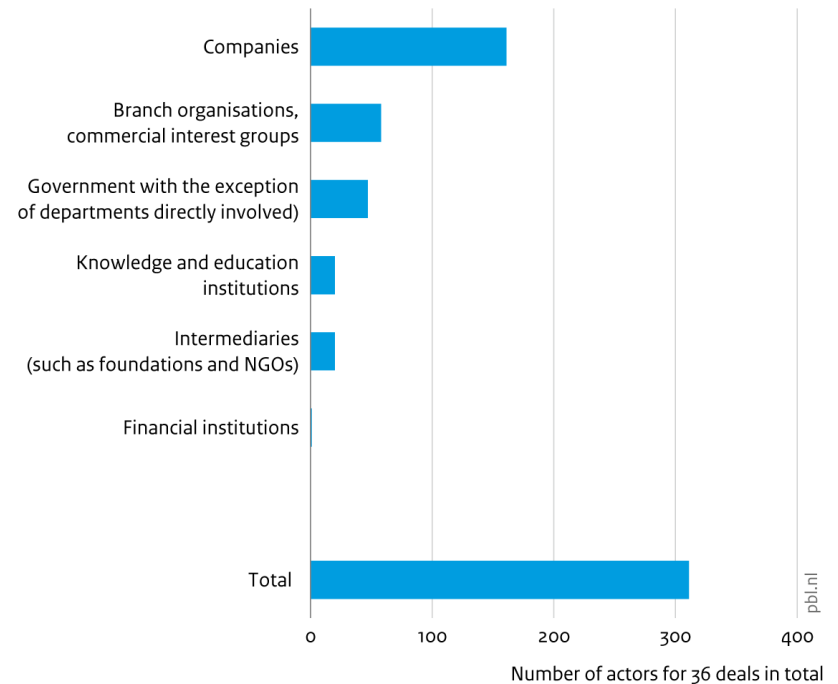# Evaluation of Dutch 'Green Deals' circular economy

What role can Green Deals play in preparing the way for a circular economy?
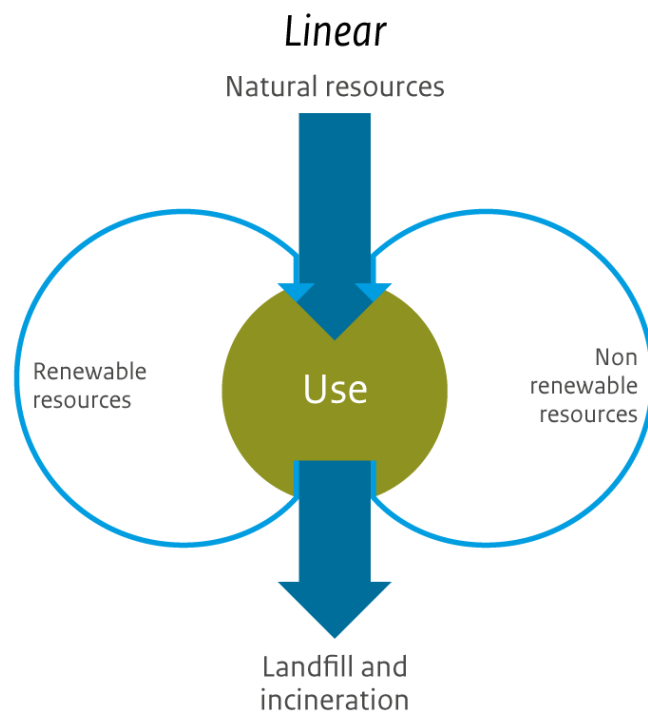
15 September 2016
Jurgen Ganzevles (PhD)

What are 'Green Deals'?

- voluntary agreements
- \> 200 deals since 2011, on different themes
- encourage social dynamics
- 'green' projects
- remove (legislative) bottlenecks: less regulation
- government(s) participate
- no euros
- *additional* to other policies
- EC follow-up: 'Innovation Deals'

Actors participating in Dutch 'Green Deals' circular economy

	Number of actors
Companies	
Branch organisations, commercial interest groups	
Government with the exception of departments directly involved)	
Knowledge and education institutions	
Intermediaries (such as foundations and NGOs)	
Financial institutions	
Total	

Number of actors for 36 deals in total

Source: RVO.nl

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From a linear to a circular economy

Source: PBL
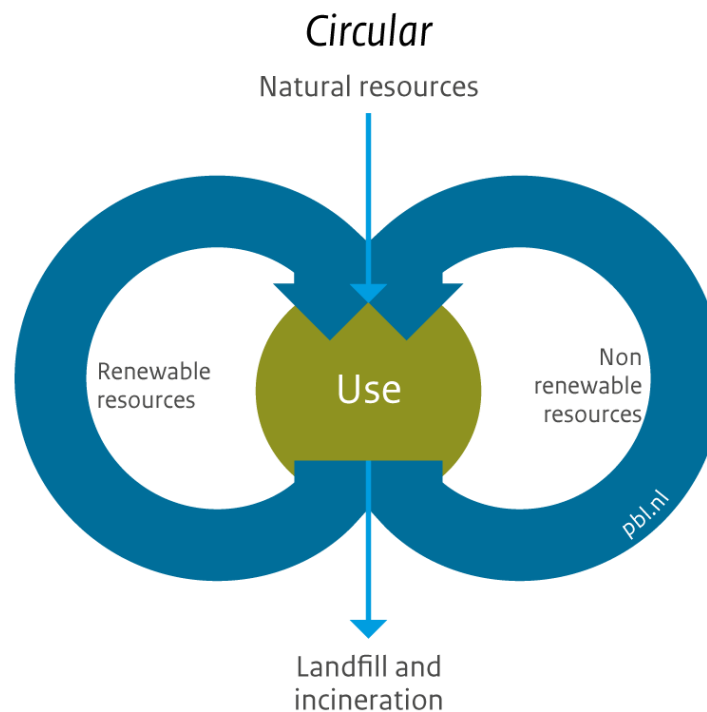
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Diversity in Green Deals: five examples

Green Deal 92. Insects for Food, Feed and Pharma

Innovation issue: European legislation

Green Deal 96. The benefit of horse manure

Innovation issue: technical processing

Green Deal 158. Fair Meter

Innovation issue: joining in the ongoing process of Smart Meter roll-out
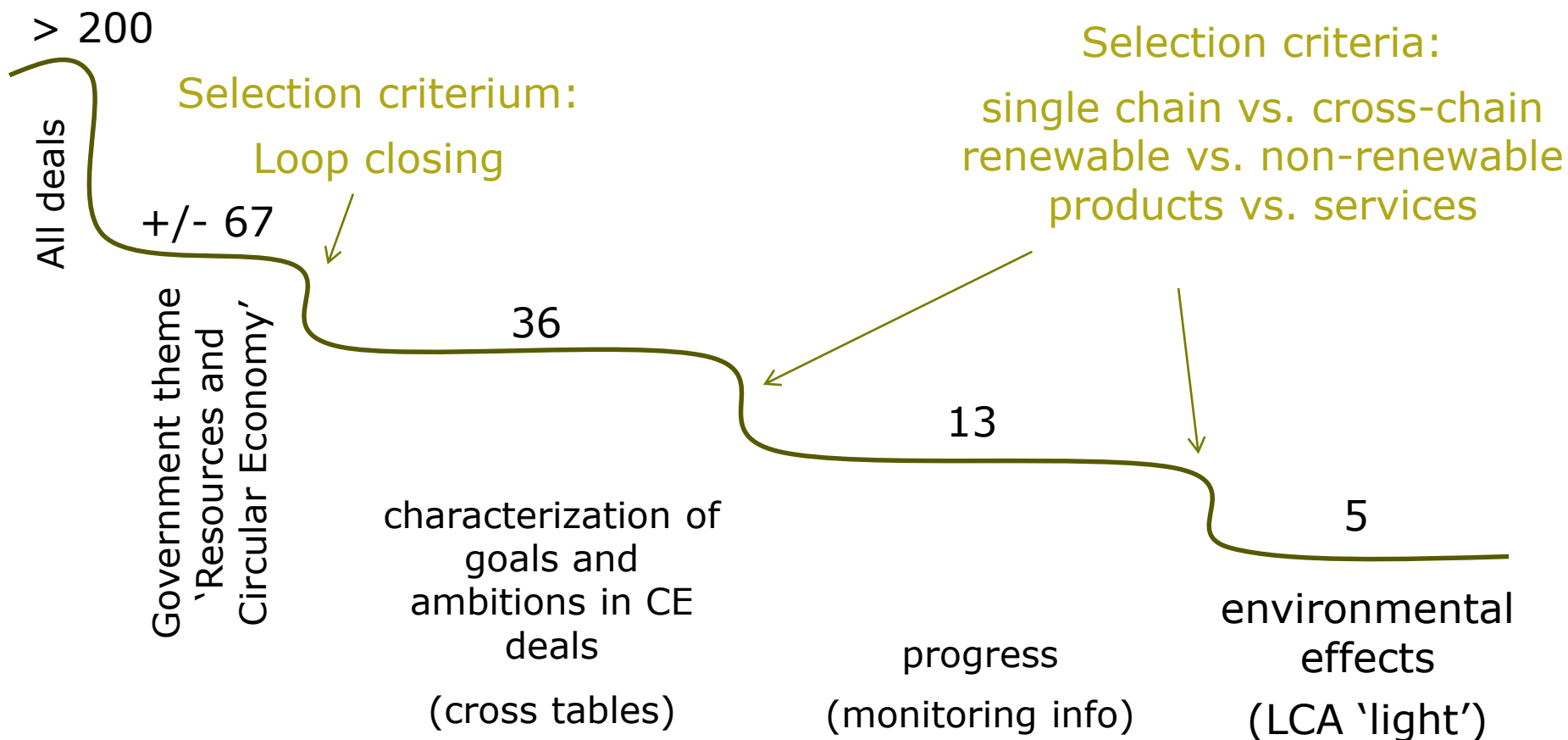
Green Deal 178. Circular Buildings

Innovation issue: consensus about 'circularity passport'

Green Deal 183. Car Sharing

Innovation issue: scale-up from +/- 15.000 to 100.000 in 2018

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Evaluation approach

> 200

All deals

Selection criterium:

Loop closing

+/- 67

Government theme 'Resources and Circular Economy'

36

characterization of goals and ambitions in CE deals

(cross tables)

Selection criteria:

single chain vs. cross-chain
renewable vs. non-renewable
products vs. services

13

progress

(monitoring info)

5
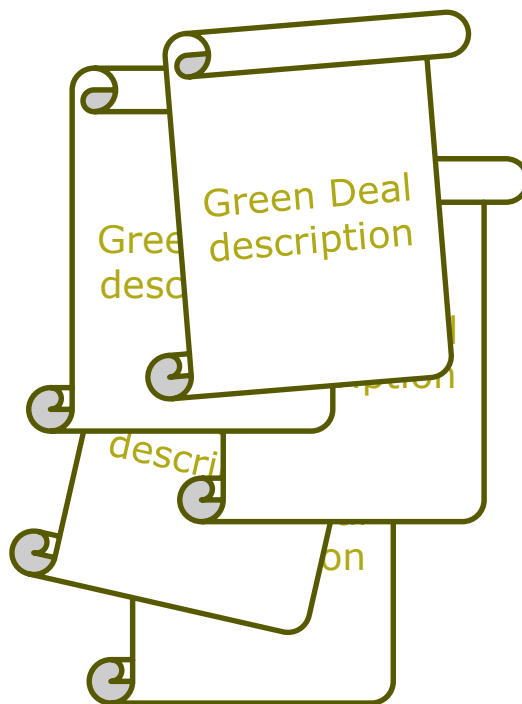
environmental effects

(LCA 'light')

Evaluation of goals and ambitions in 36 deals

PBL effort

PBL output

Making cross tables for:

circularity
innovation
economy
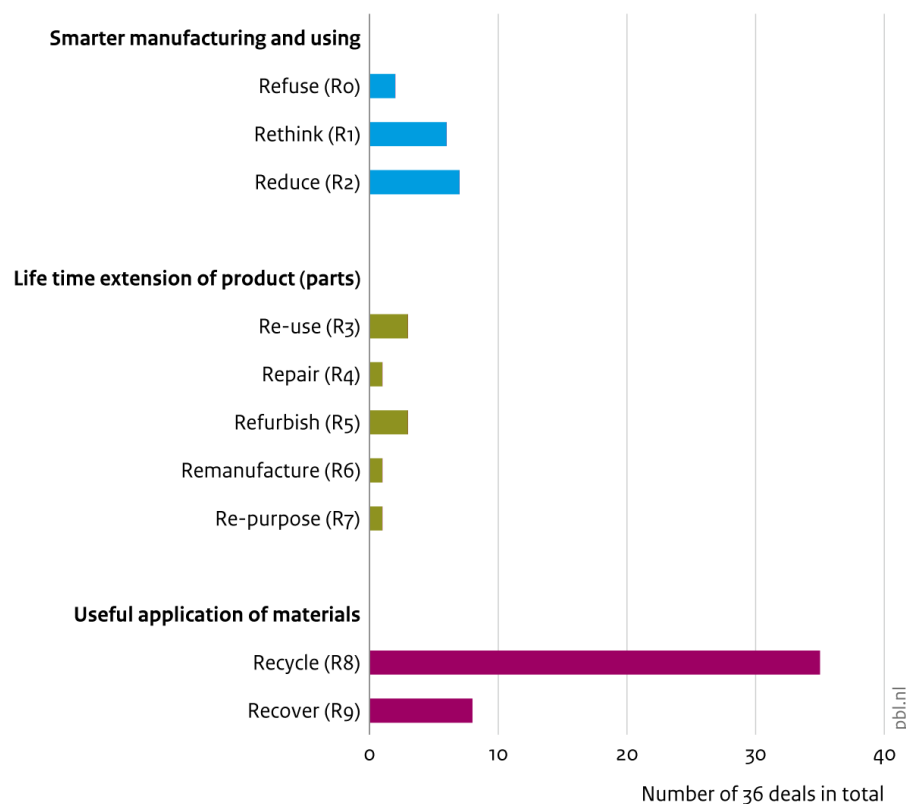environment

Green Deal description

Graphical representation

of

occurance

of

specific goals and ambitions

Draft translations

Evaluation of goals and ambitions in 36 deals

Goals and ambitions of Dutch ´Green Deals´ circular economy according to the R priority ladder, 2015

Example: graphical representation of goals and ambitions with respect to circularity

Draft translations

Evaluation of progress made with 13 deals

PBL effort

Unlocking raw data

Existing non-public central database for all deals

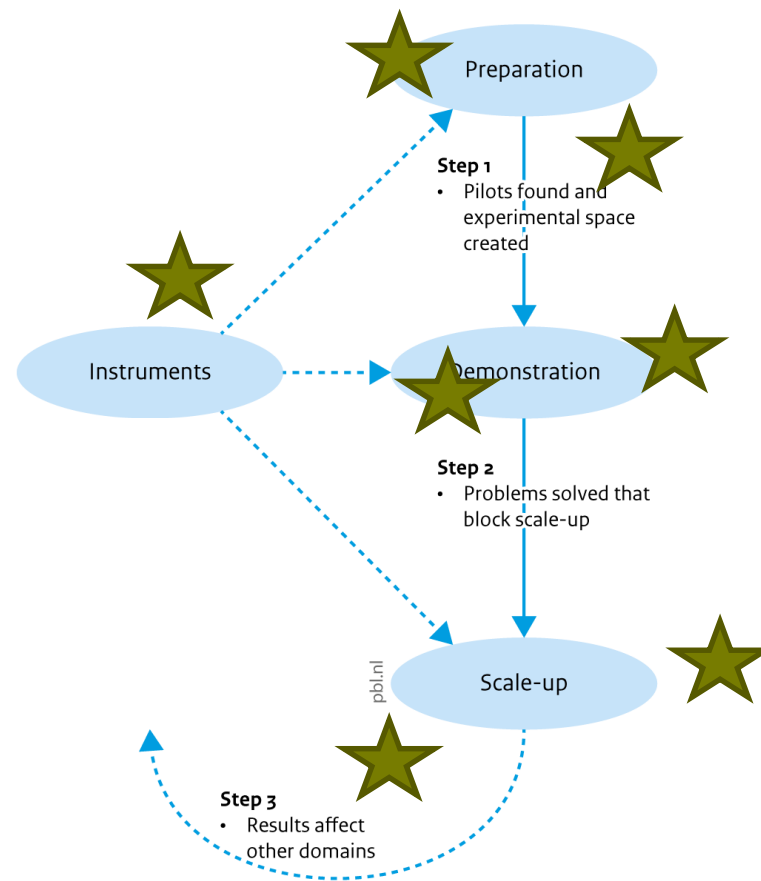Information about:

- honouring of commitments
- delays
- deviances

PBL output

description of progress in terms of:

circularity
innovation
economy
environment

Progress: meaningful contribution to knowledge sharing, piloting and roll-out of innovations
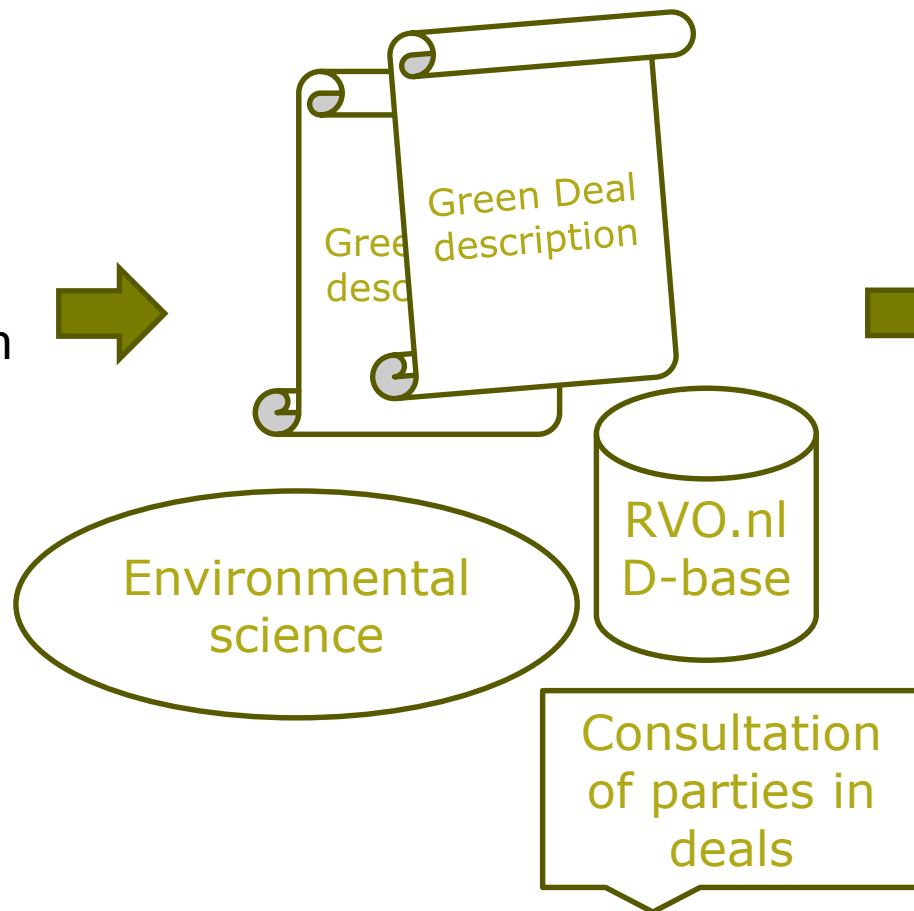

Source: PBL

Draft
translations

Evaluation of environmental gains for 5 deals

PBL effort

LCA 'light'

triangulation of data

Green Deal description

Green Deal description

Environmental science

RVO.nl D-base

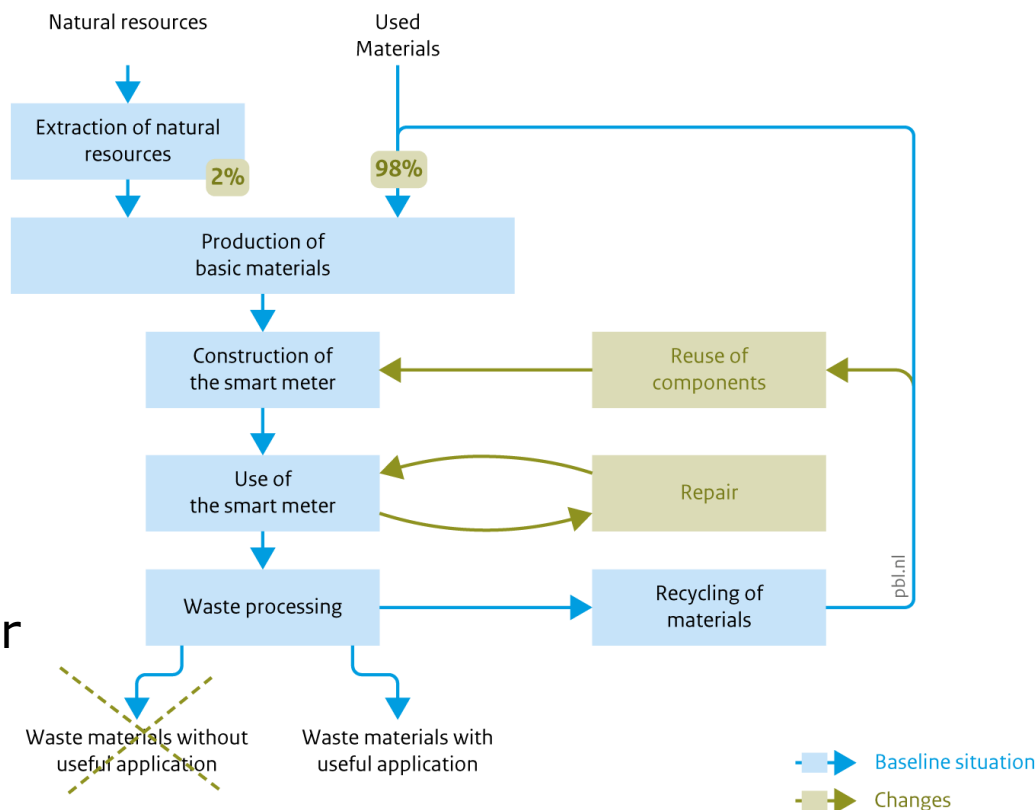Consultation of parties in deals

PBL output

Graphical respresentations of changes in life cycle for each deal

Key environmental messages

Evaluation of environmental gains for 5 deals

Example: Green
Deal
'Fair Meter'

Issues:

- Environmental gain is probable, but unsure: baseline (Smart Meter) is still in development

- Use of recycled materials for this product competes with use in other products

Life cycle changes Green Deal Fair Meter

Natural resources

Used Materials

Extraction of natural resources — 2%

98%

Production of basic materials

Construction of the smart meter ← Reuse of components

Use of the smart meter ↔ Repair

Waste processing → Recycling of materials

Waste materials without useful application

Waste materials with useful application

— Baseline situation
— Changes

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Source: Van der Harst; adaptation PBL

Main conclusions

- The Green Deal approach is useful to the process of green innovation

- Besides Green Deals, other policies remain needed to achieve widespread deployment of green innovations

- Green Deals do not necessarily lead to environmental benefits

- The green claims, as laid down by the parties, are mostly not underpinned, nor evaluated

- Recycling is still the dominant strategy, while re-use and circular design are often more promising in terms of environmental gains

Policy recommendations

- Steer, despite the bottom-up nature of Green Deals, more towards "green"

- Provide for ex-ante independent screening of proposed deals for environmental gains (LCA 'light')

- Change the central monitoring system: use indicators that match the innovation phase (see Annex to these slides)
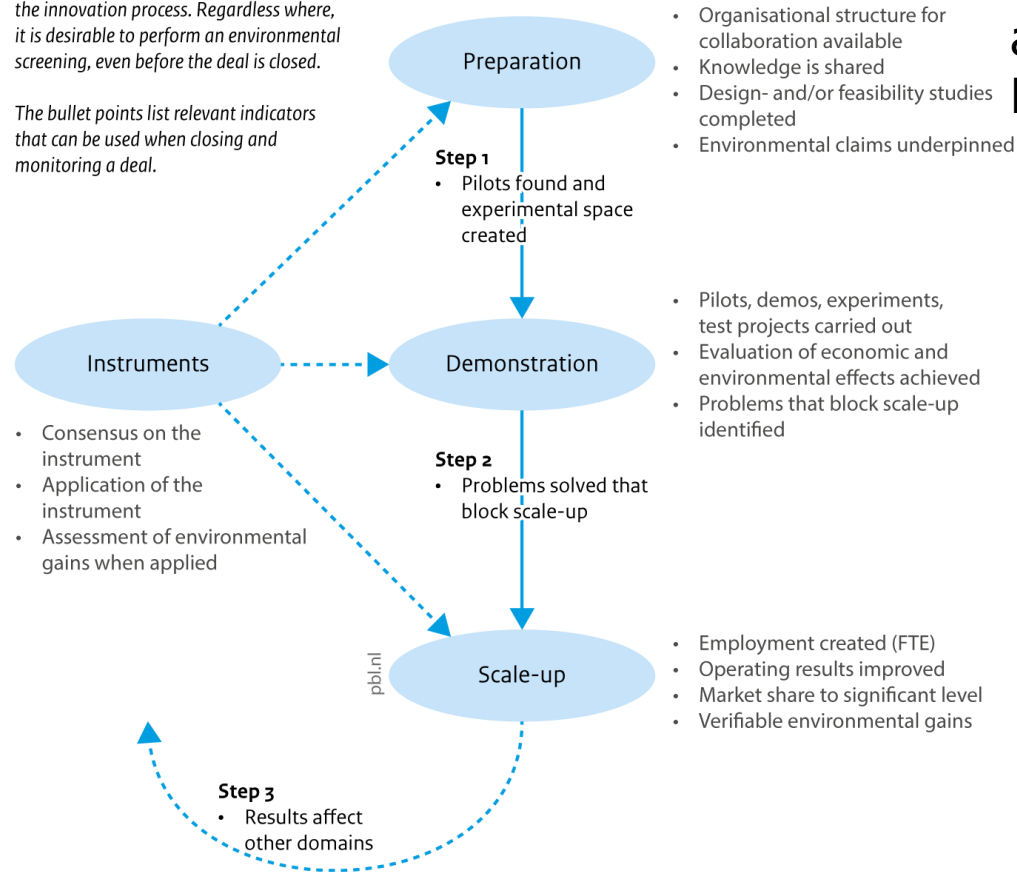
Implications for policy evaluation

- 'Golden standard' for policy evaluation (input, throughput, output, impact ect.) is of not much use here

- Tailor-made design and motivation of evaluation framework needed for this kind of policy instrument

- Evaluation of EC 'Innovation Deals'…

Annex: 'Green Deal' indicators as proposed by PBL

Process scheme Dutch 'Green Deals'

Green Deals can be closed at any place in the innovation process. Regardless where, it is desirable to perform an environmental screening, even before the deal is closed.

The bullet points list relevant indicators that can be used when closing and monitoring a deal.

Preparation
- Organisational structure for collaboration available
- Knowledge is shared
- Design- and/or feasibility studies completed
- Environmental claims underpinned

Step 1
- Pilots found and experimental space created

Instruments
- Consensus on the instrument
- Application of the instrument
- Assessment of environmental gains when applied

Demonstration
- Pilots, demos, experiments, test projects carried out
- Evaluation of economic and environmental effects achieved
- Problems that block scale-up identified

Step 2
- Problems solved that block scale-up

Scale-up
- Employment created (FTE)
- Operating results improved
- Market share to significant level
- Verifiable environmental gains

Step 3
- Results affect other domains

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Source: PBL

Draft translations