

## HESSENMETALL Unternehmenshandout

### Unternehmensname

Procter & Gamble

### Link zur Unternehmenswebsite

www.pg.com

Platzhalter für QR Code zu diesem Unternehmenshandout (Wird von HESSENMETALL erstellt)

### Kontaktdaten der Ansprechperson(en)

Hansjörg Reick  
reick.h@pg.com

### Kurzbeschreibung des Unternehmens

Procter & Gamble (P&G) ist ein multinationaler Konsumgüterkonzern mit Hauptsitz in den USA. Das Unternehmen wurde 1837 gegründet und ist für seine breite Palette von Markenprodukten bekannt, darunter Pampers, Gillette, Head & Shoulders, Ariel, Braun, OralB und viele mehr. P&G ist in verschiedenen Bereichen tätig, wie Haushaltsprodukte, Körperpflege, Gesundheitswesen und Babypflege, und hat weltweit eine starke Präsenz.

### Kooperationsbedarfe (z.B. Technologien, Dienstleistungen, Produkte etc.)

www.pgconnectdevelop.com

### Angebote an Startups (z.B. Technologien, Dienstleistungen, Produkte etc.)

www.pgconnectdevelop.com

### Weitere Anmerkungen & Hinweise (z.B. Deadlines, regulatorische Anforderungen etc.)

Einladung zur SIGNAL Konferenz am 17. Juli 2024 - kostenlos virtuell teilnehmen unter dem Registrierungslink <https://events.ringcentral.com/events/signal2024/registration>

**Hinweis:** Mit der Einreichung dieses Formulars stimmen Sie einer Weitergabe der Informationen von HESSENMETALL an Teilnehmende und Interessenten des Events STARTUPS X HESSENMETALL 2024 zu.



## **P&G Startup Innovation Brief Call for Startup Submissions**

Procter & Gamble is looking for new approaches and technologies that can help them to address key business challenges/opportunities. The following innovation brief(s) will provide a high-level overview of specific business goals and needs, as well as a high-level overview of what they are looking for in a solution.

If you would like to submit a solution, please go to the P&G Innovation Brief Response Form <https://bit.ly/4aIP5Ia> and complete the requested information.

<b>Brief Submission Period:</b>	June28 <sup>th</sup> – Aug. 9th
<b>Department:</b>	SharkTank, PSIC
<b>Opportunity for Innovation Partner(s):</b>	In-Market Pilot Opportunity

### **Process Overview:**

- Complete the P&G Innovation Brief Response Form <https://bit.ly/4aIP5Ia>
- All responses will be reviewed, and you will be notified as to whether the response has been accepted for further consideration.
- If accepted, you will be contacted by a Pilot44 Research Analyst to schedule a meeting to present additional detail on your company and solution as well as, where applicable, provide a demonstration of your product.
- If contacted for next steps, additional detail on the client needs will be provided at that time, as well as additional information on the review, selection & reward process.
- You can send any specific questions to our innovation partner, Pilot44: [submissions@pilot44.com](mailto:submissions@pilot44.com)

## **P&G Startup Innovation Brief Overview**

### **Brief Name: SING HAIR CARE Transport Bundling of Shampoo Bottles**

#### **Business Challenge / Needs Definition:**

Intention of this brief is to describe the needs, specification and success criteria for design & delivery of a Shrink Film Bundler for Hair Care part of P&G Business. We want to identify & scout product bundling technologies for transport that does not require heat transformation for PET bottles (lightweight bottle).

Herewith business has shared following requirements for any technology

1. Transport Packaging: Lightweight bottles do not allow for heat transformation of bundles and shrinking
2. Bundling Packaging Technology needs to adhere to new EU PPWR regulations.

The help needed would be to evaluate options & suppliers for new Bundling machine/technology as per evaluation criteria (4.) & solution space (5.). Main reason for technology change need is observed PET bottle deformation in current oven due to air pockets in products. Current technology needs more heat inside the oven than standard PET bottles can endure without being deformed. Recent study has shown that the film sealing (bottom seal) needs to happen before the oven and the oven itself need to be used only to shrink the film around the bottle bundle. Out of scope would be to identify any heat transformation technology, given already extensive research has been conducted.

#### **Process Requirements**

Upstream from the bundler there is a grouping system (NGS Machine) that groups products so that the bottles are bundled in 2x3 groups in 2 lanes. Those groups need to be wrapped around with a shrink film and film needs to be sealed (outside the oven by use of sealing bar or similar equipment) and then shrunk in the oven by use of hot air. This is a default process; however, P&G will evaluate different technology if only it allows to minimize the heat transfer to the PET bottle.

Bundle tightness and stability is critical as the bundles are placed directly on each other to form a pallet – no shippers are used for transportation. Also, bundling machine needs to be working continuously without a failure for at least 24 hours. Change over time between one format and another (so- called full 3D change over) is to be no longer then 10 minutes going to going (gap between two different products coming out of the machine) – 8 minutes C/O time is desired. Machine should fit within area of 12,5 m x 3,7 m as this is the space available in most of our production sites.

#### **The below highlight considerations for evaluating potential technology solutions:**

- Quality Test Criteria: Bundle should hold firmly & tight around the bottles > cannot fall off – difference of bottle levels is <2cm, bundle is sealed on the bottom
- Stability of Bundles: Pallet transportation stability test, that in order to succeed needs to have a tight and strong bundle to endure it
- Speed:
  - Min: range 200 -300 bottles / minute > running 55 bundles / minute in one or two (preferred) lanes
  - Future: run at a speed of 350- 400 bottles/ min (67 bundles / minute). Please state maximum machine speed
- Layout – fit within existing (to be provided by P&G)
- Sustainability – ideally < 6.3g LDPE / bundle
- Ability to keep existing sorting / grouping systems – ideally 2 lanes
- Rapid changeover between formats (maximum 8 minutes for one person)
- P&G experience with OEM
- Operability (ergonomics, ease of maintenance, user interface, diagnostics / troubleshooting, etc.)
- Lead time
- Technical Risk Assessment
- Impact on consumers – no change to bottles themselves
- Impact on customers – no additional effort to open bundles for shelving

#### **Relevant technology domains may include, but are not limited to:**

- Infrared – requires still heat, would it allow lower temperature (<60 degree Celsius)
- Paper: unknown technology

#### **The Ask:**

If you have ideas and supporting technologies that you believe can deliver disruptive services & solutions to this challenge, we want to hear/partner with you. Where there is a good fit, we are looking to drive agile in-market pilots with the goal of scaling successful services & solutions globally. All ideas and submissions will be fully reviewed by our team.



## Rapid Substance Detection in Inspection and Supply Chain Non-Confidential Needs Brief

### BACKGROUND

Procter & Gamble is a global leader in innovation, products and services for consumer goods in categories like Beauty (Hair and Skin Care), Fabric & Home Care, Baby Care, Oral Care, Health Care, Family Care, and Feminine Care. We focus on designing and manufacturing superior products, packages and experiences that are safe to consumers, the environment and supply chain partners. P&G undertakes significant efforts to analyze compositions of raw materials and finished products and packages from development to manufacturing through the supply chain.

### NEED DESCRIPTION

For most substances we lack rapid, easy-to-use yet precise detection devices/ methods for inspections at P&G operations (e.g. material income, manufacturing control, cleaning of equipment) and at our supply chain partners that can be used by workers and do not require laboratory environment/ standards.

### WHAT WE ARE LOOKING FOR

- We are looking for precise, rapid, robust and simple-to-use measurement devices/ tools for substance detection, designed to be used in industrial and supply chain environment by workers for frequent inspections.
- List of samples and substances:
  - **Volatiles in Finished Products** – We produce adsorbent hygiene products (diapers and fem care pads, as examples) that should not contain a meaningful presence of VOCs that are not intentionally added (i.e., through the adsorption of environmental background, the deviation of normal production processes, or the contamination of raw material supply streams). As a prototype marker, we propose real time evaluation of formaldehyde, at a limit level of 10 ppm or less.
  - **Heavy Metals in Mined Raw Materials / Botanicals** -- As we introduce more naturally-occurring feedstocks across our supply chain, we need to accommodate a wider potential variance of trace contaminates across raw materials. Scope here would include trace metal profiles. Titanium Dioxide and Calcium Carbonate represent two such raw materials, and Lead, Arsenic, and Antimony would be potential specific naturally-occurring trace contaminates. Target would be to detect these metals at 1 ppm or less.
  - **Pesticides in the Manufacturing Environment:** We want to ensure that our products are not contaminated by sporadic environmental events (i.e. seasonal use of pesticides close to manufacturing and/or warehousing sites). A target analyte would be glyphosate and/or chlorinated pesticides, measured in the air (or some suitable proxy), at or about the 1 ppm level or less.
- The tools/ detectors should ideally not require any training, other than an intuitive use instruction, and should show results as either present/not present or in a simple-to-interpret display with a scale/ value.
- Ideally a solution that can be piloted within 6 months in P&G labs and our supply chain.

**WHAT WE ARE NOT LOOKING FOR**

- *Sophisticated analytical equipment that would require a lab assistant education/ training and dedicated lab settings*
- *A longterm fundamental research and development activity.*

**THE ASK**

*If you have a solution and proposal to partner with us, or a serious interest in developing a solution in partnership with us, please submit a summary of your solution, approach and/or technologies, incl. your current level of detection/ limit of quantification. Please indicate how you would propose pilot testing your solution. We look forward to partnering with you. All ideas and submissions will be fully reviewed.*

Please note that only **non-confidential** information describing the method, current use and IP can be accepted for review.

**SUBMISSION:**

Through P&G Open Innovation Portal with posted needs link:

<https://www.pgconnectdevelop.com/current-needs/rapid-substance-detection-in-inspection-and-supply-chain>

**Appendix – Table of Substances and Requirements – ideal limit of quantification by substance**

Substance	Required limit of quantitation	Comment
Glyphosate	0.5 µg/g	
Formaldehyde	10 µg/g	
Lead	0.05 µg/g	
Arsenic	0.1 µg/g	
Antimony	0.1 µg/g	
Cadmium	0.1 µg/g	
Mercury	0.05 µg/g	
Cobalt	1 µg/g	
Nickel	0.5 µg/g	
Vanadium	1 µg/g	
PAHs	0.2 µg/g each congener	At a minimum, can measure the following PAHs: Naphthalene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene

		Benzo[j]fluoranthene Benzo(k)fluoranthene Benzo(e)pyrene Benzo(a)pyrene dibenzo(a,h)anthracene Benzo[g,h,i]perylene Indeno[1,2,3-cd]pyrene
Phthalates	10.0 µg/g each congener	Ideally, can measure the following phthalates: Dimethyl phthalate Diethyl phthalate Dipropyl phthalate Dibutyl phthalate Diisobutyl phthalate Benzyl butyl phthalate Dipentyl phthalate Diisopentyl phthalate Dicyclohexyl phthalate Dihexyl phthalate Diisoheptyl phthalate Bis(2-ethylhexyl) phthalate Di-n-octyl phthalate Diisononyl phthalate Diisodecyl phthalate Di-2-propylheptyl phthalate Bis(methyl-glycol) phthalate Di-2-ethoxyethyl phthalate Di-2-butoxyethyl phthalate Bis(4-methyl-pentyl) phthalate Bis(4-methyl-2-pentyl) phthalate Hexyl-2-ethylhexyl phthalate Diphenyl phthalate Diphenyl Isophthalate
Dioxins/Furans/DL-PCBs	See comment and individual congener LOQs below.	With LOQ sufficient to determine sum TEQ > 2 ng/kg. Listing of individual congener LOQs is based on their respective TEF values and 10x buffer relative to the sum TEQ parameter.
2,3,7,8-TCDD	2.00E-07 µg/g	
1,2,3,7,8-PeCDD	2.00E-07 µg/g	
1,2,3,4,7,8-HxCDD	2.00E-06 µg/g	
1,2,3,6,7,8-HxCDD	2.00E-06 µg/g	
1,2,3,7,8,9-HxCDD	2.00E-06 µg/g	
1,2,3,4,6,7,8-HpCDD	2.00E-05 µg/g	

OCDD	6.67E-04 µg/g	
2,3,7,8-TCDF	2.00E-06 µg/g	
1,2,3,7,8-PeCDF	6.67E-06 µg/g	
2,3,4,7,8-PeCDF	6.67E-07 µg/g	
1,2,3,4,7,8-HxCDF	2.00E-06 µg/g	
1,2,3,6,7,8-HxCDF	2.00E-06 µg/g	
1,2,3,7,8,9-HxCDF	2.00E-06 µg/g	
2,3,4,6,7,8-HxCDF	2.00E-06 µg/g	
1,2,3,4,6,7,8-HpCDF	2.00E-05 µg/g	
1,2,3,4,7,8,9-HpCDF	2.00E-05 µg/g	
OCDF	6.67E-04 µg/g	
PCB77	2.00E-03 µg/g	
PCB81	6.67E-04 µg/g	
PCB126	2.00E-06 µg/g	
PCB169	6.67E-06 µg/g	
PCB105	6.67E-03 µg/g	
PCB114	6.67E-03 µg/g	
PCB118	6.67E-03 µg/g	
PCB123	6.67E-03 µg/g	
PCB156	6.67E-03 µg/g	
PCB157	6.67E-03 µg/g	
PCB167	6.67E-03 µg/g	
PCB189	6.67E-03 µg/g	



## GBS Next Generation Services Innovation Briefs - July 2024

Procter & Gamble is looking for new approaches and technologies that can help us to address key business challenges/opportunities. The following two innovation briefs will provide a high-level overview of specific business needs, and what they are looking for in a solution. We open to already developed solutions, new product co-development, or stealth solutions from start-ups.

If you would like to submit a response, please click [here](#) and complete the form with the requested information.

**Briefs Submission Period:** June 28-Aug 9

### **BRIEF 1: Supply Chain Dynamic Resilience**

**Business Context:** During the Covid period, P&G supply chain resiliency outperformed competition and continued to flow products to retailer shelves driving significant sales growth, despite significant disruptive headwinds. After Covid it was anticipated that supply chain disruptions would diminish. However, that has proven not to be the case and today's supply chains face a diverse and growing array of risk from challenging economic conditions to new regulatory controls, geopolitics and beyond, e.g. farmers strikes, red sea congestion, etc. Supply chain cost continue to increase due to economic, labor and geo-political volatility and uncertainty. Our existing Business Continuity Plans (BCP) tend to be static, do not respond well to continually changing conditions and do not consider the impact of cascading issues further up/down the supply chain. In FY23/24, we incurred additional costs managing unforeseen supply chain disruptions. It is estimated that supply chain disruption accounts for a 3-5% logistics cost increase.

**Objective:** *How might we make our logistics resiliency plans predictive, dynamic, and multi-level, in a way that provides a competitive advantage to leverage our supply chain responsiveness to not only avoid additional costs, but to also grasp the opportunity to increase sales?*

#### **Relevant Areas/What we are looking for:**

##### **Supply Chain Scope**

- Europe domestic transportation (road haulage, rail and intermodal).
- Oceanic transportation (NA – Europe – Asia)
- **Finished products only**

##### **Business Process Disruptions**

- Civil / workforce unrest
- Weather disruption (wildfires, flooding, drought, landslides)
- Natural disasters (earthquake, solar flare)
- Geo-political disruptions (wars, embargo / sanctions)
- Regulatory changes (working hours, formulations, substances of interest)
- Cyber security and terrorist attacks

##### **Business Processes**

- End-to-end modelling of physical supply chains.
- Rapid what-if capability to determine impact of supply chain disruptions.
- Ability to determine impact of multi-level disruptions, e.g. port congestion and strikes.

##### **Business Value**



- Avoid additional supply chain costs (\$5MM/year Europe)
- Identify NOS opportunities where competitors are disrupted.

We are aware that vendors have software capability to model global supply chains and utilize gamification and AI orchestration to conduct what-if scenario planning.

What we are specifically looking for:

- **Creating realistic supply chain disruption scenarios, assessing impact and determining efficient response**, both reactively and predictively.
- Understanding how capabilities could be applied across the broader supply chain ecosystem.
- Determining value proposition, i.e. cost avoidance, cost savings, NOS increase

## **BRIEF 2: Identity Access Management/Non-employee Access Management**

**Business Context:** The organization has a policy in place that requires the removal of access for non-employees within 24 hours of their departure from the organization. However, the current compliance rate is falling short of the desired success metric. This lack of compliance poses a security risk and potential unauthorized access to sensitive information.

**Objective:** 1) Increase the compliance rate to meet the policy requirement of removing access for non-employees within 24 hours of their departure to mitigate security risks and unauthorized access. 2) Ensure that suppliers consistently notify the organization about the departure of their personnel.

**Desired Response/What we are looking for:** The organization requires a comprehensive solution that addresses the compliance issues related to removing access for non-employees. It could include any of the following approaches (or a combination of them):

- Accurately predict or detect non-employee status change, using signals available
- Enable real-time communication with suppliers on staffing changes.
- Automatically process the revocation as soon as the signal is recognized.
- Implement just in time access for non-employees.
- Automated access disablement enabled by self-serve re-enablement
- It is important that the solution minimizes incorrect revocation and in the few cases of mistaken revocation, it also minimizes the time and effort required to reinstate the access when required.

Note: We currently use Sailpoint as our IAM system.

**What we are not looking for...**Theoretical proposals with no clear business application potential. While we are willing to experiment with ideas, theory on its own is not sufficient.

### **The Ask:**

If you have ideas and supporting technologies that you believe can deliver disruptive services & solutions to these challenges, we want to hear/partner with you. Where there is a good fit, we are looking to drive agile in-market pilots with the goal of scaling successful services & solutions.

### **The Process:**

- These briefs are designed to be passed along to startups for submission and are time sensitive. Early submissions increase the potential of being chosen, so please submit your solution early.
- All responses will be fully reviewed by our team, and you will be notified as to whether the response has been accepted for further consideration.
- If accepted, you will be contacted by our team to present additional details on your company and solution.
- Please click [here](#) and complete the form with the requested information.
- You can send any specific questions to [green.aj@pg.com](mailto:green.aj@pg.com).