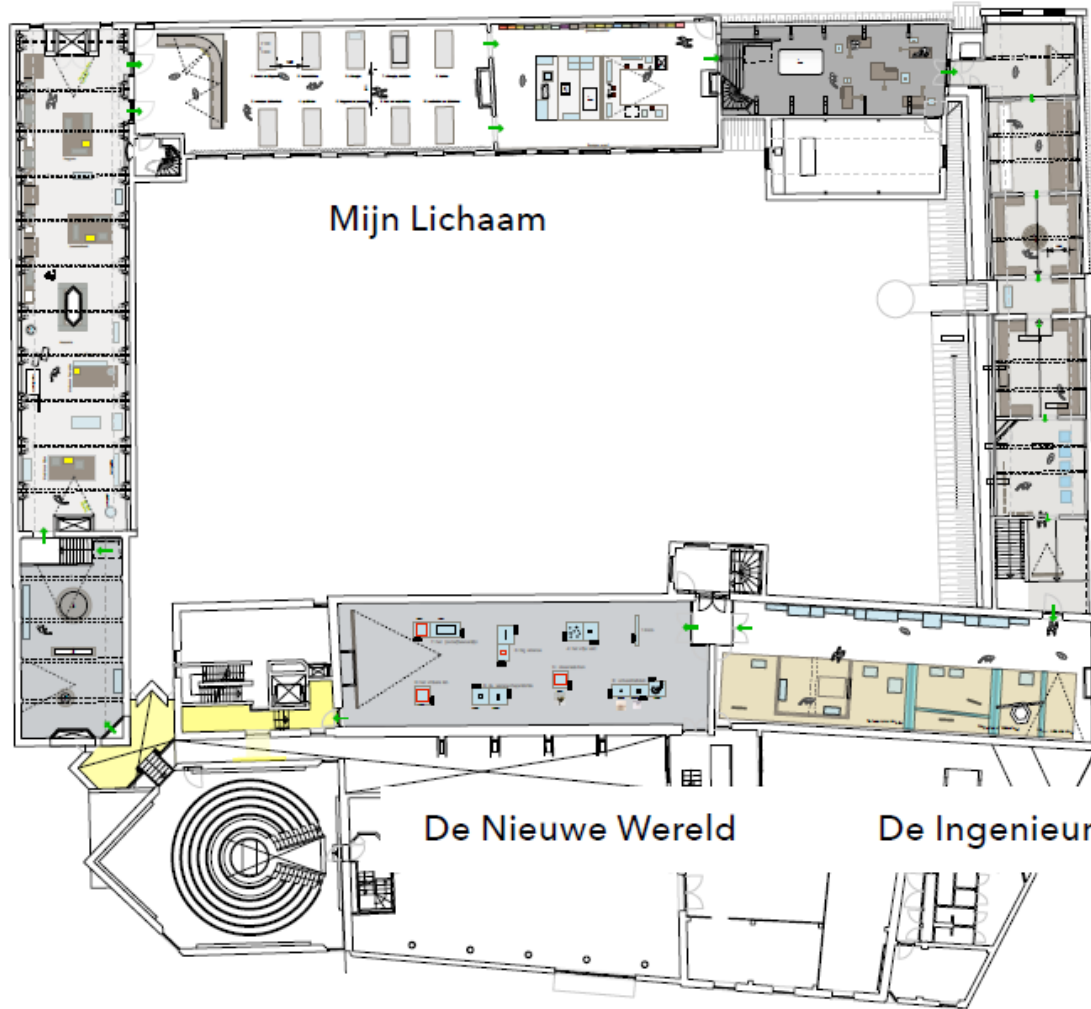


Op weg naar een schetsontwerp



Eerste verdieping

Gouden Eeuw



Kennis aan de macht

De Nieuwe Wereld

De Ingenieur

Gouden Eeuw



Steven Shapin: 'The invisible technician'
American Scientist, 1989



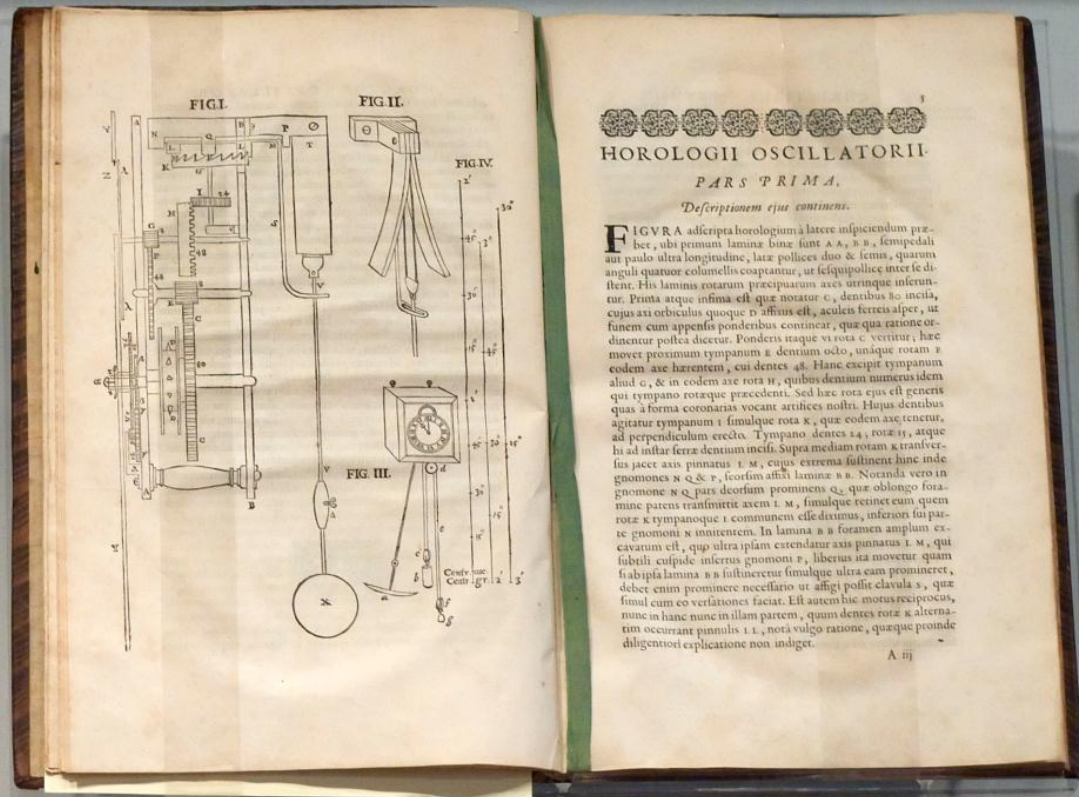
Christiaan Huygens (1629-1695)



Slingeruurwerk (1656)



304



HOROLOGII OSCILLATORII

PARS PRIMA.

Descriptionem ejus continens.

FIGURA adscripta horologium a latere inspicendum præbet, ubi primum laminae binæ sunt *A, A, B, B*, fempedali aut paulo ultra longitudine, latæ pollices duo & semis, quarum anguli quatuor columellis coaptantur, ut sequepollice inter se distent. His laminae rotarum præcipuarum axes utrinque inferuntur. Præta atque infima est quæ notatur *c*, dentibus 80 incisa, cujus axi orbiculus quoque *b* affixus est, aculeis ferreis alpet, ut funem cum appensis ponderibus contincat, quæ quæ ratione ordinantur pollice dicuntur. Ponderis itaque vi rota *c* vertitur, hæc movet proximam tympanum *e* dentium octo, unaque rotam *f* eodem axe hærentem, cui dentes 48. Hanc excipit tympanum aliud *g*, & in eodem axe rota *h*, quibus dentium numerus idem qui tympano rotæque præcedenti. Sed hæc rota ejus est generis quas à forma coronariæ vocant artifices molli. Hujus dentibus agitatur tympanum *i* simulque rota *k*, quæ eodem axe tenetur, ad perpendiculari eadem. Tympano dentes 24, rotæ 15, atque hi ad instar feræ dentium incisæ. Super mediam rotam *k* tranversus jacet axis pinnatus *l* *m*, cujus extremitates fulcrum hinc inde gnomones *n* *q* & *r*, ficosum affixæ laminae *s* *s*. Notanda vero in gnomone *n* *q* pars deorsum prominens *q*, quæ oblongo foramine patens transmittit axem *l* *m*, simulque retinet eum, quem rota *k* tympanoque *i* communem esse dicimus, inferon in partem cavum est, quo ultra ipsam extendatur axis pinnatus *l* *m*, qui subtili cuspidè inferus gnomoni *r*, liberius ita movetur quam si ab ipsa lamina *s* *s* sustineretur simulque ultra eam prominere, debet enim prominere necessario ut affigi possit clavula *s*, quæ simul cum eo veritates faciat. Est autem hic motus reciprocus, nunc in hanc nunc in illam partem, quam dentes rotæ *k* alternatim occurrant pinnulis *l* *l*, notâ vulgo ratione, quæque proinde diligentiori explicatione non indiget.

A. H.

Replica slingeruurwerk Huygens / Salomon Coster (2007)

sara **NCF**

Uitnodiging

Officiële opening nieuwe
Nationale Supercomputer

Huygens

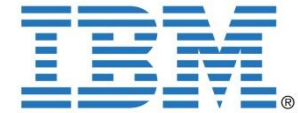
Calculatio Fortunae

> Datum
woensdag 13 juni 2007

> Tijd
9:30 uur

> Plaats
Turingzaal (Zon) | Science Park Amsterdam
Kruislaan 413
1098 SJ Amsterdam

> Programma en registratie
www.sara.nl/news/recent/opening_huygens

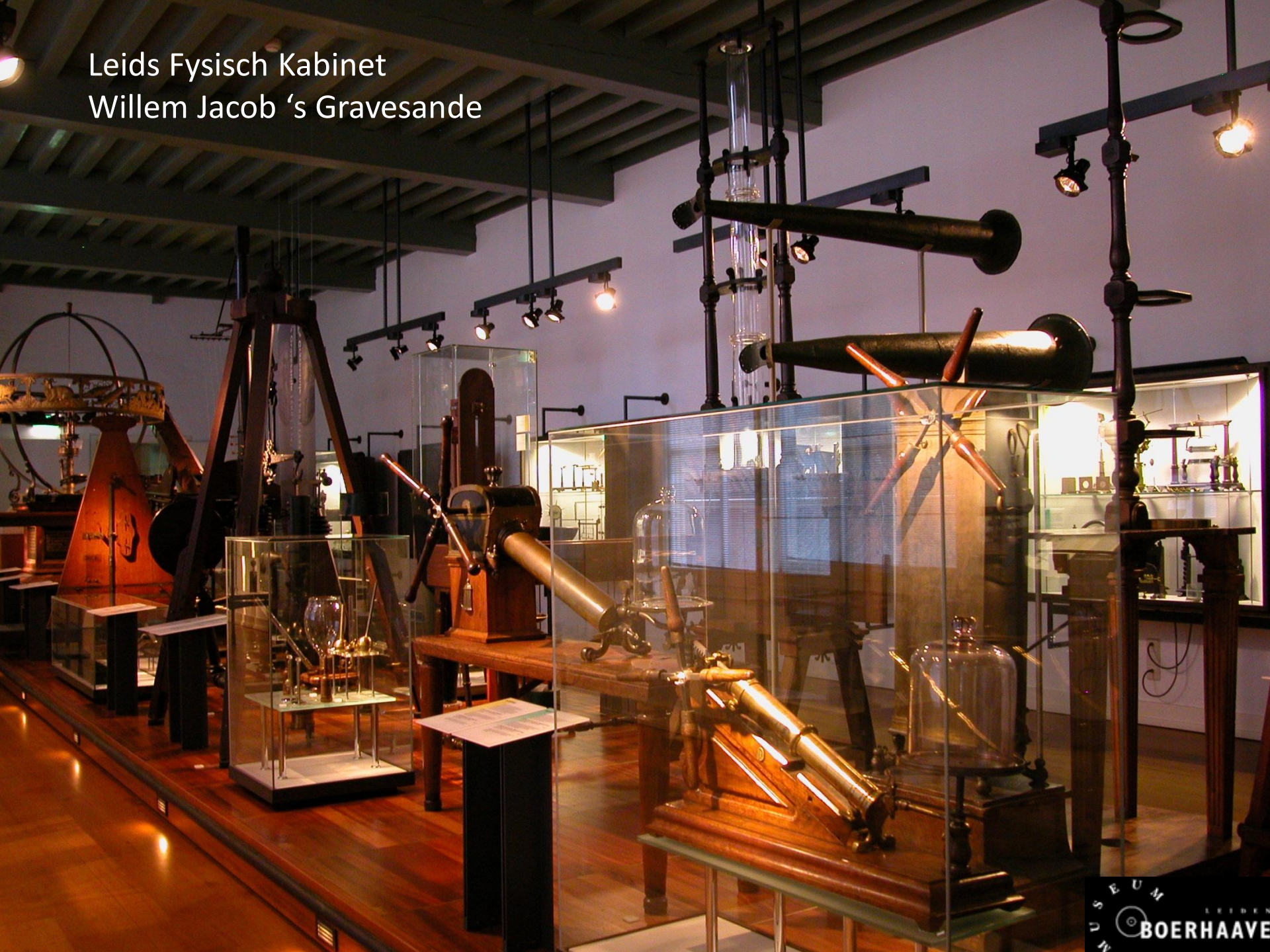


Salomon Coster (ca. 1622 – 1659)





Leids Fysisch Kabinet
Willem Jacob 's Gravesande



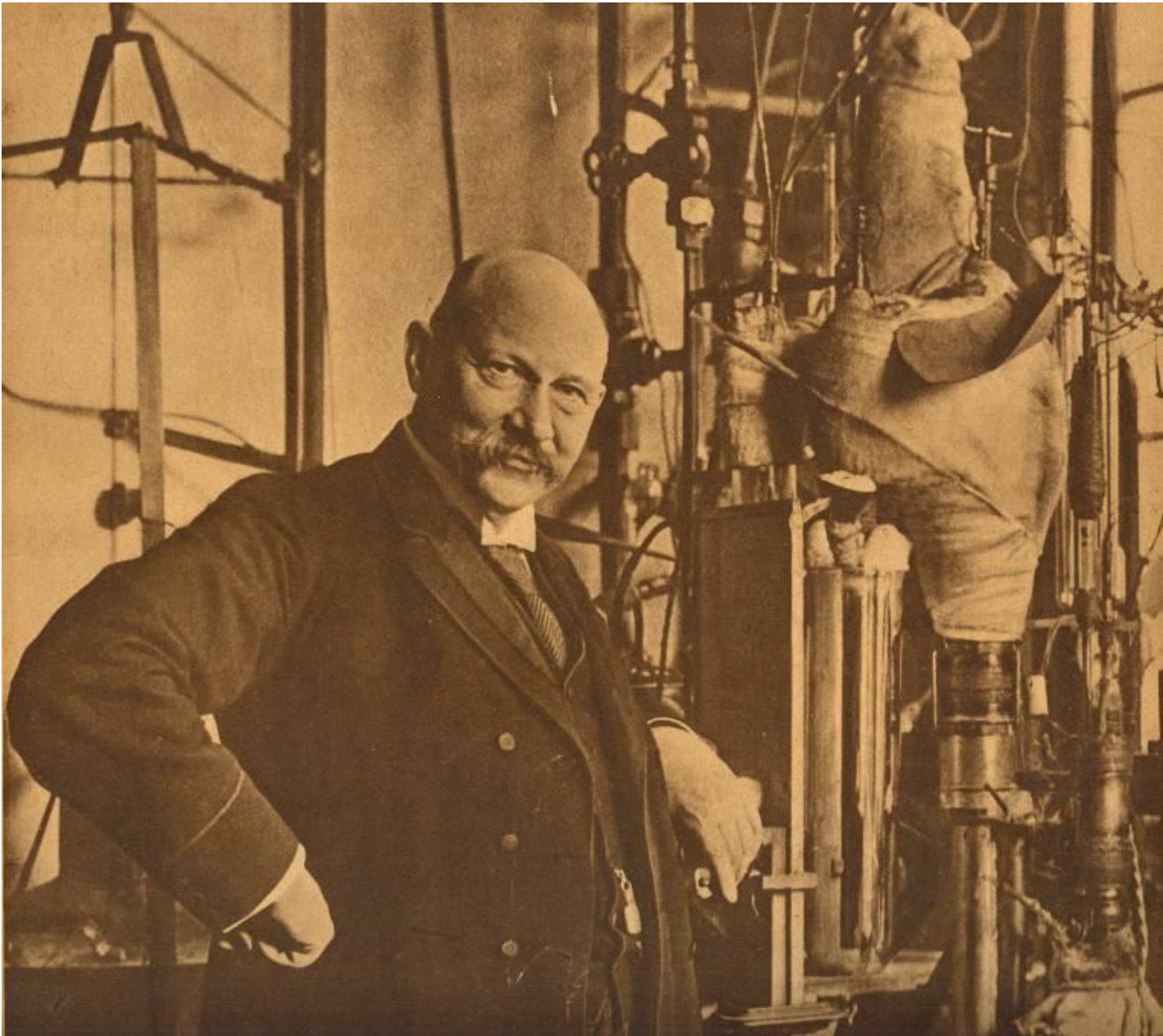
Gebr. Van Musschenbroek / d'oostersche lamp

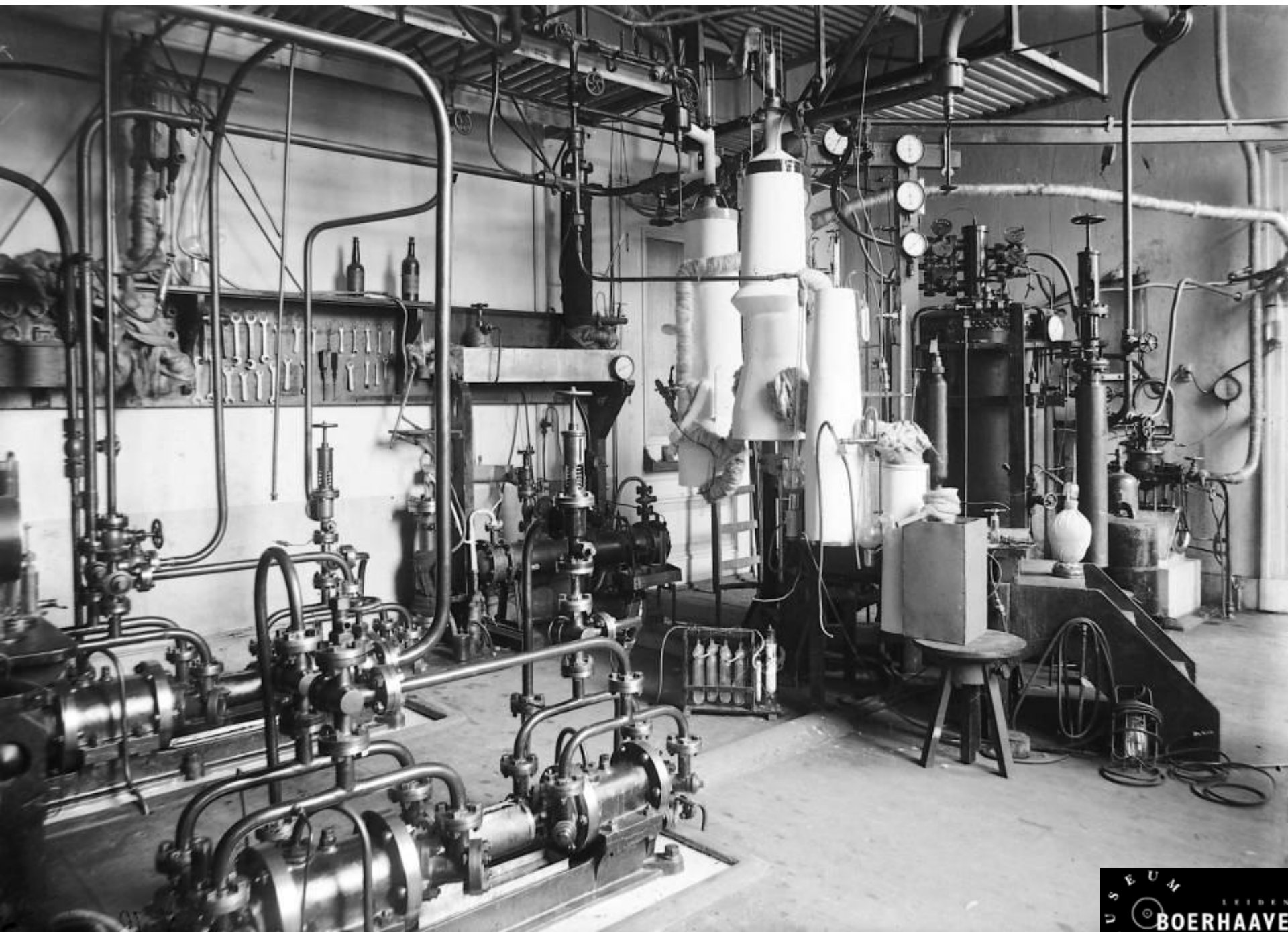


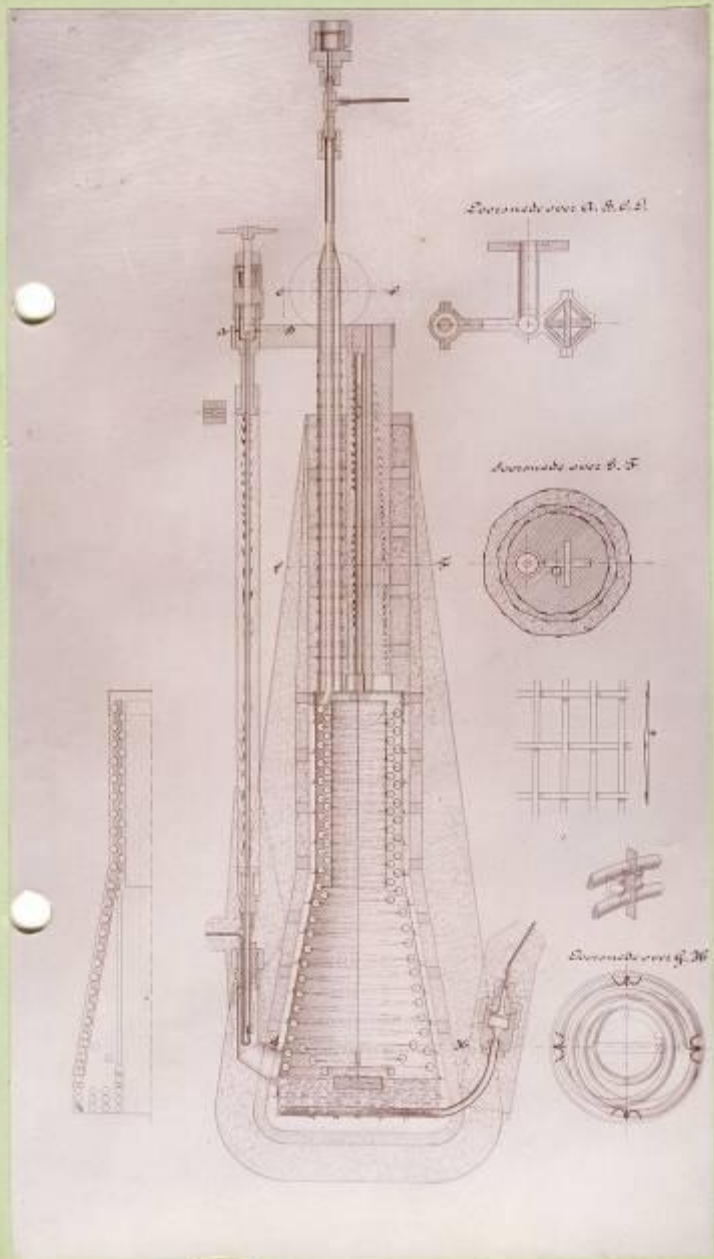
Leidse fles



Heike Kamerlingh Onnes (1859-1926)





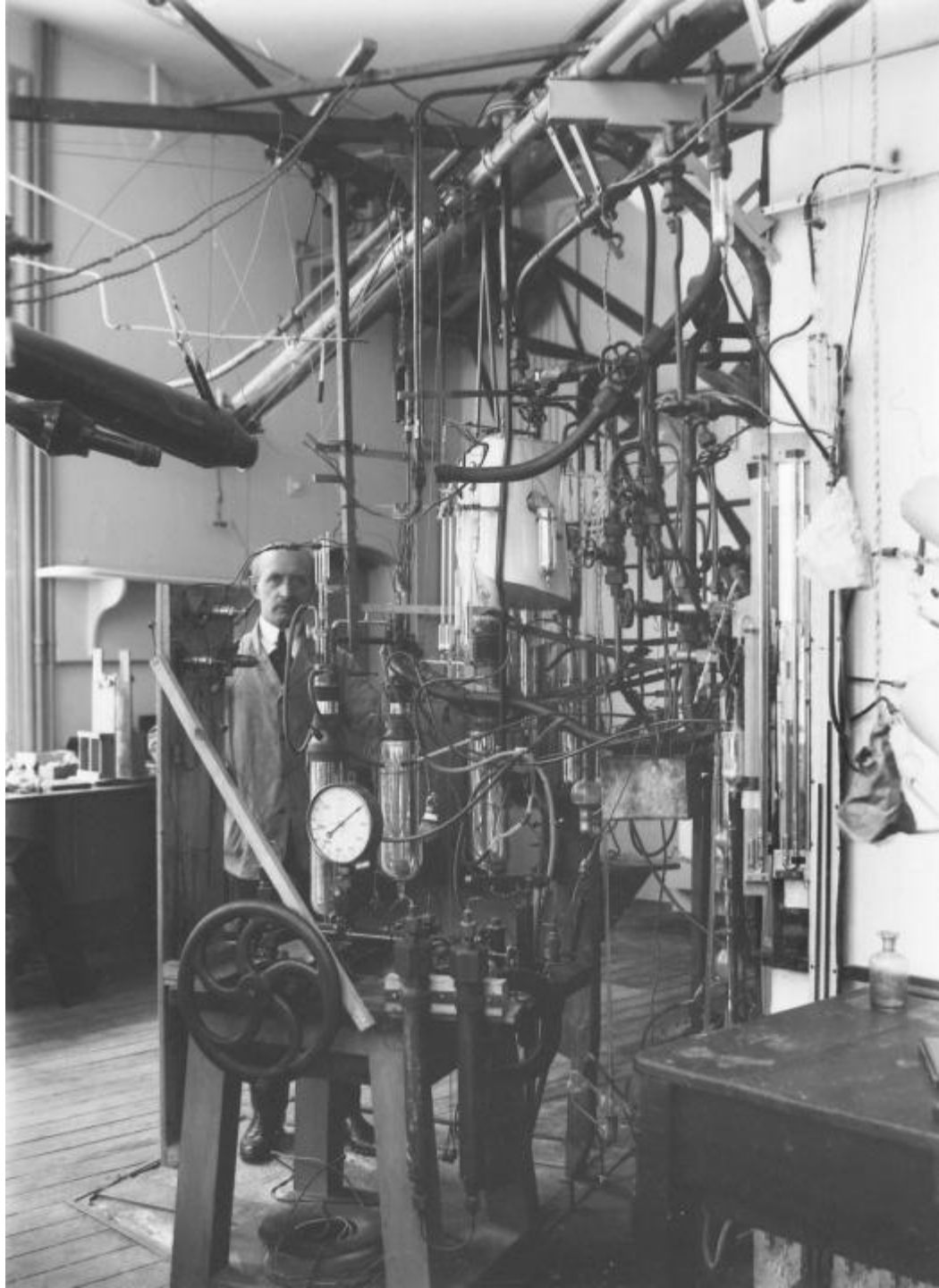


1897

1897 C_2H_4
Krookflaas b.

Schaal 1:10.22





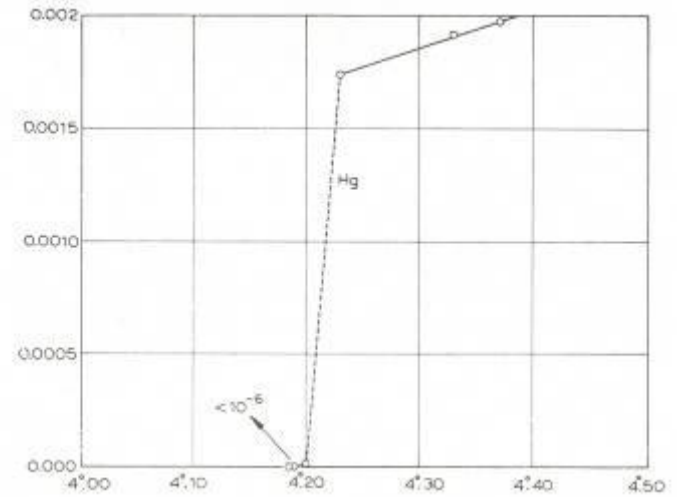
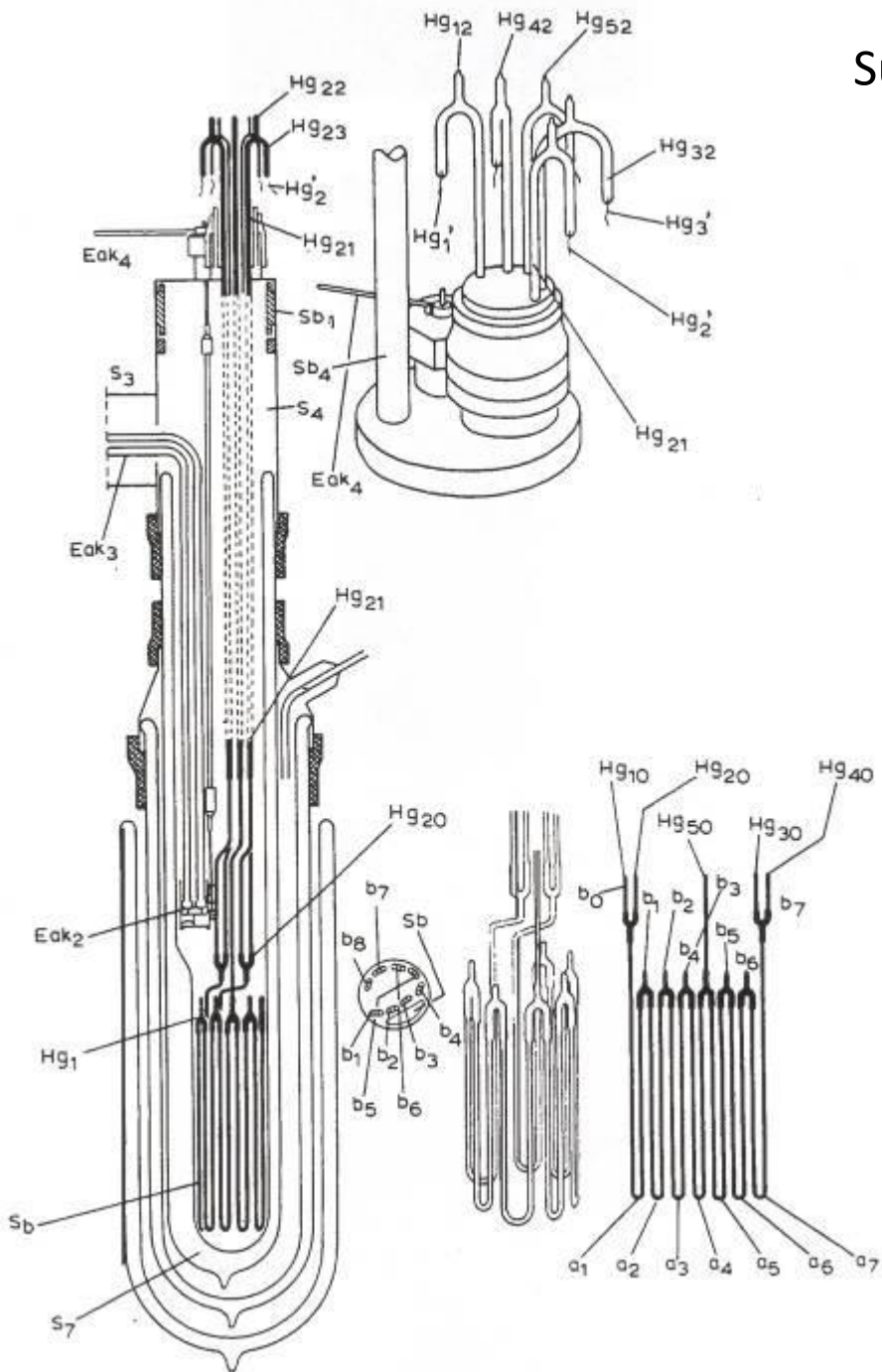
Gerrit Jan Flim



Oskar Kesselring
glasblazerij



Supergeleiding kwik, 8 april 1911



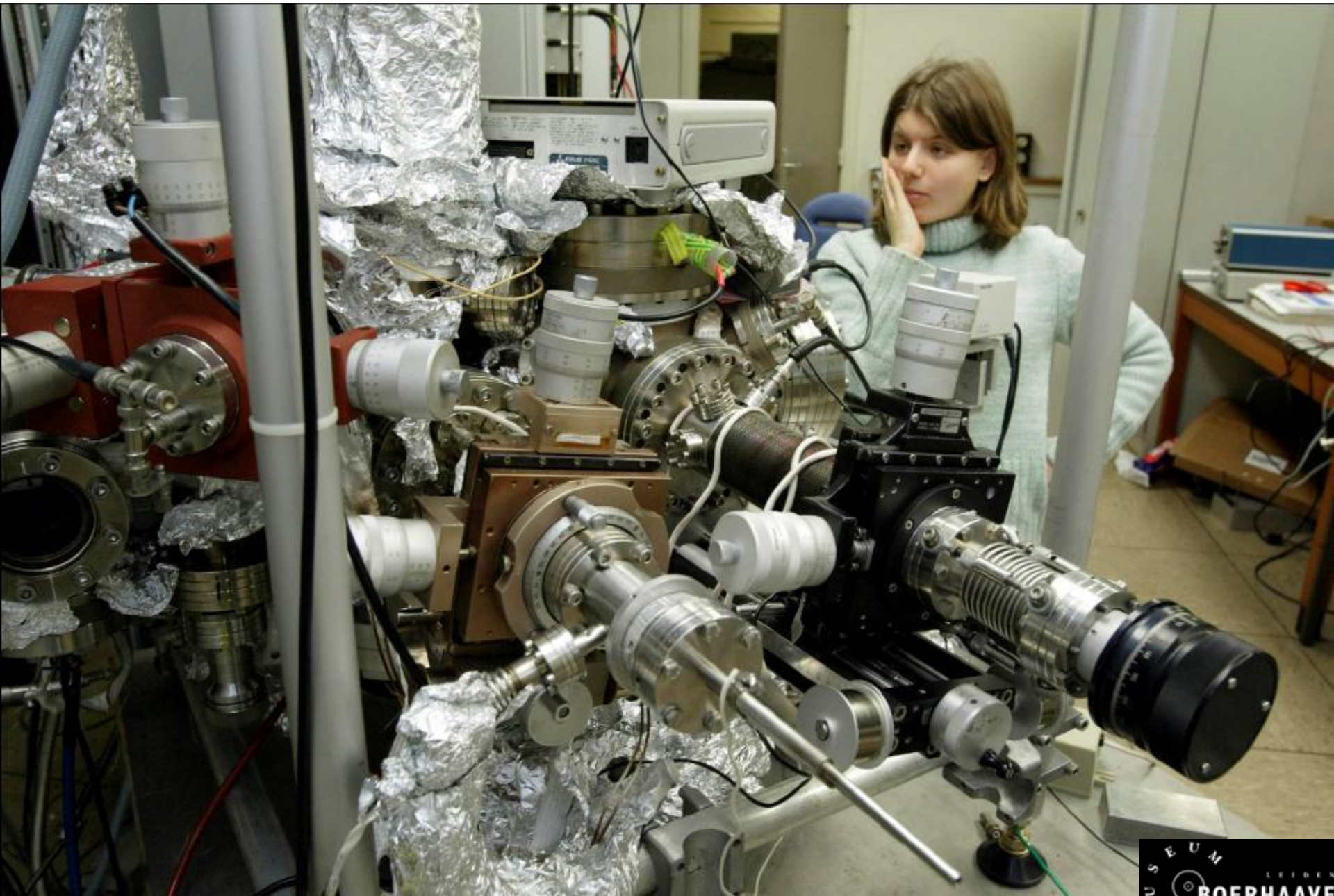
Large Hadron Collider, CERN



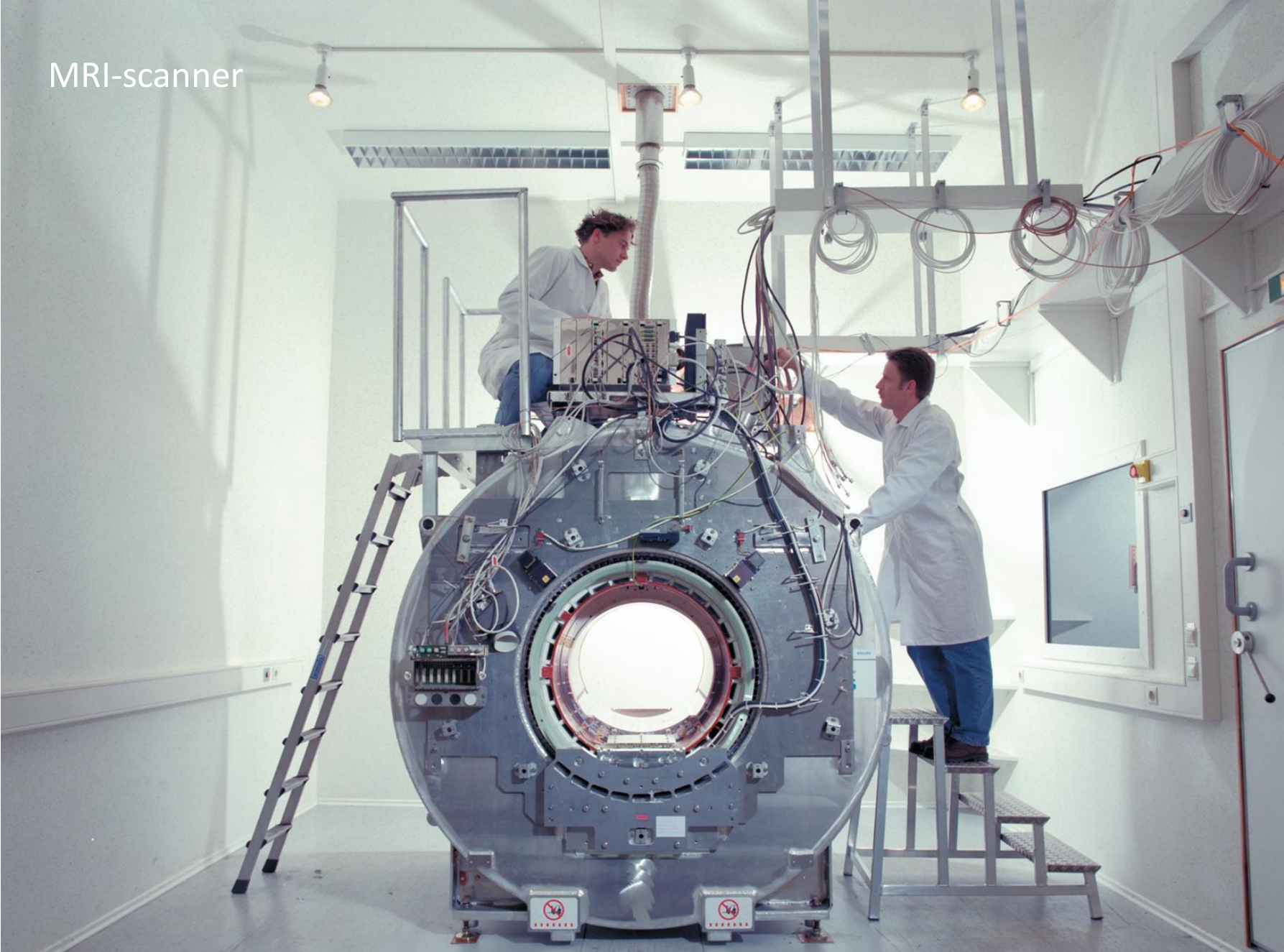
H.B.G. Casimir (1909-2000) - **'wetenschap-technologie spiraal'**



NatLab, circa 2000



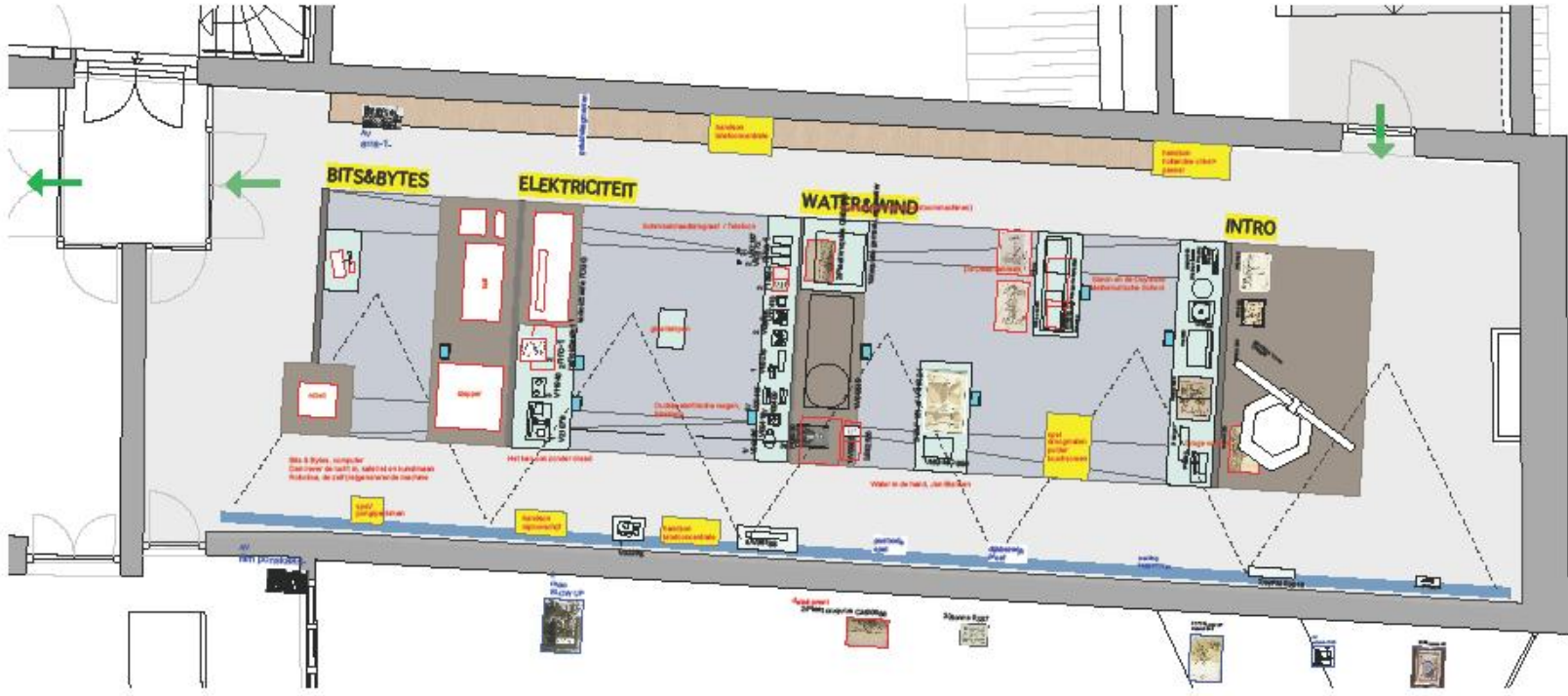
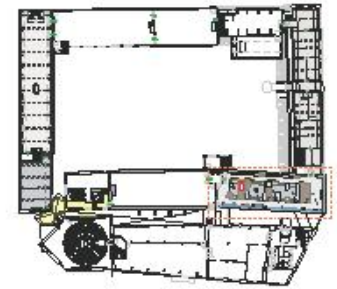
MRI-scanner



Philips Research / Indoor positioning met LED



Technologie: water/wind – elektriciteit – bits & bytes



OPERA AMSTERDAM	Project: Museum Boerhaave	Meeting nr:	08-06-2016	Bladz. nr:	1/75
	Fase: Voorlopig Ontwerp	Y-4-14-01			
	Titel: 4 Technologie, zaal 14	ALLE WAARDEN IN RIJEN WEM TE CONTROLEREN			

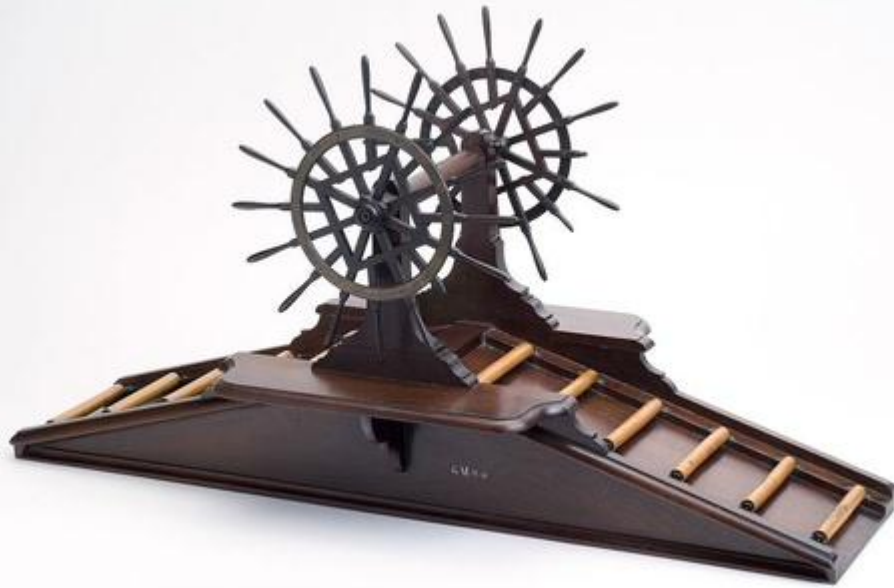
Water en wind



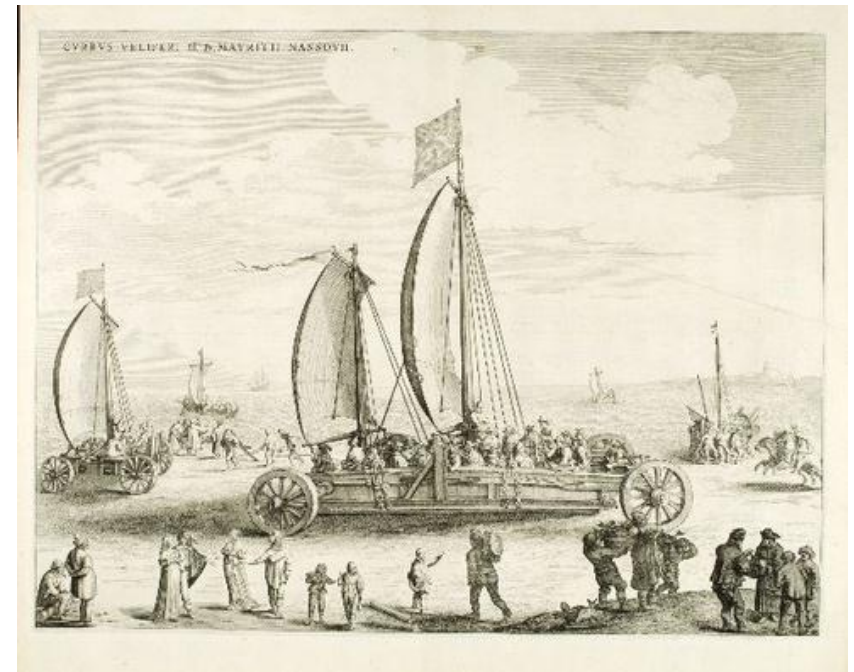
Poldermolen, 1742



Stoompomp, 1774



Overtoom, 1763



Zeilwagen Simon Stevin, 1649



Waterscheprad, 1741



Zuig- en perspomp, 1752



Waterland



Opening Melanie Schultz, maart 2014



Elektriciteit



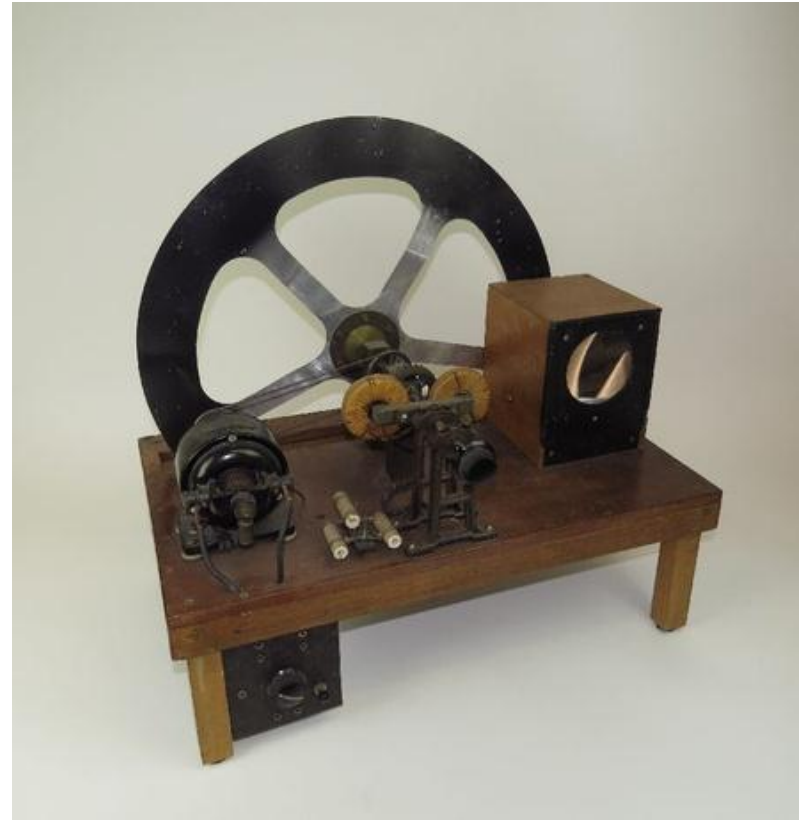
Zuil van Volta, ca. 1800



Elektrische auto Stratingh

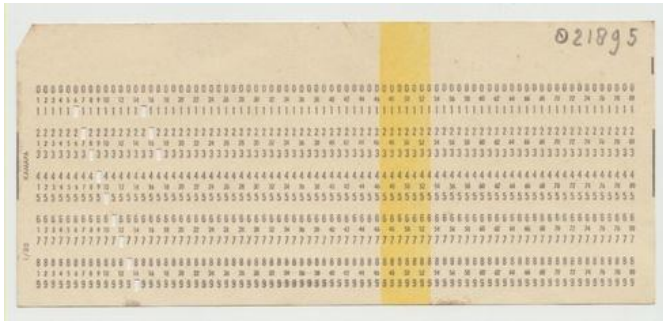


Radiobuis Philips, ca. 1950



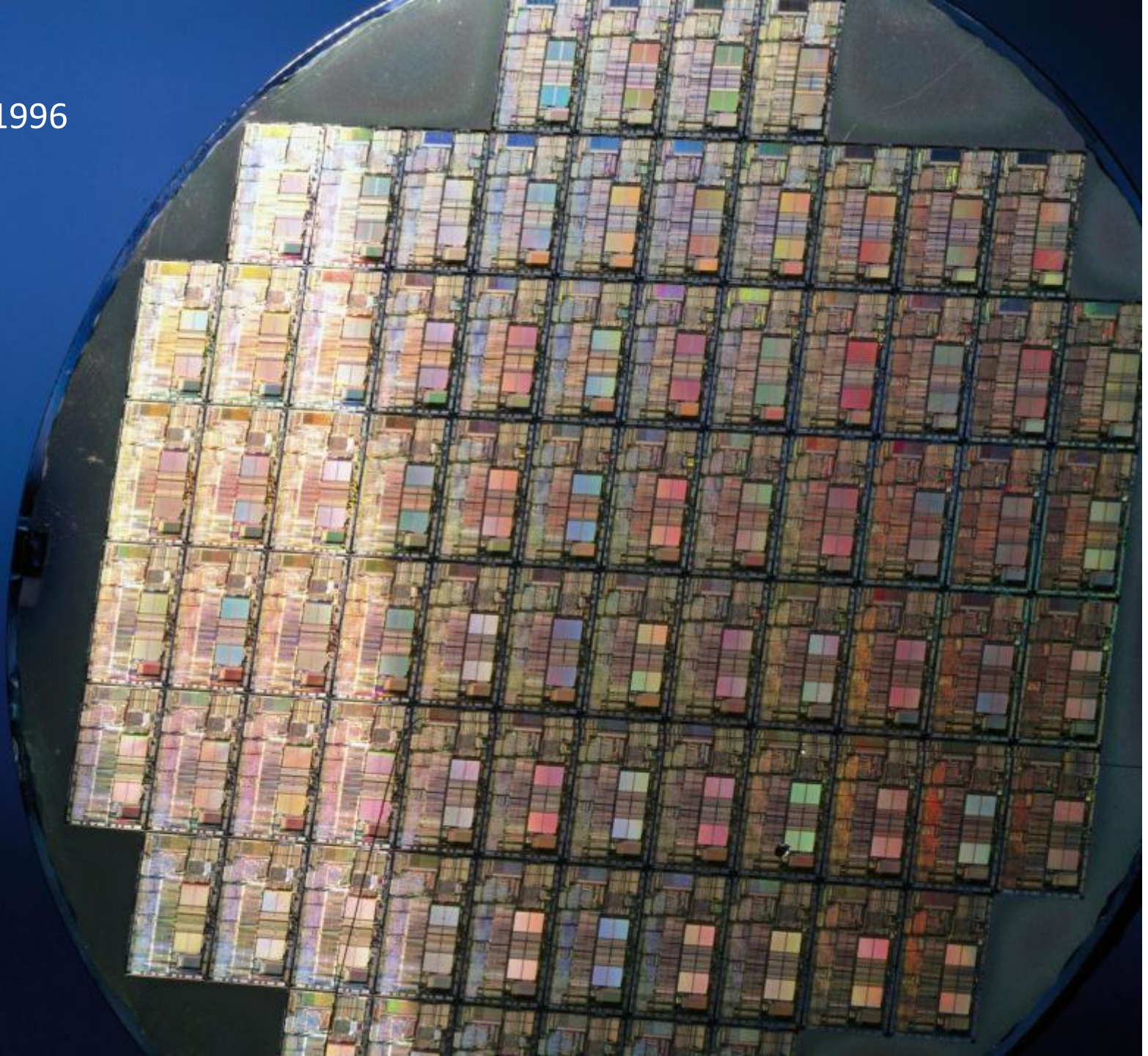
Nipkowschijf, ca. 1930

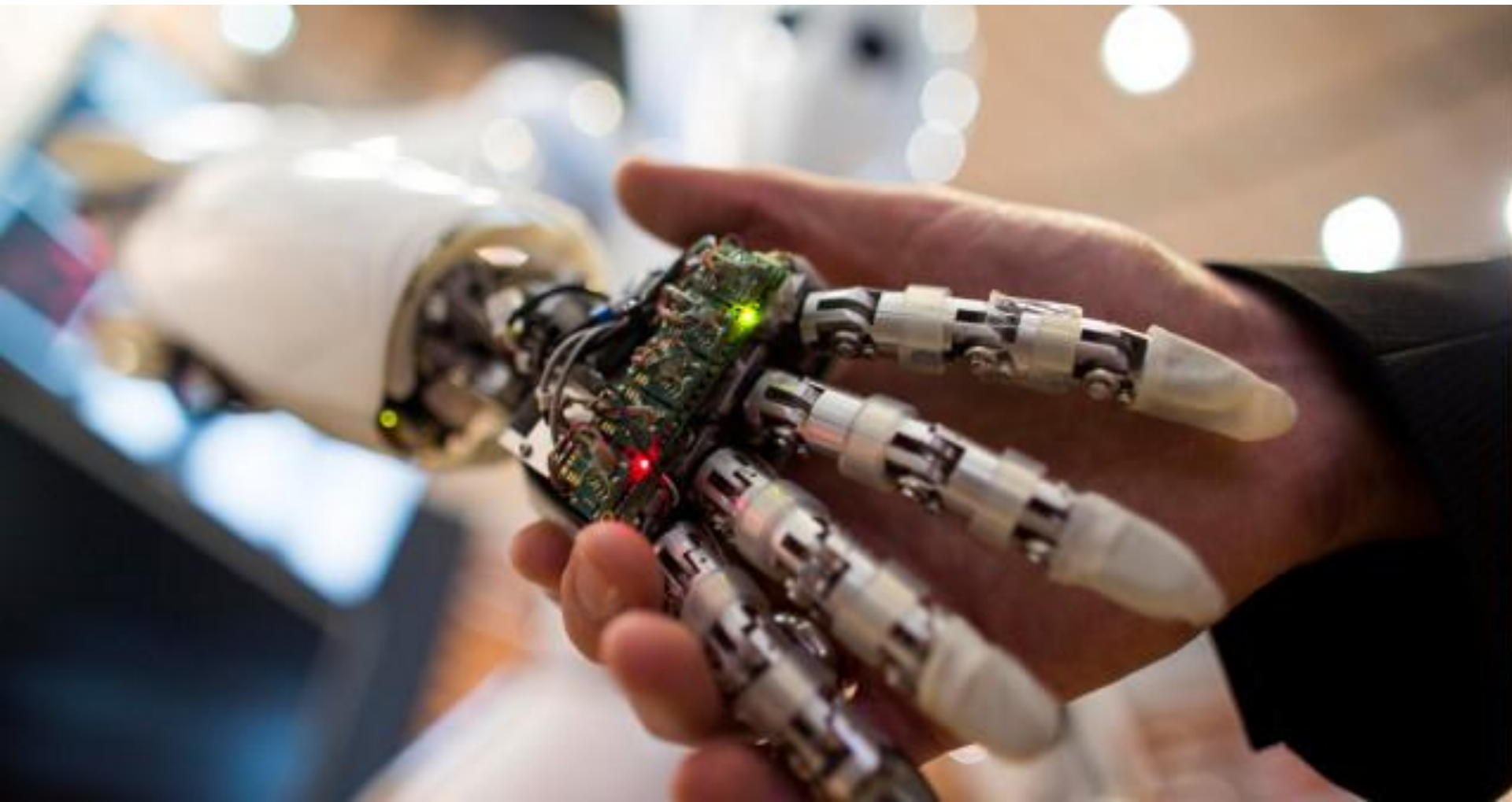
Bits & bytes



Bull computer, 1950

Wafer, 1996





Hello Barbie



Microphone, speaker
and tri-color LED lights
embedded in necklace.

Turn the doll on with
the power button on
her belt.

Press and hold down
belt buckle to activate
speech recognition.

Note: Speech Recognition Is Not 'On' Unless Pushed.



ONE TIME APP DOWNLOAD
AND WIFI CONNECTION
REQUIRED FOR 2-WAY
CONVERSATION

Disclaimer: Compatible smart device required.



PARENT CONSENT
REQUIRED

