Robot Revolution Initiative's Working Group 1
IoT-driven Transformation in Manufacturing

Introduction and Interim Report Summary

15th February, 2016

RRI Working Groups (current)

RRI (Robot Revolution Initiative)

WG1 IoT-driven Transformation in Manufacturing

Manufacturing Business Reformation by IoT, M2M, BigData, etc.

WG2 Robot usage promotion

Manufacturing, Service, Healthcare, Nursing, Infrastructure, Disaster Response, Construction, Agriculture, Forestry and Fisheries, Food Industry, etc.

WG3 Robot Innovation

Technology Development, Rule Preparation, etc. for the Next Generation

WG 1 “IoT-driven Transformation in Manufacturing”

Recognition:

The competition rules of manufacturing business are going to significantly change by IoT. We need to make revolution as leading country of robots and manufacturing.

What to do:

Gather people with problem consciousness such as controller, network, IT, software, manufacturers, business associations, academia, research institutes, etc., and make actions as:

-- Deeply understand the merits of IoT for manufacturing business, and promote manufacturing business revolutions.

--Learn from leading companies in IoT utilization in practice.

--Collect information about IoT, discuss expected problems and solution for
   -- each product groups and
   -- standardization and security

The results will be proposed to government, standardization committees, and other related organizations, to reinforce competitiveness of manufacturing business in global market.

WG 1 “IoT-driven Transformation in Manufacturing”

Chairman Mr. Masayuki Yamamoto, Mitsubishi Electric Corp.
Mr. Kiyoshi Mizukami, Hitachi, Ltd.

Kick-Off : Jul. 15th, 2015

Member:
Company (Controller, Network, IT, Software, Machinery, Automobile, Trading, Think-tank, etc.) : 75
Group, Industry Associations : 19
Researcher : 7
Total:101(initial) --> 128 (Sep.25)

Will discuss about
- Use cases of IoT for product groups, with users and supplyers.
- Preparations for standardization, security, etc.

Summarize results by end of December

From the Interim Report

Introduced by HP on 20th Jan. 2016

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1. Background and purpose
   背景と目的
2. Method and scope of consideration (scope and frame)
   検討方法と範囲 （スコープとフレーム）
3. Consider what Japanese manufacturing will be like by 2030
   2030年に想定される日本の製造業のあり方の検討
4. Problem common to all industries (from the result of questionnaires)
   産業界共通の課題について（アンケートから整理）
5. Problems to be considered
   今後検討していくべき事項
6. Future consideration
   今後の検討の進め方
7. Relations, division of roles and cooperation
   between the working group and other organizations
   他の組織との関係・役割分担・連携

From the Interim Report

Common issues picked up

共通の課題

1. Standardization （define common area, soft standard)

   標準化 （協調領域の定義と、緩やかな標準化）
2. Security (hacking, Virus, Dos attack, secret leakage, etc.)

   セキュリティ （ハッキング、ウィルス、DoS、機密漏洩、etc.)
3. Data ownership, know-how property

   データ、ノウハウの所有権
4. IT investment in Middle-small sized enterprises

   中小規模企業でのIT投資
5. Aging society, lack of the young successors, declining productive population

   高齢化、継承者不足、労働人口の減少
6. Development of IT engineers

   IT技術者の育成